

Invest in science or be shackled to today's problems

By JEFFREY A. KRUKIN

THE superconducting super collider and proposed U.S. space station Freedom face budgetary oblivion due to congressional funding cancellations. I am not going to debate the scientific merits of these massive projects. Rather, I question the decision-making process that concludes that complex scientific projects are neither affordable nor in the best interests of the United States. Furthermore, I'm disturbed by the lack of vision evidenced by these decisions.

The space station must compete for tax dollars with close-to-the-heart needs such as Veterans Administration programs. The superconducting super collider is in danger because of Congress' new fervor to balance the budget and its limited appreciation of the potential of scientific projects. Yes, the Veterans Administration and a balanced budget are immediate needs, as are better schools, Head Start, medical research, crime prevention and so on. How can Congress be expected to shift funds from immediate needs to projects whose benefits are understood by few and not quickly accrued?

It is inconceivable that the same committees that appropriate funds for programs oriented toward the present must also provide funds for programs oriented toward the future. It is time to review this process. The space station and super collider should have to compete for funding only with other federal scientific programs and agencies such as the National Research and Education

Network and the National Institutes of Health. We are a nation of limited resources and

many legitimate needs. A prudent nation — like a prudent individual — will select a percentage of its resources for investment in its

future. This nation's future is inextricably intertwined with its scientific and technological infrastructure. The foundation of our economic strength and our ability to provide a comfortable standard of living and compete globally are all based on this infrastructure. To debate this point is sheer folly.

But don't take my word. I strongly suggest the reading of two wonderful books that present this theme. David Halberstam's *The Reckoning* compares the Japanese and American economies and societies from the post-World War II years through the mid-1980s. Alvin Toffler's *Power Shift* discusses the importance of knowledge (for what is science in its purest form?) to nations that seek pre-eminence in the 21st century.

I fear that the lack of vision that permeates Congress merely reflects our national psyche. Many are concerned that we do not have the resources to solve our many pressing problems. I am concerned that we do not have the wisdom to look beyond them. Many believe we must solve our current problems before we spend money on space exploration, physics or any project that does not immediately and directly address these problems. I believe we will always have problems to solve. Such is the nature of humanity, a dynamic and ever-shifting biological force always in conflict with itself and its social and political institutions.

If we wait until our house is completely clean, we will never step outside the door, never walk down the street, never leave our neighborhood. We will remain imprisoned in our images of our failures, passing opportunities for growth and wisdom that are per-

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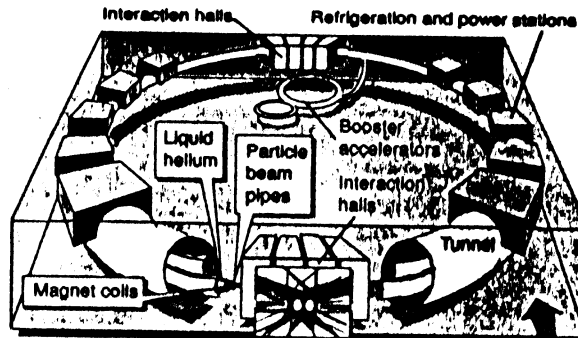
chased only with the coin of painful steps into the unknown.

Fine words, you say, but it won't put bread on the table, clothes on the back or education in the mind . . . today! I know. But I also know that today always becomes tomorrow. If we are to survive as a nation where the individual is protected by sacred principles, then America must invest wisely to create a future that will provide economic well-being for all its citizens. When a society becomes less able to sustain itself, individual rights are inevitably trampled upon as the powerful use any means against the powerless to provide for their own well-being. When a society fails to seek knowledge and technology, it withers and dies. When a society and its individuals lack vision, there is little motivation to improve. And not only will "today" become "tomorrow," but that "tomorrow" will soon become "today," only worse than the one that began this morning. Science and technology are the future of our nation and our lives, and the future is not far away.

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Superconducting super collider



- **Primary goal:** Physicists hope to learn more about the particles of matter and the forces that act on them. The super collider would be able to produce higher-energy, smaller particles than those produced at existing atom smashers.
- **Configuration:** The super collider would be built in a nearly circular, 10-foot wide tunnel, measuring 63 miles in circumference and 7 miles in radius. Experimental facilities will be built at several locations around the ring.

Source: Chicago Tribune, Knight-Ridder Tribune News



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