

es to such tasks as developing rich agro-industrial complexes in the middle of the great deserts of Earth. It is even cheaper to revolutionize the design of new qualities of cities in the more agreeable climates of Earth. With these technologies, the Earth's food supplies can be produced far more cheaply, more abundantly, by energy-intensive industrial process methods aided by application of optical biophysics.

The connection between the technologies of an SDI system and space colonization technologies is so immediate that the research and development of one is nearly identical with that for the other. Therefore, the central practical question to be confronted by governments and industries in connection with SDI, is the question of assuring ourselves that this desired kind of spillover of technology into the civilian domain does occur. Technology is transmitted into production chiefly through improvements in the technology of capital goods produced. The greater the rate of advancement of technology in capital goods, the greater the rate of investment in capital goods per capita, the greater the rate of increased productivity generally.

Thus, the buildup of the capital goods sector for SDI and space development is the most efficient mechanism by which such technologies are transmitted directly into the civilian domain. It is merely necessary to build these new capacities on a scale significantly greater than that required from SDI and space requirements, and to cause the excess capacity to spill over rapidly into capital goods for civilian production. To ensure that this desired success occurs, we must adopt the policy of increasing greatly, the percentages of employment devoted to scientific and engineering occupations, while increasing significantly the percentage of national output devoted to capital goods production and infrastructure building.

A target of not less than 10% of national labor for employment in relevant science and engineering occupations and a doubling of present percentages of national incomes allotted to capital goods and infrastructure would be a good choice of targets for the coming 10 years.

We must shift employment away from emphasis on non-scientific services and redundant administrative and selling functions, moving these percentages of the labor force into either science and engineering or capital goods production. This requires, obviously, adjustments in education policies, and also in policies governing priorities in preferential tax rates and in flows of credit.

On condition that we inspire our populations to associate personal achievement with contributions in these directions, and that we educate our populations to cope with the new technologies I have indicated, we shall accomplish the desired victory of strategic defense over thermonuclear offense and we shall solve the principal non-military strategic problems of our planet.

If we adopt the proper policies, the creative powers of many millions of scientists and individual operatives will do the rest for us.

The Soviet science attaché responds

The following exchange took place between Mr. Synonov, the attaché to the Soviet embassy in Tokyo and Mr. Parpart, regarding the Soviet view of SDI.

Mr. Synonov: I want not to ask a question, but to give some remarks.

I thank Mr. Parpart for informing the audience about my disagreement with his very bright, but incorrect detail, that the innovator of the laser, Mr. Basov, is a general. But it is not the only one, and not maybe the most important distortion and error of fact connected with him.

Now, the problem of the SDI and the policy of the U.S.S.R. I am sorry, I did not introduce myself: I am Synonov, attaché for science and technology of the U.S.S.R. embassy.

It is not only one fact where the audience heard distortion, and are missing some very important things about SDI weapons and U.S.S.R. policy. I hope the audience will excuse me that I speak with an accent, but you can understand that English is not my native tongue.

There was much talk this year about the Soviet nuclear strategic threat. It was used in the latest decision of our government for developing our economy. Any of you can read the documents and understand this distortion. When it is convenient for American propaganda, it talks about the very poor performance of our economy, science, and technology. But when it is necessary to get support of American people or world opinion for the next military program American officials spoke about, [they talk of] our superiority in that or other technology. I see from some questions of some Japanese participants of this meeting, that they understood this twist.

I want to quote one article from yesterday's *Japan Times*: It was about American Congressman Ed Markey's [D-Mass.] statement. He said that exaggerated claims about the Soviet threat do not encourage Russian constraint. Right about budget time, we always hear that the Russians could be pulling

ahead of us in some new military technology. At the end of the third panel, nobody here said a word about a very important point, such as the existing ABM Treaty. How does the SDI program suit the ABM Treaty? Or when it was convenient for the United States, the U.S.A. signed the treaty about anti-missile defense systems and when it is not, forget it.

Mr. Parpart also said that it is a weak point of our economic system, we don't use military technology in our economy. It was in a way, admitting that our system and our economy are not interested in developing weapons or arms race. From the other side, Mr. Parpart said a very interesting thing, even close to the Marxist point of view, that the American economy could not develop well without huge military programs and spendings. Is it good from the moral point of view? I spoke about moral because here I have heard much about moral and immoral things. The United States may develop its economy only in connection with an arms race and military weaponry?

Somebody—I remember, Mr. Zondervan—and now in the letter of Mr. LaRouche, for purposes of demonstrating that it was the Soviet Union who started developing of anti-missile laser weapon, used a quotation from a book by Mr. Sokolovsky published in 1962. Mr. Zondervan might even use the other book by our famous writer, Alexei Tolstoi, published as far back as 1927, called *Our Leader*, about can beam space weapon be engineered. But it is necessary to say that the book by our Marshal Sokolovsky was published in 1962, so much before the signing of this ABM Treaty.

And the SDI program started in the year you say, not on the empty place admitted also here. Our figures give a different picture of who started research in the military use of space. It was necessary to say also that it was our proposal in 1981 to sign the treaty not to deploy weapons in space, and it was the United States who refused to negotiate this treaty. And the same: They also refused to sign the treaty not to use nuclear weapons first, and the latest, our proposal to destroy nuclear weapons up to the end of this century.

From our point of view, the purpose of the SDI is to break the existing military balance in the world. According to Mr. Reagan, he once said, that he is to increase in vast scale military expenditure in the world and to destroy our economy in this way. At the same time, he didn't say it, but it is to give the military-industrial complex, about which power warned Mr. Eisenhower, huge opportunity in profits. Using the image of General d'Allonnes about cake, I want to say that this cake is not for children; this is cake for the military-industrial complex, and it is now developing into not only a military-industrial, but a military-industrial-scientific complex. And the real threat is not the Soviet arms race, but also there is a big threat that science becomes more and more militaristic. And the United States wants to organize scientists for some program for sophisticated technology. Okay, why not develop this same difficult but peaceful problem, fusion energy. That's all, thank you.

Mr. Parpart: I would like to briefly respond to two of your principal points, if you permit me. When President Reagan announced the SDI on March 23, 1983, he said, and this was reiterated by Secretary Weinberger, that the United States invites the Soviet Union to immediately exchange scientific information, to have Soviet and U.S. scientists jointly look into the feasibility of the system, and if necessary, to jointly deploy such a system for our mutual benefit. This proposal was reiterated at the Erice conference in Sicily, Italy in 1984 by Dr. Edward Teller. George Keyworth, the former science adviser to President Reagan, has made the same point on many, many different occasions. We have at no point in the United States received a direct or specific answer. All we have received is denunciation from the Soviet leadership and disinformation from Soviet scientists. I would like to again reiterate, and I believe that the entire U.S. scientific community is committed to this, that this offer for ultimate collaboration and sharing of these technologies, as far as I know, stands today and awaits your answer.

As for fusion collaboration, at the Geneva summit this was proposed by the United States, specifically in a letter by Secretary of State Shultz. And, as you know, we have had collaboration in the fusion program between the United States and the Soviet Union since the 1960s, when the Soviet invention of the tokamak program actually convinced the United States that fusion was a feasible force for energy production. But you must permit me to say that I find your discussion about the nature of the U.S. versus Soviet military spending somewhat disingenuous. The Soviet Union spends, both in percentage terms of GNP as well as in absolute terms, by any estimate that we have, considerably more on military systems than the United States. And these points can be debated, but I think some of the well-known published figures on actually existing weapon systems today cannot be dismissed.

Finally, a word about the ABM Treaty. The ABM Treaty contains, as you very well know, a very specific clause saying that it does not cover systems based on new scientific principles that might be developed in the future. The protocols to the ABM Treaty, which were attached when the treaty was deposited at the United Nations, make it clear that this clause concerning new scientific principles was insisted upon by the Soviet side when the treaty was signed, and not by the U.S.A., which doesn't surprise me very much, because the principal negotiator on the U.S. side was a man who knows nothing about science, namely, Mr. Kissinger.

What I would say, as clearly as I can, is that we have discussed the nature of what we regard as the Soviet threat, and we believe that the best possibility for disarmament lies in our jointly developing these systems and deploying them at a certain future point. . . .

So, those are a few, and I hope clear, points which at some point or other I believe your government must answer.