

A C D I S

ACDIS LEP:1.  
1992  
ACDIS Library

Program in Arms Control, Disarmament, and International Security

University of Illinois at Urbana-Champaign

607 South Mathews Street Urbana IL 61801 217/333-7086

## *Occasional Paper*

### **A Russian Reversal on SDI**

**John W. R. Lepingwell**  
Professor, Department of Political Science  
Program in Arms Control, Disarmament, and  
International Security

**September 1992**

John W. R. Lepingwell is assistant professor of political science and a faculty member of the Arms Control, Disarmament, and International Security Program at the University of Illinois at Urbana-Champaign. During the 1992-93 academic year, he is participating in the Visiting Fellows Program at the Radio Free Europe/Radio Liberty Research Institute in Munich. Research for this article was supported by a William and Flora Hewlett Foundation Summer International Research Grant.

## A Russian Reversal on SDI<sup>1</sup>

John W R Lepingwell

Russian President Boris Yeltsin's announcement on January 29 1992 that Russia was ready to engage in the joint deployment of a global system of defense against ballistic missiles marks a radical departure from the old Soviet policy towards the Strategic Defense Initiative (SDI). Yeltsin's call for Russian participation in a global ballistic missile defense (BMD) system appears to change the complexion of the debate over SDI transforming it from a cold war system into a new opportunity for strengthening US-Russian ties. Yet the situation is not so simple. Yeltsin's move does change the context of the debate but a careful examination of Russian and US interests in cooperation must be undertaken before the full implications of the proposal can be assessed.

The analysis presented here suggests that Russian incentives to participate in Global Protection Against Limited Strikes (GPALS) stem more from economic concerns than military ones. Indeed even within the Russian government and military there are substantial disagreements as to whether Russian participation in BMD research is desirable. Russian support for such a program may be highly contingent upon transfers of funding and technology from the US. Without such an agreement Russian interest in revising the Anti-Ballistic Missile (ABM) treaty to allow US deployment of a large scale BMD system seems rather unlikely while Russian unilateral deployment of a BMD system is not feasible.

### The Evolving Soviet Position on SDI

From the moment of its announcement in March 1983 the Soviet leadership viewed SDI as an attempt to break out of the ABM treaty and establish US strategic superiority. This view was reflected in initial Soviet demands that the US cancel SDI in exchange for an agreement on strategic offensive weapons. But, as the Strategic Arms Reduction Treaty (START) talks progressed SDI gradually lost its momentum and the Soviet side backed away from its demands. By December 1987 the Soviets were just requesting a commitment to adhere to a strict interpretation of the ABM treaty.<sup>2</sup>

When the Bush administration took office it reviewed SDI and quietly downgraded its priority while Congress continued to limit funding for the program. The Soviet Union responded by making a major concession on the SDI issue at the September 1989 Foreign Minister's meeting at Jackson Hole. Shevardnadze agreed to drop the requirement of a formal commitment to the ABM treaty agreeing instead to continue to discuss ways to ensure predictability in the development of the US-Soviet strategic relationship to reduce the risk of nuclear war. At the same time Shevardnadze announced the Soviet decision to dismantle the Krasnoyarsk radar station that according to US charges violated the ABM treaty.<sup>3</sup> When the START accord was finally signed in June 1991 Soviet objections to SDI had become pro forma and presented no obstacle.

After the August coup attempt the change in US-Soviet relations and the changing power balance between Yeltsin and Gorbachev paved the way for a revised Soviet position. In October 1991 in response to President Bush's unilateral arms control initiative Gorbachev expressed the Soviet Union's willingness to discuss the possible deployment of a non-nuclear BMD system and suggested examining proposals for a joint early warning system.<sup>4</sup> Yet several of Gorbachev's advisors and some military officers continued to express a strongly

---

1 Research and writing for this paper was completed in early June 1992 and will be published in *Orbis* Winter 1991/92

2 For an overview of Soviet positions on SDI and the ABM treaty see Karen Puschel 'Can Moscow live with SDI?' *Survival* January/February 1989 pp 34-51. Jeanette Voas 'Soviet Attitudes towards Ballistic Missile Defence and the ABM Treaty' *Adelphi Papers* No 255 (Winter 1990)

3 See 'The Wyoming Papers: Documents from the Foreign Ministers Meeting' *Arms Control Today* October 1989 p 22

4 Zayavleniye M. Gorbacheva po sovetskoyu televideniyu 'Izvestiya' October 7 1991 p 1. For a summary discussion of growing Soviet interest in early warning information exchange and joint deployment of BMD systems during Fall 1991 see Henry F. Cooper 'From Confrontation to Cooperation on Ballistic Missile Defense' *Armed Forces Journal International* January 1992 pp 16-17

negative view of SDI<sup>5</sup> The incumbent Chief of the General Staff Vladimir Lobov also supported the ABM Treaty and argued that for the Soviet Union to catch up to the United States in BMD technology it would have to divert funds that would be better used in the civilian economy<sup>6</sup> If Gorbachev evinced a willingness to discuss the issue however he did not push forward with any concrete proposals

At the same time clear indications of a Russian as opposed to Soviet interest in joint BMD systems began to emerge One of Yeltsin's top defense advisors Vitaliy Shlykov called for the creation of a joint defensive system and a Russian military delegation in Washington also supported such a proposal<sup>7</sup> Only after Yeltsin took over effective control of the military did the concept become an official proposal

Yeltsin's call for joint US Russian research and deployment of a GPALS type system has triggered intense debate within the Russian defense community There is far from unanimous backing for the idea particularly from some of the most important constituencies in the military and defense industry Because Russian policy on this issue is still not settled the contending approaches and arguments concerning this issue are worth examining in detail for they may illuminate future choices in this area

### Redefining Russian Interests in BMD

The new Russian debate over SDI has broken the last remaining doctrinal orthodoxy that missile defense (and SDI in particular) is inherently destabilizing The debate also reveals differing views among civilian and military strategists that are likely to continue to define and drive the process of creating a new Russian military doctrine

The proponents of a new approach to BMD are a disparate group Several civilian analysts associated with the Institute for World Economy and International Relations (IMEMO) such as Sergei Blagovolin and Aleksandr Savel'yev have taken prominent stands in favor of the proposal as has academician Yevgeniy Velikhov formerly a top science advisor to Gorbachev who has become a Yeltsin advisor<sup>8</sup> Their position is important for it reveals a new approach to security that seeks to completely renounce the cold war and its after effects and to create a new security structure based on U S Russian collaboration

At the core of the proponents' argument lies a striking reappraisal of the threat to Russia Rather than looking fearfully towards the West these analysts are increasingly concerned with potential threats emerging in the South and East<sup>9</sup> They note that as a Eurasian power Russia is likely to be drawn into regional conflicts in Asia and the Middle East Many Russian analysts are increasingly concerned about the potential spread of Islamic fundamentalism from Iran into Central Asia While Russian relations with Iran are improving and Iran certainly does not pose an immediate military threat to Russia there is a growing sense of vulnerability and nervousness over Russia's southern border as well as the position of the Russian minority population in Central Asia

5 Tass Observer Remarks on New ABM Treaty *FBIS Sov* October 17 1991 pp 1-2 from *Tass* October 16 1991 Cheney Remarks Upon Arrival, *FBIS Sov* October 21 1991 pp 4-6 from *Sovetskaya Rossiya* October 17 1991 p 3

6 Lobov US Surprised by Response to Cuts *FBIS Sov* October 10 1991 p 1 from *Tass* October 9 1991

7 See US Proposal of Joint Space Defense Examined *FBIS Sov* September 15 1991 pp 67-68 from *Tass* September 15 1991 Official Views Antimissile System With US *FBIS Sov* October 28 1991 p 1 from *Tass* October 26 1991 Commentary on Disarmament Initiatives Stance *FBIS Sov* January 3 1992 p 1 from *Radio Moscow* January 2 1992 Cooper From Confrontation to Cooperation p 16

8 See Aleksandr Savel'yev Optimal'nyy variant sovместnoy sistemy zahchity dlya nas SOI *Nezavisimaya gazeta* February 18 1992 p 2 Idem Future Arms Talks Disarmament Considered *FBIS Sov* March 9 1992 pp 2-3 from *Izvestiya* March 5 1992 p 5 Velikhov Kokoshin on Joint SDI Idea *FBIS Sov* March 19 1992 pp 5-7 from *Moscow News* March 22 1992 p 12 Security Economic Gains in Joining SDI Eyed *FBIS Sov* February 11 1992 pp 5-6 from *Komsomolskaya Pravda* February 6 1992 p 3 S Blagovolin Nuclear Weapons in the Changing World mimeo November 1991 Savelyev and Blagovolin are now also associated with the new Institute for National Security and Strategic Studies Velikhov seems to have changed his position on BMD rather rapidly see Velikhov Discusses Nuclear Safety Arms Control, *FBIS Sov* September 17 1991 pp 1-2 from *Die Presse* September 16 1991 p 3

9 See V F Dayvdov XXI vek—stoletuyе raketno yademykh pigmeyev? *SShA* No 2 1991 pp 3-13 and the sources cited in footnote 7

This concern has been fueled by the potential for the proliferation of nuclear weapons and ballistic missile technology in the Middle East and South Asia<sup>10</sup> The duel between Scuds and Patriots sparked increased Russian interest in BMD just as it did in the United States Unlike the United States however which can only be threatened by ICBMs shorter range ballistic missiles can reach Russia<sup>11</sup> As the nations in these regions improve their rocket technology ranges will also increase and the potential threat to Russia will grow more rapidly than that to the United States This provides a strong set of incentives for considering a BMD system to defend against non Western threats

Yet this redefinition of the threat is rather vague and no analyst has yet provided a plausible scenario in which an Asian or Middle Eastern state would launch a nuclear strike against a well armed Russia Not stated but perhaps equally important in threat assessment is the continuing threat posed by China despite its warming relations with Russia it remains the only major military power bordering the country Furthermore China may face its own leadership transition and potential instability in the latter part of the decade

Another concern is that the nuclear disarming of Ukraine and Kazakhstan may not be completed<sup>12</sup> This is an extremely sensitive topic however and public calls by high ranking politicians for a BMD system to defend against Kazakhstan or Ukraine could ignite a diplomatic storm Indeed the proposed GPALS based system would probably provide little protection against shorter range missiles launched from neighboring states

Analysts such as Aleksandr Savel yev also claim that the old arguments against strategic defenses such as their potentially destabilizing effects during crises are no longer valid in the post-cold war world They argue that a limited BMD system would not be sufficient to prevent a devastating retaliatory strike by a large nuclear power (such as Russia) while also pointing out that the system would be under joint control and thus would not give either side an advantage<sup>13</sup> In short the system s limited capability combined with the new political climate would prevent any destabilizing effects

These strategic arguments often become mixed with economic and political issues On the political side some Russian security analysts view the BMD proposal as a litmus test for the US Russian relationship Yeltsin has stated that Russia considers the United States and the West not as mere partners but rather as allies<sup>14</sup> This reflects a world view that sees things in terms of black and white since the two sides are no longer opponents they must be allies Given this view there are now no major outstanding differences between the United States and Russia and hence no reason not to undertake joint security projects At its most extreme this view envisions an East West condominium that would endorse a new collective security approach a policy that in turn may exacerbate North South divisions

While many of the civilian analysts stress the changing strategic environment there are other groups which may be more concerned with the immediate economic potential of the proposal The 1992 Russian defense budget slashes procurement by some 80 percent and research and development by approximately 30 percent<sup>15</sup> Thus the defense industry has a very strong incentive to push for a joint BMD development and deployment program in order to maintain its funding<sup>16</sup> In announcing his proposal at the UN Yeltsin specifically pointed to the need to prevent an exodus of Russian scientists and the need to convert Russian defense industries to civilian or purely defensive tasks<sup>17</sup> Indeed the Soviets invested heavily in BMD research and development although procurement was limited to the Moscow ABM system

10 See Davydov XXI vek and S Blagovolin Voyna zakonchilas Chto dal she? *Kommunist* No 6 1991 pp 77 87

11 The Chinese made CSS 2 IRBM deployed by Saudi Arabia for example could reach into the Russian heartland Based on data in Janne E Nolan *Trappings of Power Ballistic Missiles in the Third World* (Washington DC Brookings Institution 1991) p 44 78

12 See for example Aleksandr Savel yev s comments in *Future Arms Talks Disarmament Considered* p 3

13 See for example A Savel yev Optimal nyy variant sovmetstnoy sistemy zahchity dlya nas SOI p 2

14 *New York Times* February 1 1992 p A5

15 *Radio Liberty Daily Report* January 22 1991

16 For an argument stressing the economic benefits see *Joint Global Defense System Proposed FBIS Sov* November 15 1991 from *Moscow News* No 40 (October 6 1991) p 12

17 *New York Times* February 1 1992 p 5

A strong lobby for joint BMD deployment may be found in the rocket and missile sector of the defense industry. In the wake of START and the rapid decline in the space program, rocket producers have an enormous surplus capacity. They may argue that their missiles and space launch systems would be a cost-effective means of deploying a space-based GPALS system.<sup>18</sup> Given that this represents a substantial and very high technology sector of the Russian defense industry, it may well receive a careful hearing from the Russian government.

Thus, proponents of a joint BMD system range from those primarily moved by new threat perceptions and a desire to strengthen US-Russian relations to those who have a much larger and more immediate economic stake in the proposal. But Yeltsin's proposal has not received the full support of the Russian arms control community. Several arms control advocates still oppose any move towards a joint BMD system. They are being joined in an odd coalition by conservative military officers who view any cooperation with the United States warily.

Civilian opponents of a joint BMD system tend to emphasize the destabilizing nature of strategic defenses together with their high cost and the low level of the potential threat. They also raise the question of whether US and Russian interests are identical and if not, what demands Washington might make to allow Russian participation in the BMD system.<sup>19</sup> To some of these analysts, a more realistic view of US-Russian relations is necessary, recognizing that the US is unlikely to suddenly embrace its old opponent and engage in extensive technology sharing and military cooperation.

These concerns are even more prominent among military analysts.<sup>20</sup> There are two primary sources of opposition: ideological and financial. First, not all of the military fully accept that the US threat has disappeared and fear that the creation of BMD systems would threaten the retaliatory capability of the Strategic Deterrence Forces (the successor to the Strategic Rocket Forces), particularly after START and any subsequent reductions in offensive forces.<sup>21</sup> In a fierce critique of past Soviet moves in arms control (including START), an article in a military newspaper argued that:

They [the US] are not only speeding up work on the creation of full-scale ABM defense, but they have also started implementing a program for taking out (completely) a potential enemy's state of the art ballistic missiles. Analysis shows that if they work successfully on the two fronts, they can achieve the complete neutralization of foreign strategic nuclear forces between the years 2000 and 2005. It is assumed that the effectiveness of the nuclear missile weapons which we, for example, will have left by then, will effectively be zero.<sup>22</sup>

The article goes on to cite the opinion of experts in the Joint Armed Forces High Command and the Russian defense complex who did not want their names to be published in the press to the effect that SDI would eventually render Russian ballistic missiles obsolete.<sup>23</sup> While this concern with alleged US attempts at gaining superiority might seem both anachronistic and simplistic, it does appear to reflect a dominant concern

---

18 Even the military is trying to sell or lease some of its excess satellite control facilities to Western concerns, see Craig Covault, "Soviet Military Space Center Offered for Commercial Lease," *Aviation Week and Space Technology*, September 16, 1991, p. 28.

19 This position has been taken by Aleksei Arbatov, who has criticized Savel'yev's analysis, see "Arbatov Argues Against Joint SDI Program," *FBIS Sov*, March 4, 1992, pp. 1-3, from *Nezavisimaya gazeta*, March 4, 1992, p. 2; "Arbatov Critique of Joint SDI Program Viewed," *FBIS Sov*, March 25, 1992, pp. 1-2, from *Nezavisimaya Gazeta*, March 24, 1992, p. 2.

20 See, for example, Yeltsin's Joint Defense Proposal Faulted, *FBIS Sov*, February 28, 1992, pp. 1-2, "Debate on Russian GPALS Role Viewed," *FBIS Sov*, April 29, 1992, pp. 3-4, from *Krasnaya zvezda*, April 28, 1992, p. 3; "Implications of Joint SDI Idea Discussed," *FBIS Sov*, April 16, 1992, pp. 5-6, from *Izvestiya*, April 14, 1992, p. 2; "Proposed Joint Global ABM System Queried," *FBIS Sov*, April 1, 1992, pp. 2-4, from *Krasnaya zvezda*, March 25, 1992, p. 3; "Case for Joint Space Defenses Rebutted," *FBIS Sov*, March 4, 1992, pp. 6-10, from *Krasnaya zvezda*, February 27, 1992, pp. 2-3; "US Peace-Loving Intentions Questioned," *FBIS Sov*, January 24, 1992, pp. 4-5, from *Sovetskaya Rossiya*, January 16, 1992, p. 3; "Seen as Impending Deterrence," *FBIS Sov*, February 6, 1992, pp. 3-5, from *Krasnaya zvezda*, February 4, 1992, p. 2; "Disquieting Elements Viewed," *FBIS Sov*, February 6, 1992, pp. 5-6, from *Sovetskaya Rossiya*, February 4, 1992, p. 3; "General Questions: Yeltsin's Arms Initiatives," *FBIS Sov*, February 26, 1992, pp. 1-3, and from *Nezavisimaya gazeta*, February 14, 1992, p. 4.

21 F. Ladygin, "V interesakh strategicheskoy stabilnosti," *Krasnaya zvezda*, November 20, 1991, p. 5.

22 "Case for Joint Space Defenses Rebutted," p. 8.

23 *Ibid.*, p. 8.

within the military. The highly unusual use of unnamed experts suggests that there is strong disapproval of the joint BMD initiative within the highest ranks of the military. Indeed, the military press has been overwhelmingly negative in its appraisal of the idea—a sharp break from its past endorsement of every government proposal.

A second reason for the military's cool reception to the proposal is budgetary. The current budget crunch will force a re-examination of military priorities, and BMD programs are unlikely to come out on top. Indications that strategic defensive programs (especially air defense) were to be downgraded started appearing after the coup, and the separate strategic defense service (the Air Defense Troops or VPVO *Voyska protivovozdushnoy oborony*) were to be disbanded.<sup>24</sup> While the VPVO's formal dissolution was stalled by the disintegration of the Soviet Union, and it still is fighting to maintain its role, its role as a strong advocate for increased funding for strategic defense seems very limited. In fact, the VPVO's early warning and ABM assets have already been transferred to the Strategic Deterrent Forces (SDF), so the VPVO may be out of the BMD business altogether.<sup>25</sup> Yet the SDF is unlikely to be a strong advocate of BMD, for its primary institutional responsibility is for the strategic offensive forces.

One potential argument in favor of BMD research is that it might produce valuable military spin-offs.<sup>26</sup> By coupling BMD research to higher priority areas such as C3 technology, anti-armor weapons, and even air defense systems, the program might appeal to segments in the military that are interested in developing weapons based on new physical principles.<sup>27</sup> Nevertheless, budget constraints will prevent any large-scale introduction of new military technology, while focused research in these areas may be preferred to hoping for spin-offs from BMD research. BMD research is likely to be seen as an expensive (and potentially ineffective) luxury.

Thus, even though some military officers called for joint BMD research even before Yeltsin's proposal, the military's attitude has been restrained.<sup>28</sup> One important proponent of the concept may be Marshal Shaposhnikov, the Commander of the CIS Joint Forces, who has endorsed the proposal, but even he has not campaigned strongly for it. When pressed on how long it might take to begin deployment, he expressed some caution: "A long time—years, at least five years, or even ten. We do, after all, still mistrust one another. They hide things and we hide things."<sup>29</sup> The new Russian deputy defense minister, Andrei Kokoshin, has also been guarded in his appraisal of the idea, emphasizing the role of cooperation in the areas of early warning and anti-tactical ballistic missile (ATBM) development.<sup>30</sup>

Thus, the military is not strongly unified in favor of joint BMD research, and some segments within it may be strongly opposed to the proposal. Given the deteriorating financial situation in Russia and the continuing crises created by the disintegration of the Soviet Union, the military will be exceedingly reluctant to commit substantial funds of its own to a new BMD program when traditional programs are being cut.

But the diverse opinions and lack of enthusiasm for the proposal suggests that Russian actions—or even more concrete proposals—are likely to be slow in coming. As Savel'yev has noted, "B. Yeltsin's statement that Russia is prepared to join in the US program for the creation of a global defense system, which [sic] clashed with the ABM Treaty—a sacred cow for many (if not most) of our politicians, military men, and diplomats—

24 See John W.R. Lepingwell, "Gorbachev's Strategic Forces Initiative: Dissolving the Air Defense Forces," *Report on the USSR*, Vol. 3, No. 49 (December 6, 1991), pp. 4-9.

25 See Yu. Maksimov, "Strategicheskiye sily sderzhivaniya," *Krasnaya zvezda*, December 7, 1991, p. 3.

26 This argument was made concerning the SDI program in K. Dolgov, "Nuzhen li prirog na tom svete?," *Krasnaya zvezda*, August 15, 1991, p. 3.

27 See for example, Mary C. Fitzgerald, "Soviet Armed Forces after the Gulf War: Demise of the Defensive Doctrine?," *Report on the USSR*, Vol. 3, No. 16 (April 19, 1991), pp. 1-4.

28 Politsyn interviewed on Global Stability, *FBIS Sov*, December 17, 1991, pp. 2-3, from *Krasnaya zvezda*, December 12, 1991, p. 3.

29 Shaposhnikov on Combat Alert Status of Weapons, *FBIS Sov*, February 12, 1992, pp. 1-2, from *Nezavisimaya Gazeta*, February 12, 1992, p. 2.

30 New Defense Logic Needs Consideration, *FBIS Sov*, March 4, 1992, pp. 10-11, from *Novoye vremya*, No. 7, 1992, pp. 30-31; Velikhov, Kokoshin on Joint SDI Idea, *FBIS Sov*, March 19, 1992, pp. 5-7, from *Moscow News*, 22 March 1992, p. 12.

has for some reason gradually started to fade away. And it seems as if the cow—despite its infirmity—is gaining the upper hand in this clash.<sup>31</sup>

The proposal remains on the table, however, and it raises the question of whether there are sufficient grounds for substantial US-Russian cooperation in BMD. What might Russia have to offer to the United States, and what might it expect in return? Are there areas in which cooperative projects are feasible that might lead to eventual cooperation in joint BMD projects?

#### Areas of Cooperation

Yeltsin's call for a joint BMD system was very vague. But we may speculate about what Russia might hope to gain from a joint BMD development agreement. Most recently, the Russian Defense Ministry has indicated interest in cooperative programs in three areas: joint ballistic missile early warning systems, joint ATBM development, and joint BMD research and development (R&D).<sup>32</sup> Of these, the primary emphasis so far has been on the first two, which require far less in the way of political and technological commitment.

#### Joint Early Warning

The collapse of the Soviet Union has fragmented the Soviet early warning (EW) system. During the 1970s and 1980s, new large phased array radar (LPARs) were built to upgrade and modernize Soviet early warning capabilities. While most of the radars are situated in Russia, LPARs were also built at Skrunda in Latvia, Sevastopol and Mukhachevo in Ukraine, and Lyaki Mingechuar (Azerbaijan). The Sary Shagan BMD testing range and LPAR radar are located in Kazakhstan.<sup>33</sup>

In theory, the EW system forms part of the strategic forces under the joint control of the Commonwealth of Independent States (CIS).<sup>34</sup> But Latvia is not a member of the CIS, and is demanding withdrawal of CIS troops stationed on its territory. Ukraine and Azerbaijan are intent on creating their own national militaries, even though they are respecting the agreement on strategic forces. While the EW system is now intact, growing tensions between the former republics could result in the radars being nationalized, or used as bargaining chips in negotiations over the control of other military forces.<sup>35</sup>

A second factor that might affect the integrity of the current EW network is the growing environmental movement in the former republics. The construction of the Mukhachevo LPAR was halted in 1990 due to public concern over its environmental impact.<sup>36</sup> Demands for the shutdown of other radars could emerge in Ukraine and other former republics. These demands could intensify after the elimination of strategic offensive weapons on their territory, as the emplacement of EW radars may be construed as inconsistent with their non-nuclear status.

These radars form an integral part of the CIS early warning system. Indeed, the Bush administration has recently complained about the linking of these radars to the Moscow ABM system, a linkage that it claims is

31 Future Arms Talks Disarmament Considered p 3

32 A. A. Kokoshin, A. V. Menshikov, M. I. Gerasev, and M. S. Vinogradov, Questions of Collaboration Between Russia and the USA, CIS and USA in the Area of Strategic Defenses, *Center of Scientific Research of the Committee of Scientists for Global Security*, Moscow, February 1992.

33 There are also 11 of the older Hen House radars, most of which are apparently co-located with the newer LPARs. See Stoyaniye pri Pestryalove, *Pravda*, April 4, 1990, p. 2; *The Military Balance 1991-92* (London: Brassey's, 1991), p. 38, also lists 8 LPARs, although it erroneously places the Skrunda radar in Belorussia (Belarus). See *Soviet Military Power 1987* (Washington, D.C.: US GPO, 1987), pp. 46-50; William M. Arkin and Richard W. Fieldhouse, *Nuclear Battlefields* (Cambridge, Mass.: Ballinger, 1985), p. 75; Stephen M. Meyer, Soviet Nuclear Operations, in Ashton B. Carter, John D. Steinbruner, and Charles A. Zraket, *Managing Nuclear Operations* (Washington: The Brookings Institution, 1987), pp. 478-482.

34 This was agreed to in documents signed in Alma Ata and Minsk in December 1991. See Soglasheniye o koordinatsionnykh institutakh Sodruzhestva nezavisimyykh gosudarstva, *Krasnaya zvezda*, December 24, 1991, p. 2; Gorbachev Not To Be Supreme Commander, *FBIS Sov*, December 17, 1991, pp. 39-40, from *Moscow Central TV*, December 16, 1991.

35 Concern over this possibility has already been expressed by the military, see V. Slipchenko, *Oborona suverennykh gosudarstv*, *Krasnaya zvezda*, December 20, 1991, p. 2.

36 John Lepingwell, Early Warning Radars Debated, *Report on the USSR*, Vol. 2, No. 33 (August 17, 1990), pp. 11-15.



clearly not consistent with the way the United States has interpreted its own compliance under the ABM Treaty<sup>37</sup> The administration's charge has been criticized as "outrageously false and reckless" by Ambassador Paul Nitze who negotiated the relevant passage in the treaty<sup>38</sup> In fact linking the LPARs to the Moscow ABM system is to be expected for it provides important early warning information to the ABM radars The Bush administration complaints may however serve to encourage the former republics to sever data links to Moscow

If the central command of strategic forces in Moscow were denied access to data from the Ukrainian and Latvian radars it could blind the strategic defense forces in the entire western direction While early warning satellites would still provide warning the absence of radars would reduce the redundancy and accuracy of the early warning system This in turn would make detection of false alarms more difficult While the lowered alert status of CIS ballistic missiles reduces the danger from false alarms this would still be a negative development from the perspective of both the CIS military and strategic stability as a whole

For these reasons the Russian government and military are very interested in a joint early warning system While such measures were first proposed before the breakup of the Soviet Union they appear even more urgent now A program of data exchange would undoubtedly help to build confidence while reducing Russian dependence on an aging and possibly incomplete BM/EWS system<sup>39</sup> Presumably such a joint system would be predicated on the Russians not directly linking it to the Moscow ABM system The system could be based upon the currently existing Risk Reduction Centers and could at first simply share processed data with more sophisticated data sharing and possibly even joint satellites being developed later A further extension could be based on what the Russians call zero echelon warning systems that would emplace monitoring devices near missile sites in Russia and the United States which would provide an immediate positive indication of launch thus building confidence and adding two to three minutes of warning time<sup>40</sup> The primary benefit of such an approach would be its low cost, and the ability to incrementally build confidence and trust over time

#### ATBM Systems

Soviet interest in ATBM systems increased notably after the Gulf War although the attitude towards the systems varied by service Representatives of the Artillery and Missile Directorate pointed out that the Scud was based on 1950s technology and was obsolete compared to more modern Soviet designs<sup>41</sup> Soviet commentators also emphasized Western analyses indicating that the Patriot was not very successful in minimizing damage or destroying the Scud warhead.<sup>42</sup>

But this downplaying of the Patriot does not mean that the military is not interested in ATBM capabilities On the contrary proponents of the SA 10 Surface to Air Missile (SAM) system claim the Gulf war demonstrated the need for high technology SAMs and ATBMs able to counter the latest missile technology The designer of the SA 10 academician Bunkin has even claimed that it is superior to the Patriot missile system According to Bunkin the SA 10 is more mobile than Patriot faster to set up has missiles carrying larger warheads and can engage targets at altitudes of up to thirty km In test firings against Lance type missiles the SA 10 reportedly displayed a 100 percent hit rate with two of the four targets being knocked seven to eight kilometers from their aim point<sup>43</sup> Yet these claims must be taken with a grain of salt, for the

37 *Soviet Noncompliance with Arms Control Agreements* March 30 1992 p 7

38 Paul H Nitze Why is Bush Reviving the Soviet Threat? *New York Times* April 20 1992 p A17

39 For a Soviet argument in favor of such data sharing see Sergei Kortunov Toward a New Pattern of Strategic Relationship *International Affairs* No 10 1991 pp 26 28 US deliberations on this topic are reviewed in Vincent Kiernan US Offers Data to Soviets *Defense News* October 7 1991 pp 1 28

40 See Kokoshin et al Questions of Collaboration pp 2 3

41 V Gorbatko General Assesses Scud SS 23 Tomahawk Missiles *FBIS Sov* January 28 1991 pp 45 46

42 Success of Patriots Linked to Renewal of SDI *FBIS Sov* February 11 1991 pp 1 2 from *Pravda* February 11 1991 p 6 G Khromov Krupneyshaya afera XX veka *Krasnaya zvezda* March 5 1991 p 3 G Kostenko Fakt a ne reklama *Krasnaya zvezda* June 15 1991 p 2 B Tuzmukhamedov Raketnyy epizod voyny v zalive *Krasnaya zvezda* June 22 1991 p 5

43 See B Bunkin S 300 effektivnee Petnota *Krasnaya zvezda* June 27 1991 p 2.

purpose of these disclosures was to advertise the system for foreign sale<sup>44</sup> While the SA 10 is being deployed within the former Soviet Union its ATBM capabilities there are likely to be of little use and Bunkin has explicitly denied that it has any capability against longer range ballistic missiles

A similar point may be made concerning the SA 12 SAM system that exists in two versions (SA 12a Gladiator SA X 12b Giant) The SA X 12b may have an ATBM capability similar to or even greater than the SA 10 but it is unlikely to have any significant BMD capability and does not appear to have progressed beyond the testing stage

Nevertheless in ATBM technology Russian industry's capability is at least comparable to that of the United States While the SA 10 appears to use less sophisticated electronics the missile and warhead technology could be of interest to the United States Since the United States is increasing funding for theater BMD systems the Russians are clearly aiming to develop joint projects with Western manufacturers as well as to sell their own systems abroad

#### Joint BMD Research and Development

The most intriguing possibility though is that of joint US Russian work on a global BMD system Yeltsin's proposal was extremely vague on exactly what was envisaged but it is clear that such a program would require substantial US Russian cooperation and two-way technology transfer It appears that Russian goals for such cooperation would include the following

First it is expected that the US might directly support some lines of research and development as has been done with the Israeli Arrow ATBM project. Clearly a contract to support BMD research and development in Russia would be a lucrative alternative to trying to convert advanced research facilities to civilian research and development.

Second Russian scientists would not only be able to sell their services or products for hard currency they might also gain access to the latest developments in Western science and technology From being disadvantaged by Western restrictions on technology transfers through the so called Coordinating Committee (COCOM) process they hope to leap to direct participation in the most advanced (and sensitive) new technologies

Third Yeltsin has suggested that the participation of Russian scientists in GPALS research would help prevent the diversion of trained personnel into nuclear weapons production for third world countries<sup>45</sup>

Fourth the support of these facilities may reduce the growing pressure to find export markets for Russian arms including their most advanced ATBM systems

Yet the question remains whether this is a viable or desirable project for the United States It appears to have far more benefits for the Russian side although even those benefits are somewhat doubtful

The issue of funding for Russian R&D raises the question of whether there are areas in which Russian capabilities would make a substantial contribution Information concerning the extent and capability of Russian BMD research is still sketchy but given the Russian lag in most critical technologies it is unlikely that there are many areas where collaborative R&D would yield benefits The SDI office has expressed interest in spending up to \$50 million for purchasing certain Russian technologies and devices<sup>46</sup> This approach is straightforward and carries little risk for the US side—there is no investment at risk, nor is there technology transfer to the Russian side Yet it is unlikely that such a one sided approach to the problem will suffice politically The one way transfer of technology to the United States is already under attack by Russian conservatives and the Russian leadership is likely to make two way transfer and funding a condition for ABM treaty revisions

44 See Steven Zaloga The Red Patriot at Paris *Armed Forces Journal International* August 1991 pp 26 27 R Karniol, Weapons detailed in export drive *Jane's Defense Weekly* December 15 1990 p 1201

45 *New York Times* February 1 1992 p 5

46 *New York Times* February 8 1992

Joint research on BMD could take several forms. It could entail US agencies or firms subcontracting work in certain areas to Russian research institutes.<sup>47</sup> Such an arrangement could minimize the problem of access to classified information and sensitive technologies. It would only work for problems that could be easily compartmentalized and in which the Russians have pre-existing expertise. The benefit for the United States would be obtaining expert work at a very low price while Russian research institutes would gain hard currency funding.

A second approach would entail more direct collaboration with laboratories in both the United States and Russia exchanging data, equipment, and researchers. In this case the technology transfer and secrecy issues would be greater. Similar benefits would accrue to both sides and Russian workers would also benefit from exposure to cutting-edge US research and equipment.

Thus there are some possible benefits for both sides to cooperative R&D. Yet the areas in which such cooperation is beneficial may be very limited. There are also great difficulties with technology transfer and on both sides there are significant interests in limiting it.

Within Russia there are substantial bureaucratic and even ideological obstacles to cooperation. For example, in late 1990 the US Department of Defense arranged to purchase a Topaz nuclear reactor designed by Soviet scientists to provide a long-lasting power source for deep-space probes. In the Soviet Union a furor erupted when some newspapers reported that the Topaz was to be used for SDI research. The conservative military deputy Colonel Nikolai Petrushenko used the issue to assault then Foreign Minister Shevardnadze, accusing him of incompetence for not being aware of the sale.<sup>48</sup> While such sentiments may be heard less often now, some responses from the military to Yeltsin's proposal show a reluctance to sell military technology to the West or at least a fear that Russia will be short-changed in the process.<sup>49</sup> That there are bureaucratic obstacles and perhaps also some lingering mistrust on the US side is suggested by the continuing delays in approving the import of the reactor.

From a US perspective there are lingering problems with military technology transfer to Russia. First, information or technology transferred to Russia could in turn be leaked to other parties unless adequate safeguards were somehow imposed. Second, the future of the democratic government in Russia is itself very uncertain, as even President Yeltsin has acknowledged. Cooperation on sensitive military technologies under such conditions appears a highly risky endeavor.

Finally, the impact on arms trade and proliferation must be weighed. Yeltsin implied that employing Russian scientists on BMD (especially if paid by US standards) would keep them from emigrating and helping third world countries with their nuclear and conventional arms programs. Thus he is playing to the West's fear concerning proliferation.

But a joint BMD research program would not help reduce the risk of proliferation. A joint BMD system would be non-nuclear, thus former nuclear weapons designers may not be the best qualified scientists to work on it, nor would it make sense to shift their institutes over to work on BMD technologies. Indeed, the Russian nuclear weapons laboratories did not work on BMD technologies, and the International Center for Science and Technology is being set up to promote the conversion of these facilities to civilian R&D.<sup>50</sup>

The program also would not greatly reduce the strong incentives for the Soviet arms industry to sell arms abroad in order to generate desperately needed cash. In the worst case scenario, Russian arms industries could participate in both sides of a third world arms race: legal or illegal trade in ballistic missile equipment or know-

47 Some US corporations are already creating links with Russian scientists in the civilian sector along these lines, as is the Department of Energy, which is funding thermonuclear fusion research.

48 The critics were drawn from the Soyuz group; see Deputies' Criticism of Foreign Ministry Reported, *FBIS Sov*, November 29, 1990, pp. 41-42, from *Literaturnaya Rossiya*, No. 45 (November 12, 1990), pp. 18-19. Ya. Makusev, 'Sovetskiye yadernnye reaktory dlya voyennykh sputnikov SShA?', *Krasnaya zvezda*, December 13, 1990, p. 4. Academician Denies Topaz Reactor SDI Role, *FBIS Sov*, March 1, 1991, pp. 1-2, from *Izvestiya*, February 23, 1991, p. 6. William J. Broad, 'US Hunts Big Bargains as Soviets Start to Sell Once Secret Technology', *New York Times*, November 4, 1991, pp. 1-7.

49 See for example, Implications of Joint SDI Idea Discussed, p. 6, Debate on Russian GPALS Role Viewed, p. 4.

50 Dunbar Lockwood, 'International Center Designed to Limit Brain Drain', *Arms Control Today*, March 1992, p. 24.

how could drive demand for ATBM systems such as the SA 10. While the impact of a ballistic missile offense defense race in the third world would be less than a comparable race between the United States and Soviet Union it still might have potentially destabilizing effects.

Yeltsin's joint BMD proposal would have only a limited impact on some of the most troublesome issues now confronting his country. It would have little impact on the potential problem of a brain drain to third world countries and it could even delay the conversion of some facilities to civilian R&D and production. The United States might gain some technologies inexpensively while Russia could gain access to some US technology but these benefits are likely to be very limited and could entail substantial costs in overcoming bureaucratic barriers.

#### Revising the ABM Treaty?

Yeltsin's call for a joint BMD system also raises serious questions concerning the future of the ABM treaty regime. Both the 1991 Ballistic Missile Defense Act and the more ambitious GPALS plan would require either extensive revision or abrogation of the ABM Treaty as would deploying a joint BMD system. In his speech to the UN, Yeltsin again reiterated his opposition to SDI but what he opposes is not so much the technology as SDI's Cold War legacy. From the Russian perspective SDI was conceived as a system oriented towards a now non-existent Soviet threat. Yeltsin is arguing against GPALS and against ABM treaty revision unless Russia is cut in for a piece of the action. In essence he may hold GPALS hostage if the United States wants Russian agreement to treaty revision it may have to accede to Russian participation. Otherwise any US government attempting to revise the treaty will run into Russian opposition hampering attempts to get it through Congress.

Thus the Russian turnabout on SDI is not completely unconditional. A US unilateral deployment of GPALS or a more limited ground based BMD system is likely to meet strong Russian opposition. But apart from diplomatic protests a major Russian reaction seems improbable because Russia is unlikely to have the technological or financial means to create its own defense system. As before it is more likely to take countermeasures that would reduce the system's effectiveness against strategic offensive weapons. On the diplomatic front however any US decision to unilaterally deploy a BMD system would probably slow or halt further negotiations for bilateral nuclear weapons reductions.

The ongoing Russian debate over BMD also illuminates some important new aspects of Russian defense decision making. Some elements in the military are no longer closely following the government's line and are quite openly criticizing Yeltsin's policy. This gives evidence of the strong persistence of traditional thinking within the Russian military that might impede progress in further reduction of offensive arms as well. The debate reveals a troubling tendency to assume that if you're not with us on joint BMD research you're against us. The sense is that if the United States does not immediately endorse Russian participation in SDI it indicates US bad faith and proves that the United States is seeking to exploit Russian weakness. This tendency may hamper attempts to build cooperative programs step by step building confidence and cooperation along the way.

Does Yeltsin's call for joint BMD system research and deployment change the nature of the debate over SDI? In some ways it does. It opens the opportunity for re negotiating the ABM treaty to allow GPALS deployment. But, although the Russian government is not an implacable foe of SDI its acceptance appears to be highly conditional. To attempt to recast GPALS as a joint BMD system with Russia could increase the cost even while raising troubling military technology transfer issues.

Even if Russian acceptance of treaty revisions is forthcoming at a minimal political and economic cost it does not essentially change the arguments for the GPALS system which is oriented against limited third world strikes. In fact, the political cooperation that makes a joint BMD system conceivable also opens other less difficult avenues of cooperation that could reduce the need for such a system. Russian experts have shown interest in simple measures such as post launch destructive action link (DALs) systems and lowered alert rates.

that could reduce the chance of an accidental launch<sup>51</sup> Similarly despite some recent setbacks the Russian government may be amenable to Western entreaties to more strictly enforce the Missile Technology Control Regime (MTCR) If the twin dangers of accidental launch and proliferation could be reduced part of the need for GPALS would also be reduced

Thus Yeltsin s proposal does not provide a strong set of new arguments for GPALS Russian opposition to US BMD deployment can no longer be considered a given but neither can Russian support Cooperation in some areas may be feasible but the political stability and shared interests necessary to undertake a major joint program are absent Russian policy on BMD may also undergo more shifts as contending groups within the Russian government advance their own agendas A United States unilateral move to deploy BMD systems could even strengthen the hand of conservative military officers who continue to see a US threat to Russia Given this uncertainty a US approach that combines cooperative work in early warning together with a restrained approach to BMD development together with support for Russian defense industry conversion would appear to strike the best balance

---

51 See New Defense Logic Needs Consideration p 11

**This publication is supported in part by a grant from the John D and Catherine T MacArthur Foundation and is produced by the Program in Arms Control Disarmament and International Security at the University of Illinois at Urbana Champaign**

**The University of Illinois is an equal opportunity/affirmative action institution**