

What beam-weapons defense will mean for Europe

by Michael Liebig

On Aug. 8, 1938, the London *Times* published a letter to the editor by Churchill's science adviser, Dr. Frederick Lindemann, which read, in part: "It seemed to be taken for granted on all sides that there is, and can be, no defence against bombing aeroplanes and that must rely entirely upon counter-attack and reprisals. . . . If no protective contrivance can be found and we are reduced to a policy of reprisals, the temptation to be 'quickest on the draw' will be tremendous. It seems not too much to say that bombing aeroplanes in the hands of gangster governments might jeopardize the whole future of our Western civilization. To adopt a defeatist attitude in the face of such a threat is inexcusable until it has been definitely shown that all the resources of science and invention have been exhausted. . . . The whole weight and influence of government should be thrown into the scale to endeavour to find a solution. All decent men and honourable governments are equally concerned to obtain security against attacks from the air and to achieve it, no effort and no sacrifice is too great."¹

Today, almost 50 years later, we are faced with a comparable danger, although of a greater order of magnitude, since we have replaced conventional bombers with nuclear missiles. If "honourable governments" and "decent men" are not able to achieve an effective defense in the immediate future, a deployable defense system against nuclear missiles of *all ranges*, the future of human civilization will be sealed for all practical purposes.

Although the threat of use of the destructive capacity of nuclear missiles today is infinitely greater than half a century ago, we do have scientific-technological options for an effective defense against the nuclear threat: directed-energy beam weapons. President Reagan declared in his television address March 23, 1983 that he was calling upon the scientific community to turn its talents to creating "defensive measures" so "that we could intercept and destroy strategic ballistic missiles before they reached our soil or that of our allies."

Retaliation and deterrence

Reagan's was a historic step in the direction of a strategy of "Mutually Assured Survival" instead of the nightmarish policy of "Mutually Assured Destruction" (MAD), of nuclear retaliation.

The global strategic regime of "nuclear retaliation" has effectively existed since the late 1950s, when both the United States and the Soviet Union had obtained a certain number of nuclear-armed intercontinental missiles, without, however, possessing a deployable defensive system against them. According to the doctrine of nuclear retaliation, an attack of one superpower against the other with nuclear-armed intercontinental missiles *cannot* be defended against; rather, by means of the potential for a nuclear "retaliation strike" against the aggressor, which also cannot be defended against, the aggressor is to be "deterred."

Under strategic conditions determined by the doctrine of nuclear retaliation, if one side is committed to conducting war because it perceives that its survival—perhaps not militarily, but as a state or political system—is threatened, its only option is a nuclear first strike to destroy the retaliation potential of its adversary as thoroughly as possible, and to limit the damage done by the adversary's retaliation strike. If the aggressor is willing to take the consequences of the losses of the retaliatory strike, which he cannot defend against in any case, then under certain conditions nuclear war can indeed be conducted, and won.²

"Deterrence by means of nuclear retaliation" will demonstrably fail when one power, armed with nuclear weapons and the means of delivering them, concludes that its survival can only be guaranteed by the destruction of its adversary or adversaries. Then the argument made by Lindemann in the London *Times* in 1938 makes felt its full force; that the side that has the relatively greater chance for victory will be the first to pull the trigger.

A strategy of nuclear retaliation cannot possibly deter a resolute aggressor. There can only be deterrence against a

resolute aggressor if there is a secure defense against his attack, and the attacked power can successfully conduct war into the territory of the aggressor, to defeat him militarily, and occupy his territory.

The history of 'deterrence'

Let us briefly consider post-World War II history in this light. Up to 1949, the United States had a monopoly on nuclear weapons, and a decisive superiority in strategic delivery systems until the middle of the 1950s. The Soviet Union did have defensive capabilities, as evidenced by the dramatic development of the Russian air-defense system in the 1950s. The Russians gave their defensive capabilities top priority and did not commit themselves to the symmetrical development of retaliation capabilities by expanding their long-range bomber fleet.

Instead, they concentrated on developing long-range nuclear-tipped missiles. Through the 1950s, the Soviets, under the leadership of the extraordinary missile technology specialist Korolyov, developed a significant lead in this area. Since the mid-1950s, the Soviets have made large-scale deployments in Western Europe of intermediate-range missiles of the SS-4, SS-5 and SS-6 types. By 1957, the modified SS-6 had a range of over 10,000 kilometers. By the beginning of 1961, the Soviets had over 691 SS-7, SS-8, and SS-9 category missiles, against only 47 American "Atlas" ICBMs. The United States caught up by the middle of the 1960s with the "Titan" and the "Minuteman."³

By that time, the West was confronted with a strategic weapon of immense destructive power, *without* having the means to defend against it. That does not mean that there were no scientific or technological defense options: 25 years ago, there were a number of potential options for defending against strategic nuclear missiles, such as the Nike-Zeus anti-missile program for nuclear ICBM defense.

It might have been expected that the United States and NATO leadership would agree to a short-term symmetrical "retaliation strategy" by their own nuclear ICBMs, but only until a deployable strategic anti-missile system was readied. Instead, the offensive "retaliation potential" was expanded at top speed, and the strategy of nuclear deterrence became the binding military doctrine of the United States. Work on a defense system was still carried along, the anti-missile missiles Sprint and Spartan were developed, but the building of the Sentinel defense system with over 1,500 anti-missile missiles was repeatedly delayed.

Robert McNamara and Henry Kissinger, representing the majority of the non-military, Anglo-American strategic community, were chiefly responsible for these delays. The deterrence strategy of nuclear retaliation became the official military doctrine of the United States and NATO. Since the mid-1950s, nearly without exception; the key armaments and arms-control experts from the Anglo-American area participated in the Pugwash conferences, whose goal was to block

scientific-technological progress in the military field.⁴

Kissinger also chalked up the so-called ABM Treaty of 1972, according to which the United States and U.S.S.R. agreed not to develop comprehensive missile defense systems, i.e., to limit themselves to one anti-missile field respectively, one of which still defends Moscow, while the

The Soviet Union never committed itself to a symmetrical strategy of deterrence by retaliation, counter to certain Western expectations. Even after the Soviets' own "nuclear revolution," with the development of nuclear-armed ICBMs, Soviet military strategy remained traditionalist.... Soviet research on beam weapons was carried out under strictest security restrictions, not to wake any "sleeping dogs" in the West.

U.S. field in Grand Forks was never completed. In Kissinger's view, and that of the non-military, strategic planners of NATO, the ABM Treaty codified the "symmetry" of the deterrence strategy of nuclear retaliation. Under this perverse treaty, multiple-nuclear-warhead intercontinental missiles were supposed to become the "ultimate weapon" into the indefinite future, against which no defense was *permitted*.

Russian strategy

Why did the Soviets sign a treaty which so fundamentally contradicts their own military doctrine?⁵ The Soviet Union never committed itself to a symmetrical strategy of deterrence by retaliation, counter to certain Western expectations. Even after the Soviets' own "nuclear revolution," with the development of nuclear-armed ICBMs, Soviet military strategy remained traditionalist. The Soviets see nuclear ICBMs merely as "the heaviest artillery," but certainly not as the ultimate weapon of Western deterrence. This nuclear heavy artillery is assigned to carry out a preventive destruction of adversary offensive ICBM and bomber capabilities, as well

as the central military infrastructure of the adversary. The next salvo is a rapid, offensive, and in-depth deployment of classical (conventional) armed forces with targeted deployment of lighter nuclear artillery to defeat the forces of the adversary and occupy his territory—in the first phase, Western Europe.

What about the effective *defense* against the nuclear offensive potential of NATO which cannot be destroyed in a preventive strike? A clause in the ABM Treaty permits research and development of strategic missile defenses, based on “other physical principles” than those of the anti-missile missile. In this, the Soviets thought they were ahead of the West. In 1962, Marshal Sokolovskii had emphasized the great importance of beam weapons for missile defense in Soviet military planning.⁶ Soviet research on beam weapons was carried out under strictest security restrictions, not to wake any “sleeping dogs” in the West.⁷

Nuclear ‘forward basing’

Within the Anglo-American strategic community, or at least within its hegemonic groupings, two further decisive conceptual changes took place since the early 1970s. After the SALT and ABM treaties, the consensus was that escape from the retaliation/deterrence strategy was finally buried by blocking strategic missile defense systems. On the presumption that “MIRVed” nuclear intercontinental missiles were the ultimate weapon, the classical armed forces were progressively dismantled (e.g., the lifting of universal military service requirements in the United States), as the western economies continued to decay.

So-called conventional armed forces were more and more oriented toward conducting neo-colonial wars in and against the Third World, focused primarily on securing Western supplies of raw materials and energy, and against Soviet destabilization attempts in the Third World. Most of even the well-meaning strategists overlooked the fact that the boorishly arrogant or even racist refusal to transfer technology and the denial of industrial development at all to the Third World were chiefly responsible for the successes of Soviet subversion operations.⁸

Next came the mutual U.S. and Soviet “forward basing” of nuclear offensive potentials in Europe. Part of the intention was to make up for the deteriorated fighting power of conventional forces in the West; and part was to set up new, merely quasi-strategic, options within the corset created by SALT and the deterrence-based doctrine of maintaining a strategic parity. The chief proponent on the American side was James R. Schlesinger, exemplified by his report “TNF Posture in Europe” in 1975.

The Soviet Union obviously had the same thoughts, and acted accordingly, without the public debate that occurred in the West. The highly mobile, highly accurate SS-20 missiles began to be installed from 1976 on: perfect preventive-strike weapons for destruction of the central military infrastructure

of NATO, and signifying at the same time the effective neutralization of land-based, or landing-strip-dependent nuclear forces of France and Great Britain.

Formally, the Soviet forward basing of SS-20s was answered with the Brussels 1979 decision of NATO to station highly accurate Pershing II and cruise missiles in Europe. The realization of that stationing resolution beginning in the winter of 1983 will escalate the spiral of forward basing that started in the early 1970s, and make confrontation almost inevitable. The Soviets will escalate their offensive potential against Western Europe with short-range missiles, particularly SS-22s. It must also be expected that the Soviets will escalate their forward basing vis-à-vis the United States, either by means of submarine-based intermediate-range missiles beneath the Polar Cap, stationing missiles in East Siberia, or midget submarine deployments along the U.S. coasts and so forth. This would naturally force the United States to escalate forward basing against the U.S.S.R.—not necessarily in Europe.

Since the beginning of the 1970s, each superpower has pushed the nuclear razor closer to the throat of its all-too-willing adversary, and we are sliding into the mutual launch-on-warning end-phase of retaliation/deterrence.

A solution to the problem of forward basing is hardly conceivable within the deterrence regime, since neither side can afford to give up its forward basing *within this regime* without forsaking vital military options. Ultimately, the reason for the deployment of intermediate-range missiles was to be able to conduct a high-precision preventive strike with as little warning time as possible, “if deterrence should fail,” as the jargon of retaliation/deterrence puts it.

That is why the speech given by President Reagan on March 23 was not a premature vision of the 21st century, but rather the beginning of a strategic reorientation of the greatest urgency.

U.S. beam weapons

President Reagan’s primary motivation was, most probably, not the fact of the retaliation/deterrence regime being undermined in the Theater Nuclear Force area, but rather that in the SALT parity of strategic nuclear weapons, the Soviets have developed a marginal, relative first-strike superiority. This goes especially for the Soviet heavy ICBMs SS-18 and SS-19 deployed after SALT I, as well as the heavy Soviet fourth generation ICBMs currently in testing. These intercontinental missiles are, because of their extraordinarily great throw-weights and high megatonnage, ideally suited for destroying hardened American ICBM silos. Hence; the new American MX, soon to be deployed, would be in great danger from the outset.

The American beam-weapon program currently appears to consist of three phases. Phase One is an endoatmospheric, land-based point-defense missile defense system with chemical lasers, particularly for defense of the MX silo fields in

the next three to four years. Phase Two is an endo/exoatmospheric hybrid system, which combines land-based chemical lasers, with space-based reflector mirrors, permitting space-based target-acquisition and target-tracking instruments for missile defense. In Phase Three, a comprehensive Area Defense System is based in space, utilizing x-ray lasers.⁹

This U.S. laser defense program is by no means a maximum program, quite the contrary. For example, the time frame for realization of the program is around 10 years for all three phases. The first phase must be deployable by the time the MX is deployed if the modern land-based U.S. ICBMs are to have any deterrence/retaliation value at all.

American scientists in the national weapons laboratories have achieved a number of breakthroughs in beam-weapon research, the most fundamental in the area of x-ray lasers.¹⁰ Dr. Edward Teller became the public spokesmen of these scientists. There is no way to ignore the fact that the Soviets, of course under strict secrecy, have driven their own beam-weapon research forward at full speed, and most likely still have the lead over the United States. It would not be surprising if the Soviets were the first to deploy a space-based demonstration laser system for defense against missiles, as part of a manned space station. Most probably, the Soviets also lead in the area of particle-beam research for land-based Point Defense Systems.¹¹ Nonetheless, American breakthroughs in the area of x-ray lasers, combined with American superiority in data processing and sensor technologies, have made it possible to at least catch up with the Soviets.

The Soviet leadership reacted to President Reagan's strategic directive of March 23 with bitter rage, chiefly because long-term Soviet political and military planning, premised on their emergence from the collapse of the deterrence regime as a global hegemonic power, was thrown overboard. The Soviets not only have lost the opportunity to be the first and sole possessors of a strategic beam-weapon defense against nuclear missiles, but also see the possibility that a beam-weapon program could become the central driving force in science and technology for the United States.¹²

The opponents of beam weapons

The Soviets have of course exerted their immense influence over the churches in the West, primarily through the World Council of Churches in Geneva. The Pugwash networks too were immediately mobilized against the U.S. development of beam weapons, along with the KGB-controlled and funded "peace movement."

But far more important for the Russians are the Western "Spenglerians" and fanatic proponents of retaliation/deterrence, like Averell Harriman, Henry Kissinger and Lord Peter Carrington, who are committed to slowing down the American beam-weapon defense program. Their aim is an "ABM II Treaty" to suffocate laser ABM defense in the context of arms-control agreements, repeating the fate of the American Sentinel program in the late 1960s. On condition that the laser defense program were never to go beyond the R&D phase, the Kissingers and Carringtons wish to use the

Soviet Subversion Operations in the United States:

The Real 'ENEMY WITHIN'

This soon-to-be-released report, the follow-up to the recent **EIR Special Report, "Will Moscow Become the Third Rome? How the KGB Controls the Peace Movement,"** documents the channels through which Soviet intelligence and its assets are attempting to carry out a plan to destroy the United States as an economic and military threat to Soviet world dominance.

The report will include:

- The role of Moscow and German-speaking central bankers in attempting to precipitate an international financial crisis.
- The background of Soviet orchestration of the "Briefinggate" scandal, including the June 5 closed-door session in Moscow, where Averell and Pamela Churchill Harriman conspired with Yuri Andropov days before Briefinggate broke.
- Soviet influence in the FBI and other government institutions ensuring disinformation on Soviet subversion of the United States.

The report will be available for \$250.00.

For further information, contact William Engdahl, *EIR* Special Services
304 W. 58th Street, 5th floor, MC-1, New York, New York 10019, (212) 247-8820 or (800) 223-5594 X818

U.S. beam-weapons program as a bargaining chip in arms-control negotiations, thereby moving the Russians to artificially keep the deterrence regime alive a few more decades.

This latter grouping of adversaries of beam-weapon strategic defense is all the more dangerous because it is effectively supported by nearly all of the governments of Western Europe,

governments argue that the creation of an effective laser defense against nuclear missiles by the United States would break Western Europe out of the retaliation/deterrence umbrella of U.S. ICBMs, and must therefore drastically increase the threat either of Soviet intermediate-range nuclear missiles or of Soviet conventional potential against Western Europe. While beam weapons would turn the United States into an invulnerable "Fortress America," so goes the argument, the West Europeans would be left standing in the rain, decoupled from the American retaliation/deterrence.

Henry Kissinger is renowned for his pathological inclination to lie. But, on Sept. 1, 1979 at the 30th Anniversary of NATO in Brussels, he may well have told the truth. He brusquely announced to West European NATO partners that, aside from operational-tactical (TNF) nuclear weapons of the United States and conventional support, the Europeans should expect basically nothing from the United States should war break out. In truth, there is hardly anyone even in Western Europe who believes that the United States would launch a full intercontinental nuclear retaliation strike against the Soviet Union were the Soviets to attack Western Europe.

On the other hand, we claim that the United States *would* launch such an intercontinental strike, *if* there were an effective defense of American territory against nuclear missiles which enabled the United States to destroy an aggressor against its European allies militarily, without committing suicide in the process! An effective U.S. anti-missile defense system would offer the Europeans a real deterrence by means of the strategic offensive systems of the United States, a deterrence that has not existed since the 1950s. Therefore, the argument that a beam-weapon ABM defense would decouple the United States from Europe is absurd.

Beam weapons and TNF

But Western European absurdities do not stop there. West European governments and military personnel, of course, know the reality behind the rhetoric of the "Brussels double-track resolution." They are well aware that it is precisely that retaliation/deterrence regime, which they defend tooth and nail, which has led to *both* superpowers building up an offensive intermediate-range potential in Europe, effectively as a "substitute" for the intercontinental plane, whereby the Soviets have obtained a lead of several years.

An effective, U.S. space-based x-ray laser ABM system would have two main consequences for the nuclear intermediate-range potentials in Europe. First, a comprehensive space-based American ABM system (corresponding to Phase Three in current planning) would be able to defend against a

Soviet intermediate-range nuclear assault. The ballistic trajectory of an intermediate-range missile like the SS-20 runs, if only for a very brief period, into outer space. The peak of the ballistic trajectory would be approximately 600 kilometers, so that the flight of the SS-20 is within the area of effective employment of space-based laser weapons. It was not, therefore, empty rhetoric when President Reagan and which a Defense Secretary Weinberger repeatedly emphasized that an American missile defense system would also protect the allies of the United States against nuclear assault.

The second consequence of an effective American laser ABM system is more far-reaching with respect to the intermediate-range potentials in Europe. Despite the claims of Moscow propaganda, the Soviet Union is working feverishly on the development and deployment of a beam-weapon anti-missile defense. In our estimation, neither side has yet attained a qualitative lead in development of beam-weapon defense systems. The American writer and politician Lyndon LaRouche has proposed an agreement between the United States and U.S.S.R. to pursue independent and parallel development and deployment of beam-weapon ABM systems.¹³ Such an agreement would only constitute mutual acknowledgement of the respective stage of development of these systems by each superpower, but with the aim, directly contrary to the ABM treaty, of forcing the respective development and deployment of anti-missile defense. Such an agreement would mean alleviating the effective strategic blind-alley and mechanisms of retaliation/deterrence regime, and, following a transitional period, dismantling them completely. That in turn is a crucial step *in the direction* of a global strategic geometry of "Mutually Assured Survival."

Such an agreement would make it possible now, years before installation of a comprehensive anti-missile defense, to end the spiral of escalation of the current forward basing of intermediate range potentials in Europe and elsewhere. Both sides would be able to renounce deployment of their intermediate-range potentials in Europe (and elsewhere), without violating or undermining fundamental military-strategic interests. The renowned Zero Option for intermediate-range nuclear weapons in Europe would then no longer be empty talk.

LaRouche has pointed out that the fruits of scientific-technological progress will also flourish with a regime of "Mutually Assured Survival," as Dr. Teller underscored in his famous speech on beam weapons on Oct. 25, 1982 at the National Press Club in Washington, when he spoke of the "common aims of mankind."

But, to return for a moment to the sceptical Europeans and their absurd aversion to beam weapons: the ultimate, and vehemently presented, argument against strategic beam-weapon anti-missile defense is that, while laser ABM systems would remove the threat of nuclear missiles, this would only increase the threat of the superior conventional armed forces of the Warsaw Pact, and would even make a conventional war in Europe possible.

A European beam weapon program

This apparently cogent argument is in fact the most absurd. Without the full participation of Western Europe in the development and deployment of beam weapons, Western Europe can neither be defended, nor is the development of any reasonable military strategy possible.

Within the deceptive calm of the retaliation/deterrence regime, West Europeans generally, and West Germans in particular, have fixated on a strategic mind-set which effectively rules out scientific-technological progress as a means of solving problems. The issue is not technological refinement of already existing technologies; rather, the issue is *new* technologies, such as those associated with beam weapons.

The cultural determinants of a successful military strategy can hardly be overemphasized in their importance. Western civilization has the cultural potential to realize, on account of personal freedom and initiative in science and technology, immense progress more rapidly, better and more effectively. The Eastern cultural matrix is far more plodding, far less innovative.

But were the Western cultural matrix to be undermined and riddled by cultural pessimism, irrationalism, denial of the classical heritage, and anti-technology ideology, the most deadly consequences would hit nations and economies. If Western Europe is not capable of maintaining and developing technological progress, confronted with the military potential of the East threatening Europe, no security is possible.

A division of labor and cooperation with the United States must be developed within NATO in order to launch a large, closely coordinated research and development and production program for beam weapons in Western Europe.

For the United States, the development and production of a space-based strategic anti-missile defense system against ICBMs and IRBMs has priority. Likewise of immediate and urgent importance for the United States is the development of beam-weapon defense against missiles and aircraft for the American navy, particularly aircraft-carriers. Also important for naval warfare is the deployment of beam-weapon technologies for strategic anti-submarine warfare.

A Western European beam-weapon program would have to concentrate on a beam-weapon defense system against short-range missiles, cruise missiles and aircraft.

A quarter century ago, Prof. Eugen Sänger proposed development of beam weapons as the only physical-technological possibility for anti-missile defense, since even at that time there were hundreds of short- and medium-range missiles aimed at Western Europe: "In order to remove this inertial barrier [of flak and flak-rockets] of a successful air and land defense, there is ultimately no other way than to employ the destructive energy no longer in material form, firing material masses from earth against the flying adversary, but rather to release those destructive energies in immaterial form, as pure energy, thus in the form of energy beams, which, on account of their far smaller inertia and higher velocity, will be capable of following and impacting

every material body without difficulty."¹⁴

Nuclear, or even non-nuclear short-range missiles, cruise missiles and aircraft must be defended against within the earth's atmosphere. Some years ago it was not experimentally known to what degree laser beams are absorbed in the atmosphere; since then, it has been established that atmospheric absorption is far less than initially presumed. There are determinate "frequency windows" in the atmosphere which can be exploited with appropriately tuned lasers. Additionally, it is now known that certain physical processes, such as so-called bleaching, are favorable to propagation of laser beams. Bleaching is a process in which the propagating laser beam very rapidly creates a channel which is saturated with respect to any increased absorption of laser beams of a determined frequency. Thus, by skillfully tuning the pulse, the weakening of the laser beam is drastically reduced.

For defense against short-range missiles, cruise missiles and aircraft, particle beams, in addition to laser-based beam weapons, are crucial to a Western European beam weapon defense program. These include so-called macro-particle technologies, leading to the development of a "rail gun" (magnetic canon). In the rail gun, macro-particles (ranging in weight from a few thousand atoms to a few dozen grams) are accelerated along the magnetic rail of a linear accelerator. In a process similar to that of a conventional canon, where projectiles are driven by gas pressure through the muzzle, a magnetic field "pushes" the projectile along the rail in a rail gun. Magnetic fields, however, increase the pressures many orders of magnitude, and thus the projectiles will achieve extremely high velocities (100 kilometers per second).

The second focus of a Western European beam weapons research and development program must be in the area of beam technologies for tactical land warfare. A chief issue here will be the extent to which beam-weapon systems can be miniaturized to permit mobile deployment.

The first phase of a Western European beam weapons program will have to give priority to fixed, land-based defensive beam weapons against short-range missiles and aircraft. The goal must be to install a barricade of defensive beam weapons along the NATO central front, which is capable of intercepting incoming missiles and aircraft. The design would consist of a chain of laser and/or particle weapon stations, layered in a density appropriate to the respective ranges of the beam weapon systems in order to be capable of repelling a massed-salvo assault.

In addition to the beam weapon barricade, it will be necessary to install defense of the most important military and civilian targets by means of land-based point-defense beam weapons. In this way, Western Europe would obtain a triple-layered beam weapons defense, i.e., 1) the space-based American laser-defense system against ICBMs and IRBMs, 2) the beam-weapon barricade in relative proximity to the borders, and 3) the Point-Defense-System for large cities, command centers, airports, and so forth.

This is not the place to go into the details of a NATO

program for research, development, and production of the above beam weapons defense system for Western Europe. Here it will be sufficient to briefly sketch certain of the most crucial features of such a program.

France and England have, because of their nuclear forces, scientific-technological research centers, which, although insufficient, represent a foundation for beam-weapon research work.¹⁵ England, especially, has access to much of the most secret aspects of U.S. beam research.

There exists no such consoling backdrop of capabilities in the Federal Republic of Germany, Italy, or the other Western European nations. Here it will be crucial to create national and transnational research and development centers for beam weapons, which will recruit scientists, engineers and technicians from universities, research institutes and industry. Hundreds, if not thousands, of scientists and technicians will need to be sent to the United States, to familiarize themselves rapidly and thoroughly with the present standard of performance of beam-weapon technologies.

As one of the consequences of World War II, the Federal Republic of Germany in 1954 bound itself by international law never to produce or possess nuclear weapons, and re-emphasized this by signing the Nuclear Non-Proliferation Treaty. That state of affairs should remain as it is, but we must emphatically point out that the Non-Proliferation Treaty does *not* infringe, limit, or even reference research, development, and production of beam weapons, and that the Federal Republic must categorically refuse to accept any bridle or limitation on its participation in beam weapon research, development, and production efforts.

A concerted research, development, and production program in Western Europe with the indicated foci will relatively soon exert a revitalizing effect on basic scientific research in Western Europe. This is particularly crucial because of the present condition of West European universities. The beam weapons program will also quickly throw off technological-innovative spinoffs, which will be crucial for the industrial-technological regeneration of European economies: nuclear technology with nuclear fusion, fast breeder, and so forth; and metals processing, machine tools, welding technologies, communications technology, and medical technology.

Just as the development and industrial application of new technologies have been the motor for economic growth in the past, the same holds today for the revolutionary changes already visible in industry as a result of beam-weapon technologies. This is all the more crucial in view of the fact that long-term joblessness is ultimately a severe threat to national security.

A cooperative beam-weapon program will, finally, have a fundamentally regenerative effect upon the Western alliance, representing as it does a common effort on behalf of the whole of the alliance, and liberating the actual cultural, scientific and technological potencies of the West. A beam weapon program can therefore exert a countereffect to the continuing, nagging disintegration tendencies, because it

provides NATO with a rational and effective military strategy.

A military strategy for Europe

As long as NATO military doctrine is based on the retaliation/deterrence regime, a rational military *strategy* for the defense of Western Europe, in particular the Federal Republic of Germany, that has any hope for success, is impossible. The irreconcilable contradiction between retaliation/deterrence and the claim that Europe is defensible is more or less consciously felt, if not understood, by most soldiers and citizens in Western Europe.

In the context of the present NATO doctrine of retaliation/deterrence and "flexible response," the West *cannot* prevent the entire military and civilian infrastructure of Western Europe from being hit with an immense barrage of nuclear salvos, should the Soviet Union decide to attack—"should deterrence fail."

Within the first hours of a Soviet assault, a large portion of that which is supposed to be defended will be destroyed, including immense losses among the civilian populations. One might argue that this is less the case the further one moves from the central front, but it is unconditionally the case for the Federal Republic. Should deterrence fail, should the Soviet Union decide to conduct war in Europe and accept all of the immense risks involved, this attack will ensue with the massed might of all available means. It will be conducted according to Lenin's slogan, "either no war, or a real one."

Soviet military strategy for a war against Western Europe is quite straightforward: if the continental offensive operations are to be successful, a comprehensive, massive nuclear, conventional, and chemical assault must be launched in the first hours of war, destroying the adversary infrastructure in depth in the area of operations. This surprise strike will be conducted with operational-tactical missiles and air forces. Within the first hours, NATO armed forces, their leadership and command structures, nuclear bases, air support and supply lines must be destroyed. Only in this way can the defense be disorganized from the outset. *Only then* will the armored and mechanized shock-wedges unfold their offensive action.

"In a future war, offensive operations will be the chief means deciding the armed conflict in continental operational areas. . . . The primary role in offensive operations will be played by the offensive-tactical rocket troops and nuclear armed air squadrons. Assault with nuclear weapons will be crucial on the battlefield. Other troop units [armored and mechanized units] will exploit the results of the nuclear assaults. . . . Nuclear weapons will be the chief means of destroying the most important targets. These are, especially, the nuclear weapons of the adversary and significant troop concentrations, particularly tank units, artillery emplacements, reserves of all forms, bridges, battle-positions, communications centers and so forth." (Sokolovskii, *Military Strategy*)—i.e., target groups I-IV of the Soviet targets list.

The centerpiece of Soviet military strategy against Europe is the continental offensive. The spearhead of the offen-

sive is the surprise, massed preventive strike against the military infrastructure of NATO. The first strike will be conducted with nuclear and/or conventional-chemical weapons by means of tactical missiles and air forces. Soviet military strategy foresees no repetition of the tank battles of World War II. Armored and mechanized shock forces are not the primary means of assault, but rather are assigned to exploit the results of missile artillery and air forces.

We might add at this point that a war in Europe would begin, with a probability bordering on absolute certainty, with a preemptive nuclear first strike. Only nuclear weapons would assure destruction of NATO infrastructure in a way corresponding to the Soviet target list I-IV. Were the attack begun, improbably, with conventional means, nuclear weapons will be deployed if 1) the Soviet offensive bogs down, in which case the Soviets must deploy them, or 2) NATO defenses are near collapse, in which case NATO will deploy nuclear arsenals.

In summary, a rational military strategy for Western Europe will only have a chance for success if NATO is capable of defending against a Soviet first-strike destruction of the essential military and civilian infrastructure of Western Europe. NATO must be able to stop the penetration of operational-tactical missiles and air forces, the chief instruments of this first strike. The instruments that make the successful solution of this task realizable are beam weapons.

On condition that there is a guaranteed leadership and command structure, deployable air forces and classical conventional forces, a Soviet attack can be successfully repelled, and the aggressor defeated. Above all, the availability of beam-weapons signifies a *real* deterrence of the adversary for Western Europe and thus the knowledge for the populations of Western Europe that their nations can in fact be defended.

1. R. V. Jones, *Most Secret War*, London, 1978.
2. L. H. LaRouche, *Will the Soviets Rule in the 1980s?*, New York, 1980.
3. R. Engel, *Moskau militarisiert den Weltraum*, Landshut, 1979.
4. L. Talionis, "The Pugwash Papers: Kissinger imperiled U.S. national security; suppressed evidence on Soviet E-beam program," *Executive Intelligence Review*, June 7, 1983.
5. W. D. Sokolovskii, *Soviet Military Strategy*, Stanford, 1975.
6. *Ibid.*
7. S. Bardwell, "Beam Weapons—The Science to Prevent Nuclear War," New York, 1982.
8. L. H. LaRouche: "Operation Juárez," New York, 1982.
9. P. Gallagher, "America has the science to develop beam weapons," *Executive Intelligence Review*, April 12, 1983.
10. S. Bardwell: "X-ray lasers could mean deployable ABM systems within three years," *Executive Intelligence Review*, July 19, 1983.
11. S. Menaul, *Space Based Strategic Defense*, FARI, London 1981.
12. R. Freeman, "The World War II mobilization that ended the depression," *Executive Intelligence Review*, June 14, 1983; P. Gallagher, "Laser technologies: industrial path to the beam-weapon era," *Executive Intelligence Review*, June 19, 1983.
13. L. H. LaRouche, "Only Beam-Weapons Could Bring to an End the Kissingerian Age of Mutual Thermonuclear Terror," New York, 1982.
14. E. Sänger, *Der Weltraum—Die technische Überwindung des Krieges*, Hamburg, 1958.
15. U. Parpart-Henke: "High-technology beam weapons and French military options," *Executive Intelligence Review*, March 15, 1983.

NEW EIR REPORT NOW AVAILABLE:

The Economic Impact of the Relativistic Beam Technology

A unique study of the impact of the new defense-related technologies—high power lasers, particle beams, and fusion—which will become available to basic industrial production as the March 23 defensive strategic doctrine proposed by President Reagan is developed. The report is a computer analysis incorporating the LaRouche-Riemann model, which examines the little-discussed revolutionary civilian economic "spinoff" effects of the new beam weapon development program.

The study reveals that with rapid introduction of new laser and related technologies into the civilian economy, the growth of the economy would be so rapid that:

- an estimated 4 million highly skilled industrial jobs could be added to the economy per year;
- the U.S. trade deficit could be eliminated in two years; and
- the rate of growth of real GNP could approach 25 percent per annum.

Over a period of two years, 50 percent of the current stock of machine tools in industry could be replaced with laser machining stations, increasing productivity in this sector 300 to 500 percent. Plasma steelmaking, now in the commercial development stage, could become available for large-scale use over the period of the next decade. The study concludes that the how quickly the

scale use over decade. The study major constraint on economy can expand and create wholly new industries is the speed with which new baseload electric-generating capacity can come on line.

This EIR Special Report is available for \$250.00. Contact: William Engdahl, EIR Special Services, (212) 247-8820 or (800) 223-5594 x818