revisionists. His judgment is widely respected. As the grand old man in this field, he is in a position to influence funding decisions on new research. Auxier told *Science* there is no need for an independent review of the discrepancies between his data and Kerr's, expressing an opinion which may have made it difficult to get the present review started. Auton, the Defense Nuclear Agency official who makes the funding decisions, says that he has great respect for Auxier's work, a respect based as much on Auxier's standing in the community as on his ability to "drag out corroborative data."

Kerr has never published any of his work outside the laboratory, he says, because he prefers to be "timid" about it. Earlier controversies have taught him to move cautiously in matters as important as this, and he still thinks there could be some weaknesses in the new bomb data.

This stalemate existed for several years until the summer of 1980 when Loewe decided to rework the calculations. He started the project because the old Hiroshima data and Rossi's recent warnings about the potency of neutrons worried people in the lab. Livermore scientists are involved in weapons research and are frequently exposed to neutron radiation. They wanted to know more about the dangers. Loewe's investigation, completed last October, found both the Hiroshima data and Rossi's principle to be unsubstantiated. Loewe argues that there is no evidence showing that neutrons were present in significant quantities in Hiroshima.

Loewe, Kerr, Auxier, and others in this controversy will present their arguments at a meeting sponsored by the Radiation Research Society on 31 May in Minneapolis. Auton calls it "the beginning of an important dialogue," one which he probably will not be able to attend because the new Administration has reduced the bureaucracy's travel allowances. But Auton hopes the meeting will lead to a general and independent review of the issues. "If the weapons folks" make it a strictly internal project, he says, "I just have a concern that nobody will believe the results."

—ELIOT MARSHALL

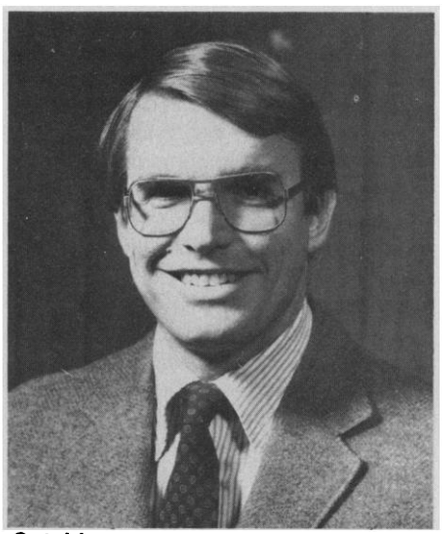
Science Adviser Post Has Nominee in View

The job, turned down by several candidates, may now be offered to a man who is not a member of the science establishment

The choice of science adviser to President Reagan has been narrowed down to a single candidate: George A. (Jay) Keyworth, a 41-year-old physicist from the Los Alamos Scientific Laboratory. Although the job had not formally been offered to Keyworth as of this writing, Administration officials expect an announcement by the end of May, but caution that something could still go awry even at this late stage of the selection process.

When Keyworth's name came up as a potential candidate late in April, it drew a mixture of surprise and unease from the scientific establishment. The surprise stems from the fact that Keyworth is virtually unknown outside his field. And the unease is related to the fact that his candidacy was being vigorously supported by Edward Teller, the so-called "father of the hydrogen bomb," and Harold Agnew, president of General Atomics and former director of Los Alamos. Both are well known for their hawkish defense views.

Those who know Keyworth describe him as smart and personable. His research has been concerned mostly with nuclear structure and low-energy nuclear reactions, and for the past 3 years he has directed the physics division at Los Alamos. One scientific colleague, Arthur Kerman of MIT, describes Keyworth as "a very good scientist who is a lot broader than his background would indicate."



Outsider causes unease

Candidate George Keyworth

His background does not, however, include service on the usual round of government science committees. Hence he has little experience with federal science policy and has made few links to the scientific establishment. "He doesn't provide any channel between the national (scientific) community and the White House," complains one veteran of science and government affairs.

Such concerns are abruptly dismissed by Keyworth's supporters. Although he "lacks obvious credentials, that doesn't mean he will not do a superb job," says one. Agnew scoffs that "he has all the right credentials—all he doesn't have is 20 years membership in the club." In a telephone interview with *Science*, Agnew also said that he thinks much of the unease about Keyworth is simply due to the fact that he is an outsider—"If you get a bunch of chickens together and you put in a new rooster, they start clucking and running around," he remarks.

As for Keyworth's shortage of links to the scientific establishment, Agnew says that "defense will be the thrust of this Administration, and somebody who has the respect of the people in the defense labs is needed." He adds: "For the past four years, you have had a geologist in charge, and the defense community has suffered."

How did somebody from outside the traditional ranks of candidates for science adviser get selected? Keyworth says he was approached about the job early in April, and "it came as a surprise to me." The post was formally offered in March to Arthur Bueche, head of research and development at General Electric, but he was forced to turn it down for personal reasons. Several other people were subsequently sounded out about

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the job, but many said they were not interested. One major problem was a marked reluctance to give up high industrial salaries to take a mid-level White House job. Keyworth was among those approached.

It is understood that Teller and Agnew were among those who first brought Keyworth's name to the attention of the White House, and they have both continued to support his candidacy. Agnew even attended the April meeting of the National Academy of Sciences to try to quell unease within the scientific establishment about the nomination. Equally important, however, was Keyworth's service on a search committee that two years ago chose Agnew's successor as Los Alamos director.

That committee included several people who now have strong ties to the Reagan White House. Particularly important is William Wilson, a Reagan-appointed regent of the University of California, who now holds the post of the President's Special Envoy to the Holy See. He is a member of Reagan's so-called kitchen cabinet. Wilson says he was asked by the White House for his opinion on Keyworth, and he told *Science* that he has found Keyworth to be "an extremely competent scientist and administrator."

This was not the route through which most of the other potential candidates for science adviser were brought to the attention of the White House. The names had come mostly from a few prominent scientists who headed a task force that provided advice to the incoming Administration during the transition, and who have been providing informal advice ever since.

As for the workings of the Office of Science and Technology Policy (OSTP), which the science adviser heads, its relationships with other White House groups will only be decided in detail after an adviser is appointed.

Keyworth says, however, that he has had lengthy conversations with Richard Allen, director of the National Security Council, and Martin Anderson, Reagan's chief domestic policy adviser and that, if nominated, he would expect to work closely with them. He also says that he has been assured that the science adviser would have an input into the budget process. Finally, he has been told that the science adviser would have access to the President.

Keyworth took his bachelor's degree at Yale University in 1963 and a Ph.D. in physics from Duke University in 1968; he has been at Los Alamos ever since.

—COLIN NORMAN

Mormons Rebel on MX

The Mormon Church, in a statement that could prove to be of considerable political influence, has come out strongly against the proposed MX missile-basing system in the desert basin of Utah and Nevada. The church rarely makes statements on political issues—the chief exception being its opposition to the Equal Rights Amendment—but Mormon president Spencer W. Kimball and his two counselors, "after the most careful and prayerful consideration," decided the MX was a moral issue that required a stand.

In the two-and-a-half page statement, the leaders note that the basing plan will include thousands of miles of heavy duty roads, with 4600 shelters for 200 missiles. "With such concentration, one segment of the population would bear a highly disproportionate share of the burden . . . in case of an attack . . .," and that furthermore, such concentration "may even invite attack." The statement mentions problems with water resources and the environment as well as the prospect that the influx of workers "would create grave sociological problems, particularly when coupled with an influx incident to the anticipated emphasis on energy development."

The statement says the current concept "is based on a treaty which has never been ratified" (SALT II), and predicts that, without the treaty, "the proposed installation could be expanded indefinitely." Besides, note the three leaders, "history indicates that men have seldom created armaments that eventually were not put to use." The Mormons were the original settlers of Utah where they intended to "establish a base from which to carry the gospel of peace. . . ." Thus, their leaders find it "ironic" that the same area has been selected for a "mammoth weapons system potentially capable of destroying much of civilization."

The 1 million Mormons in Utah make up 70 percent of that state's population; Mormons also make up more than 30 percent of the Nevada population. They are extremely conservative, patriotic, and defense-minded. The Utah population has been divided about the MX system, and observers say agitation against it has subsided as many have come to regard it as inevitable. The Mormon statement is therefore expected to breathe new life into the anti-MX movement.

Utah's Democratic Governor Scott Matheson publicly stated his opposition a year ago; the four members of the Utah congressional delegation in Washington have been more ambivalent. They have come out with cautious statements expressing respect for the Church's position and stressing the need to look for alternative basing modes. Senator Jake Garn (R–Utah) and Senator Paul Laxalt (R–Nev.) are planning hearings on the basing mode in late May.

The Administration is expected to make its own recommendation about deployment of the MX in July, after it sees the report of a 15-member panel, headed by Charles Townes, which is now studying the issue for the Air Force.—***Constance Holden***

A First Brush with New Broom at NAS

Dismissal of the National Academy of Sciences' top staff man for international activities recently fueled speculation that the succession of the Academy's president-elect Frank Press might be accompanied by a turnover in senior staff. R. Murray Todd, executive secretary of the Commission on International Relations and staff officer for the Academy's Committee on Human Rights was given notice in mid-April that his employment at the Academy would end on 1 July when Press takes over. Todd is a 19-year veteran of the National Academy of Sciences–National Research Council staff.

Both Press and Academy foreign secretary Thomas F. Malone declined comment on the specifics of the matter. Press said that in a dynamic organization there will be comings and goings and the Todd firing was "part of the normal process of institutional change." He said the dismissal was "not a criticism of Murray." Asked whether other staff changes are pending, Press said he had "no plan for massive changes or cutbacks."

Todd says that Press told him he felt that a new president should have

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