Conference Report

Soviets, out of arguments against the SDI, boycott Erice gathering

by Paolo Raimondi and Ralf Schauerhammer

To the great surprise and disappointment of all Western appeasers, the Soviet leadership of Gorbachov and Ogarkov chose a gathering of scientists at Erice, Sicily, to repeat a provocative and threatening "nyet" to any discussion with the United States on the Strategic Defense Initiative (SDI). On Aug. 20, it was announced that the Soviets were boycotting the week-long conference, organized by Prof. Antonino Zichichi from the CERN research institute of Geneva, and chairman of the Erice-based Ettore Majorana Center for Scientific Culture.

This year's conference, the fifth in a series of international scientific gatherings begun in 1981, was dedicated to "The SDI, Computer Simulations, and New Proposals to Stop the Arms Race." The first seminar in 1981 was dedicated to "The Worldwide Implication of Nuclear War," and was followed by "How to Avoid Nuclear War" in 1982, "The Technical Basis for Peace" in 1983, and "The Nuclear Winter and the New Defense Systems: Problems and Perspectives" in 1984.

The conferences' importance stemmed from first, the high-level participation of American scientists from the Lawrence Livermore and Los Alamos scientific laboratories, led by Edward Teller, the influential scientific adviser to President Reagan on space defense, and second, to the high degree of attention given to the proceedings by President Reagan and Pope John Paul II personally.

President Reagan sent a very warm message to the conference, indicating his intention to look for any commitment from the Kremlin to discuss the SDI and real disarmament. Wrote Reagan: "Our aim in this research program is not to achieve superiority, but to maintain and enhance the essential strategic balance which has kept the peace for forty years. This is especially important in light of Soviet activities. For over two decades, the Soviet Union has not only pursued its well-known offensive nuclear build-up, but has also pursued a wide range of strategic defensive efforts. The Soviets currently have the world's only deployed anti-ballistic missile system, and have a long-standing and intensive research program in many of the same areas the U.S. is now exploring. The U.S. research is fully consistent with the ABM treaty. . . . Discussions on potential defenses are still years in the future, but we are even now seeking to discuss with the Soviet Union in the Geneva negotiations how together we might move towards a safer and more stable world."

Each year, the Soviets have also sent a relatively high-level delegation from the Academy of Science, led by Prof. Yevgenii Velikhov, the laser scientist.

For this fifth seminar, Prof. Zichichi announced a big delegation from the United States with top scientists like Edward Teller, Robert Budwine, William Barletta, Greg Canavan, and others involved in the SDI work at the Livermore and Los Alamos laboratories; a 12-man delegation from the Chinese Academy of Science; important European representatives including retired French Col. Marc Geneste, the father of the N-bomb; a large number of European ambassadors and experts from the Geneva U.N.O. disarmament talks; and scientific representatives from the developing sector.

The Soviets had promised Prof. Zichichi, through the mediation of Italian Foreign Minister Giulio Andreotti, a strong delegation led by Velikhov and including two Nobel Prize winners, Prof. Basov and Aleksandr Prokhorov, along with Yuri Gromyko, son of the Soviet President. Andreotti himself had discussed Soviet participation in Stockolm with the new Soviet Foreign Minister, Edvard Shevardnadze. Andreotti's plan was in fact to transform the meeting into a major event for unilateral disarmament of the West. In particular, he planned to counterpose "pure scientists" to the dirty politicians and governments responsible for exploiting science for wars and the arms race—all of this, to Soviet delight, aimed at the U.S. SDI.

But the scandal of the Soviet boycott exploded in Andreotti's face. There was not even an explanation from Moscow. The story fabricated to maintain appearances concerned the disappearance of two leading Soviet officials: Vladimir Alexandrov, 44, a mathematician and expert in computers and nuclear winter scenarios and simulations, who was last seen in Madrid in April; and diplomat Vitalii Yurtschenko, who disappeared from the Soviet embassy in Rome at the end of July without a trace. Alexandrov had taken part in other Erice seminars, and at last year's, in particular, he presented a computer simulation purporting to demonstrate the complete destruction of life on Earth in the event of nuclear war. His theories have been taken up by many in the West, like Carl Sagan, to terrorize the population and justify proposals for unilateral disarmament. Yurtschenko, according to Wes-

term sources, was scheduled to be called back to Moscow to reconstruct the movements of Alexandrov.

Andreotti and company pointed to these disappearances to argue that the Soviets did not let their scientists go to Erice because of fears for their representatives' security, especially after mafia killings in Palermo in preceeding weeks. Zichichi lamely commented of the Soviet scientists: "I know that they are with us." Another representative of the CERN center in Switzerland, a certain Jean-Marie Michaud, circulated at the conference center telling all—in a threatening tone—that no one should say that the Soviet boycott has any political significance.

Noteworthy for the context of this year's boycott is that today, no one competently opposes the new defense systems on scientific, military, political, or moral grounds. Last year, the American delegation led by Teller and Lowell Wood of the Livermore Laboratory, convinced
parts to sign a joint memorandum on studying the feasibility of the SDI. Twelve months later, research in the U.S.A. has proven the systems' feasibility—not to mention research in the Soviet Union—leaving no credibility to the Soviets' anti-SDI arguments.

Teller's speech

In his speech and interventions, Prof. Teller made the issue very clear. First, he denounced the Soviets for their violations of the ABM treaty, saying: "U.S. official sources indicate that the Soviets have lasers—not x-ray lasers yet—for defense in the region of Saryshagan. They have the first anti-missile radar center in Krasnoyarsk, in open violation of the ABM treaty, even if they say that it is only for air defense." Teller reported himself very optimistic on the SDI, especially in regard to x-ray lasers. "Ground-based lasers will be the essential weapons for defense," he said, adding that work on space stations must continue, even if they are very vulnerable to lasers.

He supported the idea of mirrors in space to direct laser rays against Soviet missiles in their boost phase, and emphasized that it is wrong and nonsensical to speak of Europe remaining vulnerable to Soviet missiles because the shield will protect only American territory. "We intend to have a cap over Soviet territory, to prevent anything from being launched from there in general."

Teller went a step farther, stating his expectation that the first deployment of laser defense technology would not be directed against ICBMs, but against short-range missiles: The first application could be in Europe! Teller gave a time-frame of five years or even less, depending on how seriously the program is taken.

Speaking of the civilian technological spinoffs of SDI research, Teller announced that the x-ray laser alone will produce a revolution in biological research, allowing scientists to take three-dimensional pictures, study the interior of cells, and investigate in detail a cancer cell.

The progress of the SDI research was corroborated by Budwine, Canavan, and Barletta. Barletta, who is working on free-electron laser (FEL) research, stated that in only two years, the FEL has developed from an exotic technology to one of the primary candidates for a directed-energy weapon. The accelerator technology needed to produce these beams has been developed by an international scientific community. The miniaturized, high-power accelerators being developed at Livermore for the FEL are already on the verge of commercial use as portable, electrically-operated radiation sources for food preservation, etc.

Greg Canavan, who spoke on "Concepts for Strategic Defense," addressed four relevant points of the SDI: technical feasibility, costs, questions of strategic stability, and the moral question. The first two points, he said, are now settled in the United States. He cited an article in the magazine *Nature* in May 1985. From the figures reported there, one could conclude that not hundreds, but only 79 laser stations would be needed to kill Soviet missiles with boost phases as short as 100 seconds (an SS-18 needs about 700 seconds), and even a shortening of the boost phase to 40 seconds would only double the number of stations required. At this point, he revealed that the figures came from the prominent opponent of the SDI, IBM scientist Richard Garwin, and added that physicist Hans Bethe had just published another anti-SDI analysis—which made the program look even better!

The second item on the conference agenda, "Climatic Effects of Nuclear War," popularly known as "nuclear winter," was taken up by scientists Knox and Shapiro of Livermore and John Hallett of Reno's Desert Research Institute. They systematically destroyed these catastrophe scenarios, demonstrating that many of the assumptions were arbitrary or wrong. The corrections indicated by Knox showed that the most extreme estimation of climate changes and other repercussions of nuclear war have to be lowered by a factor of 12.

European participation

Another very significant result of the meeting was the high-level participation of Europeans, who underlined their support for the SDI. A representative of the Spanish government rose to announce that Spain is available to cooperate with the U.S.A. on the SDI.

Col. Marc Geneste from France opened the conference by stating his support for the SDI and its complementarity with France's Eureka proposal. Eureka and European technological cooperation in SDI-related spheres is not new, but was conceptualized before President Mitterrand made the proposal, he stated. Col. Geneste also developed an interesting distinction: "We can now have a victory of defense over war, if we can prove that the two means of offense, land forces and projectiles, can be neutralized." N-bombs neutralize tank and land-force attacks. Now, the SDI can neutralize missiles. "Defense can really win against war," he repeated.