

Science in the News

The State of the Union Message: Money for Space; Some Implications for Economics and Education

The President's second State of the Union address last week was intended to serve several quite different purposes, two of the most important of which were not even mentioned in the speech.

On the surface, the speech was a description of a number of things the President feels must be done in the interest of the nation's position in the world. The major request was for a 40-percent increase in the space budget, with the understanding that this would be followed by similar increases in future years as part of a determined effort to quickly catch up with and surpass the Russians in manned exploration of space.

The President also proposed a more active civil defense program; an expansion of the Defense Department's ability to fight limited, non-nuclear wars; an expansion of the Disarmament Agency; and a \$250-million contingency fund to deal with emergency foreign-aid needs.

In a section probably intended as much for foreign as American listeners the President pointed out "no two nations or situations are exactly alike" and said that the United States would support the economic and social revolution taking place in the underdeveloped countries "regardless of which political or economic route they should choose to freedom": in other words, that American aid would be to support freedom, but not necessarily free enterprise.

Thus far the speech served the two clear purposes of announcing one major new policy (on space) and a number of lesser changes in previously announced plans, and of forcefully restating to the country and the world the Administration's basic views of the country's role in world affairs on the

eve of the meeting with Khrushchev. It was important, of course, that the proposals be made before the meeting, lest the new defense measures, the emphasis on civil defense, and other recommendations be interpreted as a perhaps panicky response to something Khrushchev might say during the meetings.

But on another level, the speech was the Administration's roundabout way of announcing the results of the reappraisal of the economy the President had said would be made in the spring, after he had gotten a chance to see how well the economy was coming out of the recession. There was immediate, and almost unanimous, support for the President's recommendations for a much expanded space effort, although there is considerable divergence of views among the Administration's science advisers and within the scientific community generally as to whether this would be the best place to invest so much money. But since few people pretend to be experts on space, the general inclination is to go along with what the President says is necessary. The science of economics is quite another matter. Nearly everyone feels qualified to contradict the experts and the President.

Economics

The great majority of economists, including all those to whom either Nixon or Kennedy looked for advice during the political campaign, agree that the government should spend more—that is, run a deficit—when the economy is slack.

There has been a spirited exchange in recent weeks between Walter Heller, chairman of Kennedy's Council of Economic Advisers, and Arthur Burns, Nixon's principal adviser and chairman of the Council of Economic Advisers during Eisenhower's first term. The debate has not been concerned with whether there should be deficit spending to

stimulate the economy, but with how long it will be necessary to stimulate the economy. The Administration's advisers support the longer range stimulation, and consequently have argued that programs can be initiated now whose economic impact will not be felt until late 1962 and beyond, since stimulation, in their view, will still be needed then. Burns urges caution on these long-range programs, warning that the spending will probably come at a time when stimulation is unwise and inflationary.

But the debate in Congress and in the nation is conducted on a quite different level. Eisenhower supporters point with pride to the way, as soon as the economy began to come out of the 1958 recession, his Administration got the budget back from a \$12 billion deficit in fiscal 1959 to a \$1 billion surplus in fiscal 1960. But both Burns and Heller, along with the great majority of their fellow economists, agree that this abrupt shift back to a surplus before the economy was really on its feet again was a major cause of the 1960 recession.

Given the lack of general understanding of even the basis of the debate among professional economists, Kennedy avoided the economic issue and portrayed the extra spending he was recommending as a sacrifice the country ought to be willing to make in the interests of national security. This may turn out to be true in the future, after full economic recovery has been achieved, but at the moment it is quite the opposite of the Administration view, which does not see the extra spending as a sacrifice but as a way to make use of some of the potential in the economy that would otherwise be wasted. In this view, spending would only involve sacrifices if the economy were at a peak, in which case it would be necessary to raise taxes to put through the program without inflation.

This approach, of justifying the new spending in ways that can be easily understood as spending in the interests of national security, has its effects on the kind of programs the President recommends. If the President had complete control of Congress it is doubtful, if not unlikely, that quite so much emphasis would be put on space. In February, the Administration cut out \$200 million of the nearly \$400 million the Space Agency asked for beyond the Eisenhower budget. When the Russians orbited a man in space, Administration

spokesmen pointed out that everyone knew the Russians were going to beat us on this project, and that it was not necessary to step up the space program in response to this long-expected setback. Now the President has asked for a \$600 million increase for the coming year.

The decision is not explainable solely in terms of economic policy, but one of the factors that caused the shift was the desire to make use of the unused potential in the economy. There is disagreement in the Administration about whether space is the *best* place the resources might be used, but little disagreement that space is a *good* place they might be used. Space is also an area, like defense, where Congress will probably accept increased spending with little complaint about the budget deficit. As a matter of practical politics, it is more helpful to get Congressional authority to use the now unused resources for a good purpose than to have Congress refuse to allow the resources to be used at all, on the grounds of what the Administration would regard as a misguided interest in economy.

Aid to Education

Aside from economic policy, there was another unstated motive behind the address, particularly behind the President's decision to deliver it in person. Kennedy has sent a score of messages to Congress since his inauguration, several of which have contained more controversial and more expensive proposals than this one. He did not deliver his February appraisal of the economy in person, nor his revision of Eisenhower's budget, which involved 4 times as much money as the current message. But the message, when delivered in person as a second State-of-the-Union address, served a purpose completely aside from revealing some new proposals. It amounted to a pep talk to the country to revive the sense of urgency about getting things done that Kennedy had succeeded in arousing in his first few months in office.

The program most likely to benefit from this pep talk is the controversial aid-to-education bill, which was never mentioned in the message. The message, nevertheless, is bound to help the education bill when it comes to the floor of the House. The emphasis on space helps build support for education, even though the connection between the space age and the need for better education is not specifically mentioned. So

does the general support for the President the message was intended to build. The lack of explicit discussion of school aid avoided inviting charges that the speech was "political" or that it was an attempt to put pressure on Congress. The President has merely delivered a call to the nation to rally to his support, and it is a happy coincidence that the school bill, a place where he needs support, happens to be the only controversial matter before Congress at the moment. The measure will get an additional boost from the meeting with Khrushchev this weekend, for it would rarely be more awkward for Congress to hand the President a major defeat than shortly after his return from talking to Khrushchev, which is when the majority apparently plans to bring the bill to the floor of the House.

Senate Passage

Getting the Senate version of the education bill passed, as the Administration wished, before the House had been called upon to act, raised no serious difficulties.

During the first week of the Senate debate Senator Goldwater warned his fellow legislators against assuming the bill could be brought to a vote after only a week's debate. "It may take two weeks," Goldwater said. "It may take three. I am prepared to fight this as long as it takes." The bill finally passed on Thursday of last week, 10 days after the debate began, after the majority leader, Senator Mansfield, made it clear that it would require a filibuster to carry the bill over to this week.

The Senate, which normally meets at noon, met at 11 on Monday, and at 10 on Tuesday. Senator Kuchel, the assistant minority leader, asked Mansfield about his plans. Senator Mansfield, who until now had been able to keep his pledge to try and get the Senators home in time for supper, announced that the Senate would be in session until 10 in the evening. "It is hoped," he said, "we can come in at 9 o'clock tomorrow, Wednesday, and proceed diligently and at length. If consideration of the bill is not finished tomorrow, we might consider meeting at 8 o'clock on Thursday. If it is not finished then, we might meet at 7 o'clock on Friday. If it is not finished then—"

"At dawn on Saturday," volunteered the assistant minority leader.

The meeting at dawn turned out

to be unnecessary. By Wednesday night all proposed amendments to the bill had either been voted on or withdrawn. The bill's managers had accepted two minor amendments acceptable to the Administration. All amendments opposed by the Administration had been defeated, in almost every case by margins of 2 to 1 or more. Amendments that would have lessened the chance of the bill's getting through the House were beaten by wider margins. Senator Goldwater's attempt to add aid for private and parochial schools was beaten 65 to 25, and Goldwater's own education program, which he offered as a substitute for the committee bill, was beaten by a margin of 8 to 1.

Goldwater's proposal covered both aid for higher education, as well as school aid, the subject of the debate. For the schools, it offered to property owners a tax cut of about \$2 billion a year, which would have cost the federal government nearly 3 times as much as the Administration bill. Senator Goldwater said he saw no need for federal aid to education, but if there was any need, the tax cut would eliminate it by making it easier for state and local governments to raise taxes to take care of the need. Congress could then cut other parts of the President's program to make up for the large revenue loss.

For higher education, Senator Goldwater suggested tax deductions of up to \$2000 a year per child for families with children in college. Opponents questioned whether cutting taxes for people who could afford to send their children to college was the most efficient way of helping people who couldn't afford to send their children to college.

Senator Goldwater also proposed a system of national scholarships, up to 1000 a year. These scholarships had an entirely different purpose, Goldwater explained, from the Administration's proposal for 50,000 scholarships a year. The purpose of the program, Goldwater said, was to raise the standards of high school education. His proposal "would have imposed very rigid requirements" for a student to be eligible for a scholarship. "A high school student, before he could qualify . . . would have to write a theme and translate it into a foreign language; would have to translate a theme written in a foreign language into English; . . . he must have completed at least 4 years of English, 4 years of history, 3 years of mathe-

matics, 3 years of a foreign language, 3 years of science, or, in lieu thereof, 3 years of Latin or Greek." Senator Morse, the floor manager of the Administration bill, suggested that although Senator Goldwater opposed federal aid because it might lead to federal control, what he was proposing amounted to federal control without federal aid.

The Senate declined Goldwater's education program by a vote of 79 to 10.

On Thursday night the vote on the passage of the bill turned out to be the narrowest of the entire debate. The margin, though not as wide as had been expected, was a comfortable 49 to 34. Eighteen senators either were not on hand for the final vote, or were paired, but their positions were announced at the roll call. If everyone had voted, the tally would have been 59 for, 41 against.

On the same day the House Education and Labor Committee completed work on its version of the bill. On 18-12 party line votes it defeated Republican attempts to add, over Chairman Powell's objection, a Powell amendment to eliminate money for teachers' salaries, and failing this, to add a loyalty oath for teachers. An attempt to add loans for private and parochial schools was ruled out of order, and its supporters, assured that the Administration would not oppose some form of loan program so long as it was not tied to this bill, did not challenge the ruling.

So the bill will reach its crucial stage, the vote on the floor of the House, in exactly the form and under exactly the conditions the Administration wanted: neither the House committee nor the Senate had encumbered the bill with amendments bringing in either the segregation or parochial school issue; the question of loans for parochial schools would be taken up *after* the vote on the main bill; and to show that the Administration was acting in good faith in its assurance that it would not oppose loans for private schools if offered in a separate bill, the Senate would be in the process of considering such a bill when the school bill reached the floor of the House of Representatives.

The issue still remained in doubt. But, counting on the added impetus of the President's speech and trip, the supporters were more optimistic than they had dared to be at any point until now.—H.M.

Announcements

The Library of Congress has a duplicate stock of back issues of its publications, the **East European Accessions Index** and the **Monthly Index of Russian Accessions**, available for donation to libraries of educational institutions and public bodies in the United States. These publications contain information about the content of new Russian and East European books and articles received by the library and other American research libraries. The library will undertake to fill requests for nearly complete back files insofar as the supply permits. Requests will be filled in order of receipt. (Chief, Exchange and Gift Division, Library of Congress, Washington 25, D.C.)

Meeting Notes

A **shallow water and coastal research** conference, sponsored jointly by the National Science Foundation and the Office of Naval Research, will be held in October at the following regional meeting places:

20-21 October; Chesapeake Bay Institute, Johns Hopkins University, Baltimore, Md.

24-25 October; Oceanographic Institute, Florida State University, Tallahassee.

27-28 October; Allan Hancock Foundation, University of Southern California, Los Angeles.

The main purpose of the conference is to obtain an inventory of current research and to compile a list of the men actively contributing. Scientists in all disciplines working in the area of the continental terrace and coastal regions are invited to attend the meeting closest to their home organization and to submit a brief review of their research activities and the number of students or junior associates working with them. The reviews will be compiled into a proceedings volume and distributed to all participants after the meetings. In addition to the reviews, oral reports (limited to 10 minutes) of special studies, techniques, and methods will be scheduled. The abstracts of these oral reports will be compiled into regional programs and distributed at the meetings. Five foreign guest scientists will present reviews of their current research at evening sessions, during which time will be provided for general

discussion of common problems and informal exchange of ideas and information. The deadline for receipt of reviews (not to exceed 3 pages) is *15 September*. The deadline for 250-word abstracts of oral reports is *1 September*.

The meetings are open to men from academic, government, and industrial organizations. Persons interested in attending should notify the general chairman *before 1 August*. (Donn S. Gorsline, Oceanographic Institute, Florida State University, Tallahassee)

A 3-day symposium on **physics and nondestructive testing** will be held at Argonne National Laboratory 3-5 October. The fundamental physics on which the technology of nondestructive testing is based will be stressed. New methods or the applications of concepts new to nondestructive testing will be included. The program will include papers on linear accelerators and their application, neutron radiography, ultrasonics, infrared physics and other thermal indicators, and radiation damage. (Nondestructive Testing Group, Argonne National Laboratory, Argonne, Ill.)

The 12th **Alaskan Science Conference**, sponsored by the Alaska Division of the AAAS, will be held at the University of Alaska, College, from 28 August to 1 September. The conference will cover the following fields: anthropology, biology, engineering, fisheries, forestry, geology and geography, geophysics, medicine and public health, and social sciences. (David A. Vaughan, Arctic Aeromedical Laboratory, APO 731, Seattle, Wash.)

Grants, Fellowships, and Awards

A \$1500 award for an outstanding contribution in **exfoliative cytology** has been established by the Cancer Research Foundation. The award, to be known as the Maurice Goldblatt cytology award, was established to stimulate basic research in cancer detection.

Suggestions and proposals for research in the problem of detection and identification of **underground nuclear explosions** are invited by the Air Force Office of Scientific Research. The new AFOSR program, a part of project Vela-Uniform, covers the following specific areas: development of