their consciences to decide which weapons systems they will help build.

GORDON W. McCLURE
Albuquerque, New Mexico
10/86

PAGE REPLIES: Marvin King is obviously dedicated to SDI whether it can work or not. As for my "narrow field of view," I am sure that the exploration of space is a good deal "wider" than the futile attempt to shoot down ICBMs when a simpler and much cheaper arrangement is to agree with the USSR to destroy them before they are launched. The Soviets are keen on space exploration; let's cooperate with them on that, save money and achieve something worthwhile.

THORNTON PAGE
NASA Johnson Space Center
Houston, Texas
9/86

Treaties and the Constitution

The letter by J. H. Phillips and the response by Wolfgang K. H. Panofsky (April, page 90) raise interesting issues regarding the relationship between the Federal treaty-making power and the constitutional rights guaranteed by the Bill of Rights. Although both Phillips and Panofsky deal solely with issues arising under the "right of the people to keep and bear arms" provision of the Second Amendment and with alleged infringements of this "right of the people" by arms control treaties, the issues are significantly broader in scope and deserve more careful analysis.

According to Panofsky, the constitutional authority of the executive branch to conduct foreign affairs extends to the power of the President to negotiate arms control treaties, and such treaties when ratified by the Senate may abrogate any provision of the Bill of Rights. Although Phillips disagrees, both Phillips and Panofsky limit their discussion to consideration of the Second Amendment in the Bill of Rights. However, there is nothing in the underlying issue that should limit the argument to the Second Amendment; rather, the issue should be treated more broadly for a better understanding.

For example, it is not difficult to imagine a treaty with the following provision:

> Due to the utmost importance of this arms control treaty and the practical reality that it cannot be successfully implemented without mutual trust and harmonious relationships between the signatory nations, any critical or derogatory remarks, oral or written, against a signatory shall constitute a criminal offense against that signatory, and such signatory may search for and seize any offending writings, as well as punish the person making said criticism, in such manner as it deems appropriate, including trial by judge without jury in the courts of the signatory as it deems appropriate.

Of course, such a treaty would clearly abrogate the provisions of the Bill of Rights contained in Amendments I (free speech and press), IV (unreasonable search and seizure), V (due process of law), VI (right to counsel) and VII (trial by jury). But in spite of the fact that the constitutionality of treaties that conflict with the Bill of Rights has never been litigated, some obvious conclusions as to how the US Supreme Court would treat this sort of treaty can be drawn.

Moreover, that the precise issue has never been litigated does not justify Panofsky's conclusion that it is "patently absurd" to claim that the treaty-making power cannot supersede the Bill of Rights. It is true that a treaty can override a state constitution or a state statute, but a Federal statute passed at a later date than a treaty prevails over the treaty, according to a line of US Supreme Court cases beginning with *Head Money Cases*, 112 US 580, 598-590 (1884). It is also well established that even Federal statutes violative of the Bill of Rights can be declared null and void by the judiciary. Thus, since Federal statutes can abrogate treaties, statutes have at least as high a dignity as treaties, and since statutes violative of the Bill of Rights can be invalidated by our courts, so can treaties.

Panofsky's conclusion that arms control treaties can abrogate the Bill of Rights is thus, fortunately for America, clearly unwarranted.

DAVID I. CAPLAN
New York, New York
RICHARD DAVID LAUMANN
Berkeley Heights, New Jersey
5/86

PANOFSKY REPLIES: David I. Caplan and Richard David Laumann state that "according to Panofsky the constitutional authority of the executive branch to conduct foreign affairs extends to the power of the President to negotiate arms control treaties and such treaties when ratified by the Senate *may abrogate any provision of the Bill of Rights*" (italics mine).

My response in the April issue said no such thing. I stated, "According to Article VI of the Constitution, treaties are the supreme law of the land, subject only to other provisions of the Constitution." In other words, I clearly stated that treaties do not preempt the Bill of Rights. Thus the letter by Caplan and Laumann is attacking a statement that I did not make.

WOLFGANG K. H. PANOFSKY
Stanford University
Stanford, California
10/86

Science adviser's role

Let us hope that the damage George Keyworth has done to the role of White House science adviser will be short-lived. As Irwin Goodwin's interview (February, page 57) made clear, Keyworth has transformed this role from giving advice to the President to selling the President's programs to the scientific community, from providing technical information to politicians to purveying political propaganda to technicians.

The problem is not so much the creation of this new role as the loss of the old one. If anything, the President needs sound technical advice now more than ever, and he does not appear to be getting it.

Nothing stands out more here than Keyworth's role in the SDI program; his public statements give no indication that he understands the technical objections to strategic defense, nor has he conveyed any such understanding to the President. As the Reagan Administration continues to pursue this massive, costly program, there appear to be no channels for independent technical criticism to reach the Administration. Keyworth ought to have provided such a channel, and it is to his great discredit that he did not.

MARK GOODMAN
Princeton University
Princeton, New Jersey
3/86

Who's politicizing physics?

In the October 1985 letters column (page 152) Natan Andrei wrote from Rutgers University that he was to be a member of the American delegation (expenses paid for by NSF) to a February 1985 winter school and international colloquium on exactly solvable problems in condensed matter and relativistic field theories. Andrei complained that he was prevented from attending because the host country "refused me a visa on the grounds of my holding an Israeli passport."

The spokesman who responded for the host institution rejected out of hand the claim that his country "pursues the policy of not granting visas to Israeli passport holders. Such a policy does not exist as far as we are aware; we

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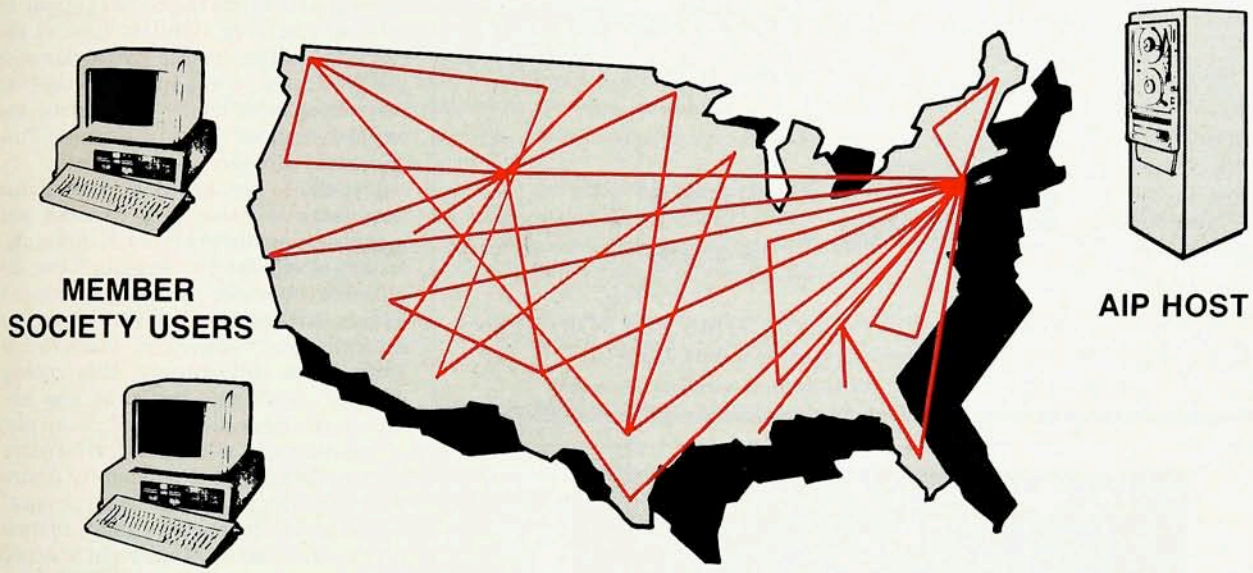

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letters

have had several Israeli scientists attending conferences in [our country] in the last few years with valid visas and landing permits. The incident involving Andrei was unfortunate . . . ; however, it is factually incorrect to assert that he was denied a visa because he holds an Israeli passport. The precise reason for the delay in granting a visa is unknown to us; indeed all governments in the world would appear to regard the granting of a visa as a prerogative, with no public justification thought necessary."

At this point, I invite the reader to guess the name of the host country. Wrong! It was not the Soviet Union! In spite of the very familiar tone of the response letter, in this particular case the host country was India and the host institution was none other than the world-renowned Tata Institute of Fundamental Research in Bombay.

It is sad to see that B. V. Sreekantan has learned from his Russian colleagues how to draft such notorious letters designed to "explain" the deplorable behavior of his government, which strikes at the very heart of international scientific cooperation. Even more unfortunate, this spokesman of the Tata Institute has also mastered the well-known Russian ploy of concluding his letter with the outrageous charge that it is actually Andrei who is guilty of "politicizing physics."

The justly respected Indian community of physicists has the right to expect better representation from its spokesman.

NATHAN WISER
Bar-Ilan University
Ramat-Gan, Israel

12/85

Noncrystalline semiconductors

I have been fascinated and amused by the spate of letters (February 1985, page 11; August 1985, page 13; January 1986, page 13) engendered by Hellmut Fritzsche's article on noncrystalline semiconductors (October 1984, page 34). To this chemist, they confirm what I had previously only suspected—physicists are people. The arguments appear to be based more on professional relationships than on fact.

We, and several other companies, are benefiting from the pioneering discovery[1] of R. C. Chittick and his coworkers.

Reference

1. R. C. Chittick, J. R. Alexander, H. F. Sterling, J. Electrochem. Soc. **116**, 77 (1969).

ELLIOT BERMAN
ARCO Solar, Inc
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4/86