of these abandoned projects, but by no means the boldest. The development of a national water and irrigation system for Mexico; opening up and "premining" underground deposits of oil, gas, mineral ores, and so forth by the use of directed explosive shocks; "reaching" underground water aquifers by the same method: these were some of the technological powers to be developed by the "Project Plowshare" tests. All of these required that the small, "clean" thermonuclear explosives which had been developed by the U.S. national labs, be used to study the laws of focusing and containment of strong shock waves underground as a powerful directed energy source.

This effort was directed against the inquisitional aspects of the Nuclear Test Ban drive. Working at Teller's request, a group of scientists headed by Dr. Albert Latter proved that because of a principle of shock-wave interaction with compressed matter, known as "decoupling," even a large H-bomb exploded in a deep cavern could not be detected by seismic instruments placed directly above it on the surface of the earth. The fireball's shock would be reflected back into the cavern from its walls.

The result, intended by Teller, was that underground thermonuclear tests, found thus undetectable, were not banned. The immediate "spinoff" was a technology design known as "PACER," to use thermonuclear explosions in steam-filled underground caverns to drive steam generators on the surface, producing an extremely efficient and powerful source of steady or pulsed electricity. This technology, and related designs, were effectively banned from the Test Ban Treaty period onwards.

All "Project Plowshare" tests were completely suppressed after a few underground "shots" in 1961. Major developing nations, such as India, which subsequently tested thermonuclear explosives to develop such capabilities, as Argentina has been today, were immediately branded as emerging nuclear weapons threats.

Testing and study of strong pulsed-power and strong shock-wave phenomena has of course continued through contained thermonuclear explosions, but under the deepest military-only secrecy and as the exclusive prerogative of superpowers. It was from such underground contained thermonuclear explosive tests, at Semipalatinsk in the U.S.S.R., that Air Force Maj. Gen. George Keegan first demonstrated in 1977 that the Soviets were developing powerful particlebeams for use in defending the Soviet Union against nuclear missile bombardment. The campaign of LaRouche and the Fusion Energy Foundation, to pull these most powerful genies of the nuclear age from the bottle of military secrecy imposed upon them by Lord Russell's inquisition, began to intensify at that point. Experts in the field agree that unless the fruits of this campaign epitomized by the x-ray laser publicity are expanded, there can be no successful "Manhattan Project" for defense against thermonuclear weapons, and no use of directed-energy beam technologies to revolutionize industry, economy, and science over the coming decades.

LaRouche: beam weapons a military means toward

Democratic Party leader and EIR founder Lyndon H. La-Rouche, Jr. delivered the following television address to San Diego citizens on March 5.

I want to talk to you about a very painful subject: the growing danger of a nuclear war between the United States and the Soviet Union. That danger is very real and, in fact, it's growing. I want to talk to you about what that problem is, and I want to talk to you about a possible solution to that problem. Some years ago, about 20 years ago, there were two events which terrified the people of the United States. First, there was the 1962 Cuban Missile Crisis, in which most people believed at the time, and rightly so, that we were minutes away from a thermonuclear exchange between the United States and the Soviet Union.

Then, approximately a year later, President John F. Kennedy was assassinated, and the fact of that assassination, the fact of the cover-up, terrified Americans and terrified people in Europe as well.

Under the impact of these two events, we in the United States shifted into a policy which was then associated with Defense Secretary Robert S. McNamara. (The "S" stands for Strange, and I think it's quite appropriate.)

This doctrine is called Mutually Assured Destruction, or appropriately, MÂD. The doctrine essentially is that thermonuclear ballistic missiles are the ultimate weapon—a weapon so terrible that neither the United States nor the Soviet Union would actually ever launch a nuclear war. The argument is that we can eliminate war by maintaining static garrisons, static forces of this type, and by setting up arrangements which are in general called "crisis management." This means red telephones, special conferences, and so forth, to

offer Americans achieving peace

make sure nothing goes out of control, and that the two governments do not find themselves wandering by miscalculation into a situation in which they might actually set off a thermonuclear war. This MAD doctrine has dominated the West.

This led by the time the Soviets began to overtake us, in the early '70s, to a process called detente, which was begun by the former mayor of West Berlin, Willy Brandt, and Willy's close adviser Egon Bahr. This resulted in the socalled SALT I and other agreements negotiated between President Nixon and Soviet Secretary Brezhnev. So detente was on. But no sooner was detente on than we began to move toward the actual possibility of a thermonuclear war. This surfaced in 1974 and has been increasing ever since. In 1974, we had what was called the Schlesinger doctrine, the doctrine that a "limited nuclear war" within such areas as the European theatre could occur without that leading to an actual nuclear war between the homelands of the Soviet Union and the United States. After the Schlesinger doctrine, we had other policies moving in the same direction, generally called forward nuclear defense. What these doctrines meant was that as the United States became weaker in its military defense, certain kinds of capabilities, particularly nuclear capabilities, should be pressed forward, closer and closer to an assault position with the Soviet adversary-in other words, that we should increase our bluffing as we became weaker.

Then, at the end of the Carter administration, a policy directive was issued, Presidential Directive 59, which was the most insane policy in the series to date, and the policy which in effect is controlling the United States government today. This is an aggressive defense, involving Euromissiles and things of that sort. In the meantime, partly because we are going into a depression, and partly because of the effects of the so-called environmentalist or Malthusian movement—the idea of trying to push us into a post-industrial society—our basic in-depth strategic capabilities are collapsing, both in the United States and in Western Europe.

At the same time, the Soviets are expending an extraordinary amount of their total product in developing not only the kinds of systems we are looking at in the charts I have here for comparison, but some absolutely new, fundamental revolutions in military technology, spending much more than even the CIA's Team B estimates of what they were spending. There is in fact a rapidly growing strategic imbalance between the two superpowers in which we of the United States are becoming progressively weaker and the Soviet Union is becoming progressively stronger. If this trend continues, possibly by 1988 or 1990, the Soviet Union will have a qualitative rather than merely quantitative net edge on us with respect to strategic balance. That is, they will reach the point that they can virtually dictate to the world the shaping of general international policy.

Now the danger is that sometime during the interval between now and 1988 or 1990, the President of the United States will be advised that this condition is developing; he may also be advised that it is too late for the United States to do anything to correct it. Under that condition the President has two choices: kiss the foot of whoever is boss in Moscow, or resort perhaps to using our thermonuclear arsenal for bluffing and trying to bluff the Soviets out of reaching this state of military development at which they would have a qualitative rather than just a quantitative strategic superiority.

This danger is increased by a policy advocated by the socalled nuclear freeze movement. Now some of you think the nuclear freeze movement is an anti-war movement. It is not an anti-war movement. The nuclear freeze movement specifies three things: 1) that the United States should cease all advanced technological development in military and other technologies; 2) that the United States should reduce its total military budget, *but* 3) that the United States must increase its conventional war-fighting capabilities for wars which shall occur below the Tropic of Cancer, that is, in Central America, South America, Africa, parts of the Middle East, and so forth.

We are committing ourselves to fighting Vietnam wars but not thermonuclear wars, at least so the doctrine goes. However, if we get into that geometry which the backers of the nuclear freeze advocate, such backers as Robert Mc-Namara, Maxwell Taylor—who are rather familiar to us who remember the Vietnam war—we will be facing strategic inferiority relative to the Soviet Union, at the same time as we are massively engaged in Vietnam-style war or something approximating that, shooting our former friends in Ibero-America, Africa, and elsewhere.

This madness creates a general probability for war, for thermonuclear war, during the second half of the 1980s. And if we continue on the present policy, then we shall lock ourselves into that geometry and we shall have war; it will be so probable that we dare not say it is not certain.

The way out

Now what I propose is a solution to the military side of this problem. My proposal is to eliminate the superiority of thermonuclear weapons as the final weapon. They are not an absolute weapon. We have had over this same 20-year period actual weapons systems and potential weapons systems with the capability of destroying thermonuclear ballistic systems in the stratosphere. We have had systems which could provide point defense to defend cities, to defend missile sites, or other targets from an incoming warhead.

The Soviet Union in the last six years or so has been developing a set of weapon systems which could do this by means of laser-like beams, beam weapons. There are many kinds of beam weapons, and they are quite feasible now. If we developed a crash program now, we could probably in ten years or less guarantee that 99 and 44/100ths percent of a full flight of missiles directed against the United States would not strike the homeland of the United States. We have the imminent technological capabilities to do that. The Soviets have it, too. The Soviets are well ahead of us in developing such a capability, and some of the things you see them putting up peacefully in space are relevant to this. They have been on an accelerated program to develop this for some years, while we have been lagging.

Furthermore, not only can we eliminate that kind of missile, the land-based or air-based missile—that is, the missile fired from land or the missile fired from a plane—we can also potentially kill missile-carrying submarines. They say that submarines are undetectable, but that is a lot of bunk. We now know the technological means to pinpoint missile-carrying strategic nuclear subs. There are several kinds of technology involved; again, that is a technical matter, but it exists. So, if somebody tells you that sea-based or submarine missiles are invulnerable, either they don't know what they are talking about or they are lying. I know enough of the technology to know that subs are intrinsically detectable. So therefore it is possible to do this.

Winning by default

If one side, we or the Soviet Union, were ever to emplace such a strategic system first, we would have won World War III by default. It now looks as though, with current trends from the Heritage Foundation and other lobbies in Washington, the Soviets, perhaps by the end of this decade, or perhaps earlier, will have such a strategic capability and we will have lost World War III. Perhaps we will go to World War III earlier, by the middle of the decade, in order to "head them off at the pass," as the boys say.

I have proposed that we change our negotiations on arms with Moscow in the following way: 1) that we agree to, independently but in parallel, develop and deploy anti-missile defensive beam weapon and supplementary systems; 2) that we agree to manage the progress in such deployment to such effect that we do not create a strategic imbalance of critical significance during the process of development; 3) that we then proceed on the basis of that agreement to a program of eliminating thermonuclear weapons, and 4) that we agree, as we put this into place, that if any third nation attempts to launch one or any number of thermonuclear weapons, we will jointly destroy those launched weapons that we agree, in short, to free the world from more than 20 years of thermonuclear terror.

The disarmament hoax

There is no other way to go. It will be impossible in any negotiation to significantly reduce the number of warheads; neither the United States nor the Soviet Union would actually give up what it considers the capability to obliterate the other by nuclear means. Disarmament leads nowhere; it accomplishes nothing. We cannot eliminate thermonuclear missiles except by going to a weapons development system that makes them relatively obsolete.

Granted, there is the possibility of an arms race from such a development as I have proposed. That is true. We could go beyond developing defensive systems to developing offensive systems of great and terrible power. But let us hope that by avoiding and averting the immediate danger of nuclear war before us, in that process we might grow up a little bit, and then, having grown up a little bit, we might by then find ourselves acting like mature people to take actions to remove the causes of war rather than simply trying to stop the weapons.

I think the answer to this lies in what Dr. Teller said in Washington this past October—I agree fully with him on this. If we commit ourselves to this technological revolution—and developing beam weapons technology is a technological revolution in modes of production as well as military science—and we use this technology to assist the development of developing countries, to increase the general welfare of mankind on this planet, to make ourselves more rational, more scientific, more inclined to think rationally about the connection between policies and practices and the results of those policies and practices down the road, that if we commit ourselves to those things which are properly the common aims of mankind, perhaps in that great effort we can find a solution.

Therefore, I propose that we adopt this policy—a beam weapon development policy, and put together a crash program to do this. We must negotiate with the Soviets on this question, as I have indicated, and we must couple this with a plan for technologically progressive economic growth, and to finally remove the hideous effects of centuries of British and other imperialism that blight the conditions of life for people of the developing sector. I think that is the way to peace, and I think that is the proper military policy.