that I did when we went to the people last fall—the message that Americans are fed up with wasteful, musclebound government in Washington and anxious for change that works—and I hope that both Houses will respond constructively to this new opportunity to work with us in producing such change.

Nixon has made it perfectly clear that he intends to reorganize, if necessary without the blessing of Congress. Besides establishing clearer lines of responsibility and communications, the reorganization is also aimed at increasing what, in the rhetoric of reform, is called "responsiveness." Like other Presidents before him, Nixon has encountered difficulties in prevailing on the bureaucrats to carry out Administration policies. From the White House it looks as if a bureaucrat's loyalty is to his agency, to his program, to a constituency outside government, or to patrons in Congress. The White House seems set on implementing the view that those who administer government programs should follow Administration policies and that those not responsive in these terms should not be administering programs.

With all its stress on management skills and loyalty the White House may not be expecting miracles. Merlin K. DuVal, former assistant secretary for health, sees a more modest objective. DuVal stresses that he speaks only for himself, but his perspective is from a recently concluded Washington experience which he calls "an 18-month crash course."

DuVal says that if you are "on the Administration team" that does mean you will defend the President's budget, but he feels that loyalty to the Administration does not preclude an official's standing up for his program.

The President does feel, says DuVal, that "people are captured by the glamor of their own programs" and lose critical perspective. DuVal says that his perception of the President's purpose in appointing people with management skills and a sense of detachment is that "the President simply wants a new look, he's not walking away from programs."

Another point that DuVal makes is that many bureaucrats view Congress as a natural ally since the parentage of programs is seen to be in Congress, and their "sustenance" comes from Congress also. Because of this, Congress has become the "operators of government machinery," rather than the Executive, as the Constitution provides.

A cynic might suggest that there is less here than meets the eye. Congress may blunt the reorganization. The White House's hand-picked administrators may start out governing, like proconsuls, but succeed in making only marginal changes. And, after an initial confusion about who reports to whom, the bureaucracy may settle back into the status quo.

On the other hand, the arguments for the Executive's getting balanced and effective science advice are as compelling as they ever were, and it would benefit all concerned if the Nixon Administration finds a way to improve the system. For the moment it is true if trite to say that the thing to watch is not the reorganization charts but the shape of the science budget and the quality of the Administration's appointees.—JOHN WALSH

Science Adviser's Exit: What Does It Mean for Science Policy?

Edward E. David, maybe the last science adviser to the President, has left the White House, the Office of Science and Technology (OST) seems about to be degraded to an uncertain future as an appendage of the National Science Foundation, and the President's Science Advisory Committee seems scheduled for lingering death or dissolution. At one stroke, science may lose its official voice and organized role at court. What do these changes portend for science policy? Will basic research suffer? What role in national policy does the White House have in mind for science?

The President's decision to dispense with a science adviser is a serious blow to the scientific community to the extent that the science adviser's advice was heeded and, when heeded, affected federal support for science. It is easier to argue that David and his predecessors played a symbolic, quasi-ambassadorial role in the White House than that they were movers and shakers. Far from being able to do any special pleading for the scientific community, even if he were inclined to, David was hard put to create a sphere of influence even for his own office. This he attempted to do by working closely with the Office of Management and Budget (OMB). [The limits to OST's influence in the Nixon White House were sharply defined by the appointment of William S. Magruder, program manager for the SST, to head the White House search for new technological initiatives. The White House also bypassed OST by receiving inputs from scientists on an ad hoc basis.

It is notable that, despite the OST's apparent lack of weight in White House counsels, federal support for science has continued to increase, although inevitably at less than the 15 percent growth rates of the early 1960's. In last year's budget (fiscal 1973) there was a 4.4 percent growth in federal science outlays. As of this writing the 1974 budget has yet to be announced but the indications are that, despite predictions of a savage, across-the-board cutback, civilian science will manage a modest overall increment, although with reductions in certain areas.

The still generous support of science in the last few years may, of course, owe something to the advocacy of the science advisers. More probably, the decisive factor has been the feeling of the OMB's economists that research and development expenditures of almost any kind are, in the long run, beneficial for the gross national product, for productivity and for the engendering of high-technology products. The drift of the present Administration for a greater focusing of research has overlain, but not supplanted, this built-in kindly disposition toward research and development.

To the extent that the power of the purse has always lain with the OMB, the ousting of the OST should make no great difference to the macroeconomics of federal science policy. The probable incorporation of the OST into the NSF is another matter altogether. Despite the wording of its original charter, the NSF has always kept well clear of any policy-making role. Policy-making and the pursuit of pure

science are not so easily combined. In the short run, the passing of the science adviser's mantle to the NSF director, if this is what is to happen, will depend largely on Stever's relations with the inner White House circle. In the longer term, the prospect is that the NSF will once more quietly shrug off its policy-making functions, or else may risk a politicalization of its programs similar to that which now besets the National Institutes of Health.

The intentions of the White House planners for science policy are difficult to fathom. The dramatic hirings, firings, and reorganizations of the last few weeks bear signs of ad hoc thinking. The manner in which NIH director Robert Q. Marston was fired, left in limbo for a few weeks, and then appointed acting director of one of the NIH's component institutes is an indication of superficial planning as well as of careless personnel practices. The impending disposal of the OST suggests a similarly ex tempore design. To a remarkable extent, top agency officials have been kept in ignorance of White House plans, even of the identity of those making the decisions that concern their agencies. The White House may be keeping tight-lipped because of its manifest distrust of the bureaucracy or maybe because it is hiding the fact that it has little to keep hidden.—NICHOLAS WADE

Jason Division: Defense Consultants Who Are Also Professors Attacked

Recent books and commentaries on the Kennedy years have tended to illustrate the point that even the best and the brightest, in one best-selling author's phrase, of the young President's advisers were victims of fatal shortcomings—described as arrogance, amorality, or naiveté, depending on the critic. But in all the stories the tragic flaw bears the same name: Vietnam. If these advisers have an equivalent in the science community, it is probably the Jason Division, the 40-odd leading scientists—including some Nobel laureates—who in 1959 and 1960 banded together to work on national security matters in the summertime under the aegis of the Institute for Defense Analyses (IDA).

The Jasons, as they are known, who continue to meet every summer, are not yet the target of revisionist historians, but they have become the targets of the radical left, who attacked their role in the mid-1960's, in the eternal quagmire, Vietnam. Chapters of Scientists and Engineers for Social and Political Action (SESPA) at Berkeley and Columbia have confronted Jason members. The left in Europe, principally the Collectif Intersyndicale Universitaire d'Orsay Vietnam-Laos-Cambodge (CIU), confronted several Jason members last summer when they gave guest lectures at Paris, Rome, Corsica, Trieste, and even at CERN (Centre Européen de Recherches Nucléaires) in Switzerland.

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The radicals question whether any military work is a legitimate subject of study. One French radical with CIU, Daniel Schiff, has cited Noam Chomsky to make his point to the Americans: "By entering into the area of argument and counterargument, of technical feasibility and tactics, of footnotes and citations, by accepting the presumption of legitimacy on certain issues, one has already lost one's humanity."

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What is Jason? IDA guards the membership list so closely that its full composition is not known. Most of its reports are classified and therefore members' positions on issues are also unknown. But despite these elusive aspects, some Jason members interviewed talked about the group's workings.

Unlike most consultants, Jason's contract continuation does not depend on the outcome of any given study. Advanced Research Projects Agency (ARPA) gives IDA an annual sum for Jason, which in 1965 was about $520,000. Individual Jasons are paid different amounts, from $100 to $200 per day; fees are adjusted according to the pay scales of the universities from which members are drawn.

Members gather for 6 or 7 weeks each summer. Through Jason they have easy access to briefings from people at any level in the Department of Defense (DOD). They can read some (but not all) classified literature. Projects are determined at the outset of each summer by a type of military supermarket, in which officers brief Jasons on the apples and oranges in their arsenal—and the Jasons, individually or in groups, decide which items to study. Because of this volunteer, take-as-you-go process, Jasons say there are no "Jason positions" as such on issues.

"Jason's chief role is in shooting things down," says one member. Others confirmed this. "Most people in Jason are not enthusiasts for increased armaments, or escalation in strategic weapons." If this is in fact so, Jason differs from most federal science advisory groups which are often asked to rubber-stamp predetermined policy.

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Trying to explain why he was confronted last summer at Rome and Corsica by Italian and French students, Jason Sidney Drell of the Stanford Linear Accelerator Center says, "The Europeans don't have this. They think once you work for the government there you've sold your soul to the devil." At Corsica, the students had leafleted: "There can no artificial separation between a scientist's work in 'pure' science and his contribution to activities related to the military."

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Jason originated during Project 137, a 1958 conference involving economist Oskar Morganstern, and physicists Eugene P. Wigner and John Wheeler, who invited younger physicists along to familiarize themselves with military technical problems. Their concern was that the only top-level scientific inputs were coming from an older generation of scientists, many of whom worked on the Manhattan Project—I. I. Rabi, Jerrold Zacharias, G. Kistiakowsky, E. O. Lawrence, E. Teller, and other "old boys." With the Missile Gap, let alone the Cold War, threatening, the country seemed to need the best young scientists.

At Los Alamos in 1959, some of the younger boys—many of them protégés of the older generation—gathered to discuss forming a group: Marvin L. Goldberger, now chairman of the physics department at Princeton; Kenneth Watson, of the University of California at Berkeley; Keith Bruechner, of U.C. at San Diego; Charles H. Townes, then with IDA; and Marvin Stern, "the real inventor of Jason."

It was agreed that a group would form under IDA auspices and the defense bureaucracy coughed up Sunrise as the title. Goldberger recalls that they