
Documentation

How the Fusion Energy Foundation fought for energy-beam development

What follows is a chronology of the New York-based Fusion Energy Foundation's efforts on behalf of directed energy-beam development. The foundation was established at the initiative of EIR founder Lyndon H. LaRouche, Jr. in 1975.

January 1976. "The Concept of the Transfinite (Campaigner Publications), by FEF research director Uwe Parpart, points to the work on self-organizing plasma structures by Soviet scientists V. N. Tsytovich, V. E. Zakharov, and L. I. Rudakov, and to Rudakov's work on electron beam pellet fusion, as being the type of advanced Riemannian physics research that will revolutionize all forms of technology.

May 1976. *FEF Newsletter*, vol. 1, no. 5, publishes translation of a March 10 *Pravda* article with the first report on Rudakov's experimental success in achieving electron beam pellet fusion.

June 1976. *FEF Newsletter*, vol. 1, no. 6, carries excerpts from Tsytovich's paper "New Physical Concepts in Plasma Physics." Dr. Steven Bardwell, current editor-in-chief of *Fusion*, analyzes this advanced Soviet theoretical work and demonstrates that it can provide the basis for obtaining "directed energy" from thermonuclear plasmas.

September 1976. Bardwell elaborates how self-organized plasma structures behave, in *FEF Newsletter*, vol. 2, no. 2.

October 15, 1976. Parpart, in a *New Solidarity* newspaper article, gives details of the Rudakov electron beam pellet fusion breakthrough. He describes how Rudakov transformed the energy of the electron beam into soft X-rays via a plasma and then used these soft X-rays to compress and heat fusion fuel. Parpart indicates that besides representing a major breakthrough for fusion energy research itself, the Rudakov experiments could lead to major new developments in strategic weapons and war-fighting.

March 1977. *FEF Newsletter*, vol. 2, no. 3, details how the U.S. Energy Research and Development Administration attempted to suppress the results that Rudakov presented in public lectures during his 1976 visit to the United States.

May 1977. In a report titled *Sputnik of the Seventies—The Science Behind the Soviets' Beam Weapon* (Campaigner Publications), FEF board member Lyndon H. LaRouche, Jr., Bardwell, and *Fusion* writer Charles B. Stevens report on both how Henry Kissinger and Robert McNamara have

wrecked U.S. military capabilities and how the Soviet Union is harnessing plasma physics to develop directed energy weapons capable of destroying nuclear-tipped missiles.

December 1977. *Fusion* gives further details on the Rudakov case and reports on Dr. Sylvester Kalaski's work on inducing fusion with ordinary chemical explosives in Poland.

August 1978. FEF breaks the blackout on the Princeton Large Torus breakthrough in achieving 70,000,000°K temperatures with plasma stability. *Fusion* carries an article comparing the U.S. and Soviet laser fusion programs, which is picked up and reprinted in the Soviet press.

March 1979. *Fusion* reveals the direct connection between inertial confinement fusion, the hydrogen bomb, and Bernhard Riemann's 1859 paper "On the Propagation of Plane Air Waves of Finite Amplitude." Stevens reports how Great Britain helped sabotage the U.S. program in fast liner fusion, which is closely related to directed energy plasma dynamics, to prevent collaboration between U.S. and Soviet scientists.

November 1979. Dr. Friedwardt Winterberg's "Some Reminiscences about the Origins of Inertial Confinement" appears in *Fusion*. This article by a leading inertial fusion pioneer further demonstrates the connection between Riemannian science and the H-bomb.

September 1980. *Fusion* reports on Winterberg's concept of the compression of blackbody radiation for generating an intense burst of soft X-rays, which can then compress fusion fuel to achieve inertial fusion. Within a year the U.S. government will reveal that such "radiation"-driven pellet targets are the basis of its classified hohlraum-type inertial confinement fusion targets.

October 1980. Winterberg's elaboration of his hohlraum-type targets appears in *Fusion*. Magnetically confined thermonuclear plasmas can be utilized to generate X-rays, which are then used to compress a high-gain fusion fuel target.

November 1980. Uwe Parpart lectures on advanced Riemannian physics and the LaRouche-Riemann-economic model at Lawrence Livermore National Laboratory.

July 1981. *Fusion* confirms *Aviation Week and Space Technology* reports that Lawrence Livermore scientists have demonstrated the principles of an X-ray laser system, consisting of a small nuclear weapon and a number of metal rods. X-ray output from the nuclear charge is absorbed by the metal

rods and converted into a coherent beam of X-rays that traverse the rod lengthwise. Thus each rod could be pointed in a separate direction. One such assembly could theoretically destroy scores of incoming warheads in space.

August 1981. FEF publishes Winterberg's book, *The Physical Principles of Thermonuclear Explosive Devices*. *Fusion* carries an article by him on nuclear and thermonuclear directed beam weapons, in which he elaborates concepts for nuclear weapon driven X-ray lasers, railguns, particle beams, and directed shock waves.

September 1981. *Fusion* reports on Los Alamos National Scientific Laboratory studies showing that antiballistic missile defense systems are both technologically and economically feasible.

March 1982. FEF board member Lyndon H. LaRouche, Jr., issues *Only Beam Weapons Could Bring an End to the Kissingerian Age of Mutual Thermonuclear Terror: A Proposed Modern Military Policy of the United States* (National Democratic Policy Committee). A month earlier LaRouche, in a major Washington, D.C. political address, had called for an open race between the Soviet Union and United States to develop beam weapon ABM capabilities to stop ICBM barrages or nuclear threats from any source.

June 1982. Bardwell and FEF executive director Paul Gallagher give a Capitol Hill briefing on beam weapons, at the invitation of Rep. John Rhodes (R-Ariz.). The FEF launches a national campaign to expose the nuclear freeze and promote beam technology development as the alternative.

July 1982. "Beam Weapons: The Science to Prevent Nuclear War" is published as an *EIR* Special Report. Written by the FEF's Bardwell, the report details the four major types of beam weapons, their development timetable, and potential economic spinoffs.

November 1982. Lyndon H. LaRouche, Jr., founder and contributing editor of the *EIR*, holds a controversial seminar in Bonn, West Germany, outlining his proposal for a reorientation in NATO military policy based on defensive beam weapon ABM systems. Soviet and some European military attachés in attendance protest that this is a destabilizing, offensive policy.

November 1982. The FEF's Bardwell and Gallagher give the second Capitol Hill briefing on beam weapons. Extensive press coverage follows, including in the *Air Force Times*, *Defense Daily*, and *Aerospace Daily*.

Winter 1982-83. Bardwell debates leaders of the nuclear freeze movement—including Dr. Bernard Feld and George Rathjens of MIT—exposing the conventional military build-up aims of the freeze leaders.

January 1983. LaRouche holds a press conference at *EIR*'s New York offices to explain the urgency of a beam-weapons program and warn against an ongoing effort by both the Heritage Foundation and Soviet-backed freeze movement to eliminate all high-technology items in the U.S. defense budget and put the emphasis entirely on conventional arms.

EIR Special

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Special Technical Report

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- a detailed comparison of the U.S. and Soviet programs in this field, and an account of the differences in strategic doctrine behind the widening Soviet lead in beam weapons;
- the uses of directed energy beams to transform raw-materials development, industrial materials, and energy production over the next 20 years, and the close connection between each nation's fusion energy development program and its beam weapon potentials;
- the impact a "Manhattan Project" for beam-weapon development would have on military security and the civilian economy.

The 80-page report is available for \$250.
For more information, contact Robert Gallagher
or Peter Ennis (212) 247-8820.