Our conventional forces had better be good, since we will be relying on them more.

After the INF

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The Intermediate-range Nuclear Forces (INF) Treaty, signed in 1987 by the President of the United States and the General Secretary of the Soviet Union, represents a major milestone in the history of disarmament diplomacy. It is a treaty that, for the first time, goes well beyond the simple balancing of power. In fact, this treaty sets precedents for verification controls and elimination of an entire class of nuclear weapons. The treaty will eliminate all US and Soviet ground-launched ballistic and cruise missiles in the 500- to 5,500-kilometer (300- to 3,400-mile) range and will prohibit their future production or deployment.

Although the treaty will reduce a significant portion of the threat to Western Europe, we should not deceive ourselves that our tasks have been made simpler. The underlying national objectives of the Soviet Union, the staggering size of its military forces, and the threat it represents remain extremely formidable. We must move carefully into the next decade with our eyes wide open to the potentially disastrous effects that would follow a perceived loss of Western resolve to maintain a strong defense in every category, especially in conventional forces.

In effect, the treaty has forced us to place greater reliance on our remaining forces at the very time our nation's military establishment faces extensive budget reductions that could spell less deterrent and defense capability. Force modernizations that have been on drawing boards for years are now being scrutinized as candidates for budget cutting. Conventional force modernization, for instance, is long overdue and—in the aftermath of the treaty—takes on a new sense of urgency if we are to maintain a credible defense of Europe. At the

With the elimination of an entire class of nuclear weapons under the Intermediate-range **Nuclear Forces Treaty.** the defense of Europe will rely on existing forces and conventional weapons. The removal of the ground-launched cruise missiles and their transporter/erector/ launchers (shown here at Davis-Monthan AFB, Ariz., waiting to be destroyed) from Europe makes forcemodernization efforts. such as AMRAAM, LANTIRN, and a solution to the close air support debate, that much more important.



same time, there are new key systems, such as the Advanced Tactical Fighter and the C-17, entering critical phases in the acquisition cycle, as well as continuing requirements to ensure proper support for our people. The budget decisions we will face in the next few years will be difficult and critical.

Even now, the United States Air Forces in Europe (USAFE) and the US Air Force as a whole face further funding reductions. For example, USAFE's Fiscal Year 1988 operations and maintenance budget was almost fourteen percent below that of FY '87. These are our key, day-to-day operating funds. Generally speaking, operating tempo was reduced, but missions have been preserved thus far. Future cuts of any significance will have to be absorbed by reductions in mission areas in order to assure continued high standards of readiness and survivability. We must carefully guard against a return to the "hollow force" of the late 1970s.

Position of Strength

The INF Treaty clearly demonstrates that negotiating with the Soviets produces the best results when approached from a position of strength. The history of disarmament talks is replete with Soviet rebuffs of American proposals. Soviet objectives, however, steadily crumbled in the face of a cohesive NATO commitment to deploy the BGM-109 ground-launched cruise missile and the Pershing II missile. The lesson for all of us is that if we are to enjoy another forty-four years of peace in Europe, NATO must continue to upgrade and modernize its forces with the same level of unified determination.

In light of the INF agreement, we and our NATO allies must examine military priorities with the realization that it will cost more to maintain the same level of deterrence. Critical to a European deterrent strategy is a credible theater nuclear weapons capability.

NATO's dual-capable aircraft, along with ground artillery, will provide the lion's share of theater nuclear capability in the post-INF Treaty environment. Obviously, the Warsaw Pact will intensify efforts to render these NATO assets as ineffective as possible. Soviet efforts are typified by the ongoing modernization of their already formidable integrated air defense system. NATO foresaw these increasingly effective air defense efforts and began preparations to counteract them long before the INF Treaty seemed likely.

With elimination of INF missiles, the penetration capability of our nuclear-capable aircraft now acquires even more importance. One high-priority initiative, in particular, has been highlighted recently. This is the tactical air-to-surface missile. The need for this missile was identified in an early 1980s NATO assessment of nuclear force modernization required to maintain a credible deterrent. Fortunately, this key modernization program was initiated in time to allow the deployment of the missile early in the 1990s.

Even the best nuclear deterrent may be ineffective if the Warsaw Pact can carry out Soviet plans for a lightning-quick conventional campaign. Under Soviet doctrine, such a campaign would be mounted in an attempt to overwhelm NATO before NATO could reach the decision to use its nuclear "prevention tool." To guard against the reality, as well as a Soviet perception, that such a gambit might be successful, it is critical that NATO maintain effective conventional capability.

The Air Force will continue to give high priority to a core force needed to preserve missions vital to our nation's warfighting capabilities and will cancel other missions and programs to fit within fiscal reality. Our conventional deterrent priorities include the following: deployment of the Advanced Tactical Fighter (ATF), which is the next-generation air-superiority fighter; modernization of fighter aircraft, including production of the F-15E dual-role fighter; acquisition of the AIM-120A Advanced Medium-Range Air-to-Air Missile (AMRAAM) and the Low-Altitude Navigation and Targeting Infrared for Night (LANTIRN) system; development of a follow-on aircraft to replace the close air support A-10; and, finally, improvement to the survivability and sustainability for our fighter force structure.

The ATF represents a major technological leap that will ensure that we retain a substantial qualitative lead over the Soviets. However, the ATF is still several years from production. In the meantime, we might use our ingenuity to update our current aircraft and maximize their effectiveness against new threats.

The Necessary Tools

Acquisition of the F-15E is a high priority. The F-15E, with virtually no technological risk, enhances the basic, combat-proven, air-superiority capability of the F-15 Eagle, while adding to the theater more all-weather, round-the-clock, long-range, surface attack capability. A mission-specialized rear cockpit, improved avionics, LANTIRN, and radar mapping will permit the precision targeting and lethal delivery of large weapon payloads. Automatic terrain avoidance will enhance the F-15E's survivability during deep-penetration missions, during which the planes would attack and destroy enemy nuclear assets, air bases, rear area logistics nets, and other enemy forces.

The AMRAAM will soon enter the USAFE inventory. The greater performance and speed of the AMRAAM over previous radar-guided air-to-air missiles will act as a force multiplier for the theater's F-15s and F-16s. The AMRAAM can exploit current aircraft capabilities and will permit simultaneous engagement of multiple targets by a single defender. The much longer range and the launch-and-leave performance of the AMRAAM increase fighter survivability, while improved resistance to electronic countermeasures increases the probability of target destruction.

LANTIRN, when fully integrated with F-15E and F-16 flight systems, will provide automatic terrain-following and multisystem target designation. This will allow these aircraft to fight in an expanded environment and increase their wartime survivability. The enemy no longer will enjoy sanctuaries for unhindered operation. In spite of darkness and low ceilings, LANTIRN-equipped aircraft, when fully configured, will be able to get into and out of the target area below enemy defenses and deliver infrared-guided Maverick missiles, laser-guided bombs, and other conventional munitions with superior accuracy.

Future success on the conventional battlefield will be greatly affected by how we resolve the difficult problem of finding a successor to the A-10 close air support (CAS) aircraft. In Europe, the modern battlefield will no longer be characterized by opposing forces facing each other across a relatively straight and well-defined line. Rather, the battlefield will reflect deep penetrations of mobile forces into the opposing side's rear areas. This, in turn, requires an aircraft that can penetrate beyond the forward edge of the battle area to provide close support for our forces operating behind enemy lines. Further, we need to be able to provide that support twenty-four hours a day in all kinds of weather. It is essential that we find highly survivable aircraft with a battlefield punch equivalent to or greater than that of the A-10.

We are taking a hard look at modifying two existing aircraft, the A-7 and the F-16, to provide this capability. The modified A-7, or, as it is now called, A-7F, will have a new, afterburning engine for improved performance and maneuverability, as well as a new avionics suite. However, there are not enough A-7 airframes to cover the CAS requirement completely. A modified F-16,

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called the A-16, is also being pursued. This aircraft will meet all requirements, be cost-effective, and take advantage of existing logistics pipelines. Such force modernization will yield improved firepower for today's highly mobile battlefield as well as increasing conventional deterrent credibility.

Sustaining Operations

In addition to fielding improved weapon systems, USAFE must continue to concentrate on improving the capability of our air bases to sustain operations in a combat environment. The Air Force has established an office, at the assistant-secretary level, to coordinate efforts to improve air base operability. Several initiatives are now being taken to provide active and passive measures to enhance air base operability.

On the active side, improvements are being made in air defense systems protecting our air bases. In England, the Royal Air Force provides air base ground defense and operates Rapier surface-to-air missile (SAM) systems to protect our bases. The West Germans have agreed to provide air base ground defense and operate the Roland SAM systems.

Many passive measures are receiving high priority at main operating bases. Included are several projects designed to harden base facilities and to camouflage and conceal critical assets. Programs to improve our rapid runway repair capability are being emphasized, and a number of chemical defense efforts are under way.

History has demonstrated that an aggressor's use of chemical warfare against an unprepared opponent yields significant military advantages. This history lesson is very clear to the Soviets and their Warsaw Pact allies. The size of the Warsaw Pact's chemical warfare corps and the volume of equipment Pact nations possess for chemical warfare training indicate more than routine preparation to deter an enemy's use of chemicals.

If we in NATO are to deter chemical warfare, we must be as capable as our adversaries in operating in a chemical environment. Beyond that goal, we must establish a credible capability to retaliate in kind against any adversary who uses chemical weapons. History also shows that an aggressor is usually unwilling to employ chemical weapons when faced with potential response in kind.

From a chemical defensive standpoint, NATO has begun installation of personnel shelters on air bases. These earth-covered structures provide a filtered environment where our troops can rest from combat duties without having to wear hot protective suits or gas masks. Although these shelters are neither roomy nor especially comfortable, they represent a real increase in NATO's ability to sustain an effective combat effort under any conditions. Beyond this step, improved gas masks are being fielded, and research into more effective and comfortable chemical protective suits continues. However, in terms of deterrent potential, these defensive means, as effective as they are, pale by comparison with a credible capacity to retaliate.

NATO's current resources for chemical retaliation have been with us a long time. Unfortunately, the follow-on to these older weapons, Bigeye, is not coming along as fast as desired. Bigeye is a binary chemical weapon. It uses two different chemicals; each is nontoxic until it is combined with the other during delivery. Keeping the weapon affordable, while ensuring the requisite level of safety and reliability, poses a considerable technical challenge. However, this challenge must be met. A credible chemical warfare deterrent must remain an essential element of any Western European strategy.

Crucial Years Ahead

The next few years will be crucial, fraught with pitfalls. We will be faced with growing fiscal constraints, increasingly sophisticated Soviet media campaigns, and natural tendencies to wish the dangers away. We have to strive to ensure Alliance cohesion, work to redress the conventional imbalance, and continue to modernize our nuclear and conventional forces. We must never forget that the process of arms control is only effective if it contributes to improved security. Our objective is not a nuclear-free Europe, but rather a war-free Europe.

Finally, the Alliance's concerns must be faced and resolved by all the participating nations—not just the US, and not just the European members. The past forty-plus years of peace based on a strong defensive alliance, provides a worthy record that Alliance members must strive to extend.

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