

## **The Urgent Requirement for Anti-Ballistic Missile (ABM) Defenses**

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The author, who was intimately involved in the analysis of U.S. and Soviet Anti-Ballistic Missile programs, surveys recently de-classified documents from both U.S. and Russian sources to reveal how the Soviets totally violated the Treaty and how American development of a national ABM defense system was frustrated by the ABM Treaty. Reasons are given why a national ABM system remains an urgent requirement for the U.S.A.

Key Words: ABM Treaty, Anti-Ballistic Missiles, SALT, TABM

This article has been largely developed from my forthcoming book, *The ABM Treaty Charade: A Study in Elite Illusion and Delusion*, to be published by the Council for Social and Economic Studies in April 1997. A summary from an early draft appeared in *Comparative Strategy*, July-September 1996. The study was made possible by the release of a large amount of previously classified information from both Russian and U.S. sources documenting what some had long suspected but could not prove with the evidence available.

### **The Current ABM Dispute**

In 1994 President Clinton proclaimed a national emergency in face of the threat of proliferation of nuclear, biological and chemical weapons, and the means of delivering them. A year later he issued a "Notice of Continuation" of the emergency.<sup>2</sup> Obviously, ballistic missiles are one of the prime means of delivery.

Since the 1994 Congressional election a majority of Congress wants to deploy a national anti-ballistic missile (NABM) defense that

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<sup>2</sup> William R. Graham, "The Anti-Ballistic Missile Treaty: The Problem Disguised as the Solution", Testimony Before the U.S. House of Representatives Committee on National Security, 27 September 1996.

would at least protect the U.S. from nations possessing a small number of ballistic missiles armed with mass destruction weapons. Notwithstanding its "national emergency" declarations, the Clinton administration has frustrated Congressional attempts to mandate NABM on the grounds that it would violate the 1972 ABM Treaty, which is viewed as the "cornerstone" of "arms control" agreements with the former Soviet Union that allegedly are still essential to U.S. security in the new world disorder.

Both the Clinton administration and Congress agree that the U.S. should have "theater" anti-ballistic missile (TABM) defenses to defend U.S. and allied military forces abroad, but they face the thorny problem of defining the difference between NABM and TABM. The ABM Treaty categorically prohibits NABM deployments that can intercept "strategic" missiles, but says nothing about TABM, nor does it define either type of ABM system.

Because requirements for high probability of target kill force TABM designers to overlap NABM technologies – e.g. target and interceptor velocities, sensors and computers – it is very difficult to formulate a workable definition. Furthermore, a TABM having little or no capability to intercept strategic missiles when operating autonomously can be transformed into a NABM system if provided with target tracking and other data from remote "battle management" radars, or optical sensors – surface, air, or space based.

As of this writing the Congress and the Clinton administration remain at loggerheads over NABM. Senator Majority Leader Trent Lott has put NABM on the Senate agenda for this session of Congress (105th, 1997-98). A 1996 national intelligence estimate (NIE) alleged, contrary to previous estimates, that the U.S. simply does not face a ballistic missile threat for a long time to come.

The dispute at the national policy level is compounded by public misunderstanding of other aspects of the problem. First, a large majority of American citizens simply do not believe that despite the trillions of dollars spent on defense in the Cold War the U.S. could do nothing to stop a hostile ballistic missile once it is launched. Most people think that we have ABM defenses.

Second, few Western national security scholastics realize that in 1967 the U.S. was ready to deploy a NABM (NIKE-X) that even Secretary of Defense Robert Strange McNamara admitted was cost-effective against a humongous Soviet threat, and that President

Lyndon B. Johnson and McNamara sacrificed NIKE-X deployment on the altar of MAD (mutual assured destruction) in order to launch the SALT (strategic arms limitation) process for a net loss in U.S. security.

Third, the best kept secrets of all are that the Soviets began deploying their NABM around 1962, continued deploying and modernizing it under until the Empire collapsed in 1991, and that the U.S. has the evidence. CIA was primarily responsible for this intelligence failure that now extends over three decades. Even Congressional proponents of U.S. NABM still accept the linkage of both NABM and TABM to ABM Treaty compliance, which is absurd because that Treaty never was a valid contract in the first place.

A brief historical review is in order to understand how and why the U.S. got itself into such an absurd situation.

### **The Road to the Present Impasse**

In the late 1950s the former Soviet Union embarked on a two track approach to ABM defenses: complex, fixed site systems solely to defend Moscow; and dual purpose anti-aircraft/missile (SAM/ABM) systems for their NABM. The Soviets put the best they had into their dedicated Moscow ABM defenses, and the best they could afford into their NABM systems.

The mission of the Moscow ABM defenses was to buy enough time for the nomenklatura to get to their shelters to manage a nuclear war. The mission of the dual purpose NABM was to limit damage to critical national political, military, and economic assets in a nuclear exchange.

The original Moscow ABM system consisted of huge phased array battle management radars and the long range Galosh interceptor carrying a multi-megaton warhead.<sup>3</sup> Installation of the Galosh ABM system in the 1960s was hindered by excessive haste and lack of coordination between the responsible organizations. Finally, in 1989 it was replaced by a Soviet copy, with additional computers, of the U.S. NIKE-X system of 1967 vintage.

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<sup>3</sup> This paper uses standard U.S./NATO designators for Soviet weapon systems and components. In this case, "Galosh" is used as a designator for both the long range ABM interceptor and the first generation ABM system deployed to defend Moscow.

Soviet NABM consisted of the dual purpose SA-5 and SA-10 SAM/ABM systems, the Hen House and LPAR battle management radars to provide essential target tracking data, and a command-control system integrating both NABM and the Moscow ABM defenses.<sup>4</sup> As in the case of air defense, the Soviets considered NABM that was not effective by U.S. standards to be better than none, consistently fielding the best they could.

Failure to understand this basic, and self evident, principle of Soviet behavior was one of the principal sources of erroneous U.S. intelligence assessments of Soviet NABM as being only anti-aircraft systems (SAMs) and ballistic missile attack warning radars. Moreover, the U.S. Central Intelligence Agency (CIA) consistently interpreted the gaps in U.S. technical intelligence collection as proof that the Soviets were not deploying NABM. As contrary evidence accumulated, CIA simply stuck to its dogma.<sup>5</sup>

Like the early Soviet systems, the first U.S. national ABM system, NIKE-ZEUS, was derived from air defense systems widely deployed in the U.S. in the 1950s. While NIKE-ZEUS performed better than expected when tested, it shared the basic deficiencies of its Soviet counterparts: ineffective against MIRVs and a number of countermeasures.

However, the U.S. NIKE-X ABM system designed in 1963-64 was a revolutionary advance combining a powerful, multi-aperture phased array radar (MAR), an IBM 360 type computer, and the high acceleration SPRINT missile for low altitude intercepts. NIKE-X was designed against MIRVs with high performance RVs, while the computer and the high acceleration SPRINT interceptor used atmospheric filtering to counter decoys and other countermeasures. The MAR radar combined battle management, target, and interceptor tracking functions, and was highly resistant to nuclear effects. Almost overnight the U.S. acquired a commanding 20 year lead over the Soviets in ABM technology.

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<sup>4</sup> LPAR is the acronym for large perimeter acquisition radar. Soviet weapon systems and components are referenced by U.S./NATO designators.

<sup>5</sup> Based on a synthesis of the data (previously classified) from Russian sources and the de-classified U.S. National Intelligence Estimates (NIEs). For detailed source documentation see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C., 1997).

In 1966 U.S. Secretary of Defense McNamara agreed that the NIKE-X system would be cost-effective against a the likely 1990 Soviet threat projected to 1990, but refused to deploy the system to protect U.S. cities on the grounds of "mutual assured destruction" (MAD) theology. According to MAD, any defenses jeopardizing both U.S. and Soviet capabilities to kill 25 to 50 percent of the other's population was "destabilizing" by definition.<sup>6</sup>

The battle over NIKE-X deployment came to a head in a December 1966 showdown between President Lyndon Johnson, McNamara and the Joint Chiefs at LBJ's ranch. McNamara made the standard pitch according to MAD theology: U.S. NABM would be destabilizing; the Soviets would certainly expand their strategic arsenal to restore the *status quo ante* – "assured destruction" of 25 to 50 percent of the U.S. population; neither side would gain anything from such an escalation of the arms race.

The Joint Chiefs' argument followed the lines of the briefing given to McNamara some two months earlier: deployment of NIKE-X would save the lives of tens of millions of U.S. citizens should the Soviets attack our cities; while the results of a nuclear attack could be estimated with some confidence in the absence of defenses, the outcome became highly uncertain were NIKE-X deployed; the Soviet response was by no means foreordained; and the U.S. would gain some strategic advantage however the Politburo responded.<sup>7</sup>

For the moment the Joint Chiefs won the day to deploy U.S. NABM. However, McNamara watered it down to the SENTINEL system he announced in September 1967. That system had been designed to counter the PRC threat to 1985, hence was not effective against a large Soviet MIRVed force. Granted the full NIKE-X system would have been expensive – some \$40 billion (ca. 1967 dollars), but that was a fraction of the cost of the Vietnam War. Nevertheless, the money, some 58,000 U.S. killed in action, and generations of national trauma went to Vietnam to support a doomed

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<sup>6</sup> I was present at the briefing in September or October of 1966 when this occurred – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

<sup>7</sup> Based on memoranda of conversation (memcons) provided by the LBJ Library – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

strategy.

Following the December 1966 shootout at the ranch, Johnson ordered his national security advisor, Walt W. Rostow, to obtain the views of his senior national security and diplomatic advisors – including the CIA – on probable Soviet reactions to U.S. ABM deployment.<sup>8</sup> All respondents agreed that Soviet ABM deployment was limited to Moscow – no NABM in progress. Most agreed with McNamara: the Soviets would react by buying as many missiles as were required to restore their "assured destruction" capabilities. All agreed the time was ripe for negotiations with good prospects of freezing both superpowers' strategic nuclear forces. None perceived that the Soviets had adopted a nuclear war fighting strategy, were deploying the SS-9 and developing the SS-18 and other MIRVed missiles to target U.S. ICBMs, nor that a decade earlier the Politburo had adopted the policy of preferential growth of military expenditures at the expense of consumption to pay for it all.<sup>9</sup>

In January 1967 President Johnson offered SALT to the Politburo because he faced "great pressures" from Congress and public opinion to deploy U.S. ABM defenses, which would lead to more spirals in the arms race, incurring "colossal costs without substantially enhancing the security" of either side.<sup>10</sup> There was no immediate Soviet response.

According to Soviet ambassador Anatoly Dobrynin, McNamara and other senior U.S. officials had been paving the road to negotiate away U.S. NABM since January 1964. In two meetings in 1966-67 McNamara told Dobrynin:

- many Pentagon "brass hats" were sold on promising U.S. ABM R&D, had recruited allies in Congress and were pressing for deployment;
- both U.S. and Soviet military doctrines were based on "assured destruction" i.e. MAD;

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<sup>8</sup> During their careers both Ambassadors Foy Kohler and Llewellyn Thompson served as U.S. Ambassadors to the Former Soviet Union.

<sup>9</sup> From memoranda in the Lyndon B. Johnson Library – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

<sup>10</sup> Lyndon Baines Johnson, *The Vantage Point*, (Holt, Rhinehart and Winston, New York, Chicago, San Francisco, 1971), pp. 479-80.

- the U.S. strategic nuclear arsenal was much larger than "mutual assured destruction....MAD" required, even the much smaller Soviet arsenal was still big enough for MAD;
- ABM defenses were a new element in the equation but could be countered by increasing the offensive arsenal, which was cheaper;
- mutual renunciation of ABMs was the best solution.<sup>11</sup>

No doubt the Politburo and the General Staff were fully informed of these conversations. The initial Soviet reaction evidently was some mixture of suspicion and great skepticism.

According to Dobrynin, these contacts finally resulted in the June 1967 summit between Premier Kosygin and President Johnson at Glassboro, N.J. McNamara attended to brief Kosygin on the need for prompt negotiations on ABM and other "arms control" issues. Dobrynin's memoirs and U.S. memcons from the LBJ Library are remarkably consistent on the discussions at Glassboro; Johnson and McNamara told Kosygin what McNamara previously had communicated to Dobrynin. Johnson wanted to announce that talks "concerning control of the ABM race" would take place, and wanted Kosygin to arrange for talks on this issue between U.S. Ambassador Llewellyn Thompson and Soviet representatives as soon as possible.<sup>12</sup>

Kosygin responded that the development of offensive systems, not ABMs, "were the root and the cause of trouble and tension in the world." According to Dobrynin, at one point Kosygin nearly lost his temper, exclaiming in a loud voice: "Defense is moral, aggression is immoral."<sup>13</sup> He found McNamara's arguments a "commercial" approach to a moral issue. Since the Politburo had not decided how to respond to American entreaties, Kosygin refused to discuss "arms control" issues or to commit the Soviets to talks.

Privately, Kosygin commented on McNamara's briefing by

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<sup>11</sup> Anatoly Dobrynin, *In Confidence*, (Time Books, Random House, N.Y., 1995), pp. 148, 149-52.

<sup>12</sup> Memcons from the LBJ Library and Dobrynin, p. 165 – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

<sup>13</sup> *ibid.*, pp. 165-6 and memcons from LBJ Library – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

"pointing out the Soviet *missile defense systems around Moscow and Tallinn* were designed to save the lives of Soviet citizens", so both sides should agree on limiting offenses first before negotiating defenses away (emphasis added).<sup>14</sup> (At that point, the SA-5 was known as the "Tallinn" system where the first complex was discovered under construction in 1963). As far as can be determined, no Americans were present when Kosygin made this statement confirming the existence of Soviet dual purpose NABM.

Glassboro coincided with the crisis in Soviet ABM programs when they realized their ABM technology was far behind the U.S., decided to develop a copy of the NIKE-X system to defend the apex of the nomenklatura at Moscow, re-oriented other programs, and approved engineering development of their second generation dual purpose NABM systems, the SA-10 and the LPAR battle management radars. (The infamous Krasnoyarsk radar was the sixth in the LPAR series.)

By February 1968, after McNamara told the world for the second time that the SA-5 – per CIA's assessment – really was only an anti-aircraft system (SAM), i.e. not a dual purpose SAM/ABM, the Politburo was convinced that the American goose really was pleading to be plucked. They could continue to deploy their NABM while agreeing not to do so, limit U.S. ABM to insignificant levels, and buy time while trying to regain the technical lead by developing directed energy systems under a national program adopted in 1965. So when SALT negotiations began after a brief mourning period for the demise of Czech "socialism with a human face" under the treads of Soviet tanks, the U.S. was surprised to find that the ABM Treaty was the Politburo's first priority.

Meanwhile in the U.S., widespread unrest over the Vietnam War that McNamara now says he didn't really support all along, combined with the prospect of U.S. national ABM, galvanized MAD and anti-nuclear activists into a campaign that soon killed U.S. ABM entirely while the Soviets cultivated our self deception and tried to catch up and leapfrog us technologically.

By the time the Empire collapsed, Soviet NABM consisted of some 11-12,000 dual purpose SAM/ABM interceptor missiles

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<sup>14</sup> ibid.



deployed at SA-5/10 complexes supported by some 18-20 huge battle management radars (Hen House and LPAR). Yet to this day the U.S. officially counts only the 100 interceptors of the "ABM X-3" system at Moscow, which are permitted by the ABM Treaty.

Seldom has a nation acted more like the folklore about the ostrich.

### **Missile Proliferation in the New World Disorder**

Basically, the U.S. faces two sources of potential threats from ballistic missiles armed with weapons of mass destruction: nations that already have both the weapons and the delivery systems, and whose non-hostility is not assured; and nations currently hostile to greater or lesser degree and which could acquire both a few delivery systems and weapons over the next decade or two.

Russia and the PRC occupy the first category. Russia has an arsenal of some 7,000 nuclear warheads on missiles ready to launch with the capability to destroy all U.S. ICBMs, nuclear storage sites, and fixed command-control facilities, plus U.S. military industries and millions of Americans. As of this writing, Russia probably will not ratify START II to reduce its arsenal to some 3,500 warheads. In either case, Russia has large reserve stocks of missiles and nuclear warheads. The U.S. does not know how either the size or location of such reserve stocks.

The *known* PRC ICBM arsenal presently consists of some 30 ICBM and SLBM launchers, but may become much larger in a few years. When they tried to intimidate the Taiwanese by launching shorter range ballistic missiles into the sea last year, the PRC reminded the U.S. that we value Los Angeles more than Taipei.

The second group of hostile nations with still limited capabilities includes, at a minimum, the five rogues – Iran, Iraq, North Korea, Libya and Syria – most of which are known to have assisted each other in missile and nuclear development, and to have purchased such technology from the PRC, Russia, and elsewhere.

The defense studies center at Britain's Lancaster University reports that a total of 35 non-NATO countries (including the five rogues) have acquired ballistic missiles, and that 18 of these "are

capable of installing either nuclear, biological or chemical warheads."<sup>15</sup> As many predicted decades ago, proliferation of ballistic missile and mass destruction warhead technologies already is widespread and inevitably will become more so.

The PRC has been engaged in selling missiles and proliferating nuclear and missile technology for years. The recent military agreement with Russia, the full extent of which almost certainly is not known in Washington, will accelerate sales and technology transfer to greater or less degree. Although No. Korea has less to offer than the PRC, it has been doing its best and may be able to offer missiles with ranges up to 4,000 km. in a few years.

Although not presently hostile, the Russian situation is very unstable. President Yeltsin appears to be a walking corpse at best, the central government in Moscow is almost totally corrupt, and the economy is much more a nomenklatura kleptocracy than a market system. The standard of living of a majority of Russian citizens is much lower than under the Empire. Much, but by no means all, of the Empire's military industrial complex, including missile and nuclear organizations, is in a state of collapse, or worse.

Such conditions are most fertile for transfer of missile and mass destruction weapon technologies in various forms, including transfer of highly skilled nuclear scientists and engineers to the rogue nations. In addition, the Clinton administration has interpreted the "arms control" agreements it inherited to permit sale of Russian strategic missiles as space boosters. It is not all that difficult to convert anything that can orbit a payload into an ICBM.

While there are no "free lunches" in the advanced weapons business, acquiring and assimilating many of the requisite technologies is by no means as difficult as it once was. As William R. Graham, former Science Advisor to President Reagan, has pointed out:

In the 1940s, designing and fabricating ballistic missiles was challenging, but with focus, determination, and national-level support it was done very rapidly, even though new types of inertial guidance instruments had to be developed, new rocket engines and

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<sup>15</sup> *The Economist*, "Circles of Fear", 4 January 1997, p. 33.

missile structures fabricated, and new fuels produced. By contrast, in the 1980s and 90s, the West's schools and universities teach advanced technology to students from all over the world. Missile designs are well understood, missile components are available on the world market, and whole missile systems can be bought and delivered, as in the case of the Soviet SCUDs to China, the North Korean SCUDs to Iraq, Chinese M-11s to Pakistan, Chinese CSS-2s to Saudi Arabia, and so forth. Since most of today's ballistic missiles are mobile, training and launching by customer nation crews can take place in the missile's country of origin, so that the first launch of a missile from a customer country may occur without warning.<sup>16</sup>

As Dr. Graham also noted, it is not difficult to launch ballistic missiles from ships, so intercontinental range is not an absolute requirement for a missile threat to the U.S.

Nevertheless, in 1996 the Clinton administration served up a NIE reversing previous assessments by concluding that the U.S. would not face the threat that led to President Clinton's 1993 national emergency proclamation until after the year 2010, if then. Several members of Congress criticized that NIE as unconvincing and probably politically motivated. An investigation by the General Accounting Office (GAO) produced a highly critical report – CIA had violated a number of its own basic methodological rules in producing the disputed NIE.

The administration then appointed a review panel headed by former Director of Central Intelligence, Robert Gates. That panel's report found even more errors of omission and commission than the GAO reported, that the NIE had been produced in undue haste, and that at least two senior CIA officials had been highly critical of it. Nevertheless, the Gates panel duly concluded that the case for no ballistic missile threat to the U.S. before 2010 was even stronger than the NIE's finding, and branded all suggestions of political influence on the NIE as "irresponsible."<sup>17</sup>

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<sup>16</sup> 27 September 1996 testimony to the House Committee on National Security, p. 3.

<sup>17</sup> Independent Panel Review of NIE 95-19, "Emerging Missile Threats to North America During the Next 15 Years", report to the U.S. House of Representatives National Security Committee, p. 2.

While admitting that the NIE was "politically naive", the Gates panel failed to note that it also was very politically correct for the Clinton administration's policies.<sup>18</sup>

### **Implications of START II and the ABM Treaty<sup>19</sup>**

Having ratified the START II Treaty while Mr. Clinton blocks development and deployment of U.S. NABM, the U.S. Senate has made Russia potentially the world's preeminent nuclear superpower with its combination of strategic offensive and aerospace defensive forces. This may appear paradoxical inasmuch as the former Soviet Union did not achieve a comparable strategic advantage throughout the Cold War.

The basic reason for this apparent paradox is that as offensive arsenals are reduced, the strategic advantage accrues to the side with superior air and missile defenses. The U.S. Cold War strategic offensive "Triad" – ICBMs, SLBMs, and bombers – carrying 10,000 (or more) nuclear warheads dominated both Soviet air defenses despite Soviet NABM deployed in violation of the ABM Treaty. But the START II Treaty and the NABM that Russia inherited change the strategic balance fundamentally.

In contrast to U.S. reliance on ballistic missiles and bombers, the Soviet Triad consisted of both offensive and defensive components: strategic missiles; air, missile and space defenses; and massive shelters for the leadership and urban evacuation for the population. Instead of relying primarily on dominant offensive forces, the Soviet Triad was based on the synergistic interaction between offense and defense pursuant to Soviet military doctrine and strategy to fight and "win" a nuclear war. By the same token, the dominant components of Soviet strategic offensive forces were IR/MRBMs and ICBMs designed for disarming counterforce strikes on U.S./NATO nuclear delivery systems and command-control.<sup>20</sup>

A preemptive counterforce strike on strategic warning was the preferred Soviet nuclear option for several reasons: the bitter

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<sup>18</sup> *ibid.*, p. 3.

<sup>19</sup> Portions of this section appeared in an oped in the *Washington Times*, 30 January 1996, and in my paper in the July-September 1996 issue of *Comparative Strategy*.

<sup>20</sup> See William T. Lee and Richard F. Staar, *Soviet Military Power Since World War II*, (Hoover Institute Press, Stanford University, Stanford, CA, 1986), chapters 3,4, and 8.

experience of 1941 when the German surprise attack almost won the war; in the Soviet calculus silo based missiles typically were five to ten times more vulnerable to U.S. strikes than in the U.S. calculus, and Soviet SSBNs were very vulnerable to U.S. nuclear attack submarines; a counterforce strike would reduce the size of the U.S. retaliatory strike and, hopefully, spread it out in time and space to increase the effectiveness of air and missile defenses.<sup>21</sup> As the Soviet military understood decades ago, no military force is invulnerable, consequently the bottom line for both ABM and air defenses is **damage limitation, not damage denial.**

By 1984 a Soviet preemptive strike could have destroyed 80-90 percent of U.S. ICBMs. However, thanks to the U.S. strategic offensive Triad of ICBM, SLBMs and heavy bombers, some 3,700-4,100 SLBM warheads and 2,000-2800 weapons on U.S. bombers probably would have survived. This severely limited the damage limiting potential of a Soviet preemptive disarming strike, unless it paralyzed U.S. command/control, in which case Soviet NABM and air defenses might have limited damage to some significant degree. But that was a chancy scenario.

Under the START I Treaty limit of 6,000 total warheads, the U.S. Triad consists of some 4,750 ballistic missile warheads, roughly 3,750 of which are SLBMs, and some 1,250 cruise missiles (ALCMs) on bombers, still large enough to make a preemptive strike very risky. However, the START II Treaty limit of some 3,500 strategic warheads is below the safety threshold – 500 warheads on ICBMs, ~1750 on Trident class SLBMs, and ~1250 on some 70 bombers, including only 16-20 stealthy B-2s, carrying long range cruise missiles (ALCMs). The number of U.S. targets for a Russian counterforce strike probably will not exceed 600 aim points. Most importantly, while Russia inherited national missile and air defenses, the U.S. has no missile defenses, and no aircraft units dedicated to continental air defense.

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<sup>21</sup> For analysis and documentation of preemption as the preferred option, and of the Soviet Navy's strategic defensive mission to protect their SSBNs, see William T. Lee and Richard F. Staar, *Soviet Military Policy Since WW II*, (Hoover Institution Press, Stanford University, Stanford, CA, 1986) pp. 45-47. The unknown story of the vulnerability of Soviet silo based missiles per their nuclear weapon effects models will be treated at length in my forthcoming book "How the Cold War Was Won and Lost".

Ostensibly, START II ensures the survivability of the U.S. Triad by eliminating MIRVed ICBMs on both sides and several other measures. In fact, the START II Treaty would enhance Russia's counterforce advantage over the U.S. because: they are not required to destroy the warheads from their SS-18 and SS-19 missiles, hence can restore their counter-force MIRV capabilities quickly; the number of U.S. targets is much reduced. As the Russian General Staff told the Duma in 1995: "Russia's counterforce potential...will even grow 20 percent as a result of implementation of START II owing to a marked decrease of the corresponding potential of the United States." Further, dismantled Russian MIRV platforms and warheads are to be stocked, not destroyed, under the Treaty "which gives potential advantages....a quick increase in nuclear potential if the United States pulls out of the treaty."<sup>22</sup>

So much for the myth that Russian missiles no longer are targeted on the U.S., which has been featured in President Clinton's State of the Union addresses, and in his re-election campaign.

In addition, the Russians inherited large stocks of reserve (refire) missiles and warheads. CIA and the Defense Intelligence Agency (DIA) covered up the discrepancies in missile stocks in the Soviet START II declarations, as well as in all types of weapons covered by CFE. Neither agency has yet admitted that it underestimated Soviet nuclear weapon production and storage by 50 to 100 percent, or more, and don't know where the additional warheads are.

Under START I the Russians partially dismantled the warheads from decommissioned missiles, i.e. separated the fuzes and other electronics from the fissionable materials, but have not destroyed any. Despite appropriations of several hundred million dollars under the Nunn-Lugar law, not a single nuclear warhead has been destroyed with these funds.

Even if the operational missiles and warheads were destroyed it would be of little avail because the Russians inherited equal or larger numbers in reserve stocks. The service life of these missiles, which have not been fueled or the guidance systems placed on alert

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<sup>22</sup> A. Koretskiy, "START II Hearings: Cuts Are In Order Because There Are No Maintenance Funds", FBIS-SOV-95-139, 20 July 1995, p. 4.

status for long periods, can be extended for many years with minimum maintenance.

Meanwhile Russia retains all the defensive elements of the Triad inherited from the former Soviet Union, particularly NABM which consisted of some 11-12,000 ready SA-5 and SA-10 missiles, plus some significant number with SA-12 units.<sup>23</sup> Under the most favorable assumptions after a Russian preemptive attack, a U.S. retaliatory strike would consist of some 1,300 missile warheads, mostly SLBMs, distributed on targets across the vast expanse of Russia. Such an attack almost would be made to order for Russian NABM, most especially if the U.S. attack were not well coordinated as a result of Russian strikes on command-control facilities.

Moreover, the Moscow region and a large area of Western Russia constitute a special case for ballistic missile defense because this area contains three battle management radars from the original Galosh ABM and the ABM X-3, numerous SA-5/10 complexes, and the integrated command-control posts for all these ABM systems.

Based on existing U.S. intelligence and the ABM Treaty, a U.S. planner would allocate *only* sufficient warheads to penetrate the Moscow defenses permitted by the Treaty, most likely by exhausting 100 ABM X-3 missiles plus sufficient warheads to destroy the targets. Such a U.S. attack would have a very low probability of penetrating 2-3,000 SA-5/10 missiles controlled by the three battle management radars at Moscow.

If U.S. target planners were given realistic data on the ABM defenses of Moscow, hundreds of weapons, possibly 1,000 or more, would be required just to exhaust all the ABM defenses, and to destroy the numerous targets in the area. Subtract that number from the 1,300 (maximum) missile warheads likely to survive a Russian counterforce strike, and the threat to Russian NABM in the rest of the country would be reduced to modest levels indeed. The air defense balance under START II is more or less equally grim.

Granted, a significant portion of Soviet NABM and air defenses are located in the successor states outside the present boundaries of

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<sup>23</sup> *Soviet Military Power*, 1989, p. 51; Jane's, *Land Based Air Defenses*, 1995-96, p. 261. Granted, a number of the radars and missile units are located on the territory of the successor states to the former Soviet Union, and that the operational status of these units is questionable at this time.

Russia, and readiness no doubt has suffered from the ills besetting the post Soviet military establishments. Nevertheless, these problems could be solved by an effective Russian regime willing to discard the obsolete components, probably well over 50 percent of the aerospace defense assets in Russia and the successor states.

### **The Present U.S. Predicament**

Historical delusions about strategic "arms control" not only continue to prevent the U.S. from deploying NABM to defend U.S. citizens, but also prevent us from fielding the best missile defense our technology can provide for U.S. military forces. Most national security policy decision makers in this administration were nurtured in the mother's milk of delusions that strategic "arms control" has worked. Many did not comprehend what the Cold War was about. Fewer still understand how and why the former Soviet Union lost it. In addition, the American cultural imperative that negotiations must not "fail" is endemic to both liberal and conservative persuasions.

Consequently, to the Clinton administration the ABM Treaty is the "cornerstone" of U.S. security that must be preserved at all costs, a contract with a defunct Empire that we must continue to honor. The U.S. must remain defenseless, except for the threat of retaliation, to any and all who have, or may acquire, a nuclear weapon and a missile or aircraft big enough to deliver it. Evidence that the ABM Treaty never was a valid contract is ignored.

Furthermore, in the name of preserving the ABM Treaty, the administration has negotiated with the Russians to limit U.S. TABM technologies: target and interceptor missile velocities; sensors to track hostile missiles; missile volume for air-based interceptors; and even the geographic areas in which TABMs may be deployed. These limits would prevent the U.S. from fielding the best systems our technology can provide, while also precluding defense of U.S. citizens at home. Furthermore, the administration has agreed to provisions that give Russia the right to veto any U.S. TABM it doesn't like.

The technical dividing line between theatre (TABM) and strategic NABM systems inherently is so ambiguous as to be virtually useless. U.S. attempts to define the difference between NABM and TABM systems have resulted in ludicrous contradictions. By the official U.S. definition of tactical and strategic ABM systems given to the Congress by the Nixon administration in 1972, all of the Soviet



systems (SA-5/10, Galosh, X-3) at issue are *strategic* ABMs. By the TABM definition the Clinton administration negotiated with the Russians as a de facto amendment to the ABM Treaty, the same systems are all *theatre* ABMs. In addition, these proposed amendments would prohibit the U.S. from fielding the best TABM systems our technology can provide for the defense of U.S. forces and our Allies.

Despite the Clinton administration's illusions and ineptitude, some traditional supporters of that Treaty and the "arms control" process are beginning to get the message. Stephen S. Rosenfeld of the *Washington Post* recently cited the danger of an accidental launch as a result of Russia's "frightful societal indiscipline." Such "an accidental launch could trigger an over-whelming and unnecessary disaster for both countries." Mr. Rosenfeld recommended further reductions in the arsenals on both sides and changes in command-control to take retaliation off automatic in order to "give policy makers time to make a considered response to nuclear attack." Therefore, the U.S. "needs a missile defense of reasonable effectiveness and cost."<sup>24</sup>

Like the Clinton administration policy makers, Congress, the media and the public, Mr. Rosenfeld does not know the Russians inherited a large NABM in violation of the ABM Treaty with the potential strategic consequences outlined above. And reductions below the START II levels, particularly in SLBMs and bombers that could survive a Russian preemptive strike would only make a bad situation worse.

Congressman Ronald Dellums believes that ABM defenses are not needed because the threat of retaliation by the U.S. arsenal of 7-8000 nuclear warheads constitutes ABM defense – "no rational mind out there would attack the United States with our capacity to respond." Mr. Dellums obviously believes that the former Soviet Union observed the ABM Treaty, so reducing the U.S. arsenal makes no difference.<sup>25</sup>

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<sup>24</sup> Stephen S. Rosenfeld, "Wake Up – The Nightmare's Not Over", *The Washington Post*, 31 January 1997. Mr. Rosenfeld is the Deputy Editorial Page Editor of the *Post*.

<sup>25</sup> Congressman Ronald Dellums, *Ballistic Missile Defense*, Committee on National Security, House of Representatives, 104th Congress, 2nd Session, 28 February and 14 March 1996, pp. 54-55.

Trouble is, not all minds "out there" are rational, and not all "rational" minds follow exactly the same rules. History provides many examples of both. Admiral Yamamoto, who planned the attack on Pearl Harbor, knew that it was irrational to arouse the U.S. "sleeping giant" unless Japan could win the war in the first 18-24 months. The former Soviet Union bankrupted itself pursuing its nuclear war strategy that was totally irrational by Congressman Dellums's "mutual assured destruction" (MAD) standards.

We can indeed be grateful that our nuclear arsenal deterred World War III, in either the nuclear or conventional modes, during the Cold War. Nevertheless, deterrence nearly failed in the early 1980s when the former Soviet Union was on the brink of launching World War III as the Politburo perceived that the long run trends in the "correlation of forces" – political, economic and military – were running in favor of the "imperialist" rather than the "socialist" camp. The fact that the Soviets had national ABM defenses with some damage limiting capabilities, while the U.S. had no defenses whatsoever once the Soviets launched their missiles, was one of the things that tempted the Politburo in 1981-84 to try to reverse the negative trends by military force.<sup>26</sup>

Congressman Dellums almost certainly does not know about this critical bit of Cold War history, and probably thinks that the former Soviet Union adopted MAD – that "odious" doctrine in their view. Neither Mr. Dellums nor the entire U.S. national policy establishment – administration or the Congress – realizes how much the START II arsenal limit of 3,500 nuclear warheads could weaken our deterrent against Russia.

### Some Conclusions<sup>27</sup>

The U.S. achieved none of the objectives it sought through strategic "arms control" agreements. Soviet strategic offensive and defensive forces legitimized by SALT were precisely those the

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<sup>26</sup> For a brief discussion of this episode, – see W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997). The nuclear crisis of 1981-84 will be treated at length in my forthcoming book, "How the Cold War Was Lost and Won".

<sup>27</sup> Selected from W. T. Lee, *The ABM Treaty Charade* (Council for Social and Economic Studies, Washington D.C. 1997).

process was supposed to prevent. Ironically, the growth in the military burden during the SALT era was one of the root causes of the fall of the Soviet Empire. Had "arms control" constrained the Soviet military burden near the 1968 level as the CIA expected, both the Empire and the Cold War probably would still be with us.

Neither the ABM Treaty nor any other "arms control" agreement did anything to deter the Politburo from approaching the nuclear brink in 1981-84. By ensuring that the U.S. was vulnerable to Soviet counterforce strikes and totally defenseless against ballistic missiles, "arms control" agreements and Treaties actually pushed the hands of the clock closer to midnight in 1981-84. CIA now admits that there was some sort of crisis at the time, but still insists it was not all that serious.

Beyond the approximate number of ready (on launcher) strategic nuclear delivery vehicles, the U.S. was unable to verify most important provisions of SALT agreements and treaties. While the U.S. detected several Soviet ABM Treaty violations, such as extensive testing of the SA-5 in the ABM mode and the Krasnoyarsk radar, protests were lodged only after divisive internal debate. U.S. protests on major issues were ignored until the Empire began to collapse.

Throughout the Cold War the KGB waged a disinformation campaign on "arms control" consisting of: "active measures" supporting and influencing various "peace" and anti-nuclear groups; and feeding our own strategic concepts back in a form that Western academics could not state better. This disinformation campaign was most effective during the SALT era because it was based on the foundation of our own self-deception on every major issue.

In sum, the U.S. must face up to the facts: the ABM Treaty never was a valid contract; the U.S. cannot have the Treaty and either effective TABM or NABM too; the entire strategic "arms control" process has been nothing more than a middle class welfare program in the U.S. Government, Academia, and elsewhere that wasted the money of taxpayers, donors, and subscribers.

Inasmuch as the Soviet Union ceased to exist six years ago, the SALT and ABM Treaties should be declared null and void in accordance with established principles of international law.

The most important national security task facing this country today is to protect both U.S. citizens and our military forces from hostile missiles (and aircraft). In addition to Russia's arsenal of

thousands of weapons, China already has a few ICBMs and the capability to deploy many more. The recent arms sales/military technology agreements between the PRC and Russia could open the flood gates of nuclear and missile proliferation, and even revive the most threatening elements of the Soviet military industrial complex. Prospective conditions in Russia add to that danger while also increasing the threat of an accidental or unauthorized launch.

While a majority in the Congress wants to defend the country against ballistic missiles, President Clinton does not because he considers a Treaty that never was a valid contract with a state that no longer exists to be the "cornerstone" of national security policy.

As William R. Graham has put it, the question really is not whether the U.S. deploys NABM, but whether we do so before or after the first nuclear armed missile lands on American territory.

## Agricultural Policy and Grain Production in North Korea

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Key Words: North Korea, Agriculture, Grain production, Communism, Juche

From its inception, North Korea assigned the highest priority to agricultural development. Grain is the major dietary staple of Koreans; therefore, an adequate supply of grain was the most effective instrument to satisfy its people, as well as provide tangible evidence for the success of its economic policy. In addition, the agricultural sector became a very important source of earning hard currency in international trade. For these reasons, the country undertook numerous large scale projects in order to increase farm land and its productivity. Some of them were typical socialistic projects, such as agricultural cooperative. Yet, the country introduced several indigenous experiments in agriculture, such as "nature remaking projects" in order to create new farm land.<sup>1</sup>

Analysis of these experiments affords us a rare glimpse into the economic decision making process of North Korea, a process which is hitherto totally hidden from outside observation. Especially relevant is the question as to why the country in recent periods has experienced such dire disaster in grain production and has to appeal for international grain aids even from such technically hostile countries as South Korea and the United States. North Korea's attribution of the disaster to unforeseen natural calamities is partially true – yet is not totally convincing, because South Korea and Japan, due to their geographical proximity to North Korea, also experienced similar calamities yet without serious adverse effects on grain productions.

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<sup>1</sup> In fact, agriculture was the only sector which afforded indigenous experiments, because heavy and military industries required imported technology. North Korea often imported whole plants from other socialistic countries. See, for example, Valentin Moiseyev, "USSR-North Korea Economic Cooperation," in *The Current Condition and the Prospect of North Korean Economy*, Seoul: Korea Development Institute, 1991, pp.69-93.