Yes, But Not This Way

Michael Liebig analyzes how a Euro-Atlantic/Eurasian cooperative ballistic missile defense could be a realistic proposition.

The speech of U.S. Secretary of Defense Donald Rumsfeld, at the 37th Conference on International Security, known as the "Wehrkunde Conference," in Munich on Feb. 3, made it clear once again, that the Bush Administration is determined to implement a limited ballistic missile defense (BMD) program. In the public rhetoric on the subject of missile defense, there is usually much talk about the threat from missiles and weapons of mass destruction (WMD), coming from the obligatorily cited "rogue states." Although it cannot be fundamentally denied that there is an incalculable risk from ballistic missiles and WMD, there is another "hidden agenda" behind the American BMD plans:

- 1. The actual primary target of a limited missile defense is not the rogue states of today or tomorrow, but the other nuclear powers, in particular China and India. Washington has no real fear that these other nuclear states intend to commit nuclear suicide by firing missiles with WMD warheads at the United States. Instead, America's BMD aims at "degrading" the nuclear arsenals of "smaller" nuclear powers, and, especially, neutralizing those nuclear deterrence options which, for example, use the "electromagnetic pulse (EMP)" effect, and are far below the threshold of Cold War-style nuclear holocaust scenarios.
- 2. On the theater (operative-tactical) level, the American missile defense (TMD) program is intended to provide a shield for U.S. forces and allies in "expeditionary wars" overseas. This intent should be seen against the background of the present crisis developments in the Middle East, the Persian Gulf region, and in the Caucasus/Central Asia region.
- 3. A large-scale armaments program, in which missile defense is a key component, is intended to halt the accelerating downward drift of the American economy into depression, and to "stimulate" the economy.

Does it therefore follow that the overall system of missile defense is counterproductive and dangerous on a global-strategic scale? Would not the best solution be, in the interest of peace, stability, and development, to prevent its realization, or to cause it to fail? The answer is simple, but not simplistic, because the question of American missile defense is not *eo ipso* highly problematic: It is problematic because of the current strategic context, within which missile defense plans are being pursued.

At the core of the problem, is the situation that the ruling elites of the United States have adopted a basic attitude which is similar to that of the "aging" British Empire: Contain, weaken, and suppress any emerging economic and strategic competition, instead of facing up to a productive competition in world politics, in which one's own leadership role becomes a gain for all, economically and strategically. The history of the United States shows that the potential for the second policy orientation, is not illusory wishful thinking, as U.S. policy under Presidents Franklin D. Roosevelt or John F. Kennedy demonstrated. Under the current strategic, political, and economic premises and trends, the Bush Administration's strategic concept of missile defense, while it is reasonable in itself, has been made into a vehicle for destabilization of all sides.

However: If the strategic package of missile defense were, so to speak, to be raised to a higher level and made into a cooperative venture, with participation from all of the states that are interested in greater national security by means of missile defense, as well as in the technological-industrial economic gains from advanced missile defense, then the situation could look quite different. That would mean that the United States would agree with its European NATO partners, Russia, China, and other nations that are willing to cooperate, to the effect of removing the incalculable "residual risk" of missiles armed with WMD warheads.

The present situation in the United States and on the world political stage, differs profoundly from that at the beginning of the 1980s, when the "Strategic Defense Initiative" (SDI), co-conceived by Lyndon H. LaRouche, Jr., was initiated during the first Reagan Administration. Understanding the "real history" of the SDI—the active events and their background—is, nevertheless, of extraordinary importance, in order to reach correct evaluations, and draw the right conclusions with respect to current missile defense plans.

Donald Rumsfeld on BMD

On July 15, 1998, a high-ranking "expert commission" chaired by Donald Rumsfeld, former Secretary of Defense under President Gerald Ford, presented a report on "the ballistic missile threat to the United States." The Rumsfeld Commission came to the conclusion that this threat "is broader, more mature, and evolving more rapidly than has been re-





The type of ballistic missile defense that "works," both as defense and as an economic motor, is based on "new physical principles." Shown at left is the SDI test of the Mid-Infrared Advanced Chemical Laser, destroying a Titan I booster missile body. What doesn't work, is typified by the Patriot "kinetic kill" missile (right), whose miserable record during George Bush's Gulf War is a sore embarrassment.

ported in estimates and reports of the intelligence community."

The Rumsfeld Commission report, which was only partially declassified, presents a broad spectrum of possible threats to the territory and population of the United States from missiles which might be equipped with nuclear, chemical, and biological warheads. Explicit reference is made to the usual "rogue states"—Iraq, Iran, North Korea, Libya, etc.—a list which was not very persuasive even in 1998; now, three years later, it is far less so, in view, for example, of the developments on the Korean peninsula.

On Feb. 3, 2001, two weeks after swearing his second oath as Secretary of Defense, this time under George W. Bush, Donald Rumsfeld spoke to the Munich Wehrkunde Conference on the subject of missile defense: "No American President can responsibly say that his defense policy is calculated and designed to leave the American people undefended against threats that are known to exist. And they do, let there be no doubt. A system of defense need not be perfect, but the American people must not be left completely defenseless. That is not so much a technical question as a matter of a President's constitutional responsibility. Indeed, it is, in many respects, a moral issue. Therefore, the United States intends to develop and deploy a missile defense designed to defend our people and forces against a limited ballistic missile attack, and is prepared to assist friends and allies who are threatened by missile attack to deploy such defenses. These systems will be a threat to no one. They should be of concern to no one, save those who would threaten others."

Rumsfeld added that the European NATO partners would be "consulted" by the Bush Administration on the question of missile defense, but that there would be no reversal of the American decision to develop and deploy such a system. Rumsfeld avoided using the term "National Missile Defense" (NMD), using instead the more general formulation "missile defense," without making any further specifications. Other American participants at the Wehrkunde Conference emphasized that the Bush Administration's missile defense program was not a controversial issue in domestic policy debate, but that it enjoys solid bipartisan support.

Henry Kissinger's remarks at the Wehrkunde Conference were somewhat less laden with "morality" than Rumsfeld's. Kissinger, who rudely rejected European criticisms of Bush's plans, soberly and toughly observed that the United States would hardly go to all the trouble of building a missile defense system, were it only a matter of some "rogue states." The real addressees of America's BMD, he said, were the other nuclear powers, and he cited Russia, China, and India by name.

On Feb. 14, in an interview with the Public Broadcasting System "NewsHour with Jim Lehrer," Rumsfeld himself became more explicit on the real agenda behind the Bush Administration's BMD plans: "Russia is an active proliferator. They are part of the problem. They are selling and assisting countries like Iran, North Korea, and India, and other countries with these [ballistic missile/WMD] technologies, which are threatening other people, including the United States, Western Europe, and countries in the Middle East."

Missile Defense in the Post-SDI Era

In the aftermath of the presentation of the Rumsfeld Commission's 1998 report, the Clinton Administration decided to move ahead with accelerated development of a limited National Missile Defense for North America. In parallel, development of Theater Missile Defense (TMD) to protect U.S. armed forces deployed overseas and those of allied states, was intensified. The NMD system for the "Fortress America"

envisages the following components:

- interceptor missiles stationed on American territory;
- early-warning/target acquisition satellites in space;
- forward-based radar installations in Alaska, Scotland, Greenland, and Norway;
- battle managment/fire-control systems in the United States.

The NMD was designed as a "kinetic" missile defense system: The warheads of the interceptor missiles are to collide with the incoming enemy warheads in their ballistic trajectory, and thus destroy them. Not surprisingly, the tests of the interceptor missiles envisaged for the NMD were unsatisfactory. In Summer 2000, President Bill Clinton decided to postpone the definitive decision for building the NMD system, and left the ultimate decision to his successor, who, as we have seen, has not hesitated for a moment, to move ahead with implementing missile defense.

Russia has categorically rejected, and still rejects, the NMD plan as a violation of the 1972 Soviet-American Anti-Ballistic Missile (ABM) Treaty, which severely limits missile interceptor systems on both sides. China likewise rejects the NMD plans, and additionally strongly opposes the American TMD plans in East Asia, including Japan, Taiwan, and South Korea. The European NATO allies, except Britain, have behaved skeptically with respect to the American BMD plans.

Most critics of the current American missile defense plans, jumble together a great deal with the ideological notions and slogans of the "arms control school" of the 1970s and 1980s. They call BMD a "danger for arms control and disarmament," and "a catalyst for a new arms race," or they talk about "militarization of space" through this "Son of Star Wars."

It needs to be pointed out that one of the main problems with the current debate about missile defense, consists in the fact that the true history of the Strategic Defense Initiative under President Ronald Reagan, decisively co-conceived by Lyndon LaRouche, has still not been digested. This is also true in Russia. The SDI, contrary to prevailing opinion, was not only extraordinarily reasonable from a strategic and technological point of view, it also was necessary to supersede the regime of "Mutually Assured Destruction" (MAD), based exclusively on offensive nuclear weapons. That the majority of the leadership of the Soviet Union under Yuri Andropov and his successors did not understand this, was fatal.

The Soviet Union's rejection of President Reagan's initiative for a coordinated and parallel implementation of missile defense in both the East and the West, which policy is traced back to LaRouche, turned out to seal the fate of the Soviet Union as a superpower. By not going ahead with advanced missile defense, for which Soviet Russia had (and still has) a first-class scientific-technological base, it has forgone a unique chance for utilizing technological spin-offs from BMD to rejuvenate its overall economy. Soviet Russia thus missed its last opportunity for an "orderly" industrial modernization and reform.

If the Lights Went Out in 'Fortress America'

As we asserted above, the real reason why the U.S. elites are forcing the protection of their national territory against a limited missile attack, is not the hypothetical (but, still, not negligible) threat from "rogue states." As even Kissinger and Rumsfeld have practically admitted, the real targets of America's BMD are Russia, China, and India, which either have a real WMD arsenal, intercontinental ballistic missiles (ICBMs) and submarine-launched ballistic missiles (SLBMs), or will rather soon acquire such an arsenal.

Now, the probability that one of the cited nuclear powers, or a coalition of such powers, would carry out a "first strike" against the United States, is as great as zero. Even in the times of its greatest military strength, a surprise, first-strike attack by the Soviet Union, with a salvo of hundreds or thousands of nuclear warheads against the United States, would hardly have been capable of neutralizing the U.S. second-strike capability. Moreover, the American second-strike capability would have been sufficient to so entirely obliterate the Soviet Union, that a Soviet attack would have been tantamount to a calculated suicide.

What was true in the Cold War is even more true today, since Russia has become much weaker, including in the nuclear strategic field. China's arsenal of intercontinental ballistic missiles is small and technologically not state-of-the-art. China's ICBM modernization is only slowly progressing, while its buildup of a submarine-based nuclear capability has been fraught with serious problems. Even in the decades to come, China will barely achieve the nuclear strategic parity with what the Soviet Union once had.

That India (or Pakistan), which, at present, have no intercontinental ballistic missiles or nuclear-capable submarines at all, would provoke their own destruction by launching a nuclear first strike against the United States, is a ludicrous proposition.

Can we therefore say that WMD-armed intercontinental missiles or SLBMs are actually militarily worthless, insofar as their launch would simply trigger immediate and devastating nuclear retaliation? Not quite.

It is possible to severely damage an economically developed country with a nuclear attack, without mass-killing its population. The explosion of a few nuclear weapons in the high atmosphere above the assaulted territory, would be sufficient to paralyze the economy and the infrastructure of that territory for a long time. The electromagnatic pulse (EMP) effect of the nuclear explosions would destroy all electronic components used in production, administration, infrastructure, and households that were not specially "hardened" against the EMP effect, yet without unleashing a "nuclear holocaust" of the civilian population, perhaps without directly killing a single person. Moreover, the EMP vulnerability increases in proportion to the level of development of the economy, and inversely.

It is not necessary, in order to make such an EMP attack, to possess a large, Cold War-style arsenal of nuclear weapons;

a few ballistic missiles and nuclear warheads would suffice.

Clearly, the planned limited missile defense for the continental United States aims at "degrading," in general, the nuclear capabilities of other, inferior nuclear powers. More specifically, the American BMD seems to be aimed at denying other nuclear powers the deterrence option of threatening an EMP attack.

A hypothetical EMP threat against the United States would surely not materialize in the context of an updated "first-strike scenario" from the peak of the Cold War. A hypothetical EMP attack makes no sense, if one thinks in the categories of a "total war" between the United States and another nuclear power, in the sense in which a nuclear world war was conceived of, between NATO and the Warsaw Pact. One cannot "destroy" an enemy with an EMP attack, nor can one even hamper his second-strike capability, because major military installations are hardened against EMP.

Nevertheless, or precisely for that reason, the American leadership seems to consider the "sub-holocaust" EMP threat to be so serious, that it is a very important factor in the decision to build a missile defense system. Through BMD, Washington hopes to eradicate the margin of perceived uncertainty associated with an EMP-based deterrence capability.

The possibility of the threat of EMP strikes, arises around the question of what options other nuclear powers have to take against a vastly superior military superpower, without inevitably risking their own immediate destruction, if they see their own existence endangered. Should the United States, for example, for whatever reason, militarily attack a country which is allied with another, "smaller" nuclear power, or whose integrity is considered essential by the other nuclear power for its own national security, what can this nuclear power do, aside from paper protests or threatening an atomic holocaust? An EMP threat could be a conceivable deterrence option for small nuclear powers.

This is the more relevant, when one tries to imagine the global strategic landscape in the future. The 1998 Rumsfeld Commission categorized a number of countries (excluding the "allied" nuclear powers Great Britain, France, and Israel), as being capable of building long-range missiles and WMD, but as having forgone that option. The United States is currently allied to or has friendly, or at least non-hostile relations with, those countries, but a situation might emerge, in which these countries could change the decision to renounce ballistic missile/WMD capabilities.

Missile Defense and 'Expeditionary Wars' Overseas

The American government has publicly claimed that it is striving to achieve—or already has achieved—the capability to conduct two "limited" expeditionary wars overseas. The military occupation of Panama in December 1989, and the Gulf War of January-February 1991 under President George W. Bush, or the air war against Yugoslavia in the Spring of 1999 under the Clinton Administration, are examples of such

expeditionary wars in the post-Cold War era.

The Gulf War against Iraq and the Kosovo war could only be waged because the United States could make use of large military bases and active allies in the respective overseas conflict regions. Without regional allies and secure military bases, neither of these wars could have been waged. The willingness of the allies of the United States to participate in American military actions in their regions, either actively or by permitting the use of their bases, without having been attacked themselves, is obviously based on certain prerequisites: The territory of the ally must be optimally protected, by land and in the air. In addition, there has to be an effective protection against offensive missiles, in particular if there is the risk that these are armed with WMD. If these prerequisites are not met, the United States cannot rely on the willingness of regional allies to support them in military actions against third countries.

From what is known of the Gulf War in 1991, it can be concluded that Saudi Arabia was rather hesitant to participate in this war. The Bush government first had to "persuade" the Saudi leadership that Iraq, following its military occupation of Kuwait, was also preparing an invasion of Saudi Arabia. (That had nothing to do with reality, but concocted "reconnaissance evidence" was believed by the Saudi leadership.) In addition, however, the Saudi leadership had to be persuaded that the threat from Iraqi missiles, which could be armed with chemical or biological warheads, could be effectively countered. Consequently, American tactical interceptor missiles—the famous-infamous Patriots—were deployed to Saudi Arabia for defense against tactical and operative-tactical missiles, which gave the Saudi leadership a "feeling of security."

As it later turned out, the American assurances that, with the Patriot deployment, the Iraqi missiles no longer represented a threat to Saudi Arabia, were ill founded. The combat deployment of the Patriots was a fiasco: Contrary to official declarations by President George Bush personally, their hitrate against Iraqi missiles (Scud derivatives), which were armed with conventional warheads, was minimal. Had the Saudi leadership known this at the beginning of the war, it would likely have behaved differently.

It is interesting that the Kuwaiti leadership purchased Russian missile-interceptor systems (S-300/400) soon after the Gulf War ended, because Kuwait considered these more effective than the American systems. Israel, which had also been attacked with conventionally armed Iraqi missiles, energetically pursued its own Arrow missile-interceptor system, albeit largely financed by the United States. The Arrow system has been operational in the Israeli Defense Forces since 1999.

The Gulf War missile-interceptor fiasco did not escape the attention of the general staffs and governments around the world. This was true both for the allies and friends of the United States, and, as much or more so, for states with less friendly relations to the United States. The American leader-

ship had to realize that their military options internationally were seriously undermined, as long as their allies or potential allies in overseas regions of conflict, did not believe that there was an effective American missile defense capability.

Still in 1991, the Bush government launched its GPALS Program (Global Protection Against Limited Strikes), which consisted of three components: 1) "National Missile Defense," the origin of the current NMD; 2) "Theater Missile Defense," land- and sea-based operative-tactical missile-interceptor systems; and 3) an only vaguely defined, space-based "global" missile defense system.

Against the background of the bad experience in the Gulf War, the clear focus of the Bush Administration's missile defense plans was the theater (operative-tactical) area (TMD). The Patriot interceptor missiles were improved (Patriot PAC-3); a new land-based interceptor with a larger radius of action than the Patriot, the Theater High-Altitude Area Defense (THAAD) system, was developed; and the U.S. Navy developed new sea-based interceptor missiles. Despite claims to the contrary and new designations, the Clinton Administration basically continued on the path of the Bush Administration. The TMD projects had clear priority.

Missile Defense with 'Directed Energy'

One technology gained in importance during the Clinton years in the development of TMD systems: The use of "directed energy," travelling at the speed of light, for intercepting offensive missiles. Such "beam weapons" differ qualitatively from the "kinetic" interceptor missiles.

The construction of the first prototype of an aircraft-based laser (Airborne Laser/ABL) began at the end of the 1990s. This system is intended for destruction of missiles in the ascent phase of their ballistic trajectory. A high-performance laser was mounted in a Boeing 747, equipped with a target-acquisition system which keeps the laser beam focussed, despite atmospheric turbulence, and thus basically avoids energy loss. At an altitude of some 15,000 meters, the laser has a combat range of far more than 1,000 km to knock out missiles, which are relatively "slow" in the ascent phase, by paralyzing the electronics and control elements, or by exploding the fuel. The ABL system is supposed to be ready for deployment in 2002-2003, and this would represent an effective TMD system.

The ABL system demonstrates the qualitative superiority of missile defense systems based on "directed energy" over kinetic energy interceptor systems. There is no essential difference between the performance of the rocket motors of the target missile and the interceptor missile, since both are driven with chemical fuel. Missile defense systems with "directed energy," operating at the speed of light, are orders of magnitude faster.

As the technology of "optical adaptation" of laser beams has been so perfected, that the laser beam remains focussed even in the atmosphere, one can easily imagine the destructive effect that laser beams, outside the atmosphere, could achieve against missiles. That was the core idea of the original SDI, as LaRouche co-conceived it at the beginning of the 1980s.

The progress in missile defense technologies based on "new physical principles," has been much greater in the United States and Russia, but also elsewhere, than is generally assumed. It would be utter nonsense to claim that "directed energy" technologies are "Star Wars fantasies" or military pipedreams, just because the most interesting work in this field is kept secret. Those who claim that this is just an arms technology "white elephant," which would cost an enormous amount of money for minimal military use value, simply overlook the great progress that has been made in the secret laboratories of the greater powers during the past three decades. Indeed, one should expect some major surprises in this area. If the political will exists and sufficient funding is made available, existing laboratory models and prototypes can, in a short time, be made into deployable beam weapons, which will revolutionize the military configuration, not only in space and in the air, but also on land and sea.

Those who are now saying that highly effective and deployable beam weapons for missile defense and other military purposes, are indeed feasible, but unrealistic for reasons of cost, overlook a fundamental question, to which LaRouche has pointed for over 20 years now: Initially extremely expensive programs in the military area or in space programs, from which revolutionary technological progress emerges, "pay for themselves" if these technologies flow out into the economy as a whole. Practically everything in the U.S. economy today which is technologically advanced and competitive, came from the once "expensive" Apollo space program or military research and development programs.

Another proof, but a negative one, is the history of the Soviet Union, which did not collapse because it "armed itself to death," but because the Soviet economic system blocked the spin-off of highly advanced military technologies into the civilian economy. That is the reason why the Soviet "military-industrial complex" could not become a motor of the civilian economy, but became instead, over the long run, an unsustainable burden.

It should be emphasized that we are talking about breakthrough technologies, which, once used in the civilian economy, increase overall productivity. "Arms expenditures" in general, that go into average or below-average technology, do not have, by nature, the general effect of increasing overall economic productivity, and remain a net cost for the economy.

Missile Defense, Re-Armament, and Economic Crisis

These considerations are extremely important, because they highlight the third reason why the missile defense program is being forced ahead so vehemently by the Bush Administration: The currently rapidly contracting U.S. economy will supposedly be given a boost by means of arms programs.



Fusion Energy Foundation Director Paul Gallagher explains how President Reagan's SDI would work, in a March 24, 1983 interview with CBS News.

Since the end of 2000, the American economy has slid from several years of pseudo-prosperity, into an ever-deepening crisis. We will not examine the causes and the background of the "swindle economy" of the Clinton years here. The fact is, that the American "economic miracle" of the 1990s never had a real economic foundation, and rested solely on an unprecedented speculative inflation of stock prices, and a monstrous increase in the debt of firms, households, and the total economy (i.e., the balance-of-payments deficit). The immense trade deficit during the past years, is an indication of how hollowed-out the American real economy is.

Now, the U.S. Federal Reserve and the Bush Administration are desperately attempting to prevent the U.S. economy from slipping into depression. That is the reason for the aggressive interest rate cuts by the Federal Reserve, made in order to pump even more (inflationary) central bank liquidity into the financial system, in the hopes that this will "stimulate" the economy. The same wishful thinking is to be seen in the Bush Administration's aggressive tax-reduction plans, which are supposed to encourage firms and households to invest more and to consume more. In view of the extreme debt load, however, it is highly doubtful that firms or households will do what is expected of them.

The third package of measures by the Bush Administration, is a "grand" armaments program. Missile defense plays a key role in this armaments program.

It cannot be precluded that a form of "crash program" could be initiated for the NMD/TMD complex. Such a program, if it were actually launched, would then comprise revolutionary technologies which, as already indicated, could give a new technological-industrial impulse to the entire economy. One could assume that such considerations are not beyond a Donald Rumsfeld, who is a veteran in government, in intelli-

gence, in the military, and in the defense sector. However, what was quite a realistic perspective during the first Reagan Administration, for the SDI, today looks rather different.

The difference begins with the financing of a missile defense program and the related arms expenditures, although—from an objective point of view—that is actually the least of the problems. The Reagan Administration, during the 1980s, had to pay for the expansion of arms spending with a massive increase of state debt. However, that explosion of state debt, transpired against the background of a far lower level of total debt, if you count firms, households, and foreign debt obligations.

The current economic collapse and the intended additional tax cuts will drastically reduce the available tax revenue for the U.S. government. Rumsfeld already

pointed to such fiscal problems at the Munich Wehrkunde conference. He said there, that narrowing the government's financial latitude might have its effects on how plans are shaped for missile defense.

However, one should not assume that the economic crisis and the parallel decline in tax revenue would necessarily be a decisive impediment to increased arms spending. As the economic situation grows more desperate, the Bush Administration's readiness to forgo "fiscal conservatism" in favor of a debt-financed big re-armament program will likely increase, not decrease. Indicative is President Bush's Feb. 13 statement, which he made as the stream of horrific news from the U.S. economy was swelling, and doubts were increasingly being raised about the effectiveness of interest rate and tax cuts for stimulating the U.S. economy. Bush reiterated the importance of arms spending in a speech made at Norfolk Naval Air Station: "In our broader effort, we must put strategy first, then spending. Our defense vision will drive the defense budget, not the other way around." Before he made these remarks, Bush had participated in a computerized war-game, simulating a "rogue state" missile attack on the U.S. Eastern Seaboard.

Finally—and this is the decisive point—the American real economy was far healthier 20 years ago. American industry has been enormously weakened since then, by systematic "cost-cutting," "downsizing," "leaner production," and outsourcing to "cheap-labor" countries, as well as by the drain of capital stocks through "shareholder values."

In addition, a look at the ongoing energy crisis in California, gives an indication of the grave condition of U.S. infrastructure.

The American machine-tool industry, which had a leading role in the world up into the 1970s, was radically downsized.

That had its effects on the technological performance and international competitiveness of the rest of the American high-technology branches, such as aerospace. In the 1980s, the volume of American machine-tool production was halved. In 1970, a mere 9.5% of all U.S. firms bought machine tools in other countries, whereas, today 59.4% of all machine tools purchased in the United States, come from abroad. The situation is similar in plant construction and in the electro-industry.

The shrinkage and cartelization in American aerospace and the defense industries was particularly radical in the 1990s: Large firms were merged and cartellized, and many small and medium-sized firms of excellent technological quality were devoured or did not survive. Hundreds of thousands of skilled workers, technicians, or engineers retired or were fired.

Boeing alone has "freed up" over 50,000 skilled workers over the 1990s. In October 2000, the Federal Aviation Agency (FAA) published a report on an investigation made at six Boeing plants, which was triggered by indications that serious defects in the production process might have led to safety problems in Boeing aircraft. The FAA concluded that these problems were not "isolated incidents," but that "systemic" faults existed in development and production at Boeing. Similar problems have occurred at Lockheed-Martin, where costcutting, layoffs, and "new management methods" have led to an unprecedented number of rocket launch failures and the loss of several military and civilian satellites.

While the experienced and skilled workforce was reduced, hundreds of thousands of talented young people were drawn away from the high-technology industries into "IT" jobs in the computer, software, or financial sector. They were lost to the real economy, and took highly paid, but unproductive, or less productive jobs. Much of the highly skilled manpower going to the United States from Russia, Eastern Europe, or the Third World, was also largely absorbed by the "New Economy."

An article in Aviation Week and Space Technology on March 13, 2000, characterized the "terrifying loss of competence" in the U.S. military and in the aerospace firms, as a potential "national disaster." Computer and Internet companies "are drawing qualified personnel away from the aviation and space industries and the armed forces," the article stated. Investigations of failed launches in the civilian and military space programs in 1999-2000, revealed "a series of systemic problems," which were traceable especially "to a lack of experience." The management methods of "faster, better, cheaper," which had gotten the upper hand in the aerospace industries, exacerbated the quality problems, since, for reasons of cost, computer simulation is increasingly substituted for real tests. The aspect of this general "crisis of human capital," which is most important from the standpoint of national security, is the "dramatic loss of experience and knowledge about nuclear weapons" at the three national research centers, Los Alamos, Livermore, and Sandia, wrote Aviation Week.

The loss of competence and the reduced quality of the labor force in the high-tech industries of America will probably be the main bottleneck in any large-scale, scientific and technologically challenging arms program for missile defense. A double disappointment might loom: 1) the plans for a rapid deployment of a missile defense system may not be implemented on schedule, and 2) the hoped-for economic stimulation may not take hold in the necessary span of time, if at all.

A Cooperative Solution

Does all of this mean that missile defense is not only strategically counterproductive, but that its realization, in technology and production terms, may be unrealistic? Is the American missile defense program nothing but the desperate, last attempt of an "aging world power" to hold onto its global hegemony, at the cost of other nations that want economic development, as well as political and military-strategic power?

Under the present premises and trends, this would seem to be so, but if, as indicated above, the missile defense program were raised to a higher level and made into a cooperative venture, with participation of all nations that seek greater security and the technological, economic impetus from missile defense, then the situation could be different. Whoever thinks this approach is unrealistic, should recall that this idea is not new.

On March 23, 1983, President Ronald Reagan announced during a television speech that he had issued a directive to develop defensive systems which would make nuclear missiles "impotent and obsolete." The Soviet leadership under Yuri Andropov reacted with aggressive rejection. Even within the Reagan Administration, cabinet members and high-level officials likewise rejected the proposal. Although they could not say so openly, they made this rejection no secret in background discussions, with the media as well as with diplomatic contacts. Some thought Reagan's SDI was simply "insane" altogether, while others were not upset about SDI as such, but about how Reagan wanted to "sell" it to the Soviet leadership. They knew that Reagan was willing to offer the Soviets a cooperative and parallel development and implementation of missile defense systems in the East and West.

Reagan took this most remarkable approach towards the "evil empire," on the basis of discussions which LaRouche had conducted with Soviet diplomats in the months leading into the March 23 speech. These confidential discussions were conducted by LaRouche in coordination with the Reagan National Security Council (NSC), and they were by no means his "private initiative." LaRouche always emphasized in these discussions, that it was not only strategic stability, in the sense of overcoming the prevailing strategy of Mutually Assured Destruction, which was important to him, but also the scientific-technological consequences of missile defense systems based on "new physical principles."

LaRouche also always emphasized that the United States did not want to "push the Soviet Union into a military-strategic corner." He wanted the strategic regime of "Mutually Assured Survival" in military-strategic terms, where the competition between the superpowers would be confined to politics, economics, science, and culture. LaRouche's Soviet discussion partners were initially open to a cooperative SDI appoach, but they wanted to wait, in view of sharply conflicting positions on that question within the Soviet leadership.

Today, we know that LaRouche's original idea and Reagan's formal offer of cooperation, were not summarily rejected by the entire Soviet leadership. There were some influential circles who recognized this as an opportunity for their country, which Andropov rejected—with the known consequences for the Soviet Union.

Ten years later, two years after the end of the Soviet Union, the question of a cooperative approach to missile defense again appeared on the world political stage. This time, it happened in reverse. In April 1993, Russian President Boris Yeltsin made the proposal to President Clinton at their summit meeting in Vancouver, that the United States and Russia should work together on missile defense. Yeltsin proposed that the most modern Russian missile defense technology, based on "new physical principles," be used to develop a joint defense system against unintentionally launched missiles launched by "rogue states."

The Moscow paper *Izvestia* published a detailed article on the Russian proposal on April 2, 1993. On April 20, Dr. Leonid Fituni of the Russian Academy of Sciences spoke in Rome, at a conference of the Western European Union (WEU), on missile defense, in which he said that Russia was willing to offer the most sensitive laser, microwave, and plasma technologies for a joint missile defense. These were the very technologies which LaRouche had placed at the center of his concept of missile defense since the beginning of the 1980s.

The reaction in Washington and at NATO to Russia's proposals, was a deafening silence. In May 1993, U.S. Secretary of State Warren Christopher and leading American military officials said that the Russian proposal would be "examined," but then it was dropped. Voices spoke up in circles close to the Russian leadership some time later, who said that it was "irresponsible" to give away the most advanced results of Russian military research to the West. That was the end of this promising initiative, an apparently inconsequential episode. Or, perhaps not?

Russian diplomacy has been brewing up a storm against missile defense, since the U.S. leadership began to push its BMD program in the late 1990s. The special point of Russian emphasis, as mentioned above, was that NMD represented a breach of the 1972 ABM Treaty, and would put all of the results of decades of arms control and disarmament into question. (It must be pointed out, that the ABM Treaty explicitly deals only with kinetic interceptor-missile systems, and explicitly leaves out of account missile defense

based on "new physical principles.") "Asymmetrical" counter-measures were announced by Moscow, by which an American missile defense system could be overwhelmed and penetrated. The American missile defense plans would provoke a new arms race and endanger strategic stability worldwide. Obviously, this line of Russian diplomacy aims especially at influencing the governments and public opinion of the Western European NATO partners against the American missile defense plans.

To us, however, it seems that the Russian leadership knows that it cannot really thwart the American program with this tactic of "delaying resistance" and diplomatic threats, even with the support of China and other "NMD-skeptical" nations in Europe and Asia.

Since the beginning of 1999, some Russian diplomats, politicians, and military officials, have occasionally taken a rather different line: That Russia cannot deny, in principle, that there is an incalculable missile and WMD threat. Therefore, Russia and NATO should develop a missile defense system jointly, to which Russia could make significant military-technological contributions. This approach is quite reasonable, and Russia does have something very substantial to contribute. However interesting these Russian probes are, until now they have remained rather vague and unauthoritative. Moscow obviously wants to keep the door open for bilateral negotiations with the Bush Administration on missile defense.

For the European nations, the approach of a cooperative solution for missile defense is the only workable option which allows them to avoid "sitting between all chairs." Germany, in particular, will not go for a break with the Bush Administration over missile defense. The more so, as Germany knows that it will not be able to stop the American BMD plan by opposing it, and that Britain will back the Bush Administration.

Thus, the Bush Administration's "moral" claim on missile defense should be taken at its word, but the Europeans ought to demand, firmly and clearly, that a cooperative solution must be achieved. Such a cooperative setting for ballistic missile defense must involve both sides of the Atlantic, together with Russia, China, India, and other interested states.

Germany's position, in respect to such a cooperative BMD approach, is not so weak as may appear. In military-strategic and logistical terms, the United States needs Germany to act as a world power in Eurasia. Smaller European countries, like Denmark or Norway, also have significant political leverage, which could be used in favor of a cooperative solution. The United States needs its territory for using and upgrading BMD-related radar stations in Greenland and northern Norway.

The specifics of a Euro-Atlantic/Eurasian Cooperative Ballistic Missile Defense Initative need not be elaborated here. However, the fact that on a cooperative basis, missile defense could indeed become a strategic and economic "gain for all," might now be clearer.