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Beam Weapons: The Strategic Implications for Western Europe

**Proceedings of the *EIR* Conference
Oslo, Norway, December 8, 1983**

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About the speakers

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Kerstin Tegin-Gaddy is the national chairman of the European Labor Party in Sweden, and a member of the board of the Club of Life. She is well-known in Sweden as an opponent of Prime Minister Olof Palme's domestic and foreign policies. In addition to regular political commentaries published in Sweden, Mrs. Tegin-Gaddy has written numerous articles on cultural and historical questions.

Michael Liebig is executive manager of the *Executive Intelligence Review* in Western Europe and author of many articles and speeches on strategic affairs.

Michael Ericson is the editor-in-chief of the Swedish edition of *Fusion* magazine and the head of the Fusion Energy Foundation in Sweden. Mr. Ericson has written and lectured extensively in Scandinavia on beam weapons, fusion power, plasma physics and other advanced technologies. He has also been active in developing pedagogical methods and models which can make it possible to introduce advanced concepts of geometry and mathematics to young people and non-specialists.

Colonel (ret.) Marc Geneste works presently as an engineer in Paris in the Commissariat à l'énergie atomique. He is well known for his writing on strategic questions, particularly, in recent years, in support of the neutron bomb. He is widely identified as the "father of the French neutron bomb". Col. Geneste is the author, with Samuel T. Cohen, of "Echec à la Guerre: la bombe à neutrons," a study on neutron weapons.



Clifford Gaddy



Kerstin Tegin-Gaddy



Michael Ericson



Dr. Jonathan Tennenbaum



Col. (ret.) Marc Geneste

Introduction

On December 8, 1983, in Oslo, Norway, the *Executive Intelligence Review* held its third conference during the autumn with the title of "Beam Weapons: the Implications for Western Europe." The present report contains the presentations held at that conference, in slightly edited form, along with a special interview by one of the speakers, Col. (ret.) Marc Geneste.

Like the previous conferences, in Bonn, West Germany, and Rome, Italy, the Oslo seminar included presentations by political, military and scientific experts from the United States and several Western European countries. In addition to Col. Geneste, speakers included Dr. Jonathan Tennenbaum and Michael Ericson of the Fusion Energy Foundation, Michael Liebig and Clifford Gaddy of the *EIR*, and Kerstin Tegin-Gaddy, the national chairman of the European Labor Party in Sweden.

The approximately two dozen conference attendees included Norwegian business and military representatives, foreign embassy officials, and Norwegian and international news media.

Interest in the seminar had been great ever since the idea of holding a public discussion on the topic of beam weapons had been broached with officials of the Norwegian Defense Ministry earlier in the autumn. By the time the conference was over, it had become the hottest news item in the country. On the day of the seminar, both the leading Conservative and the Social Democratic

daily newspapers in Oslo carried front-page articles on the conference, and Norwegian television carried details on its evening news broadcast. More coverage followed on Friday.

Ironically, what contributed most to giving publicity to the seminar was the opposition it provoked, especially the dramatic events that took place outside the site of the conference before it even began. A group of anti-American demonstrators claiming to represent a movement called "Common Sense Against Space War" — a hastily-formed entity pulled together from the ranks of the Soviet-backed Norwegian peace movement — barred the entrance to the building in a sit-down demonstration, and then proceeded to chain the doors shut so that no one could enter or leave the building.

Later in the day, the electric power supply to the building was cut off for over an hour.

Although the *EIR*'s Bonn and Rome conferences encountered intense and heavy opposition from high levels, the crude nature of the efforts to obstruct the Oslo event put them into a different category. Conference organizers attributed the counter-organizing in Oslo to two specific causes. First, the Oslo conference was the first public event held by the *EIR* since the scurrilous attack on the magazine's European conference series published in the Soviet Government newspaper *Izvestiya* on November 15, following the Rome conference. Naming Lyndon LaRouche by name as co-responsible with President

Reagan for the U.S. beam weapons program, *Izvestiya* thereby declared LaRouche and his associates "fair game" for the cruder sort of opposition witnessed in Oslo.

Secondly, there is the special status of Norway. Not only does Norway share a 200 km land border with the Soviet Union, which puts Norwegian territory within barely 100 km of Murmansk, the site of the huge Soviet naval base, Norway is also part of the so-called Nordic community, which embraces Soviet-allied Finland and neutral Sweden, as well as NATO members Denmark, Norway and Iceland. Owing to the strong historical, linguistic and cultural ties among the Nordic countries, there is strong sentiment even in NATO member Norway not to "rock the boat" by speaking publicly about matters that would upset the alleged balance between the Western and Eastern alliances in Northern Europe.

The *EIR* Oslo conference did indeed "rock the boat," and consciously so, precisely because the *EIR* is convinced that the balance in Northern Europe was upset long ago, to the advantage of the Soviets. Restoring the balance will require an open discussion of the tremendous Soviet build-up.

Like it or not, all of the countries on the Northwestern rim of Europe have been cast into the roles of "front line" states in the escalating confrontation between NATO and the Warsaw Pact. While the Norwegians have for several years now watched the tremendous Soviet build-up on the Kola Peninsula, the Swedes have only more recently started to see a similar concentration of force in the Baltic. With the completion of the huge Soviet submarine base now being built in Liepaja, Latvia, Sweden will find a Soviet base nearly as close to its own territory as Murmansk is to Norway. Within

months, the submarines which are now so flagrantly penetrating into Swedish waters from bases at Paldiski, Estonia, and from Kaliningrad, will be joined by submarines from Liepaja.

In the meantime, the massive Soviet military build-up has been the menacing backdrop to Soviet political pressure on all the Scandinavian countries. Norway's neighbors have already made major concessions. In early December, Finland was de facto integrated into the Soviet defence system against cruise missiles, while Swedish Defense Ministry officials have made public statements of Sweden's commitment to shoot down U.S. cruise missiles over its territory.

Thus, the *EIR* intervention in Oslo clearly came at a critical time to strengthen what remains of the pro-Western forces in Scandinavia and reverse the present trend. The thorough coverage of the *EIR* seminar in the Norwegian media reflected the seriousness with which the country is viewing the Soviet threat, despite the conciliatory attitude of certain circles. Norwegian national television broadcast news of the conference, including film footage from the seminar proceedings and special interviews with speakers. The news broadcaster summarized point by point *EIR* founder Lyndon LaRouche's arguments for why the Soviets are now in a countdown towards a strategic confrontation with the United States, including the calculated possibility of a Soviet first strike. The nationwide audience also heard the *EIR* call for Norwegians to support a NATO crash program to deploy beam weapons.

Thus, in Oslo, as in Bonn and Rome, the conference itself — the proceedings of which are presented on the following pages — was merely the beginning of a much broader debate which reached out to embrace the entire nation and its population. This is the way it should be.

The Question of Beam Weapons and the Present Strategic Crisis

Clifford Gaddy

This conference in Oslo is the third in a series of conferences held this autumn by the *Executive Intelligence Review* in NATO capitals on the subject of "Beam Weapons — the Implications for Western Europe." Our first conference was in Bonn in the beginning of October, and the second was in Rome in early November.

The subject of our deliberations today is of course the new strategic doctrine of the United States of America announced by President Ronald Reagan on March 23 of this year: a doctrine that signals the end of the era of global thermonuclear terror by the development of ballistic missile defense systems based on beam technologies.

In later presentations you will be hearing experts speak in some detail on the technical features of these weapons systems, on the revolution which they will entail in military science, and on their effects on the civilian economy and the cultural climate in general. What I would like to do briefly beforehand is to situate the new U.S. strategic doctrine in the context of a rapid escalation towards a global confrontation between the Soviet Union and the United States.

On March 23 and in the days thereafter, President Reagan and his Secretary of Defense Caspar Weinberger not only announced that the United States intended to begin development of beam weapons. They also explicitly offered to enter into negotiations with the Soviet Union for the purpose of jointly developing such anti-missile systems, and on that basis to then proceed to a genuine "build-down" of both countries' thermonuclear arsenals. The term used by Secretary Weinberger was "Mutually Assured Survival," MAS, to replace the old doctrine of Mutually Assured Destruction, MAD.

The Soviet Union rejected those offers of negotiations. Instead, beginning in August of this year, the Soviets embarked systematically upon a course of escalating strategic confrontation with the United States. It is this pattern of escalation that I would like to examine in somewhat greater detail right now.

Since early November, *EIR* spokesmen — expounding upon an analysis presented by *EIR* founder Lyndon LaRouche — have been stating that Moscow is now operating according to a very definite timetable for confrontation. This timetable, which involves a countdown towards a strategic confrontation of far greater dimensions than the 1962 Cuban Missile Crisis, extends over the next 11 months, until November 1984.

Let me present to you the crucial evidence that led us to this conclusion.

First of all, it is to be understood that by rejecting the President's March 23 offer, the Soviets were consciously seeking a confrontation. Long before the President ever raised the issue of beam weapons, the Soviets were aware

that within the framework of the prevailing Nuclear Deterrence doctrine, a new missile crisis was inevitable. The series of measures and countermeasures initiated by the deployment of SS-20s by one side, and Pershings and cruise missiles, by the other, was guaranteed to produce a crisis by late 1983 or early 1984. Unless some dramatic qualitative shift occurred in superpower negotiations, there was no way out. And yet, when Reagan's offer was made, the Soviets rejected it flatly — not even seeking preliminary talks on the question of Mutual Assured Survival. Therefore, there is no doubt that they consciously chose confrontation.

To understand why they have done so, we have to try and look at the world today through Soviet eyes, specifically through the eyes of the ruling elite in Moscow right now, which nourishes a dream of achieving unchallenged hegemony on the world scene for decades, centuries to come. To use the terms of the Russian Czars and the Russian Orthodox Church — the most appropriate terminology for the way this ruling elite thinks — they want to make Moscow "the Third and Final Rome."

Moscow today has five reasons for believing that 1984 is a unique opportunity for achieving that hegemony. By staging a "eyeball-to-eyeball" confrontation with the United States in 1984, and by forcing the U.S. to back down in humiliation, Moscow intends to achieve its own "1000 year Reich." These five reasons are the following:

1. Moscow has at present an overwhelming military-strategic superiority over the United States.

Other speakers will be presenting details on this point, but suffice it to state that Moscow's superiority is such today that there is a definite risk that the Soviets now have a "first strike" potential. That is, unless the American missile forces are put on full-alert status, the Soviet Union may have the capability of launching a preemptive attack against the United States and still surviving physically as a nation.

Whether or not the Soviets are planning a first strike is open to debate, but what is certain is that there are men in the Kremlin and in the Soviet military leadership who are willing to risk having to carry out a nuclear attack in the event that the United States does not back down in a confrontation. It is most likely that the main point of discussion in Moscow at this point is this: are the possible losses in a nuclear war acceptable to the Soviet Union and what can be done to minimize them?

Since it is no secret that the U.S. land-based ICBM force has long been vulnerable, the critical question to consider here is the Soviet anti-submarine warfare (ASW) capability. *EIR* studies have indicated — and our conclusions have been confirmed by other experts — that the Soviets have a margin of advantage in this area,

thanks to the possibilities of using SS-20s to counter the U.S. submarine fleet.

2. The entire Western economy is in the grips of a deepening world depression.

Certain countries in the Asian Pacific area are the sole, partial exceptions. At the same time, most Western leaders, including President Reagan himself, are the victims of severe illusions concerning the so-called "recovery" in the Western economy. However, this "recovery" is in fact nothing but a statistical hoax being perpetrated upon Reagan to induce him to follow economic policies dictated by Paul Volcker of the U.S. Federal Reserve, and others.

The reality of the U.S. economic situation is that actual physical output will decline by 4% during 1983 as compared to 1982. This is not a recovery. The Federal Reserve's statistics report a rise in steel output by 36% when it in fact declined! Auto output was overstated by 24% in the Fed's October report. And so on for other vital categories.

The point of this is that regardless of what others may choose to believe, the Soviets know that all this is a statistical hoax. The Soviets may not know how to run an economy successfully, but when it comes to cheating in the statistics to cover up a failure, they are the world's leading experts. They are not fooled. And they know that an economy with a declining output of steel, machine tools, means of transport, etc. is a militarily vulnerable economy.

3. The world is on the brink of a 1931-style monetary collapse.

Since the summer of 1982, international attention has been focused on the \$750 billions of outstanding foreign debt in the developing sector — the so-called "Third World Debt Bomb." Yet, an even greater danger lies in the nearly \$10 trillions of public and private debt in the industrialized countries. A financial collapse in any part of this shaky structure would produce a chain reaction wiping out anywhere between \$1 and \$2 trillions of paper values, spelling total chaos and disaster for the Western economy.

The Soviets are well aware of this vulnerability, and they are looking forward to what they regard as the long-awaited "final collapse of capitalism." More important, they have today capabilities of influencing the financial situation in the West, directly on the gold and foreign exchange markets, as well as indirectly through the behavior of certain of their friends in Swiss and other financial circles.

4. The Atlantic Alliance, and indeed, the entire system of alliances centered on the United States, is crumbling, politically and morally. Speaking here in Oslo, I hardly need elaborate on this point. The terms "Finlandization," "decoupling" and others are only too well known. Norway voted approval of NATO's stationing of Pershing II and cruise missiles in Europe by only a one-vote majority in the Parliament. Greece is de facto out of the Alliance. Anti-NATO sentiments dominate in

Denmark and Holland. West Germany is becoming ungovernable.

Not only are the Soviets aware of these developments. They are actively assisting them, as will be detailed in a later presentation.

5. The United States is paralyzed by the 1984 Presidential election campaign.

Moscow correctly understands that during an election period, the usual response of an American President is to be cautious, for fear of offending one or another constituency group by bold and decisive measures. The Russians hope that as long as Ronald Reagan adheres to that principle, he will not otherwise act in a way that would threaten Soviet superiority.

These five conditions, taken together, give Moscow today a unique historic opportunity. But they, and in particular the fifth point, also define a very specific time period for taking advantage of that opportunity. For the Soviets fear that if Reagan is re-elected, he would, at the very point at which he no longer had to consider election strategy, put the United States on a war mobilization comparable to that of the World War II period in order to meet the Soviet strategic threat. He would implement and enforce the new strategic doctrine based on beam weapons. And given the advantages of the American economic system under such a regime, the existing Soviet military superiority would quickly vanish.

From the Soviet standpoint, therefore, the period between now and November 1984 represents a "window of opportunity," a period in which the United States is more vulnerable than it has ever been before in the history of the U.S.-Soviet adversary relationship or is likely to be in the future. In this period, this very tight time schedule, the Soviets have the choice of either watching a unique historic chance disappear, or of orchestrating a strategic confrontation with the United States in order to force a U.S. backdown and concessions.

The Soviets have chosen confrontation.

This is the background to the present crisis, a much more complex picture than the narrow issue of the so-called Euromissiles and the response to them. The real question is, do we have a way of stopping the Soviet plans? It is clear that if the Soviets are permitted to proceed as hitherto, the results will be disastrous: either the United States suffers strategic defeat and humiliation by giving in to Soviet pressure, or the entire world will be destroyed in nuclear war if the U.S. does not back down.

There is only one way to avoid such an outcome: the Soviets must enter into the kind of negotiations implied by Reagan's announcement of March 23. The problem for us in the West, then, is to find a way to force the Soviets to rethink Reagan's offer. We are convinced that the only effective way to make Moscow accept the new doctrine, for its own sake as well as ours, is for us to implement that doctrine now and thereby dispel all illusions that the West can be blackmailed into refraining from the development of beam weapons defense.

This is the purpose of our seminar.

Beam Weapons for the Defense of Western Europe

Dr. Jonathan Tennenbaum

The development of laser and particle beam weapons means a total revolution in all spheres of military technology and practice. Within a few years, weapons systems will be developed whose firepower exceeds by several orders of magnitude anything which has been available up to today.

The most obvious implication of this was addressed by President Reagan in his March 23 speech, a speech which in effect launched the beam weapon revolution: within a few years, the nuclear weapon-carrying intercontinental ballistic missile will become obsolete as a strategic offensive weapon. The United States is presently committed to the development of beam weapon systems capable of destroying any long- and medium-range missile launched against the territory of the U.S. and its allies. At the same time—and this will be the main focus of my remarks today—beam weapon technology will afford for the first time the means to defend Western Europe against other forms of nuclear assault, by short-range missiles, cruise missiles, aircraft and even tactical shells.

Since the same systems will be effective against non-nuclear weapons, their development necessitates a profound retooling of all warfighting capabilities, from the strategic level on down to the individual soldier on the battlefield. The artificial distinction between nuclear and conventional capabilities, nurtured until now by the incompetent MAD strategy, will disappear.

The problem of beam weapon defense against long- and medium-range ballistic missiles has been treated in detail at earlier conferences of the *EIR*, as well as a number of published locations (see in particular the transcript of the October 5, 1983 *EIR* Conference in Bonn, West Germany). I will now merely recall some of the main points of strategic beam weapon defense, and then go into some specific problems associated with the application of beam weapon technologies to the defense of Western Europe.

1. Strategic beam weapon ABM defense will be achieved by an in-depth defense network consisting of a number of mutually complementing "layers" targetting enemy missiles at different points of their trajectories (see Figure 1).

2. A large spectrum of different laser and particle beam technologies are presently under study for strategic ABM defense (see Figure 2). Certain of these technologies are essentially available today; others are in advanced stages of research. The time required to achieve in-depth defense is entirely determined by the magnitude of the development effort. With a crash program of the order of 50 billion dollars a year, partial defenses could be installed within one year, and in-depth defense would be available by the end of the decade.

3. The technology base for first-generation chemical laser weapons exists already; essentially, operational systems can be built starting today. Figure 3 presents the basic parameters for a space-based hydrogen fluoride laser system. One such battle station could destroy up to 300 missiles in the boost phase, during a single 10-minute pass over the missile launch area. Variants on this concept would include ground-based chemical lasers with space-based mirrors for refocussing and pointing the beam on target.

4. Within the next two to five years, beam weapons based on "new physical principles" will become available, whose firepower is far beyond that of chemical lasers. These include the X-ray laser (see Figure 4), which is presently under development in the United States. The feasibility of this laser, which uses a nuclear explosion to produce tremendous pulses of coherent X-rays, was proven in underground tests over the last two years. A single X-ray battle station could carry up to 50 independently pointed lasing rods, powered by a single nuclear charge. The detonation of the system would thereby destroy up to 50 enemy missiles simultaneously. Such X-ray battle stations would be quite small and could be rapidly launched into space in large numbers. It is estimated that the cost of "killing" an enemy missile with the X-ray laser will be less than one-tenth the cost of building the missile. Hence, the defense "saturates" the offense.

5. Other beam weapon technologies based on "new physical principles", now under study, include plasma beams, plasmoids, intense microwave bursts, directed EMP and novel particle beam technologies such as polarized-fusion-generated neutron beams. It is quite possible that the development of the X-ray laser and these other technologies will converge upon making space a "no man's land" for ballistic missiles. In other words, any Soviet missile which sticks its head out of the atmosphere will be immediately destroyed.

Now let us turn to the problem of European defense. While it is nonsense to separate in strategic terms the defense of Western Europe from that of the U.S., the "on-site" defense of Europe poses certain technological challenges beyond those met by strategic, anti-ICBM defenses. There are two interrelated points to be considered in this connection:

(i) Without the capability of resisting a massive nuclear assault from the Warsaw Pact, there is no on-site defense of Europe. Conventional buildup means little or nothing in a situation where all significant conventional war-fighting capability in Western Europe might be destroyed within the first 10 minutes of the assault. Besides medium-range ballistic missiles, there are hundreds of short-range and cruise missile, aircraft and

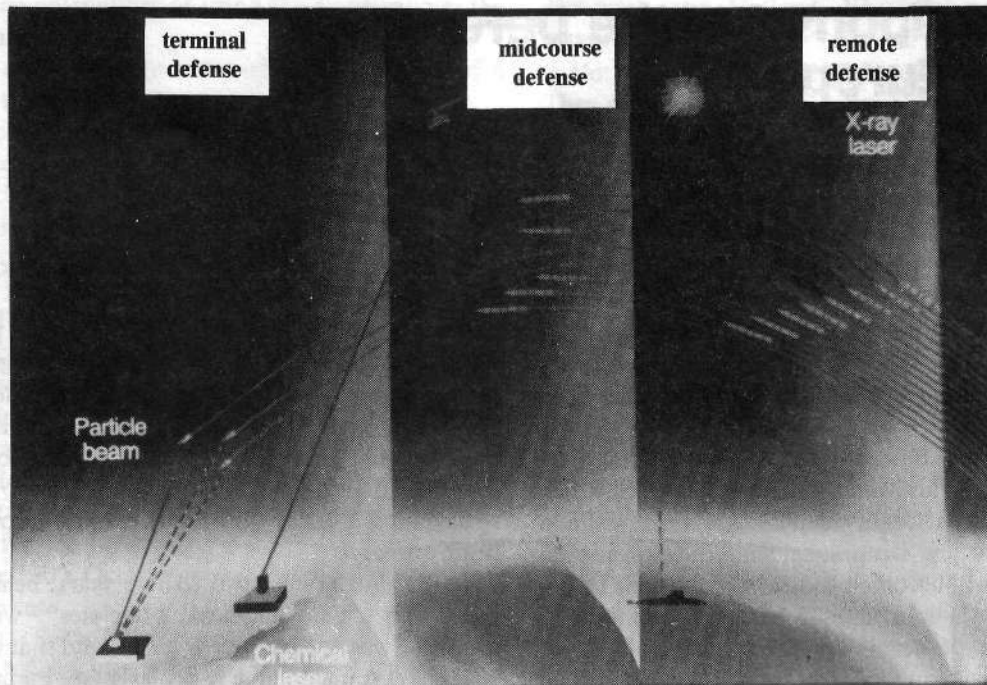
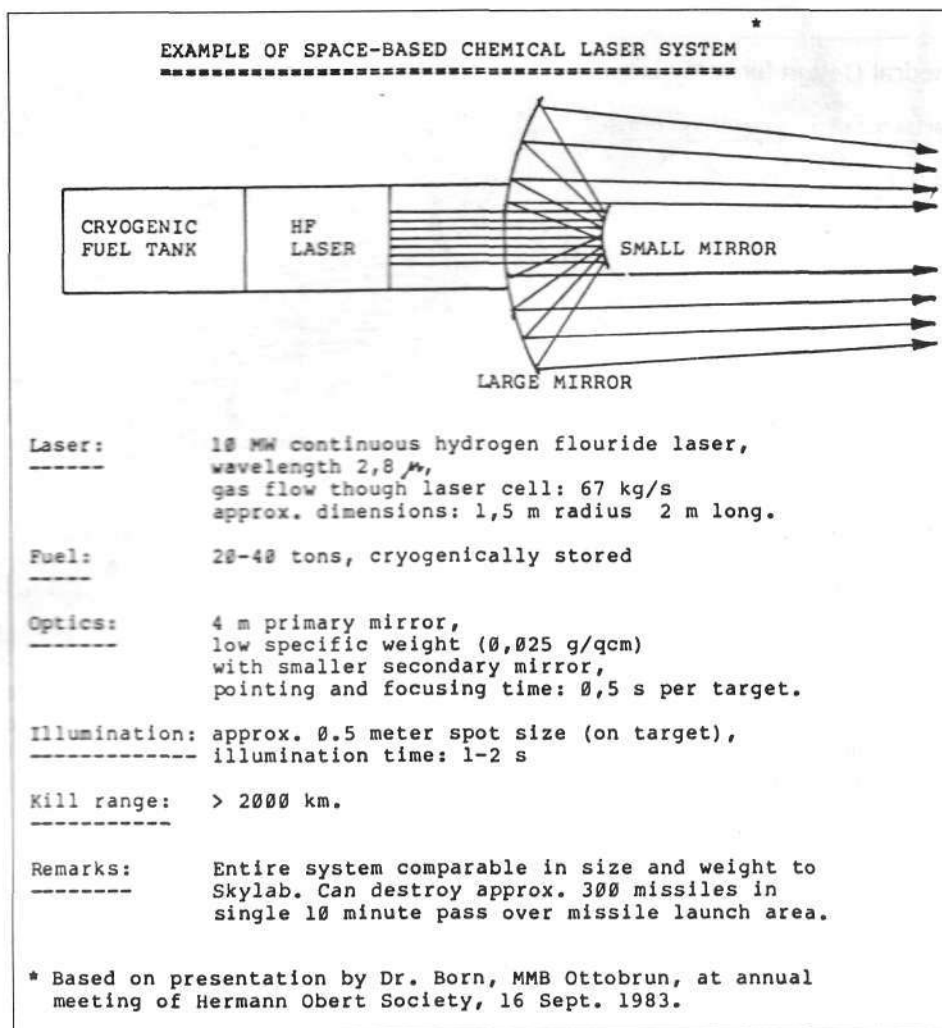


Figure 1

DIRECTED ENERGY WEAPONS	
TECHNOLOGY OPTIONS	
Conventional ABM-Systems	
SAFEGUARD (SPARTAN, SPRINT)	
F-15 ASAT System	
LOADS	
Laser Systems	
Gas Dynamic Lasers	(Airborne Laser Laboratory, tactical weapons programs)
Chemical Lasers	(DARPA programs, Navy SEALITE program)
Krypton Fluoride Laser	(Los Alamos, Rutherford Labs)
Free Electron Laser	(Lawrence Livermore, Stanford, L.U.R.E.)
X-Ray Laser	(Lawrence Livermore)
Particle Beam Systems	
Electron Beams	(ATA Lawrence Livermore, Kirtland AFB)
Ion Beams	(Sandia Labs, major accelerator labs)
Neutral Beams	(White Horse Program Los Alamos)
Muon Beams	(DESERTRON, Lawrence Livermore)
Plasma Beams	(Spheromak Los Alamos, U. of Florida)
Hypervelocity Projectiles	
Magnetic Rail Gun	(tactical weapons programs)
BASING MODES	
Ground-Based	(with/without space-based mirror)
Aircraft-Based	(ballistic trajectory in space)
"Pop-up" Mode	(satellite)
Orbit-Based	

Figure 2

Figure 3



artillery-delivered warheads assigned by the Warsaw Pact for nuclear assault against Western Europe. We must develop a capability for neutralizing this threat.

(ii) With the advent of fast, "smart" missiles, conventional aircraft and naval vessels are becoming virtual "sitting ducks" for swift destruction by systems costing tens or hundreds of times less than the assets they destroy.

For reasons which will become clear, the solution of problem (i) subsumes that of problem (ii); hence, I shall concentrate on the technical problems of on-site European defense against nuclear assault. Let us therefore assume that through cooperation between the U.S. and Europe, beam weapon systems will be developed capable of destroying any missile which passes out of the atmosphere. Under that assumption, a number of difficulties must be solved for an effective European defense against endo-atmospheric weapons.

(i) We must deal with a great variety of delivery systems: ground-to-ground and air-to-ground missiles, fighter-bombers, cruise missiles, tactical shells.

(ii) Nuclear warheads can be quite small and light, so there is practically no way to know whether a given delivery vehicle is or is not carrying a nuclear warhead.

For this reason, the distinction between nuclear and non-nuclear defense converges on nil.

(iii) Typical delivery times for short-range nuclear weapons launched against Western Europe are very small—on the order of 1-5 minutes. Look at a map of Europe and imagine a missile travelling at more than 1 km per second!

(iv) We must be able to deal with massed fire of nuclear and conventional weapons directed at punching a hole through European defenses.

The key to meeting these formidable challenges lies in the potentially vast increase in firepower inherent in the emerging beam weapon technology. A typical beam weapon delivers its destructive action at about 300,000 km per second—orders of magnitude beyond any weapon available until now. Furthermore, beam weapons, for example lasers, can be aimed with accuracies of mere centimeters at ranges of thousands of kilometers. This goes for propagation in the vacuum of space. While complex propagation problems may reduce performance somewhat in the atmosphere, the accuracy/range equation for endo-atmospheric beam weapons will still be far beyond anything attainable with missiles, bullets and shells. Some types of beam

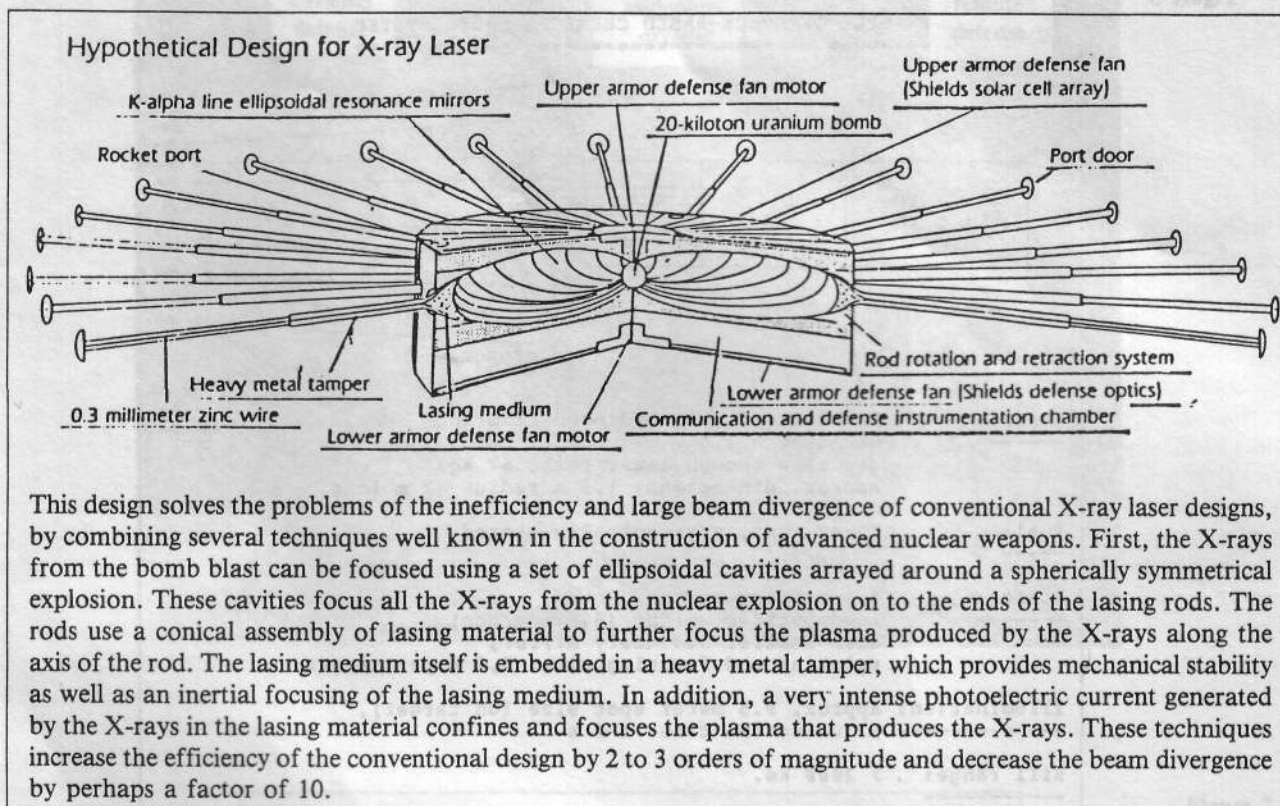


Figure 4

weapons—particularly particle beam weapons—will be capable of rates-of-fire hundreds of times higher than the fastest gattling-gun. When provided with suitable energy supplies, beam weapons never run out of ammunition: the “bullet” is a pulse of energy! Moreover, the destructive action of beam weapons can be “tuned” to the targets in such a way that a relatively infinitesimal quantity of energy, delivered in a suitably high-quality form, might destroy even a “hard” target. One example of this tuning principle is EMP: a very short electromagnetic pulse generated in the upper atmosphere by a nuclear explosion. The energy delivered by the pulse at the surface of the Earth might be a mere fraction of a Joule; nevertheless, all unprotected electronic circuitry over a vast area would be instantly knocked out by the pulse. Another example is the peculiar destructive mechanism of particle beams, which might penetrate a meter of heavy shielding, to “poison” in highly selective fashion the heavy explosive elements in a nuclear device behind the shielding. All of these points add up to a total revolution in military technology.

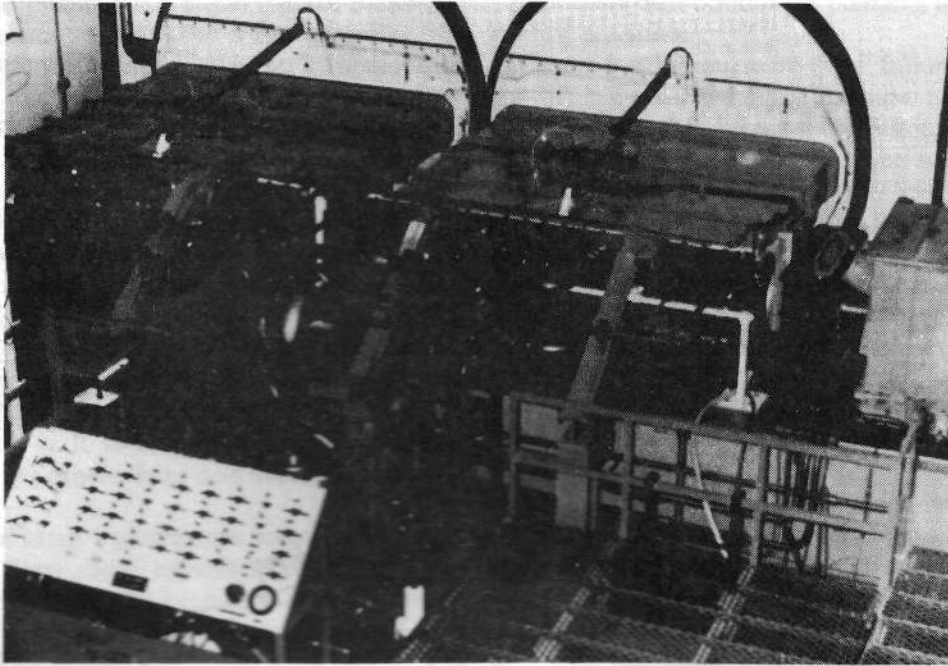
It would be quite out of the question, at this point, to put forward a definitive R&D program for beam weapon defense of Western Europe. I shall instead briefly mention a few examples of the kinds of technologies which should immediately be studied in the context of European defense. So far, to my knowledge, there has been little or no open discussion of such defensive technology options in Western Europe. The following remarks are intended to help set such discussion into motion.

Chemical Lasers

High-power chemical laser technology has developed to the point where the power levels required to destroy missiles (10 MW or more) can be achieved through essentially routine scale-up of existing systems (see Figure 5 showing the 2.2 MW MIRACL chemical laser built for the U.S. Dept. of Defense). The size and weight of such a system would allow it to be installed in large, cargo-size aircraft. An airborne laser battle station, cruising at an altitude of 10 km, would have a line-of-sight range of about 350 km, which is the order of magnitude required for European defense. Groups of these laser-armed aircraft might patrol continuously over Western Europe in a manner similar to the AWAC radar system. Attacking missiles and aircraft could thereby be shot down over enemy territory, in the early stages of their flight, before they cross the frontier.

One disadvantage of this system, of course, is that the aircraft-based laser would become an attractive target for enemy countermeasures, including massed attack directed toward saturating the laser's ability to defend itself. An alternative scheme would be to station the bulky, expensive laser on the ground, in a hardened site, and to station only a mirror and associated pointing and tracking systems in the air (see Figure 6). The mirror would refocus and direct the beam coming from the ground onto the target. Several airborne mirror units might be assigned to a single laser ground station, thereby providing redundancy and reducing the overall

Figure 5



vulnerability of the system. In addition, the multiplicity of mirrors would increase the rate at which new targets could be engaged: while one mirror directs the beam onto one target, the other mirrors seek out and lock onto new targets. The laser beam would be switched from one mirror to the next in rapid succession. Even if all the mirrors were to be knocked out by countermeasures, new ones could be sent up. The mirror units themselves might be carried by small, automatic unmanned aircraft, including possibly helicopter-type platforms powered from the ground by microwave beams; the latter could be stationed semi-permanently within line-of-sight of the ground-based laser.

High-power chemical lasers might also be installed on large naval vessels. A final focussing mirror, mounted upon a mast 100 meters above sea-level, would have a line-of-sight range of about 35 km—roughly that required to defend naval groups against missiles of the Exocet and more advanced types. Airborne mirrors might extend the range of sea-based laser stations, allowing naval units to contribute to the defense of land areas.

MHD Power Generation

In addition to firepower, the achievement of mobility will be crucial for the effectiveness of beam weapons. For this reason, it is necessary to develop small, compact power sources able to deliver large pulses of power for laser and particle-beam systems. For particle beams and non-chemical lasers such as the Free Electron Laser (FEL) and Krypton Fluoride laser, we need intense pulses of electric current. Thanks to the development of the MHD generator, such power sources are in fact available.

Figure 7 shows the basic principle of the MHD generator. If a plasma (ionized gas) is made to pass

across a magnetic field whose field lines run perpendicular to the gas flow, then the so-called Lorentz force induces a separation of positive and negative charges in the plasma, a potential drop which can be exploited to generate an electric current.

Over the last 15 years, the Soviet Union has mounted a large effort for the development of such generators, with special emphasis on those types in which the plasma flow is provided by an explosion ("explosive MHD"), yielding a short, high-current electric pulse. Figure 8 shows a mobile explosive MHD unit, used to power electromagnetic sounding equipment for geological studies. Such generators can provide 100 MW in pulses of more than one second duration. "Throw-away" MHD generators, which would be destroyed by their own explosive charge, can reach power levels up to many gigawatts in systems no larger than a half-meter diameter. There is considerable evidence that the large Soviet effort in this domain—far larger than that in the West—is directly related to beam weapons development.

Particle Beam Warheads

As an example of MHD applications to mobile beam weapons, I shall sketch one concept for a compact, "throw-away" electron beam generator (see Figure 9). An MHD generator sends a very high-current pulse through a resistive wire. The wire explodes, becoming a pinched plasma in which the current is interrupted by an effect known as "magnetic insulation". This sudden interruption of current generates a tremendous electric potential across the chamber containing the wire, a potential which in turn accelerates an electron beam to energies of 100 million electron volts or more. The entire system, including the MHD generator and explosive fuel, might be

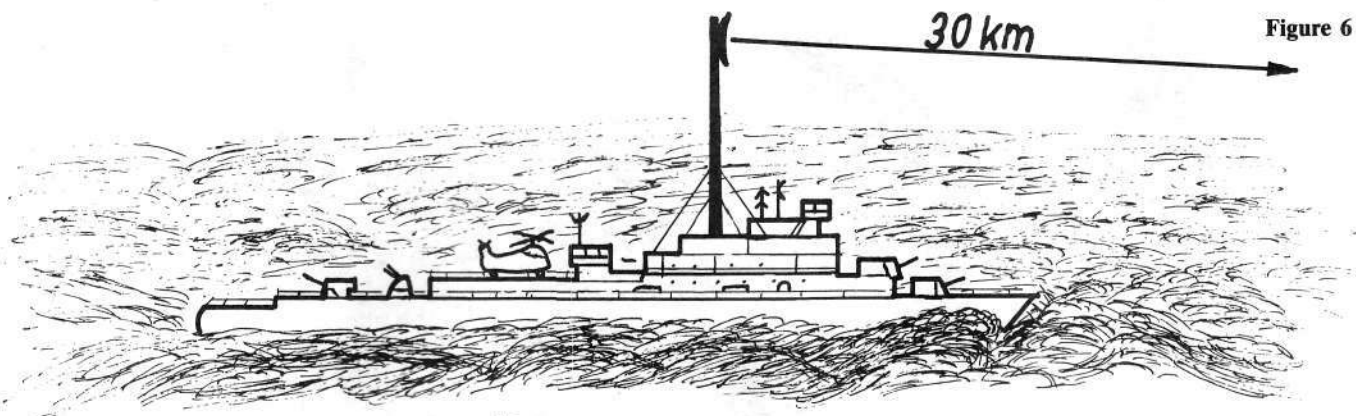


Figure 6

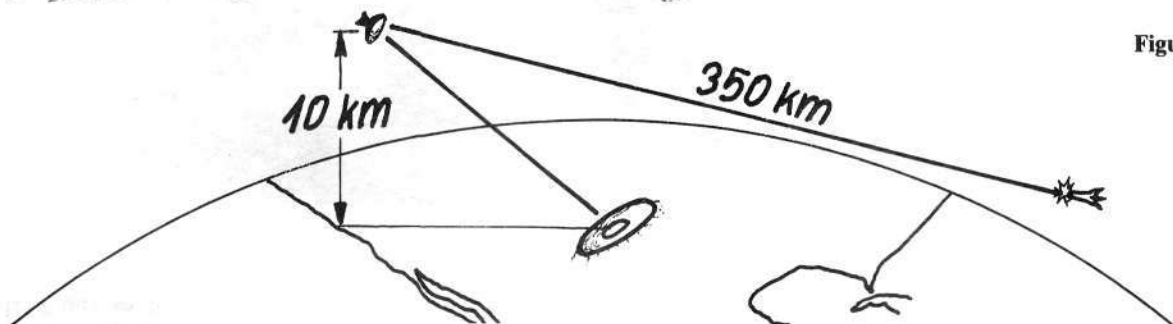


Figure 7

fitted in the space occupied by a large conventional warhead. A high-energy electron beam can be highly effective against "hard" targets; the beam penetrates deep into the target and deposits its energy "volumetrically" (as opposed to laser beams which interact primarily with the surfaces of bodies).

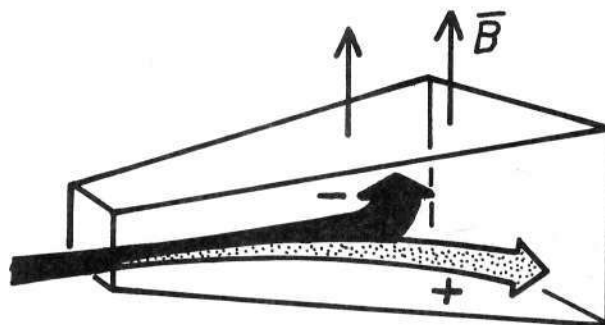
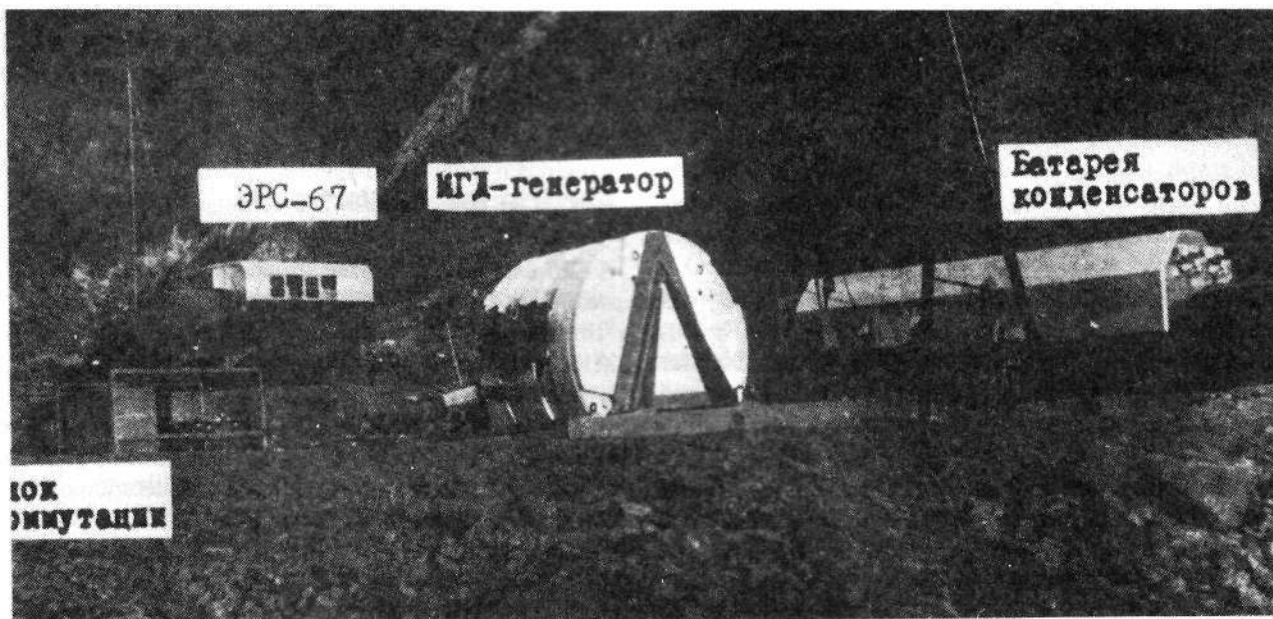


Figure 8

The Free Electron Laser

Another application of MHD, which may prove to be one of the most promising for flexible, mobile beam



weapons, is the possibility of using MHD pulses to power free electron lasers. The FEL generates its coherent light beam by inducing collective oscillations in a high-current, relativistic electron beam (Figure 10). Besides its high efficiency (theoretically 30% or more), the FEL has the unique capability of continuous tunability over a wide range of output frequencies—ideally all the way from far infrared, through the visible range into ultraviolet and possibly even X-rays. In operation, the FEL might be tuned to optimize both propagation under given atmospheric conditions, and optimal absorption and destruction on the target. The effect thereby produced could be compared with that of a classical belcanto singer, whose voice is capable of shattering a wineglass at 10 meters, while at the same time hardly perturbing a candle flame held near the mouth of the singer!

The FEL also means a tremendous potential improvement in active laser radar capabilities. Backscattered light from variably-tuned FELs can be analysed to determine the nature and vulnerabilities of prospective targets.

Nuclear Power

The vast superiority of nuclear reactions over chemical reactions in terms of energy-flux-density and output per unit reactant insures that nuclear power will play an important role in beam weapon defense. I have already spoken of the nuclear bomb-powered X-ray laser. Naturally, it is difficult at present to use nuclear explosions to power ground-based beam weapons. Nevertheless, the Soviet beam expert E.P. Velikhov proposed in the early seventies the construction of huge MHD generators powered by nuclear explosions contained within giant underground steel spheres. In the late seventies, evidence came to the attention of Western intelligence agencies suggesting that the Soviets had in fact built and tested such a generator.

Leaving aside controlled nuclear bomb explosions, applications of nuclear fission reactors in beam weapon systems might include:

(i) Compact pulsed reactors, capable of producing pulses of a gigawatt or more in a system small enough to be mobile on land, sea and air. Various MHD and related technologies might be developed to extract the pulse energy in the form of pulsed electric current. The Soviets, it will be remembered, are already employing small fission reactors (not merely isotope batteries) to power some of their radar reconnaissance satellites.

(ii) It may be possible to integrate nuclear reactors in "closed-circuit" chemical laser weapons. The reaction-products from the laser cells would be recycled using nuclear process-heat to power the necessary endothermal reactions. This would allow land- and sea-based chemical lasers to operate continuously without refueling. For this purpose, reactor power levels of the order of 200 MW (continuous thermal output) would be necessary.

(iii) There exist options for pumping lasers directly by nuclear reactors.

Recent breakthroughs in laser fusion, including the use of spin-polarized fuels and new, short wavelength lasers, indicate that laser-induced fusion microexplosions might be made available as power sources for beam weapons in the foreseeable future. This would imply a tremendous quantum jump in available energy densities. In brief, energy densities otherwise only reached in self-destroying systems such as the bomb-powered X-ray laser, would become available for ground-based or mobile endoatmospheric beam weapons.

Plasma Generation of Microwaves

The possibility of generating very high-intensity bursts of microwaves in plasmas opens up a whole new category of beam weapons. In one scheme, a plasma of about one meter diameter is confined by a magnetic field in an apparatus similar to those used for controlled fusion experiments (see Figure 11). The plasma is then energized by microwaves, storing several megajoules of energy in the plasma structure. By triggering a plasma instability, the plasma can be induced to emit a large portion (perhaps 40%) of the stored energy in the form of a very short (10-100 ns) pulse of microwaves. The power of the emitted microwave beam might reach more than 100 terawatts. The propagation properties of microwave beams make them especially well suited as endoatmospheric beam weapons.

Plasma Physics

It should be clear from the preceding examples, that the problem of developing powerful beam weapons for the defense of Western Europe is closely linked with the development of plasma physics. Whether in the MHD generator, as a source of electron, microwave beams or coherent X-rays (as in the X-ray laser), or as the medium for the production of fusion energy, plasmas are characterized by their very high ratio of usable free energy.

Self-confining plasma structures (see Figure 12) can store the equivalent of several grams of TNT in plasmoids of 1/2 cm diameter. Such plasmoids are presently under study as possible anti-missile and anti-aircraft weapons. Plasma vortex filaments, of the sort predicted by Beltrami in the 19th century and observed by Bostick, are also crucial for understanding the propagation properties of particle beams in space and in the atmosphere. It is absolutely essential to the success of a European beam weapon program that basic research into plasma physics be stepped up on all fronts. The focus of this basic research must be "negentropic" processes—that is, processes in which a plasma organizes itself in such a way that its potential is increased for doing useful forms of physical work.

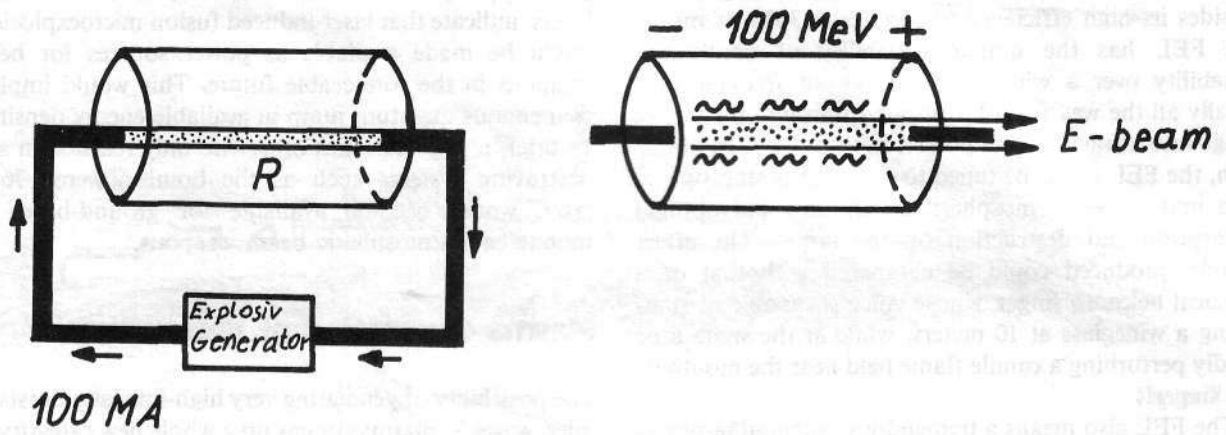


Figure 9

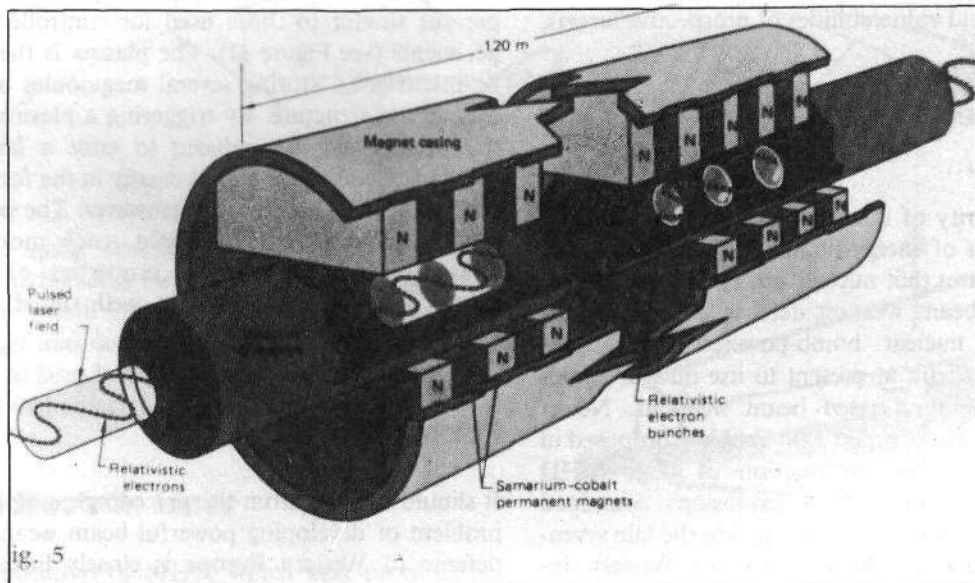


Figure 10

ig. 5

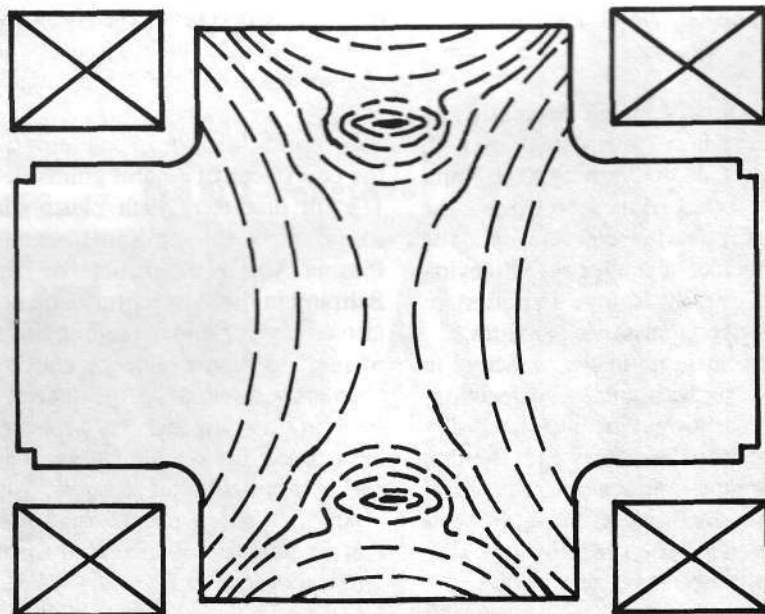
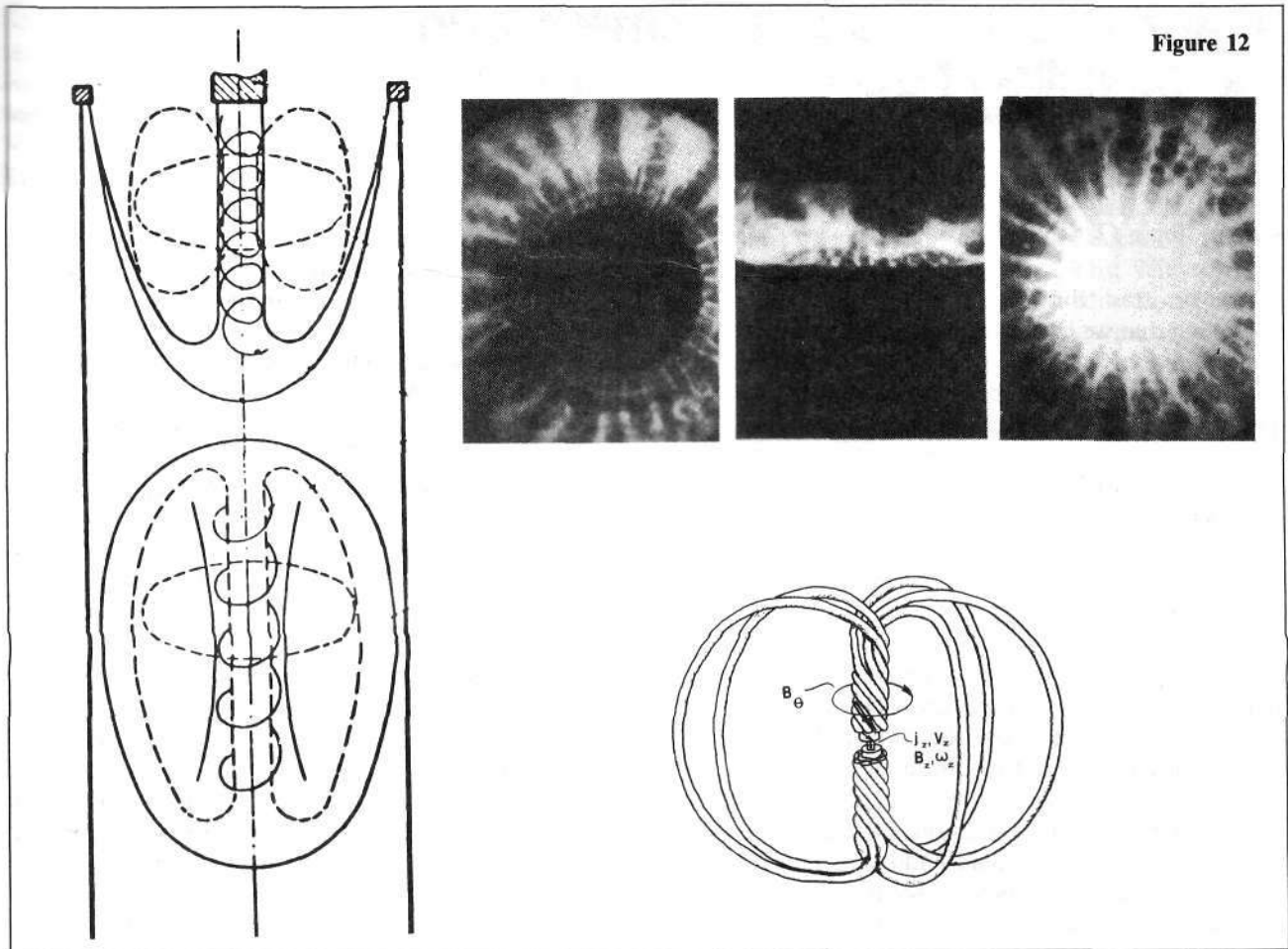


Figure 11



Proposals

Let me close by making a few proposals for European research and development of beam weapon defenses. We require:

1. Immediate development of large, high-power chemical lasers with the aim toward rapid deployment in Europe.

2. Crash programs for the development of the Free Electron Laser, the explosive MHD generator and other nuclear and non-nuclear power sources for beam weapons, and new forms of beam weapons such as plasma microwave generators.

3. Intensified theoretical and experimental study of self-induced transparency (and related propagation effects) and of resonance destruction of targets.

4. Intensification of development of laser radar systems.

5. Fundamental breakthroughs in plasma physics, in the field of neogentropic plasma processes.

6. Breakthroughs in computer technology. Our present digital computer systems are intolerably "stupid"; new forms of computers based on other principles of organization, more resembling the actual mode of action of physical processes (such as plasmas) must be developed.

How to Counter Appeasement and the So-called Peace Movement

Kerstin Tegin-Gaddy

I want to start the afternoon session by taking up something that we have to start to deal with if we are to succeed in convincing the populations of the West that it is necessary to develop beam weapons, and that is the question of the so-called peace movement.

To do that, I think it is necessary to explain to you what the Club of Life is. The Club of Life was founded just over a year ago by Mrs. Helga Zepp-LaRouche, the chairman of the European Labor Party. As the name tells you, the Club of Life was founded to fight for the right to life of all peoples and all nations of the world. The Club of Life now has members or organisations in North and South America, in Europe, Asia and Africa, and its main task is to work for a new and just world economic order. This means the industrialization of the developing nations, and a reform of the international financial and credit system. I will come back to this later.

The question might arise in the some people's minds, why the Club of Life would endorse a policy for the development of beam weapons, because as soon as you pronounce the word "weapon," everybody starts to think about destruction, about killing people. The point is that beam weapons are not designed to kill people, but to kill missiles, nuclear missiles. Why is the so-called peace movement opposed to these new systems?

My thesis is that the peace movement is not at all for peace. Admittedly, there are people in the peace movement that truly want peace. But the peace movement as a phenomena is to be characterized as "nazi-communist."

I think we got an example of this today, when the so-called peace activists here in Oslo barred the door downstairs and prevented people from entering this building. Just like the Greens in West Germany, they don't like democracy, but use fascist methods to obstruct the freedom of speech.

Here in Norway, you have a special knowledge about the peace movement. Before World War II, there was a very active peace movement here, led by the social democracy. They said that Norway needed no defense, and so defense spending and defenses were dismantled. The effect that had was that when Hitler decided to invade Norway, there was no defense. It was a walk-over for Hitler to take Norway, and so the country was occupied for five years. And the peace movement today works in the same tradition. We have heard here this morning how the Soviet Union is preparing for a first strike against the United States and the Western Alliance. If the peace movement has its way, we are not even supposed to defend ourselves. No wonder that it is the Communist Parties that are running much of the peace movement.

To further give you a clearer idea of what I mean when I claim that the peace movement is nazi-communist, let us look at Sweden's Olof Palme.

Sweden's Prime Minister Olof Palme was the head of the "Palme Commission," which presented its proposal in the summer of 1982. This was to totally disarm Western Europe and establish a nuclear-free corridor in Europe. This proposal is of course a continuation of the Finnish proposal for a nuclear-free Northern Europe, which is associated with former Finnish President Uhro Kekkonen. However, it is obvious that the proposal originated in Moscow.

So, when Palme presented the Commission's report, it was easy for us who follow these things, to say that Palme was working for Moscow. This was hard to accept for some people. Today things look different. It has been revealed that Palme, at the peak of the submarine crises, established direct and secret contacts with the leadership in Moscow, telling them that if they would just stop the then ongoing violations of Swedish waters, then the old violations would be forgotten. We have also received information from reliable sources in the Swedish military that Palme, who at that time had just become Prime Minister, in fact gave the orders to let the submarine in Haarsfjaerden leave. Officially, it is known that Palme prohibited any depth charges from being dropped.

This is quite appropriately becoming a scandal in Sweden, since Palme did not inform the Foreign Ministry about the secret discussions with the Russians, which had been conducted between Anders Ferm, the Swedish Ambassador to the United Nations and Soviet Central Committee member Georgi Arbatov and KGB general Mikhail Milstein. This alone is enough to call Palme a traitor.

However, there are some people who would still be reluctant to call Palme a KGB agent, and maybe things are not so easy since Palme is now repeatedly called a totalitarian, yes, even a fascist by known Swedes. For instance, the well-known Swedish author Lars Gustavsson, who has fled Sweden due to the repression of free speech there, said recently in an interview in the French *Magazine Actuel*, that Sweden under Palme was rapidly becoming a fascist country. You might have read or heard about the articles in the German magazine *Der Spiegel*, where Sweden, quite truly, is portrayed as a 'Gulag', especially in the way children are treated by the state.

It is as easy to trace Palme's fascist roots as his servitude to Moscow. Palme's family on his mother's side (which was always the important part of his family as his father died when he was very young), the von Knieriem family, were servants for centuries to the Russian Czars.

Some of them worked for the Okhrana, the Russian secret police. Palme's uncle, who had a great influence on Palme during his youth in Latvia, August von Knieriem, was a board member of IG Farben and was tried in Nuremberg for crimes against humanity. August von Knieriem, as the chief legal counsel for IG Farben, personally visited the concentration camp Auschwitz, overseeing the construction and the running of the extermination camp. IG Farben originally planned to locate Auschwitz in occupied Norway.

Considering Palme's plan to implement so-called "Wage-earners' Funds," modelled on Mussolini's funds in Italy, and the way he is making Sweden into a totalitarian state, it is no exaggeration to call Palme a nazi-communist, just like the peace movement itself.

Besides looking at Palme, to understand this, we should look at the "Green-peace" movement in Germany.

The peace movement in fact is nothing but a continuation or new form of the old anti-nuclear, anti-technology, back-to-nature movement, which in all features resembles the Wandervogel of the Nazi youth. It cannot surprise anybody, therefore, that many of the leaders of the Green Party in fact are old Nazis, and several of them have had to resign from leading positions when their Nazi past was revealed.

At the same time, the head of the Bundesverfassungsschutz, Heribert Hellenbroich, has shown that the peace movement receives millions from the East. This is something that has been totally ignored by the press.

Another financier of the peace movement is Colonel Muammar Qaddafi of Libya, who is also best described as a nazi-communist. In March 1982, Qaddafi, who himself also finances the Nazi International based in Switzerland, met with the leaders of the Green movement (after having been in Vienna to meet socialist Bruno Kreisky) to plan a strategy to stop the stationing of the missiles in Europe. In a German magazine called *Wir Selbst*, which is published by solidarists, Qaddafi praises Adolf Hitler.

Nobody who has seen the Green peace movement in action in West Germany can believe they are peaceful, since they are the most violent people in Germany — they use terrorism, urban guerilla warfare, occupations, etc.

To give a complete picture of the peace movement, and how much it is against peace, you have to look at the leaders of the so-called freeze movement in the United States. One of their top leaders is Robert McNamara. The gang around McNamara were the people who ran the United States into a prolonged and useless war in Vietnam. They have also, together with Henry Kissinger, promoted the most vicious economic austerity measures against the developing nations, policies which result in millions of deaths, as well as misery and famine. At the same time these freeze-niks are leading proponents of local, colonialist wars against developing nations.

The question we have to ask ourselves is: How is it possible that so many young people and also some older

people are supporters of, or affected by, the peace movement.

I think the answer is that all this did not happen yesterday, nor a couple of years ago. It started in the 1960s and the beginning of the 1970s.

The first reason for this development is the school reforms of the 1960s. In Sweden, they were launched by Olof Palme when he was Minister of Education. In West Germany, they were launched by socialist Willy Brandt.

Not only did they alter the form of education, but they also changed the contents. Science, music, history, language, classical languages were reduced to mere banality. Children are taught to follow their feelings — and educators are told not to interfere with these feelings. Look at science: in most European countries, geometry and construction, the basis for all science, has virtually vanished.

People who know nothing of science, who have not studied physics, chemistry, or mathematics, are afraid of technology, and are therefore irrational. "Green people" hate technology, because they don't understand it.

The second reason for the existence of the peace movement is the conscious attack on growth, technology, etc., which was launched by the Club of Rome. This of course could not have succeeded had not the destruction of education been going on at the same time.

To see how these things overlap, you can look at Alexander King, who was an official of the OECD in the 1960s. He was the one who originally made the proposals for educational reform in the OECD countries and he fought openly against the old Humboldt education system of the classical school.

Alexander King also worked for NATO for many years. Then in 1972 he was a co-founder of the Club of Rome. Also in 1972 the Club of Rome published its bible, the book "The Limits to Growth" by Jay Forrester and Dennis Meadows of the Massachusetts Institute of Technology. The Club of Rome and this book then laid the basis for every zero-growth, anti-technology organization in the world.

They claim that resources are limited, that we are running out of raw materials. Their main thesis is that the world is overcrowded and there are too many people. They and their followers want to reduce the world population to 1-2 billion people, and they are not ashamed to say that famines, and local wars are good to reach this end.

These two things have fed pessimism and in fact are leading to the collapse of industry and the economy. At the same time the MAD doctrine in itself fosters pessimism, since life depends on deterrence.

Now, for the first time in our generation we have the possibility to change all this. When President Ronald Reagan on March 23 of this year announced that the United States would investigate the possibilities of building a beam defense system, this gives mankind new hope.

First of all, with the new Doctrine of Mutually Assured Survival, and if we can show the Soviets that the West will not back down, we have a chance of

establishing a durable peace for generations to come. We have to force the Soviets to negotiate on beam weapon defense, before they launch a first strike. With a beam weapon defense for both sides, we can save mankind from a nuclear holocaust and this is of course necessary to change the cultural pessimism we see today.

Secondly, and this is just as important, with the development of beam defense systems, we will enter an era of industrial, technological and scientific revolutions. I just want to indicate here, that with the research associated with beam technologies, we will be able to find solutions to problems in medicine, energy scarcity and space colonization. For instance, the solution to the problem of making fusion energy available, will be within reach. Laser technology and genetic engineering will help us to solve problems in medicine and the longevity of man may be vastly increased. And of course, the big challenge of the future is space research: we have to start to build colonies on Mars and the moon.

But we have one more problem to solve, if the beam weapons program is to get off the ground in a crash program, and that is the problem of the world financial crisis. Without the reorganisation of the international debt structure, the whole world economy will collapse. With Milton Friedman-style economics, which seem to be very attractive to some people here in Norway, there is no chance of getting a crash program for beam defense.

The solution to this problem lies in the proposal for a new just world economic order as it has been presented by the American economist and Democratic Party presidential contender Lyndon H. LaRouche. In simple terms this means that the international finance and credit system has to be reorganised in such a way as to get the full industrial capacities of the West in full operation. Then we can start massive industrialization programs in the developing nations. The debt of these countries will be frozen and new credit generated for massive infrastructure, agricultural and industrial projects.

Why should we have millions and millions of unemployed people in the industrial countries, when the scarcity of goods is as great as it is? It is not a law of nature. On the contrary, this problem can be solved as LaRouche has shown in his document *Operation Juarez*. And unemployment is no doubt one of the key reasons for cultural pessimism among young people today.

We in the Club of life have proposed a series of Great Projects to be started in Africa, Asia and Latin America. One such Great Project is to green the Sahara, to create a breadbasket for all of Africa. There are no objective reasons for why this could not be done, there is no reason for letting the people of Africa starve. We have proposed a new Panama canal at sea level, we have proposed a canal through the Isthmus of Cra in Thailand. We have developed detailed studies of water regulation systems in the Ganges-Bramaputra area in India and in the Mekong River delta in South East Asia. This is just to mention a few of the projects that could be immediately started, and that we in the Club of Life are determined to get off

the ground. Indeed, if we could get young people to start to think about this and to work on such projects, they will become scientifically minded and the nazi-communist peace movement would find it hard to find recruits.

There is one more question that has to be addressed before I end my speech, and that is: why do we want to defend the Western Culture, why is it necessary to defend the Western values? It is a question of defending freedom, yes: but not only in the way most people think about this concept.

The real reason for defending Western values is the difference in the view of man in East and West. Man is fundamentally different from animals because he has the potential of creative thinking, man can intervene and change the laws of nature. In the East this is not the case, man is there considered as a property of the state. The difference in the view of man in East and West has an historical background, which has to do with the difference in the churches and the belief.

The Western world was built on the idea of *filioque*, as it was developed by St. Augustine in the fourth century.

This concept, which was added to the Credo of the early church, says that the Holy Spirit originates both from the Father and the Son. This concept therefore is of decisive importance for man's idea about himself and about the nature of Creation. If the Holy Spirit, which has to be understood as the creating principle behind the creation itself, only originates from the Father, then man is left to be a spectator to Creation, to the laws of nature. But if the Holy Spirit also originates from the Son, who was God and Man at the same time, then man himself has a possibility to reach knowledge and to take part in a process of continuous creation.

Without the *filioque*, man becomes like a chained animal, who can not change the laws of nature. He is a passive spectator.

The East and the Orthodox church never accepted this concept. There was an attempt by the great scientist cardinal Nicolaus of Cusa to unite the East and the West around the *filioque* conception in 1439 at the Council of Florence. The unity was agreed upon, but it did not last for very long and soon the Orthodox again rejected the idea. This in reality meant that they refused, and still today refuse, the idea of man as created in the image God, with a 'divine spark'.

The Council of Florence and the *filioque* however, became the basis for the development of the West. The Renaissance is a result of this, with its unprecedented development in science and culture. The *filioque* is the basis for the high points of the Western Civilization, in science, music, literature. Cusa, Leibniz, Riemann, Bach, Beethoven, Schiller and other great geniuses of the Western Culture all trace their heritage to a Western Civilization built on the concept of the *filioque*.

It is because we have this humanist view of man that we must save the Western World.

Thank You.

Why the New Strategic Doctrine Based on Beam Weapons Must Replace NATO's "Flexible Response"

Michael Liebig

In the following, I will concentrate on the question of what the strategic consequences of the development and deployment of beam weapons could be for the Atlantic Alliance and, especially for Western Europe. My evaluation of beam weapon ABM systems is that the United States — but also the Soviet Union — will have deployed endo/exo-atmospheric beam weapon ABM systems by the end of the 1980s. These systems may not be initially impenetrable, but they will be close to it. We are already in the middle of a beam weapons arms race between the USA and the Soviet Union. In the coming period, the pace of this arms race will accelerate drastically. I hope that the West does not have to go through a new "Sputnik Shock." My evaluation of beam weapons will only prove to be wrong in case there is a total capitulation of the West, the collapse of the Alliance, or if we have a general nuclear war.

I have just come back from Washington, where I had the opportunity to talk to a variety of sources on the subject of beam weapons development in the United States. These sources included those from the DoD, OMB, the State Department and Congress.

These discussions confirmed for me once more, that in spite of very real political, bureaucratic and budgetary problems, the U.S. government is staunchly committed to the development and the deployment of beam weapon anti-missile defense in the time-frame I indicated above. I think that the Russians have a very clear sense about this and I would like to strongly recommend that nobody in Western Europe should make the fatal mistake of taking a different view. Beam weapons are no "music of the future!"

On November 30, an NSC meeting was held, which had as its exclusive subject the question of beam weapons. After this NSC meeting, Secretary Weinberger flew to Western Europe to brief the French, West German and Italian governments on the U.S. beam weapons policy. In addition Weinberger briefed NATO defense ministers in Brussels on December 8 at a "restricted session."

In the course of December 1983, the budgetary specifics of the U.S. beam weapon program will be worked out, so that in the course of January 1984 a budgetary design can be presented for beam weapon funding in FY 1985. No matter how the open funding design will look, the various forms of "indirect" funding will have to be kept in mind. Some sources even indicated the possibility that the beam weapon program may be presented as a special budgetary category different from the overall defense budget. That may be or not, but after my discussions I am confident that the funding for beam weapons will not be an essential problem.

As you will see from my further remarks, this still does

not mean that we from *EIR* are content with this situation. We do think, that nothing short of a crash program, "Manhattan Style," is appropriate to the objective strategic situation we are facing today and in the near future.

The military-technical side of beam weapons development in the U.S. is of course very much classified, but I had the opportunity in Washington to participate in a panel discussion at the "National Press Club" where General (ret.) Volney Warner, myself, and Dr. Lowell Wood from the Lawrence Livermore National Laboratories spoke on the subject of beam weapons development.

Dr. Wood made three essential points in his presentation. He first pointed to the fact that the Soviet Union is presently and has been since the 1960s engaged in a most ambitious beam weapon development program. He said that the Soviets presently are **ahead** of the United States in beam weapons development.

Dr. Wood said, secondly, that beam weapons Ballistic Missile Defense (BMD) is no longer a matter of technologies yet to be generated in the near or far future. The basic technological components of beam weapons BMD are not only provably feasible, but available. Those are, in Dr. Wood's terms, "telecommunications, digital computing, the pulsed power technologies where you get the energy to actually operate these defensive systems, and the directed energy area itself, the means of generating and projecting energy in some cases of very high velocity and mass as well as energy, in a militarily useful fashion over long distances."

Therefore, as Dr. Wood put the third point, it is perfectly possible that the United States can have a beam weapon BMD against Soviet medium range missiles within five years with "Initial Operational Capability." This beam weapon BMD system can defend the U.S. against Soviet submarine-launched medium range missiles and it can defend Western Europe and Japan against Soviet SS-20s. Dr. Wood stressed that such a 5-year-program would not involve a "crash program" but could be carried out in a rather regular fashion with a funding of not more than \$ 10 billion.

Therefore, keeping the U.S. attitude on beam weapons BMD in mind, it is not surprising, that the Soviet Union, which is itself working at top speed on the development of beam weapon ABM systems, has put a massive psycho-political campaign into motion against the development of beam weapons. The Soviet Union does not condemn beam weapons because the Soviets will not themselves be able to deploy them in time. No, the real reason for the Soviet psycho-political campaign is the insight that the totality of the effects of developing beam weapons for the Atlantic Alliance, not only for the

United States, will produce such a strategic regeneration of NATO that the long-term Soviet strategy for world domination will be fundamentally put into question. The Soviets know that time will then be working against them militarily, politically, technologically, and culturally-morally.

As a European and a German, what counts for me is what President Reagan said in his historic speech on March 23, 1983, something that has been repeatedly stressed since then by Secretary Weinberger, and also by Dr. Teller, and by Lyndon LaRouche: the development and deployment of beam weapons ABM systems is to be an effort for the Alliance as a whole. I say this in spite of the obvious difficulties which have come up in the American-European consultations process with respect to beam weapons since President Reagan's speech. When I say this, I also know quite well that the official reactions from Western Europe to the strategic initiative of President Reagan have been, at best, hesitant, and often outright rejection. Nevertheless, after the many discussions which I have had in Europe on this subject, I would like to say that openness toward beam weapons is continuously growing, if still too slowly.

Beam weapons are not simply a new revolutionary weapons system. Beam weapons simultaneously make possible and require a new strategy for the United States and for the Alliance. The strategy of retaliation-deterrence, "MAD", "balance of terror", and the NATO doctrine of "Flexible Response" can and must be replaced by a strategy based on beam weapons, i.e., a strategy of real deterrence, which, as a real and credible war-fighting strategy, also signifies a real and effective deterrence. This necessary and inevitable strategic change also implies a critical transitional phase, in which the previous instruments of retaliation-deterrence must be maintained and upgraded.

This "transitional phase" is indeed a matter of utmost concern. If you consider what Cliff Gaddy has just said, you will understand that we have to look at this "transitional period" not in terms of a few years but maybe a few months. The Soviet leadership is not so much afraid of the physical development of beam weapons BMD at some point in the near future. They can do and are doing the same thing. But the Soviet leadership fears that the cumulative positive effects on the strategic capabilities of the USA and the cohesion in the Alliance, even significantly before the actual deployment, will offset crucial strategic-political advantages that the Soviets have built up over the last two decades or so. For this reason as well as other political, psychological and economic-financial reasons, as indicated by Cliff Gaddy, the Soviets are determined to launch a total confrontation against the West in the American election year 1984.

I do not say that the Soviets are planning, according to some masterplan, at a pre-designated date in 1984, an all-out preemptive strike against the USA and NATO. But I do say that the Soviet leadership is determined to launch a global showdown against the West with the calculated risk that "things may get out of control!" For public consumption, the confrontation strategy of the

Soviet leadership is being rationalized with the NATO deployment of medium range nuclear systems in Western Europe. But the real reasons are much more profound and have to do with the beam weapon systems in a most important way.

There is one fundamental aspect in the Soviet strategy of confrontation in the very near future: the qualitative upgrading of the overall Soviet command and control structure. This restructuring will be basically completed within the next couple of months at the latest. The reorganization started in the mid-1970s, accelerated since the NATO Double-Track decision of 1979, and has been further pushed ahead since the beginning of 1983. The chief designer of the reorganization is Marshall Ogarkov. Since the late 1950s, the Soviet General Staff had developed a comprehensive war plan for an all-out preemptive strike against the USA and Western Europe to be followed by the military occupation of Western Europe. Throughout the 1960s into the early 1970s the Soviet command accumulated the nuclear and non-nuclear military "hardware" as to be able to realize such a surprise, shock assault both on the strategic and continental level, if need be. What Ogarkov has been doing in the recent years is to transform qualitatively this basic war plan into a more advanced "second generation" design.

Ogarkov's basic idea is a qualitative upgrading of the Soviet strategic first strike capability against the U.S. strategic "Triad" together with the disarming first strike against the military infrastructure of NATO and the continental offensive against Western Europe. The Ogarkov design is one of utmost surprise, centralisation and synchronization of the overall Soviet military power. The Soviet General Staff wants to combine maximum centralization with a certain "flexibility" of battle management on the theater levels.

For this purpose, new theater-strike commands have been built up, which include especially strongly reinforced nuclear rocket artillery and air capabilities on the theater level. These qualitatively upgraded assault capabilities are specifically directed against North Western Europe and Central Europe.

The new Soviet command and control design is a decisive factor in the confrontation strategy of the Soviet leadership, which believes in its ability to seek and successfully get through a confrontation on the basis of this reorganization and upgrading of its overall military power.

The Soviet confrontation strategy extends to many military-strategic and political options. The first category of options may be called "crisis spot accumulation." Here we have to look at the variety of known crisis spots in the Middle East, West Asia, Africa, and other parts of the Third World. The Soviet approach is to exploit those existing crisis spots and those still to be activated in order to strain, saturate and over-stretch the U.S. "crisis management" capacity.

The second category of Soviet confrontation options is directed against Western Europe, where the best trained and equipped 60% of Soviet military power is concen-

trated. Here we see today a pattern of massive military and political pressure being put on Turkey, Greece, Italy, and especially neutral Yugoslavia. As much as the Southern flank of NATO is targeted, for the Northern flank the same applies, again with specific emphasis against neutral Finland and Sweden.

Yet the principal target of the Soviet confrontation strategy is Central Europe, specifically West Germany. For the Soviet leadership Germany was, is and will be the most important strategic focus besides the United States itself. The Soviets are employing a "carrot and stick" approach against West Germany. Yet after the Bundestag vote of November 22, it is clear that the "stick" will become, and is already, the primary *modus operandi* for the Soviet leadership. The Soviets believe that the ever more visible military threat will strengthen the far spread "appeasement" tendency in that country more than the mere "carrot" approach taken so far. If the Soviet Union should ever succeed in decoupling West Germany from the Alliance and the USA, then the Soviet Union will have gained the fundamental precondition for world hegemony and broken the basic strategic position of the United States.

A strategy of military pressure against West Germany may not at all be limited to "threats" as such, but may well involve actual military operations. Such military operations do exist below the level of an all-out Soviet continental offensive against Western Europe, not in the sense of illusions of a protracted "limited" and conventional war in Europe, but in the sense of short-term "surgical strikes" in a psycho-political context. This may include military actions against West Berlin for example, but there is another option that we from *EIR* are most concerned about.

Whoever is familiar with the U.N. Charter, written in order of magnitude of about \$ 3 million, in which the knows that the Soviet Union has reserved for itself the right to military intervention into West Germany in case "neo-nazi", military dangers should arise from that country against the Soviet Union. It is a well-known fact that Soviet intelligence is actively involved in clandestine support for neo-nazis' activities in West Germany and elsewhere. So in the context of an overall Soviet confrontation strategy one may imagine one fine day in 1984 when the Soviets launch a less than 24 hour surgical strike exclusively against the West German armed forces, while not engaging Allied forces into combat. The Soviets would accompany such a military strike with a massive, well-prepared international propaganda campaign against the "neo-nazis" threat arising from West Germany and appealing to Western public opinion not to risk a general war for the sake of defending "neo-nazis" in West Germany, who for the third time this century were preparing for war.

The formally operational strategy for NATO and the USA still is "Flexible Response." Will the USA really launch a determined counter-strike against such a "short-term and surgical" aggression? Will there be a vacillation, confusion or inactivity from the side of the allies? You may say, what I have just outlined is crazy and un-

thinkable. I would be happy if you turned out to be right. But the reality is that the Soviet Union may do just something like what I just sketched in the context of a global confrontation. The Soviets may view it as a quite calculable risk on the basis of their overall strategic and theater assault capability. The Soviet command may think that a limited military effort of the sort I just sketched can break NATO apart and break the strategic will of the USA. I am personally deeply convinced that the USA will **not** back down in a total confrontation. But the Soviets do have the determination to get through a confrontation, with all the risks involved, because otherwise time would work against their empire and their plans for world domination.

Therefore, to make the Russians understand that their calculations are wrong, we need to urgently change the absurd strategy of "Flexible Response" as I will outline in a few moments. And we need to urgently provide ourselves in NATO with the necessary "hardware" as to make "deterrence" credible until beam weapons give us a better security in a few years from now. Beam weapons are of the most fundamental importance and they alone set a context in which other transitional measures could work in keeping the Soviet command away from adventurous confrontations. Those measures have to include the crash production and deployment of the MX land-based ballistic missile in the U.S., the rapid refitting of all U.S. missile submarines with the Trident II, civil defense programs in the U.S. and Europe, the refitting of the French and British nuclear forces with qualitatively improved nuclear weapons. Against the Soviet "conventional" vast superiority in Europe we need the rapid deployment of the neutron weapon, the only weapons system available for stopping a Soviet armored assault without exterminating the populations of Europe.

As you probably know the substance of the American strategy of retaliation-deterrence, the strategic "Triad" of land-based ICBMs, the 5000 nuclear warheads on 32 submarines, and the strategic bomber fleet are endangered by a Soviet strategic first-strike, strategic ASW capabilities and anti-aircraft capabilities. This is so to such a degree that we must actually talk of the "window of vulnerability." To speak in the language of the logic of "Flexible Response," the United States is no longer threatened with a Soviet Second Strike because of the U.S. nuclear weapons commitments in Europe, but rather the USA is threatened by a Soviet First Strike *eo ipso*. If we examine the "NATO Triad," for which the strategic U.S. Triad is to be the foundation, then there is an even more unfavorable situation in the categories of nuclear short- and medium-range systems of the U.S. in Europe than in the intercontinental systems, which is increasingly visible in the forces standing against the Pershing II and Cruise Missiles. If we examine the conventional forces, the third leg of the NATO Triad, the Western inferiority is almost frightening. This leads to the result that the "Escalation Dominance" upon which "Flexible Response" depends, has become a fiction. We face a situation in which we are supposed to be threatening the Soviet Union in categories of military systems in

which they by far outweigh us. This is a rather obvious absurdity.

I have no doubt that "Flexible Response" will be dropped as NATO strategic doctrine, and I expect that this will happen rather soon. The issue is, however, just what will replace this outmoded and, by now, dangerous doctrine? Here I see an immense battle emerging within the Alliance. And in this battle, beam weapons will play a decisive role. I therefore believe that beam weapons are not only the decisive issue of national security for the United States, but are also of essential importance for the viability of NATO. Some very influential, presently even dominating groups within NATO and the governments of NATO member states deny and contest this claim quite vehemently.

This side of the battle argues that from the fact that there no longer exists an "Escalation Dominance" in the nuclear weapons categories of short, medium and inter-continental ranges, and that such an "Escalation Dominance" can not be regenerated, the conclusion to be drawn is that the conventional capabilities of NATO must be drastically extended. The spectrum of people who take this approach to the revision of "Flexible Response" is very broad and includes NATO commander Rogers, the proponents of Air-Land 2000, the designated NATO General Secretary Carrington, West German Foreign Minister Genscher, all the way through to Robert McNamara or Willy Brandt. Conventional build-up "in width" is, according to this approach, supposed either to "raise the nuclear threshold significantly," or even go so far as the introduction of the "no first use" commitment of nuclear weapons of NATO. The U.S. nuclear potential is to be reduced, in this view, to purely a second strike capability (submarines, "Midgetman", etc). The United States would not, in this conception, provide Europe with a nuclear guarantee any more, whether this is formally said or not, and therefore the United States would only function as the logistical base for NATO's conventional "direct defense" against the Soviet Union in Western Europe or the German Federal Republic. The idea, however vague, linked to such military strategic notions, is that a conventionally built-up Western Europe must also achieve a greater degree of independence from the United States. Representatives of this school of thought welcome tendencies in the United States who recommend a disengagement of the USA from Western Europe. This ought not to be generalized to include all proponents of a conventional strengthening of NATO mentioned above. I am convinced, however, that NATO will fall apart if the revision of Flexible Response takes this direction of a conventional monism.

I would like to briefly sketch out for you how, in my view, a Soviet attack against Western Europe will occur. The Soviets are attempting and will continue to attempt to decouple Western Europe from the United States, and bring Western Europe into the status of a Finlandized satrapy. They use and will use threats, blackmail, intimidation and terror, and they can be assured of the fact that there is a growing number of appeasers in Western Europe, in spite of the INF stationing. Should the Soviet

Union be convinced, however, that this soft path of expansion will not lead them to their goal, and if they then decide to start a war against NATO, and not just a "surgical strike", this war will not be an atavistic repeat of World War II.

Soviet military strategy against Western Europe is that of the continental offensive, aiming for surprise assault in the totality and full depth of the territory of Western Europe up to the coasts of the Atlantic Ocean. The first assault of the continental offensive is the launch of short and medium range nuclear missile systems of the Soviet Union, in order to knock out the entirety of the militarily relevant infrastructure of NATO within the first hours of war. In the first hours of the offensive, the nuclear short- and medium-range weapons of NATO, the command and control structures, air-fields, air-defense and logistical infrastructure must be destroyed. NATO forces would have to be deprived of all of those capabilities in order to make an organized resistance impossible. Then, the assault continues with the rapid penetration of Soviet conventional forces along the NATO central front, and with flanking assaults in the north and south of NATO territory.

The Soviet Union has built up in Europe a potential of nuclear short- and medium-range weapons, which permits them in fact to conduct such a first-strike. This is particularly the case for the missile systems SS-20, SS-21, SS-23 and the Intermediate Range Bomber TU-22, TU-22M (Backfire) and SU-19/24 (Fencer). These missile systems in particular have extremely high precision and relatively small warheads. The Soviets do not want to totally annihilate Western Europe, but rather to knock out the military infrastructure. They are definitely interested in maintaining as much of the population and industrial potential as possible, to be able to make use of it. The conventional forces of the Soviet Union are to occupy Western Europe, and not to fight their way through Western Europe in a "gradual escalation" in the style of warfare of World War II. For the Soviets, a disarming first strike is the only meaningful and decisive form of conducting war under the military strategic conditions prevailing in Western Europe.

Furthermore, it is my conviction that the Soviet Union, once it has decided to take the immense risk of a continental offensive in Western Europe, would also simultaneously conduct a comprehensive first strike against the territory of the United States, in the not unfounded hope that the remaining American second-strike capability can be sufficiently limited to make it also a calculable risk, so that the Soviet losses would not be that much higher than those of World War II. We may think that this is crazy, but it is nevertheless the internal logic of Soviet military strategy.

The only chance to defend against a Soviet nuclear first strike with intercontinental and intermediate range missiles against the USA, and against medium-range and short-range missiles against Western Europe, is beam weapons. If deterrence fails and the Soviets decide to launch a nuclear first strike against Western Europe

and/or the United States, then the Soviet nuclear sword can only be swept out of their hands with beam weapons. Moreover, the defensive shield of beam weapons will confront the aggressor with a real deterrent which will condemn his aggression to a preprogrammed suicide, because the defense is superior to the offense. A space-based strategic ABM system of the USA with beam weapons not only defends the USA against long- and intermediate-range missiles, but also Western Europe and Japan against Soviet missiles with ranges between 900 and 5000 kilometers, since their trajectories reach well into space.

There are various threats to NATO arising from Soviet short and medium range potentials. Along the central front, i.e., the German Federal Republic, the crucial task is to defend against the short range missiles Frog, Scud and SS-21 (150 km) and SS-23 (350 km). These pose particular technical problems which are similar to those posed by Cruise Missiles. A beam weapon defense system located relatively close to the borders would possibly be embedded in a hybrid-system of land-based lasers and airborne mirror focussing and targetting systems.

For Italy, France and England, the chief threat would consist in the Soviet missiles of the type Scaleboard, SS-12, SS-22 and SS-20, with their ranges of circa 1000 km to 4500 km, whereby their ballistic trajectories run deep into near-outer space, i.e., 250 to 1000 km from the earth. Thus, these missiles can be tracked and targetted by American space-based laser ABM systems, and can be defended against from space.

Moreover, it will be particularly necessary to defend the most important positions of the military infrastructure and population centers within the entirety of NATO territory with land-based Point Defense Laser and/or particle missile defense systems.

In summary, one can say that a realistic defense of Western Europe against short and medium range missiles, Cruise Missiles and medium range bombers makes it necessary to develop a three-layered beam weapon anti-missile defense system:

1. A near-border defense belt along the central front, particularly against short-range missiles and Cruise Missiles;
2. A comprehensive network of Point Defense beam weapon ABM facilities around the neuralgic points of military infrastructure and population centers;
3. The defense against missiles or ranges between 800 and 5000 km by means of American space-based beam weapon ABM anti-missile systems.

I would now like to come back to the question of the massive conventional superiority of the Soviet Union and her Warsaw Pact satellites over the conventional forces of NATO. One could argue that when the Soviets no longer have the nuclear sword for a first strike, then they will deploy their conventional superiority for real. Would not then beam weapons achieve the opposite of what they were supposed to do? Even though in my argument before I strongly rejected the Rogers-Carrington notions of a conventional build-up, I do not by any means intend to play down the conventional danger

which the Soviet Union represents — to the contrary.

I believe, however, that the Soviet conventional superiority can only be countered once the danger of a nuclear first strike has been removed. The neutralization of the first strike, which is only possible by means of beam weapons, remains the sine qua non condition of classical war-fighting capability with conventional forces, based upon a functioning command structure, logistics, air-support and reserves. Furthermore, I am of the conviction that the issue will not be one of a tit for tat, state of the art conventional counter-buildup which merely counters each weapons category with the equivalent weapon. I am convinced that the development of beam weapon ABM systems will also bring us a revolution in the classical instruments of conducting war. We have a broad field of battlefield applications of beam weapons lying ahead of us (macro-particles, rail-guns, enhanced mobility of fire-power, etc). That goes not only for the development of totally new weapons systems, but also for revolutions in the methods of production of classical weapons, which can be produced at higher quality, faster, and cheaper with directed-energy technologies of production. This is where, in my opinion, the Alliance will have to concentrate its energies to outstrip the Soviet Union technologically, and by that means be able to neutralize the Soviet conventional superiority. To bridge the years up to the time that the Alliance has these new weapons and means of production, the neutron bomb is, in my opinion, the appropriate instrument to neutralize Soviet conventional superiority in the case of a conventional assault.

Europe and America must quickly and decisively act together. We presently confront the acute threat of a Soviet first strike with missiles and bombers of short, medium and intercontinental ranges. This is a common threat and it requires a common answer. Beam weapons are no "music of the future;" and an arms race in beams weapons is already in full swing. The urgency is to bring together the common moral and material resources of the Alliance to achieve optimal results in the shortest possible time.

In conclusion, I would like to offer to you a proposal made by Lyndon LaRouche at the *EIR* beam weapons conference in Rome on November 9, and which has been well received in Europe and in the USA. We require within NATO member nations, without bureaucratic red-tape, a High Level Committee to develop beam weapons as a "joint NATO project." The representatives of the NATO member countries in this Committee should draw up lists and evaluations of the national strengths and weaknesses in each member country, in terms of what it can bring in and contribute to beam weapon development. These lists would consist of individual scientists, research facilities, university departments, industrial capacities, etc., in the areas relevant to beam weapon development. These lists are to be taken as the foundation for a design for a joint NATO research and development program. Then it would be determined which institutions in which countries would concentrate their efforts, in a division of labor, upon which categories of

beam weapons. At the same time, cooperative programs for basic research and the recruitment and education of qualified scientists and technicians would be laid down. Which industrial capacities in which of the member countries would be suitable for a rapid production program would be included. Such a joint NATO project should, in its beginning phase, have a general financial order of magnitude of about \$3 billions, in which the member countries would contribute according to their means.

This program will meet with a lot of resistance, bureaucratic frictions and national egoisms. But these obstacles can and must be overcome. At the same time, this program will have an imminent regeneration and revitalization effect for the Alliance. The threat of a

nuclear first strike confronts Europe just as much as it does the USA. Together, the Alliance can develop the means to defend itself, and thus, in a short period of time, neutralize this first danger. At the same time, these new technologies will make it possible to counter the Soviet conventional threat in Europe, but also in the Middle East or Asia, with new weapons systems, and new methods of production. We are not living in normal times in which bureaucratic routine is a tolerable sin; we live in a time of acute danger and threat of war.

Beam weapons are also imminently politically important, because they make it possible to make comprehensible to the people of the Alliance that the West can be defended without posing itself the alternative of either capitulating or ushering in destruction.

How Scandinavia Can Contribute to the Development of Beam Weapons

Michael Ericson

The strategic importance of Northern Europe has undergone major changes in recent years. A quick glance at the world map is enough to make one realize that one of the first goals of Soviet war planning has to be an occupation of Denmark, Sweden and Norway. The expansion of the Soviet naval base in Murmansk, the Baltic Sea as the home of the largest of the Soviet navy's four fleets, and the fact that the North Atlantic is today one of the few places from which American nuclear missile submarines can fire at targets deep in the Soviet Union — all this leads to unambiguous conclusions. If the Soviet Union can knock out these submarines and protect Murmansk and Leningrad from cruise missiles, it will have taken a major step towards a first-strike capacity. The Nordic countries today, as opposed to the Second World War, are of vital Soviet strategic interest.

The level of political and military preparedness in the Nordic countries in no way corresponds to the strategic role which these countries have in reality. The day is long past when Sweden could be regarded as the cheap flank of NATO in the North. I am referring to the time when the Swedes saw that their territory constituted half of Europe's border with the East, and with that in mind maintained what was far and away the strongest air force in Europe.

Today, it appears rather that large sections of the population of Scandinavia is following the maxim of "better red than dead." As Kerstin Tegin-Gaddy indicated this afternoon, the danger that the strong position of the so-called Peace Movement can lead to a situation in which the Scandinavian countries become occupied ter-

ritories — as Norway and Denmark were during the last war — is a very real threat, in my eyes, and it must absolutely not be waved aside.

Owing to constant Soviet provocations in the form of submarine incursions, etc. and the sycophantic attitudes of Scandinavian political leaders towards the Soviets in questions such as nuclear-free zones and so on, there has, admittedly, been a noticeable climate of unrest among parts of the population here. But the only way to actually change the situation and evoke the will to defend our countries as sovereign nations, is to develop the means by which we can effectively defend ourselves. If we cannot offer our soldiers and our populations the possibility of fighting on the same, and hopefully on a better, level than our potential adversaries, the outcome will be determined in advance. This means that we must start today to acquire our own beam weapons.

Missile technology has thoroughly revolutionized warfare. On the battlefield level, modern missile technology, with "smart" missiles like the Exocet, has made all conventional weapons systems highly vulnerable, as was recently demonstrated in the Malvinas and Mideast conflicts. Even well-equipped ships, tanks and aircraft are virtually unprotected against this kind of warfare. The only effective means by which their combat capability can be restored is to equip them with efficient defensive systems against missile technology. This requires the development of firepower with a mobility several orders of magnitude greater than that of the attacking missiles. We are forced to avail ourselves of technologies which can "strike" with the speed of light.

But the Scandinavian countries also have to be able to protect their important military installations and population centers against nuclear missiles. The Soviet Union today has so many nuclear-armed short and medium-range missiles in operation that it would be naive to believe the least to believe that they would not begin an attack with this long-range "artillery" if they do decide to attempt an occupation of the Scandinavian peninsula. Today we have no possibility at all of protecting our territory against such an attack. All we have at present is our passive civil defense systems which, even if they can substantially reduce military and civilian losses, cannot prevent the effects of an attack from being disastrous for our capability of defending ourselves.

With particle beam weapons capable of destroying incoming warheads, we could, with point defense installations, largely negate the effect of such a nuclear attack. Without such beam weapons designed to combat short and medium range missiles, no country will in the future be able to defend its territory.

What Can Small Countries Do?

I am going to argue vehemently against any idea that beam weapons are the exclusive property of the superpowers, which can perhaps "afford" them, but that small countries like the Scandinavian nations will never be able to afford them. These technologies are not something that one can "afford" or not; they are vital technologies for any industrialized country today, at least any country that wants to remain industrialized. Without beam technologies, our industry will never be able to make the gigantic leaps in productivity that can lift them out of today's depression conditions.

Beam weapons programs have such a broad technological scope that they offer small countries — and, incidentally, small companies — unimaginable possibilities to make both substantial investments and enormous profits. Now, I am not saying that countries like Norway or Sweden can undertake to develop these technologies entirely on their own in a situation when no one else has launched a beam weapons effort. But as soon as such programs are started elsewhere in the world, we will find unlimited possibilities of joining in at all levels, if we just have the will and the determination to attain the required levels of competence.

This has been done in the past, and the civilian nuclear power programs after the war and the space program during the 1960s and 1970s are perhaps the best examples. Neither Japan nor Europe were the first to develop launch vehicles for space travel, but by investing in their own aerospace industries from the very beginning, both Europe and Japan have such rockets today. The only country in Scandinavia which has developed its own nuclear reactors is of course Sweden. But that was something that the Swedes could hardly have managed without the benefit of the open attitude of the United States during the period of the "Atoms for Peace" program. Nor does this mean that Norway and Denmark

lack resources in the nuclear field, which is a point I want to take up in more detail later.

Nordic Cooperation

The laser has already been brought into use by Scandinavian military programs. Low-energy lasers are already being used quite successfully for range-finding, target-acquisition, and aiming, for instance in the Bofors "Missile 70" in Sweden. Sweden is also involved in a project to use somewhat more powerful lasers in an airborne system for detecting and locating submarines. The development of lasers powerful enough to be used to actually fire at targets in tactical situations is something completely within the range of the Scandinavian defense industry and our various defense research institutes. This type of weapon would for instance make it possible to specially equip an armored vehicle capable of providing effective protection for a whole group of tanks on the battlefield, or to equip a ship to protect an entire flotilla against attacks by air-to-sea or sea-to-sea missiles.

At the same time, such lasers would give our very advanced production of industrial robots fantastic possibilities to consolidate their leading positions in this industry. We would have the possibility of raising productivity in manufacturing by 50-100% and more.

In recent years there have been numerous attempts to achieve closer cooperation among the Nordic countries in general, and Sweden and Norway in particular. Thanks to the large volume of Norwegian oil exports to Sweden today, the economic framework for such cooperation has been greatly expanded. The most recent Norwegian-Swedish cooperation agreement stressed the possibilities of cooperation in the area of military industry. By building such cooperation around intensive research and development in beam weapons technologies, we would provide a much more stable and reliable base for such efforts than we have at present.

Research

In the fields of plasma and particle physics, which, as Dr. Tennenbaum demonstrated this morning, are the principal areas of science underlying beam weapons technologies, the Nordic countries are on a highly respectable level. Based on the experience of Sweden — and I do not think that the picture is much different in the other countries — I know that a large proportion of the physicists being trained today spend a good portion of their training periods at CERN in the field of particle physics. Significant work is being done in Scandinavia in plasma and particle physics, and thanks to the participation of the Nordic countries in the Euratom fusion research program, there has in recent years been a reinforcement of their preparedness for contributing to international programs. Of course, this is in reference to magnetic confinement fusion, not inertial confinement,

which is more directly relevant for beam weapon projects. However, as you know, there are no international projects in inertial confinement yet.

I would like at this point to offer some ideas and proposals as to how Nordic cooperation in beam weapons research might be initiated. The strong dominance of the peace movement and the environmentalist movement in the public debate up here prevents most people from realizing what great potential we actually have. A good example of this is the case of the group from the Chalmers Institute of Technology in Gothenburg, Sweden, which wanted to test a revolutionary new method of reprocessing spent nuclear fuel last year, completely removing all the troublesome actinides from the fuel. As it turned out, this Swedish group had eventually to conduct their experiments in Halden, Norway, since it was the only place in Scandinavia that had reprocessed nuclear fuel. As you know, there is in Halden a small heat-producing nuclear reactor which has been in operation for some 15-20 years, and since Norway has not had the hysterical debate that has been whipped up in Sweden about "nuclear wastes," the Halden authorities had naturally had some of their spent fuel reprocessed. The experiments by the Gothenburg group, in collaboration with their Norwegian colleagues, were highly successful. But since they were given almost no publicity, I doubt if there are many people in either country who know about this project, outside of those directly involved.

Plasma and fusion research are being conducted at various locations in all three Scandinavian countries — Sweden, Norway and Denmark. Most of the work being done is theoretical research, and at present the only really elaborate fusion research is being carried out in Stockholm. But many of these fusion-related areas will also play a major role for beam weapons research in the future. I am referring to experiments in high-tension current and the experiments with exploding wires which have been conducted for many years in Uppsala, Sweden. The latter can be an important source of energy to pump up the powerful laser pulses which will be required in the beam weapons of the future.

A Nordic Accelerator Center

Particle accelerators will of course play a decisive role in

the development of particle beam weapons. Something that many people may have forgotten is that it was a pair of Scandinavians — the Swede G. Ising and the Norwegian R. Wideroe — who made some of the revolutionary breakthroughs in the development of accelerator technology 50 years ago. As late as the 1950s we had an accelerator research program of an international class.

At present, as I know from the Swedish situation, this research is suffering from out-of-date equipment which has been the result of lack of funding for many years.

An alarm has been sounded on this issue in Sweden, however. Since 1982 there has been a proposal in the Swedish Ministry of Education to build a brand-new national accelerator center which would include, e.g., a synchrotron for protons up to the 3 GeV range. Now, this is of course not at all the class required for beam weapons, but in all the discussions about the disastrous situation of accelerator research in the Nordic countries, there has been frequent mention of a "NORDAC," a Nordic Accelerator Center. To use the context of a joint Nordic effort to scale up the idea of an accelerator center by a couple of orders of magnitude so that it could also work effectively in the beam weapons area is perhaps one of the best ways of really changing the situation up here in the North.

In conclusion, I would like to mention one problem — which is a real problem and which cannot be ignored in the present context. During the past 10 years, it is no secret that U.S. and NATO circles have had very little faith in the ability of the Swedish military and Swedish industry to prevent leaks to the East. As a result, there is a great reluctance to let Swedes in on new developments in the most sensitive areas. I would like to put it this way: there are grounds for this distrust, but on the other hand, I think that beam weapons projects in particular would offer the Swedes a unique chance to reestablish their reputation. What we lack today in the beam weapons context are not blueprints and designs, but rather genial ideas about how new natural phenomena are structured and how they can be mastered. The secrets that lie hidden in this realm are secrets for everyone, and the scientist who can in any way start to reveal some of these secrets will find essentially all the open doors that he or she could want.

Neutron Weapons: a Necessary Complement to Beam Weapons Defense for Europe

Interview with Col. (ret.) Marc Geneste

Due to technical difficulties, the speech of Col. Geneste was not taped. The substance of his remarks concerning the complementary defensive qualities of enhanced radiation weapons (neutron bomb) is presented in the following interview.

Question: *In your presentations at recent EIR conferences in Bonn, Rome and Oslo, you presented a rather sobering picture of the military balance in Europe. What do you see as the main threat to Western Europe from the Warsaw Pact, and what do you propose as the chief means for countering that threat?*

Geneste: In the EIR conferences you just mentioned, I presented the picture which is commonly admitted by all Western and European experts, in terms of manpower, active division, and so forth. If you add to this already sobering picture, the mobilisation potential of the Soviet system, you would have a much more sobering picture, not even taking into account the growing imbalance in tactical nuclear weapons that some experts have recently pointed out.

I insisted on this problem because it is, to me, the specific threat to continental Europe, which unlike America, can be destroyed by nuclear projectiles and invaded with land forces.

Charity begins at home, and I have noticed for a long time that our American friends have focused their attention on the only threat which is deadly for them: the ICBMs and SLBMs, let's say, strategic forces, and were not interested to the same extent in the so-called "tactical" problem, i.e. defense against air/land assault. The Soviet divisions are not about to land in Massachusetts, when they are rather close to Bonn, Rome, Paris. The Atlantic is there to stay.

My purpose was to show that if the new technology of beam weapons does come to protect Europe and the U.S. from the threat of projectiles, we should not forget the modern technology we need to cope with the other tool of offense, which threatens Europe, the Pact divisions, "tactical forces," armed divisions, etc. Beam weapons and other defensive tools are complementary to take care of both tools of offense — men and projectiles — due to their vulnerability, which is very great, and should assure the triumph of defense — whatever the difference in numbers — for the first time in history.

Question: *You have been a leading advocate of "enhanced radiation weapons." In view of the widespread misinformation on this topic, please explain briefly how these weapons function, and how they are to be used militarily.*

Geneste: I have been an advocate of "enhanced radiation weapons" indeed, for a long time, with a few others, particularly some American scientists — we are convinced that it should be possible to find a more intelligent solution, to assure peace, than piling up year after year all the means to extinguish civilization with offensive weapons. As you know, this is the situation we have today where deterrence is built on the balance of terror, and I believe that the young generations are beginning to ask why they should continue to live on a powder-keg where we add megatons week after week. This is probably one of the reasons why pacifist movements flourish in the West to the extent they do.

Although terror was probably the best solution at the beginning of the nuclear age, for lack of fissile material, it was obvious to me that the day would come when the numbers of nuclear weapons would permit the return to traditional defense, and solve the military problems without threatening civilian holocaust.

This is why I became interested in tactical nuclear weapons, because of their terrific efficiency against military forces in the field. They are able to prevent all military operations. Due to the incredible vulnerability of men to their effects, they kill the offense and assure the triumph of the defense. But the "classical" tactical nuclear weapons, while they are very effective to stop land forces, are also extremely destructive for the environment. They destroy buildings through their blast, set fire to vegetation and everything else through their thermal effect, while they stop tanks through their neutrons, which kill the crews. They are extremely difficult to use on the battlefield, especially when you have to use them on friendly territory. It's a kind of hammer to kill a fly. Here comes the neutron bomb invented in 1958 by my friend Sam Cohen. It is a tactical nuclear weapon, where the flux of neutrons is enhanced, while the other undesirable effects (blast and fire) are considerably reduced. In other words, you enhance the kill power against tank crews (the steel being no protection against neutrons) and you reduce the collateral damage against the environment: this was the ideal tactical weapon for defensive purposes, because the defenders and the civilians can protect themselves rather easily against the neutron flux: 5 feet of earth provide total

protection. In other words, only the soldier on the ground surface or in the air is vulnerable to such a weapon. Only offense is threatened, because offense means movement and movement cannot be protected underground, unlike defense: this is why I became very interested in this development and tried to promote it for European defense.

Question: *Is it true that neutron weapons would mean mass murder of civilian populations? How could civilians protect themselves? How could soldiers in combat protect themselves from the effects of enhanced radiation weapons?*

Geneste: This is absurd. The neutron bomb is certainly the weapon against which it is very easy to protect populations. A cellar (reinforced with a layer of earth) or an underground shelter in your backyard would be enough. Since there is practically no blast effect, the shelters are easy to build, unlike those necessary to cope with conventional or classical nuclear bombs. Personally, I would prefer to be in such a shelter at ground zero of a N-bomb than at the point of impact of a TNT bomb of World War I.

That means that the defenders, adequately protected against the effects of explosions on the battlefield, could detonate N-bombs very close to their shelters, even overhead, and clean up square kilometers of attackers in front or around their positions without being threatened themselves. Then, the traditional advantage of offense versus defense, the capability to saturate any defense with waves of attackers, with the sacrifice of soldiers, does not exist anymore. It follows that you can establish again a linear defense along your border — for instance the iron curtain, without giving up one inch of your territory.

This is a kind of wall of neutrons, a defence which is impossible to achieve with conventional forces. This is the only weapon which gives the opportunity to establish the “forward defence” that the Germans desire, quite understandably, and nullify the current advantage in divisions enjoyed by the Warsaw Pact.

Question: *As you know, there was a tremendous campaign against neutron weapons, alleging that they are “anti-human”, would result in mass murder of innocent citizens in case they were used, and so forth. What and who is behind this campaign?*

Geneste: You can easily understand who was behind this campaign. The Soviets obviously did not like a technical development able to destroy the political and psychological weight of their massive array of armored divisions in continental Europe. As far back as 1960, Nikita Khrushchev condemned the N-bomb as being a “capitalist” weapon, able to kill people and “save material goods”. It is no more “capitalist” than the bayonet or the machine gun, or the bow and arrows, or the kitchen knife. All weapons throughout history have been built to kill people. This one is no more inhuman or immoral than the others, it is only much more effective, especially against the armored *Blitzkrieg* which is the cornerstone of Soviet strategy.

The impact of this campaign in the West, which has succeeded in delaying the building of the N-bomb for 20

years, the building of the N-bomb, is probably due to the fact that it has been christened “N-bomb” rather than, for instance, “Nuclear Anti-tank Bomb.” People at large did not know that all nuclear weapons are in fact neutron bombs, since they all emit a lot of deadly radiations. The term “neutron” has created the impression that this weapon was something entirely new, devilish. It is much less destructive than A-bombs or H-bombs. It’s much more discriminate, to make the difference between soldiers and civilians, attack and defense, while the effects of the H-bomb crush everything, friend and foe alike.

Question: *What is the history of enhanced radiation weapons, particularly the policy fight in France and Western Europe?*

Geneste: The policy fight in France, which is not yet over, is easy to understand. As you know, France 20 years ago chose countercity terror, or “massive retaliation,” or if you prefer “MAD” to establish its own national security. France followed the path of America after Hiroshima, for lack of fissile material. When you have only a few bombs, what can you do? Only terrorism, that is to say deterrence through “punishment” or deterrence through “denial,” which obviously requires a lot of ammunition to destroy military forces. France could not do otherwise 20 years ago, but to threaten retaliation against Moscow or Kiev to deter a massive attack. This means to solve military problems through mass murder of civilians. The credibility of such a system requires naturally the apparent resolve to blow up everything including ourselves, by starting the countercity game, general suicide, rather than accepting a land battle.

The neutron bomb — as well as other tactical nuclear weapons — is obviously a weapon for defense, not for terror. Its introduction to the arsenal might appear as a hint that France would not be as “terrorist” as it claimed to be, and might hesitate to push the button of general holocaust. In other words, the N-bomb appeared to scuttle the “deterrence through terror” strategy of General de Gaulle, who had no other choice available 20 years ago.

This is why there was, and still is, and will be, a considerable intellectual resistance against all the weapons for defense, which includes beam weapons, among those military and university elites which have been “brain-washed” for one generation about the virtues of terror. Unfortunately, such strategies appear to work in peacetime, even mad strategies, or Maginot lines, which can be credited for the peace we enjoy ... until war breaks out.

But the dogma of “infallibility of deterrence through terror” is more and more questionable, and people ask the question: “This deterrence is fine, but what happens if it fails? If they come, anyway, what do we do?” Until we can answer that question, France will be defenseless, because you can’t stop tanks with submarines, nor by blowing up the Kremlin, the Eiffel Tower and the Empire State Building. None of this will prevent the Soviets from invading France.

This is why the neutron bomb has been welcomed by French public opinion — as the beam weapons will be, I am sure — as a kind of insurance against the failure of

deterrence through terror. And this is why the French government, under popular pressure, and in spite of much intellectual resistance, developed the N-bomb a few years ago and currently keeps it ready for fabrication and deployment if need be. It would be, in my opinion, for the reasons explained above, the ideal weapon for a future European land defense.

Question: *We understand that at present, neutron weapons have been built and are being stockpiled in the USA. Is this sufficient? In what scale and in what manner should such weapons optimally be deployed?*

Geneste: The U.S. is currently stockpiling enhanced radiation weapons that could be rapidly deployed all over the world where they would find appropriate launchers (for instance 8 inch or 155 howitzers, in Europe, or Korea).

Now the quantity of these weapons is very important. We should never lack ammunition. Their efficiency is fantastic but not unlimited. Needless to say, for European defense, France could and should build enough of this defensive ammunition to be used, if need be, on the Central Front. However, I want to stress very strongly that current NATO doctrine (Flexible Response, mobile defense, etc.) which is an inheritance of World War II, has to be revised if we want to take advantage of this new type of firepower.

Question: *Do the Soviets have the capability to build such weapons? Do they already possess them?*

Geneste: Certainly the Soviets have this capability. But since the N-bomb is mainly a defensive weapon — provided naturally the defenders take the appropriate protective measures against its effects — this weapon does not fit very well into their offensive doctrine. In fact, we don't know the exact nature of the Soviet nuclear stockpiles. We only know they are huge and that they plan to use it if need be.

Question: *In Bonn, Rome and Oslo, you stated the complementarity of beam weapons and N-bombs. Could you expand on this?*

Geneste: This is obvious. The two tools of offense (only offense gives a political meaning to war) are men and projectiles. The N-bomb takes care of men — i.e., air and land forces — but not projectiles (rockets, etc.). It remains to cope with the threat of rockets. Beam weapons offer this opportunity (if they work, which I do believe). This would be the final triumph of the defense. And when the defense wins, war is dead. For the rational defense of Europe, Sokolovski and Co. write that “under the threat of nuclear batteries, military operations are impossible”. In other words, they recognize the power of nuclear weapons to kill the offense. The only military solution to open the path of their *Blitzkrieg* is to get rid first of these nuclear batteries, using the accuracy of their SS-20s or other tactical means. This is clearly stated in their official military doctrine.

Now, if you admit that the “counter-battery first strike” cannot work any longer because beam weapons will destroy rockets in flight or even only divert their trajectory, then the attacking tanks will be destroyed by the N-bombs from the defenders' nuclear batteries. All their

“nuclear *Blitzkrieg*” collapses immediately. It is a simple as that. Now you can understand why *Izvestiya* was so unhappy about those ideas after the meeting in Rome.

Question: *In a recent statement at the RIIA, and elsewhere, Jacques Chirac emphasized the importance of West Germany participating in the development and deployment of beam weapons. What effects do you think this might have for the situation (political and military) in the Federal Republic?*

Geneste: I am very pleased to hear that Jacques Chirac endorsed beam weapons in England. Back in 1974, he seemed to admit that tactical nuclear weapons were of paramount importance, in a speech he gave at Mailly in France. He seems to be on the right track, better late than never. Needless to say, the Federal Republic of Germany, which is prevented from building nuclear weapons, could and should participate in the building of the other part of the shield — beam weapons — necessary to protect Western Europe, to begin with Germany, right at its border.

Question: *Recently, there have been accelerating tendencies for splits in NATO, including the role of Lord Carrington and Genscher in provoking a breakaway from the USA, around the issue of beam weapons. In any case, it is clear that the NATO alliance must be placed on a new basis, eliminating Flexible Response and related nonsensical doctrines. How do you see the future of the alliance, particularly in terms of the relationship between Europe and the United States?*

Geneste: I have always been an advocate of some “division of labor” within the Atlantic Alliance, in which each pillar of the alliance — the USA and continental Europe — would take care of threat No. 1 for their national survival. For the USA, as I have said, it is the nuclear-tipped rockets. For Europe, it is the Red Army. So let the USA concentrate their main effort on control of the skies and of the seas — i.e., the strategic threat — and the Europeans take care of land forces — i.e., the “tactical threat.”

Flexible Response, 20 years ago, destroyed the European defense devised by Eisenhower, when he deployed 7,000 tactical nuclear weapons on the continent, with an appropriate doctrine. When Kennedy and McNamara decided that World War III was to begin with bows and arrows, i.e., conventional means, to become nuclear if need be, with a phone call from the White House, it was very clear for Europeans that Germany was sacrificed to the Soviet overwhelming manpower, to be reconquered through the use of nuclear weapons.

No wonder that the Germans did not like this military solution, made in the U.S., and that General de Gaulle left the integrated NATO command (without leaving the alliance). This U.S. decision was due to the combination of the vulnerability of the U.S. mainland after Sputnik and the belief in automatic and immediate escalation from the use of a nuclear shell on the iron curtain to the destruction of New York.

Only if and when the U.S. becomes less vulnerable, such an approach can be changed. Only the new defensive technology of beam weapons offer this opportunity to restore in Europe the confidence in the former U.S.

nuclear commitment which has practically disappeared in the last 20 years. The dogma of MAD strategy was the acceptance of vulnerability as the cornerstone of security. What confidence can you have in an ally who can be destroyed in 5 minutes? Is your ally ready to commit suicide to save your skin?

Question: *How would you evaluate the capability of the USSR to launch a first strike against NATO in the immediate period ahead, and how do you recommend that Europe and the U.S. respond to this threat?*

Geneste: This question is of paramount importance. If the Soviets have respected the SALT ceilings in offensive rocketry, ICBMs and the like, I don't think they would start a first disarming strike, because they would have to spend all their arsenal of land-based ICBMs to get rid of ours, with luck, assuming a one hundred percent success (which is very unlikely). The final result would be zero on both sides.

First strike, or, if you prefer, counter-battery is conceivable only if you enjoy a large superiority in numbers (although the MIRVing of rockets complicates the problem).

Now, just have a look at this element, published more than 10 years ago. In the late 1960s and early 1970s, the Soviet military factories were producing rockets at a fantastic rate. Admittedly, they stopped after SALT, which was supposed to put a lid on the arms race.

How can you be sure they did? Through satellite observation? There was recently an interesting article in *The Armed Forces Journal*, where my friends Sam Cohen and Joe Douglass pointed out, quite rightly I believe, that aerial pictures cannot count the rockets stockpiled under a roof, and that these modern rockets can be fired from their canisters without the need of silos, etc.

It means that in 1972, the U.S. has practically accepted arms control without control (which would have required on-site inspection). Now suppose that the Soviets had stuck to the famous statement of Lenin, "Our aim in disarmament talks is to disarm the bourgeoisie and arm the proletariat?" Aerial inspection would have given them a unique opportunity to appear to stick to the agreements, while continuing the building of rockets under undetectable cover.

Unless it can be proven that the Soviet factories started building frying pans or other peaceful appliances, instead of rockets, it can be feared that today they enjoy an enormous superiority in offensive weaponry. I hope this is not true. But it might be. Or it could become true, in their closed society, when arms control is "self controlled" in the West by the press and public opinion, and forces the U.S. to limit their arsenal. Against such a fantastic threat, there is only one solution: technology which would offset any numerical advantage in rocketry. Clear-

ly, only beam weapons can nullify this superiority in numbers of projectiles, because their speed is 40,000 times greater than that of their targets.

Perhaps this is one of the reasons, if not the main reason, why the Soviets appear now to like the MAD strategy that they did not accept 15 years ago, when they were the outspoken champions of strategic defense, ABMs, etc. This MAD strategy would have allowed the Soviets to pile up secretly such a strategic superiority that they would have won without war.

Finally, only modern technology, the N-bomb on earth, the beam weapons in the skies, can nullify the advantage in numbers of offensive means — men or projectiles — that the Soviet generals and non-generals are probably trying to establish, with their 15 percent of Soviet GNP that they are not going to give up that easily.

In so far as the European theater is concerned, the Soviets have already local superiority in theater projectiles of all kinds, which allows them to launch a first disarming strike against our land-based retaliatory weapons, and keep enough reserves to continue the military operations. By the way, this is written in their official military doctrine.

Question: *Let us now look into the future. What about a conference in France on such topics? What is the association La France et son Armee planning to do next?*

Geneste: The technical realities or prospects of our time should be welcomed. I was pleased to hear that our Ministry of Defense in the parliament admitted the necessity to watch the development of beam weapons.

Our recent national history has taught us that we should never sleep behind Maginot lines. We cannot count any more on "miracles of the Marne" or "Operation Overlord" to save our skin. Better to contribute to the "triumph of the defense" that appears to be round the corner.

The recently created association *La France et son Armee* should, and will I am sure, contribute to this important conference that the *EIR* is planning in Paris, at the European level of course.

Question: *Many people think that should nuclear weapons be used, this would mean "the end of the world." Is this true? Or are there effective means to protect civilians and soldiers by civil defense measures?*

Geneste: The worldwide campaign against the weapons of terror should incite people to find the best way to get rid of this threat. The only way is to build the technology able to destroy them — beam weapons. The only way to get rid of war is to improve human nature, or to put offense out of business. Pending improvement of human nature, which does not appear to be round the corner, let's kill the offense. New technology offers this opportunity.

Appendix:

Media Response to Oslo Beam Conference

Aftenposten (Conservative), Oslo, Dec. 8

"Beam Weapon Meeting in Oslo"

"What for most people is an unknown political and military-philosophical organization, supported by an international magazine, held a sensational information meeting here today. The theme of the seminar was 'Beam Weapons — The Implications for Western Europe' and its sponsor, *The European* (sic) *Intelligence Review*, has sent its Swedish representatives here to inform Norwegian businessmen, military, diplomats and other specially invited guests about this new military strategy which has also been mentioned by President Reagan on several occasions. (...)

"Col. Geneste is of the opinion that, as a complement to the neutron bomb, beam weapons, which make it possible to shoot down and render missiles and warheads harmless, can lead to a build-down of nuclear weapons. Beam weapons or laser weapons are transmitted at the speed of light. The Soviet Union is reported to have conducted tests with such weapons for some time, and President Reagan has now allocated funding for further U.S. development in the American defense budget. The American President made this announcement last March 23 in a speech which his opponents characterized as a 'Star Wars' speech.

"The promoters of today's conference in Oslo are calling for a similar program of particle and laser beams to be included in NATO defense strategy."

Dagbladet (Liberal), Oslo, Dec. 9

"Beam Weapons Can Abolish Nuclear War"

"Beam defense can make nuclear arms totally obsolete, superfluous and impotent. Outer space will be free of threatening missiles, their trajectories to targets will be permanently sealed off.

"The United States and NATO should therefore immediately start a crash program for development of beam weapons. They represent the new and ultimate military doctrine. The others, the 'MAD' doctrine, 'Flexible Response' and 'First Strike' are simply out-of-date. Technology has out-maneuvered them and given us laser and particle beams instead.

"This was the message that was presented at a seminar here in Oslo yesterday, organized by the *Exexecutive Intelligence Review* magazine. The founder of the magazine is Lyndon H. LaRouche, who also leads a political organization in the United States — today a wing of the Democratic party (...)

"Their message is that the Soviet Union is seeking a military confrontation with the U.S. and that this can happen next year. The Soviets' goal is to gain 'strategic superiority for decades to come' (...)

"Michael Liebig, director of the magazine in Europe, went so far as to present a plan for a coming Soviet attack against West Germany. The goal is not an occupation, but a military and political humiliation of the U.S., said Liebig."

Dagbladet (Liberal), Oslo, Dec 3

"Norwegians to Learn About Beam-War in Space"

"Norwegians are now to be persuaded of the advantages of beam weapons. Next week, a group of international experts will be coming to Oslo to convince us that a war in outer space is better than a war on earth (...)

"Cristina Fiocchi explains that it was the *Executive Intelligence Review* 'which first started a campaign for beam weapons in the U.S. The magazine is owned and run by the Democratic presidential candidate, Lyndon H. LaRouche. It was this campaign that led to President Reagan's historic address on March 23 in which he called on American scientists to develop beam weapons which can end the age of nuclear terror (...) 'which can enable us to detect, and destroy intercontinental missiles before they reach our territory' (...)

"'We believe that the new beam weapons are going to have great relevance for science and that they will also be economically important. They will require greater investments than the entire American space program,' says Cristina Fiocchi."

Arbeiderbladet (Social Democratic), Oslo, Dec. 8

In an attempt to provoke violence against the seminar and to stop it, Norway's leading Social Democratic newspaper wrote Dec. 8:

"Today, the American parent organization of the European Labor Party is arranging a conference in Oslo for industrialists and politicians. The purpose is to create an opinion in favor of a new beam weapon. In Sweden, the debate has been fierce, and Olof Palme has branded the organization as a tool of the CIA (...) At the conference, the leader of the European Labor Party in Sweden, Kerstin Tegin-Gaddy, will be speaking about the necessi-

ty of developing beam weapons to counter the ideology of 'the so-called peace movement' (...) The leader of the parent organization is Lyndon LaRouche (...) He is now attempting to infiltrate the Democratic party in the United States, and he is a candidate for the next presidential election. His aim is to combat what is called the Social Democratic tendencies in the Democratic Party and the Freeze Movement in the disarmament questions."

Arbeiderbladet (Social Democratic), Oslo, Dec. 9

"Peace activists had made sure that the door to the conference hall was blocked, so that (*EIR's* Michael) Ericson could not enter before the police arrived to cut the chain. *Arbeiderbladet* was refused admission.

"We're not going to let in the KGB," said Ericson.

"Ericson admits that there is a collaboration between the European Labor Party and the *EIR*. (...) There appear to be a lot of organizations associated with the European Labor Party, all of which are anti-Soviet, opposed to disarmament of the West, and all for beam weapons (...)

"Beam weapons are necessary in order to meet the Soviet plans for attack," say *EIR* spokesmen. The conference in Oslo is the fourth in a series that started with Rome, Bonn and Vienna. Stockholm will be the next in January?"

Norwegian National Radio,
"Here and Now" program, Dec. 8

Interview with seminar speaker Kerstin Tegin-Gaddy

Question: *Why should the United States, the Soviet Union and the European countries develop beam weapons?*

Tegin-Gaddy: "Because beam weapons are the only guarantee for a peaceful development in the world. They are the only real possibility for disarmament of the nuclear missiles, because with beam weapons nuclear weapons will become obsolete. I would like to point out that beam weapons cannot be used as a weapon of mass destruction. They will render nuclear missiles harmless. The nuclear missiles will not detonate and the age of deterrence will be over"

Interview on the same program with Erik Tandberg, a Norwegian space expert

Question: *You have taken part in the seminar. Do you think that what has been presented here is only visions and dreams for the future, or can it become reality?*

Tandberg: "Yes, it can become reality, since there is a tremendous amount of research now going on on these weapons, both in the East and West. But most of the research and development is done to find out to what extent such beam weapons can be used, before a decision is made whether they will be deployed or not, at least in the West?"