

# How the mighty have fallen

In 1957, science advisers were brought into the White House as the President's Science Advisory Committee. Its demise has deprived the US government of invaluable counsel.

**Richard Garwin**

The Second World War left the United States with enormous energy among its scientists and great advances in technology — for example, radar, the proximity fuse, nuclear weapons and the ability to detect sound underwater. Taking office in 1953, President Dwight Eisenhower consulted the little-known Science Advisory Committee (SAC) in the Office of Defense Mobilization. Eisenhower depended on 'his scientists' to help him counter those military officers and hard-sell technologists whose enthusiasm to protect the country and to advance the state of technology often exceeded their competence.

After the launch of the Soviet satellite Sputnik on 4 October 1957, Eisenhower brought the SAC into the White House as the President's Science Advisory Committee (PSAC). The PSAC had a key role in creating NASA in 1958. From then until 1973, when it was disbanded by President Richard Nixon, it helped to lay out a civil scientific space programme and to guide military space intelligence.

Although often dismissed by critics as the 'scientists' lobby in the White House, the PSAC concentrated on marshalling science for government, as seen in the committee's involvement in the first manned mission to the Moon. On 25 May 1961, President John F. Kennedy called for a mission to send man to the Moon within the decade. In a deal with his science adviser Jerome Wiesner, chair of the PSAC, Kennedy never claimed that the purpose of the Apollo programme was to advance science, and the PSAC never criticized it publicly despite internal reservations.

One of the committee's earliest achievements was to place scientific expertise at the highest level in the US Department of Defense in the form of a director of defence research and engineering. This post was a powerful one — number three in the department — and the PSAC ensured that its first occupant was the young nuclear physicist Herbert York, followed by fellow physicists Harold Brown and John Foster.

Opposition to the PSAC arose early on, in the form of complaints to members of Congress and government officials from scientists and industry adversely affected by PSAC analyses. Paradoxically, the higher

profile of science and technology that the PSAC helped to create in government departments and agencies made it easier for its opponents to argue that the White House didn't need its own scientific advisers.

In fact, such advice was never more needed. Towards the end of the 1970s, I was told by one of our most competent defence secretaries that he did not regard it as his responsibility to ensure that a weapons programme submitted

by people hired for individual projects. The unique feature of the OTA was an advisory committee for each study that included passionate proponents and opponents of the programme in question, whose points of view were evaluated, if not endorsed.

The United States has drawn particular strength from granting independent technical consultants access to government at many levels. Such individuals add knowledge, if not always wisdom. Today, that access is increasingly subject to political and ideological tests.

A strong PSAC would have been helpful in the controversy over space-based missile defences that followed President Ronald Reagan's 'Star Wars' speech of 23 March 1983 (although there were good OTA studies on this) and more recently in setting a response to potential threats of bioterrorism and disease pandemics.

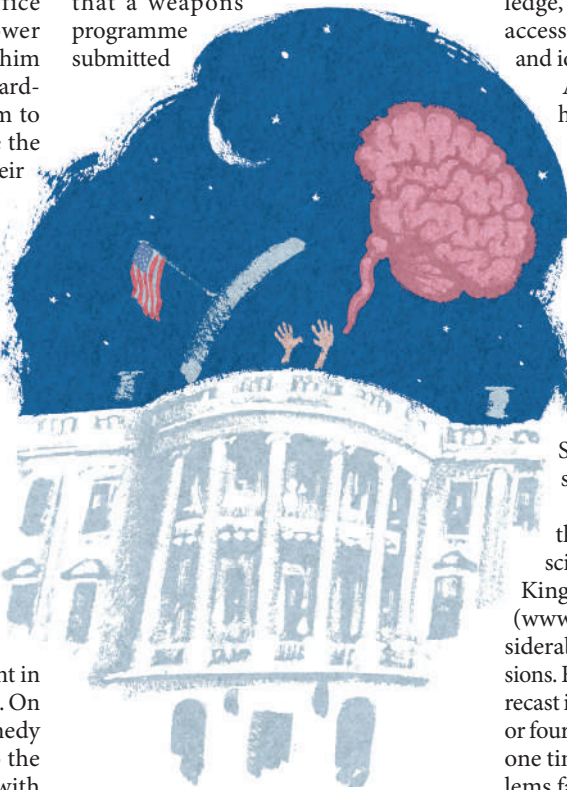
In a further blow, the OTA was abolished in 1995 by a Congress under Newt Gingrich's leadership. Some likened this act to Congress shooting themselves in the brain.

Against this backdrop of decay in the United States, it is good to see a scientific advisory system in the United Kingdom — the Foresight programme ([www.foresight.gov.uk](http://www.foresight.gov.uk)) — that has considerable influence on government decisions. Foresight was established in 1978 and recast in its present form in 2002. The three or four Foresight projects under way at any one time address serious potential problems facing the country. Current projects include mental health and wellbeing, obesity, and sustainable energy management. A sponsoring government minister for each project ensures that the advice gets to people with the power to act on it.

Foresight stands in sharp contrast to the absence of analysis in the United States for decision-making in and direction of programmes such as missile defence, smallpox-vaccine production and homeland security. The demise of integrity and competence in the US government is a matter for dismay. The restoration of the OTA would be a partial remedy — and a harbinger of reform. ■

Richard Garwin is IBM fellow emeritus at the IBM Thomas J. Watson Research Center, Yorktown Heights, New York 10598, USA and a former member of the PSAC.

For more essays and information see <http://nature.com/nature/focus/arts/scipol/index.html>



by the Department of Defense for the president's budget was sound and worthwhile. He saw it as the job of the White House Office of Management and Budget to sort that out, with the help of the PSAC. To me this was evidence that increased scientific and technological expertise in government departments increased rather than reduced the need for scientific competence in the White House.

Since Nixon abolished the PSAC, no president has seen fit to create an advisory committee of a similar level of commitment or energy — despite the establishment of a President's Council of Advisors on Science and Technology by George Bush Snr in 1990. In 1972, Congress had founded the Office of Technology Assessment (OTA), which was run by a bipartisan congressional board. Its studies were conducted by a small staff supplemented