Living in the shadow of Sputnik

Zuoyue Wang. San Gabriel Valley Tribune. Oct 3, 2007.

EVEN though I grew up on the other side of the Iron Curtain, I did not escape the shadov
Soviet satellite sent a shock wave of apprehension to the West in the bitterly divided Col
today, it stirred a great euphoria for the socialist system in the East.

In China, the Communist leader Mao Zedong, inspired in part by Sputnik and armed witl
supposed "scientific proofs" (dissidents had been crushed months earlier in the anti-right
country into an ambitious but ultimately disastrous Great Leap Forward campaign of rap
agricultural collectivization. My own parents barely survived the resultant famine, but m
not so lucky.

Officially, however, Sputnik and the Great Leap Forward remained positive milestones o
communism in China during the decade of the Cultural Revolution (1966-1976). Only m
to the United States for my graduate studies in the history of science, did I gain a fuller u
destruction of the Leap campaign and the crucial role that Sputnik played during the Col

This fascination with Sputnik's impact stayed with me when I decided to naturalize as a U
interested in the history of American science. What kind of shadow did Sputnik cast on A
technology and society in 1957 and since?

A quest to answer that question eventually led me to undertake a historical study of an in
neglected legacy of Sputnik: President Dwight Eisenhower's introduction of the indepen
the White House in the form of the president's science adviser and the president's Scienc
(PSAC) as one of his earliest and most significant responses to the Soviet space achiever
of presidential science advising still exists in the George W. Bush administration but its r
public policy have been much reduced from the PSAC days. That's a pity, because Eisen
not only helped him respond to the Sputnik crisis but also articulated what might be calle
skepticism that very much speaks to our own times.

When Eisenhower publicly announced the appointment of James Killian, president of the
Institute of Technology as his science adviser, and the establishment of PSAC within wee
a conscious choice between two groups of scientists who had held opposing views on the

On the one hand, Edward Teller, the "father" of the American hydrogen bomb and leader
politically conservative scientists, saw Sputnik as an American military-technological de
Harbor. With a clarion call in the Los Angeles Times that "We must win the H-war befor
that the U.S. launch a massive acceleration of thermonuclear weapons to counter Soviet a

On the other hand, I.I. Rabi, dean of politically moderate scientists, told Eisenhower that
U.S. was still ahead of the Soviet Union in overall strength, but the Soviet achievement c
to American science and education. Thus, to him, the proper response to Sputnik was not
technological buildup but increased federal support for basic research and science educat

Dismayed by Teller's militaristic rhetoric, Eisenhower, at the time increasingly concerned

Growing wary of a resurgent American technological enthusiasm in the wake of Sputnik, rely on PSAC to provide him with competent but independent advice on all matters of pu from defense organization, nuclear weapons and space to science and education. During December 1960, Eisenhower expressed his gratitude to the scientists for their contributio and more (I have) tended to put science advice into more and more subjects of national p

It is not the PSAC scientists' advice on what technology could do, but their advice on wh their recognition that there were limits to technological solutions to social and political p and abroad, during the Cold War. The illusion of technological fixes, PSAC scientists bel to a waste of societal resources on impractical developmental projects, such as the $1bill nuclear-powered bomber, but also, sometimes, to dangerously misguided foreign policy, Vietnam.

And it is this sense of technological skepticism, I believe, that we still need in our own a technological enthusiasm and renewed American military adventurism in Iraq and elsewl future Great Leap Forwards and escape the various shadows of Sputnik.

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