Blundering Into Disaster: The First Century of the Nuclear Age

Robert S. McNamara

Is the risk of nuclear war unacceptably high and, if so, what can we do about it? Will Reykjavik prove to be a step toward reducing that risk?

Let me begin by recalling that nearly 50 years have passed since Albert Einstein sent his historic letter to President Franklin D. Roosevelt warning him that it was essential that the United States move quickly to develop the nuclear bomb. In that half century the world’s inventory of such weapons has increased from zero to 50,000. On average, each of them has a destructive power 30 times that of the Hiroshima bomb. A few hundred of the 50,000 could destroy not only the United States, the Soviet Union, and their allies but, through atmospheric effects, a major part of the rest of the world as well.

The weapons are widely deployed. They are supported by war-fighting strategies. Detailed war plans for their use are in the hands of the field commanders. And the troops of each side routinely undertake exercises specifically designed to prepare for that use. General Bernard Rogers, the supreme allied commander of NATO forces in Europe, has said it is likely that in the early hours of a military conflict in Western Europe, he would ask for the authority to initiate use of nuclear weapons.

This situation has evolved over the years through a series of incremental decisions. I myself participated in many of them. Each of the decisions, taken by itself, appeared rational or inescapable. But the fact is that each was made without reference to any overall master plan or long-term objective. Together these decisions have led to nuclear arsenals and nuclear war plans that few of the participants either anticipated or, in retrospect, would wish to support.

Because we lack a long-run plan for the nuclear age, the number of weapons continues to multiply. And now the United States and the Soviet Union appear to be on the verge of an escalation of the arms race that will not only place weapons in space, but will seriously increase the risk that one or the other of the adversaries will be tempted in a period of tension to initiate a preemptive nuclear strike before the opponent can get in the first blow.

Although four decades have passed without the use of nuclear weapons, and though it is clear that both the United States and the USSR are aware of the dangers of nuclear war, it is equally true that for thousands of years the human race has engaged in war. There is no sign that is about to change. And history is replete with examples of occasions in such wars when emotions have taken hold and replaced reason.

I do not believe the Soviet Union wants war with the West. And certainly the West will not attack the USSR or its allies. But dangerous frictions between East and West have developed in the past and are likely to do so in the future. If deterrence fails and conflict develops, the present Western strategy carries with it a high risk that civilization will be destroyed.

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"The risk that military conflict will quickly evolve into nuclear war, leading to certain destruction of our civilization, is far greater than I am willing to accept. . . ."

Crisis Instability and the Risk of Nuclear War

During the seven years I served as secretary of defense, confrontations carrying a serious risk of military conflict developed on three separate occasions: over Berlin in August of 1961; over the introduction of Soviet missiles into Cuba in October of 1962; and in the Middle East in June of 1967. In none of these cases did either side want war. In each of them we came perilously close to it.

In no one of the three incidents did either side intend to act in a way that would lead to military conflict, but on each occasion lack of information, misinformation, and misjudgments led to confrontation. And as each crisis evolved, tensions heightened, emotions rose, and the danger of irrational decisions increased.

It is correct to say that no well-informed, coolly rational political or military leader is likely to initiate the use of nuclear weapons. But political and military leaders, in moments of severe crisis, are likely to be neither well informed nor coolly rational.

Today we face a future in which for decades we must contemplate continuing confrontation between East and West. Any one of these confrontations can escalate, through miscalculation, into military conflict. And that conflict will be between blocs that together possess 50,000 nuclear warheads — warheads that are deployed on the battlefields and integrated into the war plans. A single nuclear-armed submarine of either side can unleash more firepower than man has shot against man throughout history.

In the tense atmosphere of a crisis, each side will feel pressure to delegate authority to fire nuclear weapons to battlefield commanders. As the likelihood of attack increases, these commanders will face a desperate dilemma: use the weapons or lose them. And because the strategic nuclear forces, and the complex systems designed to command and control them, are perceived by many to be vulnerable to a preemptive attack, commanders will argue the advantage of a preemptive strike.

But it is a fact that in the face of the Soviet nuclear forces the West has not found it possible to develop plans for the use of its own nuclear weapons in a conflict with the USSR in ways that would both assure a clear advantage to the West and at the same time avoid the very high risk of escalating to all-out nuclear war.

What would be the consequences of such a conflict? Studies by two of my former aides in the Pentagon concluded that even under the most favorable assumptions, there would be a high risk of 100 million dead. Such studies prompted former West German Chancellor Helmut Schmidt to remark that the use of nuclear weapons will not defend the West, but destroy it. And they led Field Marshal Lord Richard Carver, Lord Louis Mountbatten, and several other of the eight retired chiefs of the British Defense Staff to indicate that under no circumstances would they have recommended that the West initiate the use of nuclear weapons in a confrontation with the Soviet Union.

The risk that military conflict will quickly evolve into nuclear war, leading to certain destruction of our civilization, is far greater than I am willing to accept on military, political, or moral grounds. And, I submit, it is far greater than anyone should be willing to continue to accept.

The conviction that the superpowers must change course is shared by groups and individuals as diverse as the anti-nuclear movements, the majority of the world's top scientists, Soviet General Secretary Mikhail Gorbachev and President Ronald Reagan, and leaders of third world and independent nations such as Rajiv Gandhi of India and the late Olof Palme of Sweden. All agree that we need a plan to reduce the long-term risk of nuclear war, but there is no consensus on what course to take. The changes of directions being advocated follow from very different diagnoses of our predicament.

Before examining proposals for changing course, it should be emphasized that if the superpowers continue to weaken the arms control regime, as they have over the past six or seven years, the risk of the world ultimately facing a nuclear configuration will continue to grow. Miniaturization is increasing the mobility, accuracy, and destructive power of weapons. In advanced stages of development are mobile land-based missiles; antisatellite weapons; space-based systems; and land-, sea-, and air-based cruise missiles that are increasingly difficult to detect and hence increasingly difficult to limit by verifiable arms control agreements.

The current U.S. nuclear weapons-building program, which is producing 2,000 warheads annually, is the biggest in 20 years. And steps are under way to expand substantially for the 1990s both the production of the key nuclear materials — tritium, uranium, and plutonium — and the production of the warheads themselves. At the same time,
our weapons laboratories are forecasting large increases in the number of underground tests required for the development of new types of nuclear arms.

Unconstrained weapons development and deployment over the next 50 years will lead not only to increased numbers of weapons but to greater danger of their use in time of tensions, that is, greater "crisis instability."

Risk Reduction Proposals

It is the recognition of this danger that has led President Reagan, General Secretary Gorbachev, and others to suggest actions that they hope will reduce the long-term risk of nuclear war. The proposals they have presented include:

— Achieving political reconciliation between East and West.
— Eliminating all nuclear weapons through negotiation (as proposed by Gorbachev).
— Replacing "deterrence" with "defense" — the elimination of nuclear weapons by the substitution of defensive forces for offensive forces (as proposed by Reagan).
— Strengthening deterrence by adding defensive forces to the offense (as proposed by former Secretary of State Henry Kissinger and others).
— Accepting the proposition that nuclear warheads have no military use whatsoever except to deter one's opponent's use of such weapons.

Do any of these alternatives offer hope that the risk of nuclear war can be significantly reduced in the second half century of the nuclear age?

Before discussing the choices we face, we should erase from our minds a series of misperceptions of the nuclear balance between East and West that are widespread, both in America and throughout the world. They include such commonly held views as:

— The Soviets possess nuclear forces superior to our own.
— The Soviets possess, or are seeking to achieve, a first-strike capability.
— Regardless of American actions or restraint, the Soviets will continue to expand their nuclear power as quickly as they can for as long as they can.
— If the West mobilizes its technical resources, it can achieve and maintain a militarily significant lead over the Soviets.
— Given the political confrontation between East and West, the buildup of nuclear forces to their present levels was inevitable.
— Arms control agreements are worthless; the Soviets cheat and their violations are undetectable.
— Arms control agreements have only resulted in Soviet advances.
— Nuclear weapons, even when militarily irrelevant, may serve political ends.

All of these statements are incorrect. But the arms race in the first half century of the nuclear age has been fueled in part by myths such as these.

Let me now turn to a discussion of alternatives to a continuation of the arms race. I begin with East-West reconciliation.

East-West Reconciliation

The East-West military rivalry is, of course, a function of the political conflict that divides the two blocs. Many have argued, therefore, that any long-term attempt to bring a halt to the arms race and to reduce the risk of nuclear war must begin by addressing the source of the tensions — the political rivalry.

It is clear that the West — North America, Western Europe, and Japan — lacks an agreed conceptual framework for the management of relations with the Soviet Union and its allies.

We need a coherent, widely supported policy, rooted in reality and pressed with conviction and determination. It must be a policy that protects vital interests, enhances political cohesion, and offers the hope of influencing the Soviets to move in a favorable direction. A long-term, stable relationship between East and West is both desirable and attainable. Even in an atmosphere of competition and mutual suspicion, common interests exist, and the pursuit of each side's competitive goals can take place in an atmosphere of moderation.

The relationship must rest on the twin pillars of firmness and flexibility. Both of these elements are essential if the relationship is to command public support and have a chance of succeeding. There is not a contradiction here: détente without defense would amount to surrender on the installment plan; defense without détente would increase tensions and the risk of conflict. The two are mutually reinforcing.

Therefore, I strongly urge that we embark upon a program of "sustained engagement." It cannot be stressed enough, however, that this process will require time, patience, and consistency of purpose. And there are limits to the results. Sustained engagement cannot be expected to eliminate the periods of tension and confrontation that have characterized East-West relations over the past four decades. It is not, therefore, a substitute for other actions.
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**Gorbachev: Eliminate All Nuclear Weapons**

General Secretary Gorbachev has proposed that the United States and the Soviet Union aim at achieving the total elimination of nuclear weapons by the year 2000. Is a nuclear-free world desirable? I believe it is, and I think most Americans would agree.

However, NATO's current military strategy and war plans are based on the opposite premise. And many — I would say most — U.S. military and civilian officials, as well as European leaders, hold the view that nuclear weapons are a necessary deterrent to Soviet aggression with conventional forces. Thus, these individuals do not favor a world without nuclear weapons. Zbigniew Brzezinski, President Jimmy Carter's national security advisor, said of Gorbachev's proposal, "It is a plan for making the world safe for conventional warfare. I am therefore not enthusiastic about it."

My criticism of Gorbachev's vision, however, is not that it is undesirable, but that it is infeasible under foreseeable circumstances. Unless we can develop technologies and procedures to ensure detection of any steps toward building a single nuclear bomb by any nation or terrorist group, an agreement for total nuclear disarmament will almost certainly degenerate into an unstable rearmament race. Thus, despite the desirability of a world without nuclear weapons, an agreement to that end does not appear feasible either today or for the foreseeable future.

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**Reagan: Substitute Defensive Forces for Offensive Forces**

On March 23, 1983, President Reagan proposed his solution to the problem of security in the nuclear age. He launched the Strategic Defense Initiative (SDI), a vast program that promised to create an impenetrable shield to protect the entire nation against a missile attack. With the shield in place, the president argued, the United States would be able to discard not just nuclear deterrence but nuclear weapons themselves.

The president and his secretary of defense, Caspar W. Weinberger, continue to promise that this strategic revolution is at hand.

Virtually all others associated with the Strategic Defense Initiative have recognized and admitted that such a leakproof defense is so far in the future, if indeed it ever proves feasible, that it offers no solution to our present dilemma. Therefore, they advocate missions for a Star Wars system other than a perfect "security shield." These alternative aims range from defense of hardened targets — for example, missile silos and command centers — to partial protection of our populations.

For the sake of clarity I will call these alternative programs Star Wars II, to distinguish them from the president's original proposal, which will be labeled Star Wars I. (A third, quite different version of the SDI, which might be called Star Wars III, was put forward at Reykjavik.)

It is essential to understand that Star Wars I and Star Wars II have diametrically opposite objectives. The president's program, if achieved, would substitute defensive for offensive forces. In contrast, Star Wars II systems have one characteristic in common: they would all require that we continue to maintain offensive forces but add the defensive systems to them.

Until there are inventions that have not yet been imagined, a defense robust and cheap enough to replace
deterrence will remain a pipe dream. Given that harsh reality, President Reagan's claims that defensive forces are "morally preferable" to offensive forces and that we have a "moral obligation" to pursue them are, as former Secretary of Defense James R. Schlesinger has put it, "pernicious." Thus, "mutual assured destruction" is not, as some have alleged, an immoral policy. Mutual assured destruction — the vulnerability of each superpower to the awesome destructive power of nuclear weapons — is not a policy at all. It is a grim fact of life.

**Strengthen Deterrence**

Henry Kissinger agrees that achievement of Star Wars I in any time period relevant to the current problem is impossible. But Kissinger has become a supporter of Star Wars II. He believes that deploying strategic defenses while maintaining our offensive systems will strengthen deterrence.

Kissinger presents the most powerful argument put forward by those who favor "offense plus defense": even a partially effective defense would introduce an element of uncertainty into Soviet attack plans and would thereby enhance deterrence. This reasoning assumes that the Soviet military's sole concern is to attack the United States and that any Soviet uncertainty is therefore to our advantage. But any suspicions the Soviets may harbor about our wishing to achieve a first-strike capability — and they do indeed hold such views — would be inflamed by a partially effective defense.

Why will the Soviets suspect that Star Wars II is designed to support a first-strike strategy? Because a leaky umbrella offers no protection in a downpour but is quite useful in a drizzle. That is, a partial defense would collapse under a full-scale Soviet first strike but might cope adequately with the depleted Soviet forces that had survived a U.S. first strike.

And that is what causes the problem. President Reagan, in a little-remembered sentence in his speech of March 23, said, "If paired with offensive systems, [defensive systems] can be viewed as fostering an aggressive policy, and no one wants that." The president was concerned that the Soviets would regard a U.S. decision to supplement — rather than replace — its offensive forces with defenses as an attempt to achieve a first-strike capability. Reagan has subsequently said, "I think that would be the most dangerous thing in the world, for either one of us to be seen as having the capacity for a first strike." But that is exactly how the Soviets are interpreting the SDI program.

If the Soviets do not accept the statements of those who support Star Wars II — if they do not accept that SDI is not part of a first-strike strategy but only a means of strengthening deterrence — how will they respond? It would be foolhardy to dismiss as mere propaganda the Soviets' repeated warnings that a nationwide U.S. strategic defense is highly provocative. Their promise to respond with a large offensive buildup is no empty threat. Each superpower's highest priority has been a nuclear arsenal that can assuredly penetrate to its opponent's vital assets. Such a capability, each side believes, is needed to deter the other side from launching a nuclear attack or using a nuclear advantage for political gain.

The United States has said it would respond to a Soviet strategic defense plan in exactly the same way the Soviets
have stated they would respond to ours. It is safe to conclude, therefore, from both the U.S. and Soviet statements that any attempt to strengthen deterrence by adding strategic defenses to strategic offensive forces will lead to rapid escalation of the arms race.

To meet the threat of arms escalation, Paul Nitze, Reagan's arms control advisor, articulated a new U.S. "strategic concept" for a cooperative shift to a Star Wars world: "What we have in mind is a jointly managed transition, one in which the United States and the Soviet Union would together phase in new defenses in a controlled manner while continuing to reduce offensive nuclear arms." The president has gone further by proposing to delay the deployment of Star Wars until all offensive ballistic missiles have been destroyed.

Although Nitze has made clear that strategic defensive forces should be deployed only in accordance with the terms of an arms control agreement, no human mind has conceived of how to write such a treaty. Nitze himself has said that the transition to Star Wars would be "tricky.

Why has no one been able to outline the content of such a treaty? Because neither U.S. nor Soviet experts can figure out how to reduce offensive forces, permit defensive deployment, and at the same time, give each side adequate confidence that it can maintain its highest goal: assuring an effective nuclear deterrent against nuclear attack.

So it can be said without qualification: we cannot have both deployment of Star Wars and arms control. That was confirmed at Reykjavik.

In sum, I can see no way by which the U.S. deployment of an antiballistic missile defense will strengthen deterrence. But assume for a moment that were not the case. Is there an alternative means of achieving Henry Kissinger's goal? He fears the Soviets have now, or will achieve in the future, a first-strike capability. It is that which he is trying to offset or prevent. Can his goal be accomplished at less cost, with greater certainty, and with less risk of fueling the arms race by some means other than the SDI?

The Scowcroft Commission said yes. Its plan to do so is based on the simple approach of reducing the ratio of the number of accurate Soviet warheads to the number of our vulnerable land-based missiles. This could be done through negotiation with the Soviet Union or by replacing our potentially vulnerable fixed-base missiles (Minutemen) with mobile missiles (Midgetmen), or by a combination of the two approaches. Gorbachev has already indicated a willingness to move in this direction if we would by similar moves reduce our threat to his forces.

To summarize, none of these rationales for Star Wars II offers a satisfactory approach to reducing the risk of nuclear war in the decades that lie ahead. And each carries the certainty of high cost and a dangerous escalation of the arms race.

We are left, then, to turn to our final option: a reexamination of the military role of nuclear weapons.

Reexamine the Military Role of Nuclear Weapons

Earlier I stated that no one had ever developed a plan for initiating the use of such weapons with benefit to the West. More and more military and civilian leaders, including Lord Carver and Lord Mountbatten; Admiral Noel A. Gayler, former commander in chief of U.S. ground, air, and sea forces in the Pacific; and Melvin R. Laird, secretary of defense in the Nixon administration, are publicly acknowledging this fact.

If there is a case for NATO retaining its present strategy, that case must rest on the strategy's contribution to the deterrence of Soviet aggression being worth the risk of nuclear war in the event deterrence fails.

But as more and more Western political and military leaders recognize, and as they publicly avow, that the launch of strategic nuclear weapons against the Soviet homeland — or even the use of battlefield nuclear weapons — would bring greater destruction to the West than any conceivable contribution they might make to its defense, there is less and less likelihood that the West would authorize the use of any nuclear weapons except in response to a Soviet nuclear attack. As this diminishing prospect becomes more and more widely perceived — and it will — whatever deterrent value still resides in the West's nuclear strategy will diminish even further. One cannot build a credible deterrent on an incredible action.

Additional factors must be considered. Whether it contributes to deterrence or not, the threat of first use is not without its costs. It is a most contentious policy, leading to divisive debates both within Western Europe and North America; it reduces the West's preparedness for conventional war; and as I have indicated, it greatly increases the risk of nuclear war.

The costs of whatever deterrent value remains in the West's nuclear strategy are substantial. Could not equivalent deterrence be achieved at lesser "cost"? I believe the answer is yes. Compared to the huge risks that we now run by relying on increasingly less credible nuclear threats, recent studies have pointed to ways by which the conventional forces may be strengthened at modest military, political, and economic cost. The West has not done so because there is today no consensus among its military and civilian leaders on the military role of nuclear weapons.

There is, however, a slow but discernible movement toward acceptance of three facts:

— The West's existing plans for initiating the use of nuclear weapons, if implemented, are far more likely to destroy Western Europe, North America, and Japan than to defend them.

— Whatever deterrent value remains in the West's nuclear strategy is eroding rapidly and is purchased at heavy cost.

— The strength, and hence the deterrent capability, of Western conventional forces can be increased substantially within realistic political and financial constraints.

It is on the basis of these facts that I propose we accept that nuclear warheads are not weapons — they have no military use whatsoever except to deter one's opponent from their use — and that we base all our military plans, our defense budgets, our weapons development and deployment programs, and our arms negotiations on that proposition. The ultimate goal should be a state of mutual deterrence at the lowest force levels consistent with stability.

If the Soviet Union and the United States were to agree, in principle, that each side's nuclear force would be no larger than was needed to deter a nuclear attack by the other, how might the size and composition of such a limited force be determined?
When discussing Gorbachev's proposal for the total elimination of nuclear weapons, I pointed out that a nuclear-free world, while desirable in principle, was infeasible under foreseeable circumstances because the fear of cheating in such an agreement would be very great indeed. Policing an arms agreement that restricted each side to a small number of warheads, however, is quite feasible with present verification technology. The number required for a force sufficiently large to deter cheating would be determined by the number the Soviets could build without detection by NATO. I know of no studies that point to what that number might be, but surely it would not exceed 500. Very possibly it would be far less.

**Turning Away from Disaster**

I consider, therefore, that the second half century of the nuclear age need not be a repetition of the first. We can — indeed we must — move away from the ad hoc decision-making of the past several decades. It is that process which has led to a world in which the two great power blocs, not yet able to avoid continuing political conflict and potential military confrontation, face each other with nuclear war-fighting strategies and nuclear arsenals capable of destroying civilization several times over.

Through public debate, a debate in which citizens throughout the world — the potential victims of nuclear war — have both the capability and responsibility to participate, the risk of catastrophe can be lowered by establishing long-term objectives that will underlie and shape all aspects of our nuclear programs. That must be our goal.

Most Americans are simply unaware that Western strategy calls for early initiation of the use of nuclear weapons in a conflict with the Soviets. Eighty percent believe the United States would not use such weapons unless the Soviet Union used them first. They would be shocked to learn they are mistaken. And they would be horrified to be told that senior military commanders themselves believe that to carry out our present strategy would lead to destruction of our society.

But those are the facts.

In truth, the Emperor has no clothes. Our present nuclear policy is bankrupt.

President Reagan's intuitive reaction that we must change course — that we must recognize nuclear warheads cannot be used as military weapons — is correct. To continue as in the past would be totally irresponsible.

I previously referred to three crises from my own term as secretary of defense: Soviet pressure in Berlin in 1961; the introduction of missiles into Cuba in 1962; and the Middle East War in 1967. My purpose was to provide a personal perspective on one of the central themes of this article: Things can go wrong. Actions can lead to unintended consequences. Signals can be misread. Technologies can fail. Crises can escalate even if neither side wants war.

Three recent events — the shooting down of Korean Air Lines Flight 007 in 1983, leading to the deaths of 269 civilians; the explosion of the U.S. space shuttle Challenger in January 1986; and the Chernobyl nuclear reactor accident last May — reinforce this point. They serve to remind us all how often we are the victims of misinformation, mistaken judgments, and human fallibility. It is inconceivable to me that in a crisis situation, with all its inevitable pressures, decisions regarding the use of nuclear weapons would be unaffected by such factors.

The loss of KAL 007 was a great tragedy. But a similar error in judgment leading to the launch of nuclear weapons would be unparalleled disaster. We must act to avoid such a disaster by making less and less likely the use of these weapons. The course we have been following for nearly half a century has been leading precisely in the opposite direction.

The arms negotiations now under way — and particularly the proposals put forward at Reykjavik for reductions in strategic offensive forces — represent a historic opportunity to change course and to take the first step toward the long-term goals that I have outlined. We can lay the foundation for entering the 21st century with a totally different nuclear strategy, one of mutual security instead of war-fighting; with vastly smaller nuclear forces, no more than 1,000 weapons in place of 50,000; and with a dramatically lower risk that civilization will be destroyed.

The present dangerous and absurd confrontation has evolved through a long series of steps, many of which seemed to be rational in their time. Step-by-step, much of the damage can be undone.

The program I have presented would initiate that process. Whether or not my specific proposals are accepted, we can surely agree on this: we must develop a national consensus for a long-term strategy for the second half century of the nuclear age — a strategy that will reduce the unacceptable risks we now face and begin to restore confidence in the future.

Is not our first duty and obligation to assure, beyond doubt, the survival of our civilization?

"... we must develop a national consensus for a long-term strategy ... that will reduce the unacceptable risks we now face and begin to restore confidence in the future"