Thinkers Remobilized

Science and Technology Advice to the President, Congress, and Judiciary. WILLIAM T. GOLDEN, Ed. Pergamon, Elmsford, NY, 1988. xvi, 523 pp. $49.95; paper, $24.95.

This book is a collection of some 85 essays by nearly everyone who might be expected to write with authority on the subject its title sets forth. Its basic purpose, as presented by its editor, William Golden, is "to provoke thought, to stimulate discussion and to encourage action." More specifically, its editor and perhaps most of its contributors clearly hope that the views it presents and the advice it offers will somehow reach and influence the new president we are about to elect.

In effect, this book is a second try in that regard, the first being the companion volume *Science Advice to the President*, published in 1980, compiled by the same editor and featuring many of the same authors. In the judgment of the majority, but not all, of the contributors to the second volume, that first effort either fell on deaf ears or for some other reason failed to accomplish its purpose.

Most of the essayists take the relationship between the President and his science advisers as it existed during the Eisenhower and Kennedy administrations as their ideal. And indeed, in both form and spirit it was a very special relationship in those days.

Eisenhower became president just as the Korean War was winding down. In the years immediately preceding, the Soviet Union had exploded its first atomic bomb, thus ending forever our brief monopoly of that powerful weapon. To compound the situation, Chairman Mao paid a two-month-long visit to Moscow at the end of which he and his very special comrade Joseph Stalin declared their Sino-Soviet Bloc to be both eternal and hostile. The sudden onset of the Korean War itself, coming only months after Mao had returned home, seemed to confirm our worst fears. The American public generally was worried about the future, and Eisenhower and his assistants sought ways to improve our overall national security posture. It was obvious there was no hope of matching the Sino-Soviet Bloc in manpower or any other measure involving sheer numbers, so, naturally enough, we turned to what seemed to be our strongest suit, high technology, as the preferred means for containing the bloc and maintaining the peace.

As an early step, an ad hoc group, the "Technological Capabilities Panel," chaired by James R. Killian of MIT and reporting to the National Security Council, was established. The group performed its job promptly and well, and the President and the defense establishment as a whole adopted its recommendations. These included "highest priority" programs for the development of the first generation of intercontinental ballistic missiles, the sea-based Polaris system, and the U-2 reconnaissance airplane. The conditions were just right; the President knew he needed technical advice and there was an exceptionally able group of men ready to give it to him.

Just a few years later, the Soviets put Sputnik into orbit and thereby reconfirmed the notion that we were faced with serious problems, among them some important ones that were basically technological in nature. President Eisenhower turned again to Killian, but this time he created a permanent arrangement very close to that which Golden had recommended to Harry Truman seven years earlier. As a result, Killian served both as Special Assistant to the President and as Chairman of the President's Science Advisory Committee for approximately two years, after which he was succeeded in both posts by George B. Kistiakowsky, a Harvard chemist and Manhattan Project veteran. John F. Kennedy continued the arrangement with Jerome Wiesner, also of MIT.

From the launch of Sputnik to the death of Kennedy, the presidents and their teams of advisers dealt mostly with military matters, including arms control, plus space. Both presidents knew they needed advice in these areas, both actively sought it, and both happily found it in a body of men that worked hard, loyally, and very largely confidentially to supply it.

Lyndon Johnson's main concerns were different—winning the war in Vietnam and creating the Great Society. Neither American science as a whole nor the science advisory apparatus in particular was able to make a decisive contribution to the war effort, and, though the PSAC knew very well how to foster and improve scientific education and research at the most prestigious institutions, it proved to have less to offer when it came to helping those institutions that were not already centers of excellence or at least on the verge of becoming so. As a result, the status and influence of scientific advisers to the President began to wane in the '60s, and they have never since recovered. Several of the essays in this collection describe the passing of the original glory days and provide further details of the various events that caused, or reconfirmed, that process.

Other essayists take a different view. The glory days, they write, may indeed have constituted some sort of an ideal, but the circumstances have changed so much that they neither can nor ought to be repeated. The issues themselves are "no longer as straightforward as putting man on the moon or filling a missile gap, real or imagined." And mechanisms for coping with today's technological issues abound and have become a regular part of the bureaucratic structure in all major elements of the executive branch and in the legislative and judicial branches as well. (Two separate sections of the book deal with advice to Congress and the judiciary.)

We will soon know whether the 1988 version of this book does better than its 1980 predecessor in influencing the course of events, but however that comes out the book is and will long remain a real gem for students of these times and issues. I can think of no other place where it is possible to find so many good but brief essays by so many well-informed people on such an important topic.

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The Decline of Enlightenment

How Superstition Won and Science Lost. Popularizing Science and Health in the United States. JOHN C. BURNHAM. Rutgers University Press, New Brunswick, NJ, 1987. xii, 369 pp., illus. $35; paper, $16.

John C. Burnham has written a powerful and intense jeremiad. His superbly researched and broadly focused book relies upon a mass of monographs, articles, autobiographies, memoirs, and scholarly analyses to make its case, incorporating the views of historians, scientists, journalists, sociologists, psychologists, physicians, and clergymen, among others. But at heart it is an angry cry of contempt for a process of degeneration that he finds has been under way in this country for much of the present century.

The popularization of science and health