

**#240**

**SDI and Defensive Doctrine:**

**The Evolving Soviet Debate**

**by Stephen Blank**

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**SDI and Defensive Doctrine: The Evolving Soviet Debate**

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Under Mikhail Gorbachev, Soviet military doctrine, strategy, and forces are undergoing an unprecedented and seemingly benign evolution. The demise of the Warsaw Pact has led the USSR to renounce the conventional offensive in Europe; yet Moscow continues an extensive military space program, admits to violating the first Strategic Arms Limitation (SALT I) and Anti-Ballistic Missile (ABM) treaties by operating the Krasnoiarsk radar station, and is visibly modernizing its strategic forces, navy, anti-air and anti-missile defenses. More ominously, the 1986 Military Encyclopedic Dictionary labelled space a theater of strategic military operations -- teatr voennykh deistvii (TVD) -- indicating that Soviet forces would fight in, to, and from space.<sup>1</sup> Because a TVD is a command and control formation, as well as a force structure, certain questions immediately arise. Now that defensive doctrine and reasonable sufficiency guide military thinking and policy, what would space forces be? What would their missions be? In line with current guidance of doctrine and policy, political and military missions are apparently being considered. Once their full implications are known, however, the political and military missions may appear inherently contradictory.

It seems that the political mission under debate involves an exchange: in return for certain U.S. concessions, the Soviet Union will trade the arms race for joint custodianship of space with the U.S. Evidence is mounting that certain Soviet political and military figures advocate an accord giving both the U.S. and the USSR space-based ballistic missile defense (BMD) systems in exchange for the cessation or strict regulation of both sides' strategic force modernization. Such an outcome would approximate Soviet notions of minimum nuclear deterrence that were rejected by Gorbachev until recently.<sup>2</sup> The new

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1. Marshal of the Soviet Union S.F. Akhromeev, ed., *Voenna-entsiklopedicheskii slovar'* (Moscow: Voenizdat, 1986), p. 732.

2. See "Military-Strategic Parity as a Factor in Preventing War," in Joint Publications Research Service, *Soviet Military Affairs* (hereinafter JPRS, *Soviet Military Affairs*), 15 September 1988, p.5.

view is more acceptable than the simple minimum deterrence argument because its adherents maintain that trading BMD systems for regulated and limited modernization would impart strategic stability to the superpower relationship.

When we turn to Soviet space forces, there are at least three possible strategic missions derived from a space TVD. One is a surprise or preemptive attack upon Western command, control, communications, and intelligence targets (collectively known as C3I) and/or radio-electronic targets. The first option would be, in effect, a joint space and electronic warfare (EW) or, conversely, a joint space and electronic counter-warfare (ECW), operation against surprise strikes. The second option would be a strategic air and anti-air operation; the third, a strategic naval operation whose main mission would be to repel air and space missile attacks on the USSR from sea-based platforms. Many advocates of Soviet military space programs are divided over both the choice of missions for space forces and the appropriate Soviet response to perceived objective and subjective threats. Soviet commentators, however, unanimously agree on the nature and operational dimensions of the strategic danger posed by these threats.

One can state the objective and subjective parameters in a single sentence: The threats are the objective technological revolution in warfare and the subjective U.S. goal of engaging the USSR in a technological race in order to bankrupt the latter's economy and relegate it to perpetual strategic inferiority. U.S. military mastery of new technologies would create the operational ability to launch a surprise strike against Soviet C3I, air, air defense, and missile bases -- confronting the USSR with either further strikes or a dictated peace. Speaking about the civilian impact of the new technologies, Gorbachev recently observed that this revolution had largely bypassed the USSR. The upsurge in microelectronics, computers, informatics, and biotechnology only "tangentially" touched the

Soviet Union. Moscow's greatest mistake, in Gorbachev's estimation, was to underrate the significance of the scientific revolution.<sup>3</sup>

Moscow now risks becoming a marginal power. The Central Committee journal *Kommunist* has stated that information is becoming the main factor of economic progress. If the USSR does not implement an informatics program soon, "then -- without any exaggeration -- by the end of the century we will find ourselves outside the bounds of modern civilization."<sup>4</sup> Former Foreign Minister Shevardnadze, remarking on the military significance of the technological revolution, has asserted that the capacity of a strong economy and scientific base to produce improved technological systems -- not the stockpiling of weapons -- increases military capability to execute missions.<sup>5</sup>

Civilian and military commentators agree concerning the technological imperative and its military implications. Deputy Foreign Minister Petrovskii observes that space strike weapons will have a military-strategic and political importance that equals today's nuclear systems.<sup>6</sup> He contends that the main threat to the Soviet Union presented by current and future U.S. military programs is the Strategic Defense Initiative (SDI). But since SDI cannot counter surprise strikes, he notes, it is not surprising that the U.S. is also building offensive strategic systems that signify offensive first-strike intentions.<sup>7</sup> Petrovskii, like others, links SDI to the modernization of U.S. strategic forces.

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3. "Gorbachev 15 November Speech at All-Union Student Forum," Foreign Broadcast Information Service, *Daily Report: Soviet Union* (hereinafter FBIS, *Daily Report*), 16 November 1989, p. 67.

4. Quoted in James M. McConnell, "Soviet Military Strategy Towards 2010," (Alexandria, Virginia: Center for Naval Analyses, CRM 89-286, November 1989), p. 14.

5. Quoted in McConnell, "Soviet Military Strategy Towards 2010," p. 15.

6. See "Defining Prerequisites of State Security in Light of New Thinking," JPRS, *Soviet Military Affairs*, 7 November 1988, p. 13.

7. Ibid.

Advocates of the tradeoff cited above would sever SDI or ABM systems from strategic modernization programs or seek to use SDI to limit them. While most military leaders do not believe they can sever that connection, supporters of a political solution -- mainly civilians from the international affairs institutes (the *institutchiki*) -- see prospects for joint custodianship of space by de-linking SDI from force modernization. That linkage with force modernization is Petrovskii's real complaint about SDI emerges from his statement that foreign and Soviet scientists view SDI as destabilizing or accelerating the arms race across a broad spectrum. He cites Gorbachev's assertion that the principal harm of SDI is that it undermines prospects for talks and broadens mistrust, not that it endangers Soviet security. SDI is thus a political as well as a military problem.<sup>8</sup> Petrovskii's military argument against SDI is that the U.S. not only seeks to launch a strategic first-strike, but to use SDI to begin an arms race in new technologies, an argument Gorbachev also makes. This arms race pertains to all forms on the spectrum of conflict, (low-intensity conflict, conventional war, etc.), as well as to new reconnaissance-strike systems, artificial intelligence and the like. Its threat, therefore, is global, even if SDI itself does not materialize.<sup>9</sup>

Soviet space scientist Evgenii Velikhov states that Soviet scholars came up with ideas akin to SDI almost twenty years ago and were discredited. They were then inoculated against it. Yet he, too, calls U.S. plans for third-generation systems such as hydrogen bombs, pumped X-Ray lasers, and optimized warheads, destabilizing.<sup>10</sup> Major General (Ret.) R. Surikov admits that the Krasnoiarsk radar station violated SALT I, but justifies

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8. Ibid.

9. Ibid.

10. Evgenii P. Velikhov, "Science and Scientists for a Nuclear Weapon-Free World," *Physics Today* (November 1989): p. 11.

it by asserting that the U.S. then and now adheres to the first strike doctrine of nuclear deterrence. "Naturally in such a situation, a missile attack warning system has special significance for us. And it consists, it will be recalled, of space- and ground-based information systems."<sup>11</sup> Although his contention that the Krasnoiarsk radar station was not in Europe is unconvincing, his statement certainly reveals the Soviet outlook.

Other military writers explicitly link SDI to overall U.S. technological initiatives. Arinich and Bakhturin accuse the U.S. of computerizing all its systems and denying the USSR access to computers in order to optimize U.S. systems' potential and maintain Soviet systems' lasting inferiority. They label the U.S. comprehensive program a strategic computer program that applies to command and control (together known as C2), SDI, and conventional weapons systems.<sup>12</sup> Other Soviet works talk of developing weapons on the basis of new physical principles and advanced technology, as well as perfecting existing systems such as intercontinental ballistic missiles (ICBMs).<sup>13</sup> They view the perfection of existing systems and the creation new ones in largely offensive terms, emphasizing the offensive uses of space-based and long-range strike conventional and/or nuclear missiles, for example. These recent works express an expectation of U.S. deployment of light-weight re-entry vehicles (RVs) or space-based nuclear missiles which will be able to strike targets in minutes and evade boost-phase and mid-course BMD systems, making defense difficult.<sup>14</sup>

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11. Major General Surikov, trans. in "Risk Seen in Dismantling Kranoyarsk [sic] Radar," FBIS, *Daily Report*, 29 January 1990, p. 2.

12. "U.S. Strategic Computing Program," JPRS, *Soviet Military Affairs*, 24 August 1989, pp. 4-9.

13. Arinich and Bakhtruin, as well as other contemporary Soviet military analysts, are quoted in Lawrence R. Fink, "The Soviet View of War and Military-Technical Progress: Implications for ICBMs," *Comparative Strategy*, VII, No. 3 (September 1989): pp. 325-327.

14. *Ibid.*



Marshals Akhromeev and Yazov have repeatedly claimed that, while the threat of imminent war is declining, U.S. policy is still a policy based on nuclear deterrence and positions of strength. Therefore, even today's situation is destabilizing and threatening. Soviet civilian analysts share this perception. Podberezkin of the Institute of World Economy and International Relations (IMEMO) recently wrote that the U.S., in striving to maximize applications of the newest achievements of science and technology, had led the arms race into a qualitatively new stage. That perception echoes Marshal Ogarkov's argument that the world situation was never before so dangerously explosive, and thus as complex and unfavorable, as in the period 1980-85. The qualitatively new threat mandated a qualitatively new policy and approach that transcended the purely military-technical approach which had governed Soviet policy -- "new thinking." A new understanding of peaceful coexistence, the de-ideologization of international relations, and the doctrine of reasonable sufficiency are the new policy's components. In the context of international relations, reasonable sufficiency is intended to dispel fears of Soviet military intentions. It aims, therefore, at political and psychological goals.<sup>15</sup> Gennadii Leznev, another *institutchik*, observes that as long as technological progress and mutual mistrust continue, weapons will improve.<sup>16</sup>

The obvious implication is that only negotiation can eliminate mistrust and regulate or channel progress in missile technology. V.L. Lvov, writing in the journal of the Institute of USA and Canada, agrees. He notes that the USSR proposed a nuclear-free world because it saw the danger of reaching a critical point where strategic competition

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15. "Studio Nine" Program Examines Various Issues," FBIS, *Daily Report*, 12 March 1990, p. 68; "Discussion of "Peaceful" Coexistence as Form of Class Struggle," JPRS, *Soviet International Affairs*, 18 July 1989, pp. 48-50.

16. Gennadii Leznev, trans. in "Counterforce Strategy with Single-Warhead Missiles said Stabilizing," JPRS, *Soviet Union/USA: Economics, Politics, Ideology* (hereinafter JPRS, *Soviet Union/USA*), 20 November 1989, p. 2.

could be dramatically destabilized. Lvov denies that the West underestimates these dangers. Indeed, he believes that every Western government recognizes that using nuclear arms is not in its interests. The problem, rather, is political in nature: it is the present adversarial system of East-West international relations.<sup>17</sup>

Lvov argues that as long as a world order of sovereign states representing different social systems exists, force will continue to be a determining factor in world politics, and deterrence will continue to regulate its use.<sup>18</sup> Ending the arms race must be essentially a political process, for while political conflict exists, weapons systems will continue to improve. More ominous yet is his comment that even in parity technological advances will be made, enhancing offensive and defensive capabilities with new, more accurate, and less vulnerable weapons. In other words, improved weapons could destabilize the strategic situation and lead to unpredictable developments even under parity. Hence the USSR proposed to reorganize the existing framework of international relations.<sup>19</sup>

These statements indicate the predisposition of civilians to see the arms race as mainly a political conflict upon which technological competition is based. Accordingly, they advocate political means to moderate or terminate it. Nor do they distinguish between space, nuclear, or advanced conventional technologies which they know full well will revolutionize warfare.<sup>20</sup> Some civilians voice alarm about the proliferation of missile

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17. V.L. Lvov, "Iadernoe razoruzhenie: v poiskakh edinogo podhoda," *SShA: ekonomika, politika, ideologia* (March 1989), trans. in " "Disarmament" Approach Preferred over "Deterrence," " JPRS, *Soviet Union/USA*, 24 March 1989, p. 1.

18. Ibid.

19. Ibid., p. 4.

20. See "NATO: Forty Years on a Course of Confrontation and Militarism," JPRS, *Foreign Military Review*, no. 3 (March 1989), 24 August 1989, pp. 3-4; Richard Cohen and Peter A. Wilson, "Toward a U.S. National Security Strategy for the 1990s: Assuring 21st Century Competitiveness," *Comparative Strategy* VII, no. 1 (January 1989): pp. 21-25; and William S. Lind, et al., "The Changing Face of War: Into the Fourth Generation," *Military Review* (October 1989): pp. 2-11.

technology to third world states and terrorist organizations. Andrei Kokoshin stated that the appearance of precision-guided munitions and advanced missiles in third world states will stimulate new forms of armed competition at higher cost and danger to all.<sup>21</sup>

Military commentators share these and other concerns. Surikov complains that dismantling the Krasnoiarsk radar station paradoxically increases the danger of a nuclear catastrophe! Proliferation of over 17,000 vehicles in space, a number beyond the dreams of the radar's builders, makes it difficult to tell peaceful and military vehicles apart. Peaceful systems can easily be taken for attacking ballistic missiles. Because thousands of false alarms have occurred since 1977, security depends on both sides maintaining high quality control equipment and personnel.<sup>22</sup> Surikov stresses the control dimension, even favoring permanent direct communications between both sides' attack, warning, and command missile posts in order to exchange data on de-orbiting space objects. This is, in essence, a negotiated political accord. He also reveals the military's fears, and conversely, the perceived benefits, of attacking enemy control systems. Using John Steinbruner's figures, he claims that under normal conditions ground- and space-based echelons of warning systems function with 95% accuracy. Disabling either echelon reduces them to 60%. If a malfunction of or interference with the optical systems of warning systems takes place, however, the accuracy level falls to 20%.<sup>23</sup> Under these conditions, new strategic offensive and SDI systems could launch surprise or first-strike attacks against EW and C3I installations in the Soviet Union, leaving the USSR virtually defenseless.

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21. Quoted in Jacob W. Kipp, "Soviet Military Doctrine and Conventional Arms Control," *Military Review* (December 1988): p. 21.

22. Surikov, trans. in "Risk Seen in Dismantling Krasnoyarsk [*sic*] Radar," FBIS, *Daily Report*, 29 January 1990, pp. 2-3.

23. *Ibid.*, p. 3.

One military writer observes that advanced conventional missiles, including reconnaissance-strike complexes (RSCs) can envelop a combatant's entire territory at once.<sup>24</sup> Their lethality and accuracy is fast approaching or already equals that of nuclear arms; their capability therefore could tempt NATO to launch a surprise strike against the USSR's entire depth or against the entire Soviet warning, C3I, reconnaissance, and missile guidance systems. Massive application of radio-electronic warfare (REW) or counter-REW against the USSR is also possible.<sup>25</sup> Should the USSR develop its own equivalent, conventional systems, as it is trying to do, one Soviet analyst contends that the West might then attack the equivalent Soviet systems in order to stabilize the West's own C3 installations, forces, and means of operations -- a possibility that cuts both ways.<sup>26</sup>

More recent articles demonstrate a continuing sense of gloom akin to Surikov's. In December 1989 General Lushev, then Commander-in-Chief of the Warsaw Pact, wrote an article in *Voennaiia mysl'* which used history to demonstrate the thesis that improvements in weapons are accompanied by perceptions of increased threat. On the other hand, these systems have unpredictable ecological-military consequences for all mankind.<sup>27</sup> For this reason, Lushev remarked, exploring and developing new forms of scientific integration among Warsaw Treaty Organization (WTO) states is exceptionally important. This

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24. General-Lieutenant A.I. Evseev, "O nekotorykh tendentsiakh v izmenenii soderzhaniia i kharaktera nachal'nogo perioda voiny," *Voенно-istoricheskii zhurnal*, no. 11 (November 1985): p. 16.

25. For an explanation of the possibility of radio-electronic warfare, see Evgenii Primakov, Executive Author; Aleksei Arbatov, Head Author; Institute of World Economy and International Relations, USSR Academy of Sciences, *Disarmament and Security: 1987 Yearbook*, English trans. (Boulder, Colorado: Westview Press, 1988), p. 205. (Hereinafter *MEMO Yearbook*.)

26. Col. Ye. G. Korotchenko, "On the Question of Protecting Troops against Precision Weapons in Operations," *Voennaiia mysl'*, no. 1 (January 1986), pp. 19-21.

27. General Lushev, trans. in "Unity of Warsaw Pact Countries' Defense Efforts is a Factor of Socialism's Reliable Protection," JPRS, *Military Thought*, 22 February 1990, p. 1.

integration comprises (or comprised) R&D and production, and *perestroika* aimed to intensify this integration. Lushev stated:

**"Perestroika of the S&T [science and technology] sphere based on new economic strategy permits a qualitative change in the military-technical and military aspects of cooperation of Warsaw Pact countries."<sup>28</sup>**  
[Boldface in text.]

This cooperation helps provide weapons enabling WTO forces to attain operational-tactical and strategic missions, rationalize WTO force structure and complement, and support modernization.<sup>29</sup> But at that moment, Lushev clearly spoke of the past, not the future -- a fact that gravely complicates Soviet defense planning.<sup>30</sup>

In the same issue of *Voennaia mysl'*, two major articles appeared on U.S. naval strategy which addressed Soviet naval concerns. The first article discusses U.S. maritime strategy and accurately outlines its tenets, noting that the new element in this strategy is the U.S. Navy's real capability to launch global strikes from all seas, mainly against Soviet sub-surface ballistic nuclear missiles (SSBNs) in their bastions and their infrastructure on land.<sup>31</sup> The other article, on the role of navies in world politics by Captain First Rank Galkovskii, is even more aggressive in tone. While he makes many traditional naval arguments for an enhanced navy role, the arguments also fully comport with the threat perceptions described in the first article:

**"The state's capability to implement any military doctrine is a criterion of that doctrine's effectiveness....And for this it is necessary that everything -- the press, science, the arts, the school and the Army -- be organized and directed toward one point for instilling a unified military**

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28. Ibid., p. 5.

29. Ibid.

30. For evidence of Soviet comprehension of the Warsaw Pact's decline, see "Dissipation" of Pact Viewed," FBIS, *Daily Report*, 5 March 1990, pp. 4-5.

31. "U.S. Naval Strategy," JPRS, *Military Thought*, 22 February 1990, p. 38.

**ideology not only in the army leadership, but also in all state and public organizations.**<sup>32</sup> [Boldface in text.]

Galkovskii goes on to state that the impact of advanced technologies, nuclear and conventional, is bringing about an increased threat to the USSR and WTO members.<sup>33</sup> According to the captain, analysis of U.S. military-strategic and political views, programs, training, and policies "permits the conclusion" that the arms race, and the threat or use of direct military force, remain the principal, if not only, means of attaining U.S. hegemonic political objectives.<sup>34</sup> The essence of the threat is the expected U.S. attempt

**"to attain decisive strategic objectives in several areas of the world simultaneously in the course of a protracted conventional war."**<sup>35</sup>  
[Boldface in text.]

U.S. forces and means are depicted as being readied for combat and "the preparation of main theaters of military operations with systems and means of all kinds of support is being completed" (presumably he also includes space and REW operations here).<sup>36</sup>

Galkovskii places great emphasis on preparing ocean theaters for naval warfare, clearly including space as one of the theaters.<sup>37</sup> He claims that naval forces are the most versatile and flexible of all precisely because they can achieve a broad spectrum of missions in all spheres of warfare -- land, air, space, sea, and underwater -- and react promptly to

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32. Capt. 1st Rank Galkovskii, trans. in "On the Role of Naval Forces in International Relations," JPRS, *Military Thought*, 22 February 1990, p. 40.

33. Ibid.

34. Ibid.

35. Ibid.

36. Ibid., p. 44.

37. Ibid.

changes in the content, scope, and means of accomplishing missions.<sup>38</sup> And he stresses the utility of navies for both space and anti-space missions:

The fact that the forces making up a naval task force (submarines, ships, aircraft) **not only are not subject to strikes from outer space and by strategic cruise missiles, but they themselves are capable of disrupting the functioning of space systems and disabling their craft**, is considered a promising quality of such task forces.<sup>39</sup> [Boldface in text.]

Since naval task forces are also vulnerable to space-based or anti-space strikes, it appears that he is calling for increased anti-ship, submarine, and anti-air missile capabilities, presumably ABMs which would be space-traversing if not space-based. Defense Minister Yazov defined these forces as defensive in a speech in London in late 1989.

Galkovskii's threat assessments are breathtaking: All of NATO and South America are engaged in large-scale naval modernization. Retrofitting the U.S. coast guard is a concealed military manoeuvre, and U.S. military strategy envisages globalizing threats to the USSR. Such threats include combined arms plans involving space satellites, requisite surface vessels, submarines, and amphibious capabilities for strikes from a new Arctic Ocean theater of operations (probably an Arctic TVD) and amphibious operations on Soviet borders in Europe and facing Japan!<sup>40</sup> His observations about preparing these new theaters stress automation processes; creation of RSCs; electronically advanced C3I and EW capabilities in Asia, Europe, and the Arctic Ocean; and the outfitting of civilian vessels for rapid turnaround into integrated RSC systems.<sup>41</sup> In world affairs, Galkovskii sees rising new powers and/or coalitions that will equal the superpowers' economic and military might. He predicts that contradictions between coalitions of states or between individual

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38. Ibid., p. 40.

39. Ibid.

40. Ibid., p. 44.

41. Ibid., pp. 44-45.

states will become more intense. Finally, he cites third world state borders, largely colonialist in origin and made without regard for local conditions, as creating objective preconditions for conflict between adjacent states.<sup>42</sup>

Although he says this trend toward increased regional conflict creates more scope for the navy's peacetime role, Galkovskii calls for naval forces and status on the basis of the expected U.S. upgrading of naval force capabilities, as well as the commercial and military importance navies will enjoy in the next century. His aim is quite open. He pays lip service to "new thinking" for minimizing conflict, but then states that relaxing military confrontation does not come down to mechanically cutting the budget and forces. Rather, it means updating their structure and "giving them a **fundamentally different (defensive) character and scale not exceeding reasonable sufficiency for preventing or disrupting possible aggression.**"<sup>43</sup> [Boldface in text.]

While this is a most aggressive and expansive threat assessment, it hardly stands alone. An enormous volume of Soviet literature charges the U.S. and its allies with developing high-tech military programs which threaten Soviet security and subject it to a technological arms race.<sup>44</sup> Here lies the Soviet military's dilemma in meeting requirements for preparing and staffing a space TVD and deciding its missions and forces

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42. Ibid., p. 45.

43. Ibid., p. 39.

44. For examples of this press campaign, see "Various Aspects of Ongoing SDI Research Noted," FBIS, *Daily Report*, 8 February 1990, pp. 72-73; "Paper Views Development of SDI Lasers," JPRS, *Soviet Military Affairs*, 29 September 1988, pp. 30-31; "U.S. Strategic Arms Programs Criticized," FBIS, *Daily Report*, 17 October 1989, pp. 4-6; and "U.S. Satellite Early Warning System Described," JPRS, *Arms Control*, 16 August 1989, pp. 51-53.



## II

Most Soviet military discourse today reflects the military's adoption of defensive doctrine and reasonable sufficiency. While no rational analyst denies that treaties could slow military-technical progress, Soviet military leaders believe first of all in military responses -- even if asymmetrical -- to threats. Military discussion of the impact of new systems accepts that they can generate a potentially successful defense.<sup>45</sup> Discussions of defense, however, clearly show a preference for an active defense that employs surprise (as does offense), engages in preemptive strikes in marshalling and assembly areas, and launches preemptive anti-air (offensive counter-air) operations, etc. Such operations aim to gain and win the battle for time and get inside enemy decision cycles, if necessary by surprise and preemption -- a goal accepted by even harsh critics of the military like Aleksei Arbatov.<sup>46</sup>

Since space figures prominently in these discussions and is now a TVD, it can also be an arena for strategic defense. Space could even be the TVD where defense is the basic form of operations, but is so prepared as to pave the way for a later counteroffensive, as Soviet definitions of space TVDs have implied for some time.<sup>47</sup> Thus current military planning entails "saturating" the armed forces with advanced conventional, nuclear, and automated systems; RSCs; maintaining a technological production base; and planning for

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45. See General-Major I.N. Vorob'ev, "The Relationship and Reciprocal Effects between Offense and Defense," *Voennaia mysl'*, no.4 (April 1980): pp. 51-57; and Col. General M.A. Gareev, *M.V. Frunze: voennii teoretik* (Moscow: Voenizdat, 1985), p. 245.

46. For discussions of active defense, see General-Major Vorob'ev and A.S. Milovidov, eds., *Voенно-теоретическое наследие V.I. Lenina i problemi sovremennoi voiny* (Moscow: Voenizdat, 1987), p. 252; and *IMEMO Yearbook*, pp. 244, 265.

47. See definitions and descriptions of space TVDs in N.V. Ogarkov, ed., *Voенно-эциклопедический словарь* (Moscow: Voennizdat, 1983), p. 710; S.F. Akhromeev, ed., *Voенно-эциклопедический словарь* (Moscow: Voennizdat, 1986), p.710; and General-Major V.V. Turchenko, "Tendencies in the Development of the Theory and Practice of Strategic Defense," *Voennaia mysl'*, no. 8 (August 1979): pp. 18-19; and *idem*, "On Strategic Defense," *Voennaia mysl'*, no. 7 (July 1982): pp. 17-19.

space operations at the strategic, operational, and even tactical level. Major General Kuznetsov wrote in 1984 that one could not solve specific missions in planning a strategic level campaign without a proper conception of the "nature and content of the categories and of strategic objectives, strategic missions, military theaters, etc."<sup>48</sup> As this author has noted elsewhere, preparation of the space theater entails its geographic and logistical "mapping out, as well as investigation of the possibilities for survival of troops and weapons systems there."<sup>49</sup>

The requirements for saturating the military with these systems are immense and demanding. The threat, moreover, is increasing because of American policy, the defection of WTO allies, and the pace of technological change. These requirements remain valid under parity, even with a 50% cut in strategic forces resulting from a successful conclusion of the Strategic Arms Reductions Talks (START). And these concerns stand apart from the domestic chaos and fiscal constraints currently plaguing the Soviet army. Yet even should the military successfully re-equip itself, what would it gain apart from matching the U.S.? What benefits would its arsenal confer? Soviet military thinking is decidedly skeptical about resolving political issues -- which is how the leadership now defines SDI -- by strictly military means. S.A. Tiushkevich writes that the realities of the nuclear age demand a new approach to the issue of using force for political objectives. Under present and foreseeable conditions, the use of force could risk the future of all mankind. This has led to a real devaluation of the prospects and scope for applications of military power.<sup>50</sup>

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48. Quoted in Phillip A. Petersen and Notra Trulock III, "Soviet Views on the Changing Context of Soviet Military Planning," *Journal of Soviet Military Studies* I, no. 4 (December 1988), p. 458.

49. Stephen Blank, "Developing Soviet Strategy for Space," in William Green and Theodore Karasik, eds., *Gorbachev and His Generals* (Boulder, Colorado: Westview Press, 1990), p. 110.

50. S.A. Tiushkevich, *Voyna i sovremennost'* (Moscow: Nauka, 1986), p. 117.

There are more grounds for anxiety, however, in the fact that Defense Minister Yazov, Chief of Staff Moiseev, and Deputy Chief of Staff Gareev all state that sufficiency depends upon or derives from the burden imposed by the other side.<sup>51</sup> Military doctrine demands a response to a threat perception, even if asymmetrical. Yazov and Gareev both make a distinction between conventional and nuclear sufficiency. For Gareev, reasonable sufficiency assures that no nuclear strike can go unpunished and will be repulsed under any conditions. He believes that mutual force reductions to preclude offensive -- presumably conventional -- capability would also be useful for lowering threat levels.<sup>52</sup> For Yazov, defense sufficiency occurs when nuclear weapons exist and reasonable sufficiency will take place when they are eliminated. In conventional systems, defense sufficiency means that forces are at the lowest level sufficient to repulse an attack but, by virtue of structure and composition, remain otherwise purely defensive.

Yazov's nuclear scenarios follow those of Gareev. In his 1989 London speech, Yazov stated that sufficiency ultimately presumes abolishing nuclear and other mass destruction systems, retaining a level of forces sufficient to protect each side from surprise attack -- the nightmare of Soviet planners -- but insufficient for launching surprise attacks or aggressive operations in general. This kind of sufficiency is only possible through global destruction of nuclear weapons, a chimerical formulation that legitimates continued military responses to threats.<sup>53</sup> Yazov conceded that Soviet forces are being reoriented to stress anti-air, anti-tank, and anti-submarine warfare (ASW) systems in order to constitute a

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51. See Col. General M.A. Gareev, "Address at the Royal United Services Institute, London, October 19, 1988," *Royal United Services Institute Journal* (Winter 1988) p. 7; Minister of Defense General Yazov, "On Soviet Military Doctrine," *Royal United Services Institute Journal* (Winter 1989): p. 2; and Captain First Rank V. Kuzar, "Snizit' voennye potentsialy," *Krasnaia zvezda*, 18 January 1990, p. 3.

52. Gareev, "Address at the Royal United Services Institute," p. 7.

53. Yazov, "On Soviet Military Doctrine," p. 2.

basically defensive posture.<sup>54</sup> Since the ASW and anti-air missions would be among the leading missions of Soviet space forces, the Soviet Defense Minister both implied and confirmed the purposes of a space TVD.

The problem with this Soviet defensive reorientation is the goal of saturating Soviet armed forces with high-tech systems, including space systems. Yazov confirms that policy and doctrine mandate the creation of these systems as fundamental components of ASW and anti-air forces. Yet for years Soviet spokesmen have said that such weapons, with their long-range capability to strike at a moment from space, are first-strike, surprise attack systems. Gareev's description of defense doctrine is equally unsatisfying: defense would be mainly local in nature and based on holding key areas through engineered obstacles. On some axes, reinforcement with the latest RSC systems will probably be necessary. The less forces are allotted to defense, Gareev contends, the more important become rapidly mobile and manoeuvring reserves for holding threatened axes.<sup>55</sup>

Lev Semeiko recognizes that Soviet equivocating on the definition of offense and defense under sufficiency creates a dilemma. He calls for an answer to satisfy the West, but insists that sufficiency implies a maximally active defense.<sup>56</sup> He claims that there is no difference between Yazov's two concepts of defense sufficiency and reasonable sufficiency. Sufficiency is reasonable when military forces possess the lowest possible capability to repel conventional offensives, weapons of mass destruction have been destroyed, and both sides are oriented to non-offensive defense.

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54. *Ibid.*, p 4.

55. Gareev, "Address at the Royal United Services Institute," p. 9.

56. L.S. Semeiko, trans. in "Reasonable Sufficiency: The Way to Reliable Peace," United States Air Force, *Soviet Press: Selected Translations*, January-February 1990, p. 18.

At the nuclear level Semeiko, like other military analysts, warns against unilaterally disarming Soviet strategic forces, a policy supposedly advocated by the *institutchiki*. He interprets the technological imperatives of the arms race to mean that, in the event of a disparity in warheads or delivery platforms, the side which has developed qualitatively better weapon systems will gain overwhelming superiority, especially if the quality gains achieved by that side are in anti-missile and space weapons. Hence he argues that both sides should stop at a sufficient number of, say, 500-600 single-warhead ICBMs.<sup>57</sup> As long as the arms race continues, however, he believes that the USSR must prevent U.S. quantitative and qualitative superiority in both offensive and defensive systems, including those based in space.

### III

The Soviet military's science and construction program offers a way out of the impasse. These programs and the analysis cited above rely on the old idea of the need for retaliatory, counterforce strike capability. Novosti Press Agency released an article in July 1989 for Poland's military newspaper *Zolnierz Wolnosci* concerning the revision of the Soviet military's structure and technical orientation. The article agreed with Yazov's contention that technological priorities have been redirected towards systems which increase the effectiveness of repelling aggression, even though these systems remain just as offensive as other systems.<sup>58</sup> More interesting is Novosti's observation that the task at hand is to move from evolutionary improvements of existing weapons to sudden, qualitative

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57. Ibid., pp. 16-18.

58. "Novosti Comments on Military Restructuring," FBIS, *Daily Report*, 10 July 1989, pp. 106-107.

"breakthroughs" in weapons systems. Quantity is being downgraded in favor of producing reliable, advanced systems which use less combat resources.<sup>59</sup>

This observation fits perfectly with both Soviet defense intellectuals' and officers' analyses of the current technological needs of the military. General-Lieutenant Proskurin observes that one value of new systems is that they do not require increases in troop strength.<sup>60</sup> New systems can be force multipliers, compensating for the numerical inferiority of conventional forces. Sufficiently and effectively deployed, they can change the correlation of forces by amassing firepower on key targets.<sup>61</sup> Genrikh Trofimenko agrees that civilian technology today provides the spinoffs for military technology. Mastery of civilian technology provides a country with the opportunity to make quick, drastic leaps in the quality of its military forces.<sup>62</sup> General Lizichev, former head of the Main Political Administration of the Soviet Army and Navy, has depicted Soviet science programs in similar terms.<sup>63</sup>

Western analysts confirm this trend. Richard Cohen and Peter Wilson see a potential option of lower military spending for the next 3-5 years which would lay the foundation for a later surge, once restructuring is in place. Soviet defense spending, they conjecture, would visibly cut investments in current systems, especially conventional forces. The rate of growth in "trans-century" weapons systems and dual purpose industries tied to

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59. Ibid.

60. General-Lieutenant M. Proskurin, "What Lurks behind the Rogers Plan," *Krasnaia zvezda*, 3 December 1985, p. 3.

61. See General-Major I.N. Vorob'ev, "New Weapons and the Development of Principles of Combined-Arms Combat," *Voennaiia mysl'*, no. 6 (June 1986): pp. 37-38.

62. Genrikh Trofimenko, "Long Term Trends in the Asia-Pacific Region," *Asian Survey* XXIX, no. 3 (March 1989): p. 238.

63. Mr. William Suggs graciously provided me with this information.

space-faring capability, aviation, and electronics, would improve.<sup>64</sup> Phillip Hanson argues that the 1986-1990 Five Year Plan -- heavily geared towards the engineering, computer, and electronic industries -- appears to aim at building a foundation for a future military technological surge, while at the same time evincing satisfaction from the quality and quantity levels of existing military industries. He concludes that as of 1988-1989, the capacity for assembling final-stage military hardware was not being substantially increased. This fact suggests that current systems, and production levels of systems embodying existing technology, are being maintained. At present, Hanson believes that Soviet investment priority is shifting to high-tech industrial infrastructure in order to provide advanced components and sub-systems for the new generation of weapons needed before the year 2000.<sup>65</sup>

Moscow would gain much by producing and deploying such high-tech systems; more accurate RSCs would lessen requirements for conventional fire support while destroying more enemy defenses. The extent of destruction achieved thereby is close, if not equal to, that of low-yield nuclear systems. Thus high-tech RSCs could generate tactical manoeuver requirements on a conventional battlefield that approach those of a nuclear battlefield. Highly effective conventional fire support could overcome the Soviet dilemma of reorganizing and training forces for high-tech warfare, as well as devising appropriate tactical concepts for overcoming NATO defenses. Ultimately, use of RSCs could solve the problems of guaranteeing high rates of advance on the modern battlefield and increasing the tempo of the modern strategic offensive.<sup>66</sup>

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64. Cohen and Wilson, "Toward a U.S. National Security Strategy," p. 33.

65. Phillip Hanson, "Soviet Technology Policy: Status and Prospects," in Christopher N. Donnelly, ed., *Gorbachev's Revolution: Economic Pressures and Defense Realities* (Surrey, England: Jane's Information Group, 1989), pp. 63-65.

66. Stephen Covington, "New Thinking on Defense?" in *Gorbachev's Revolution*, p. 185.

This is a military response of retaliation, generating an arms race which adds to the mistrust fueling the race in the first place. Such a response exacerbates the political-military problem posed by SDI and other modernization programs and offers little chance of countering unending technological threats. It thus contradicts the fundamental objective of Soviet military doctrine -- war prevention -- and stresses technological competition. Yet this reply is inescapable for the military because the combat effectiveness of Soviet weapon systems structurally depends on military leaders' ability to assess the future battlefield correctly and develop correct technical and tactical responses to its challenges.<sup>67</sup> It is here that military procurements clash with the political requirements of doctrine, real Soviet capabilities, and the need to moderate the arms race.

#### IV

Certain Soviet officers are discomfited by these impasses of strategy and policy. They and civilian *institutchiki* both espouse a deal which would offer the U.S. a minimum nuclear deterrence regime. First, the deal would allow both the U.S. and the USSR "thin," mutually agreed upon ABM systems using space based weapons for actions against third parties and terrorists, as well as a joint facility or facilities to guard against accidents or system malfunctions. Second, in return for the concession on space-based weapons, the strategic force modernization of both sides would either cease or be substantially curtailed. This step would require substantial military détente, joint strategy discussions like the 1990 Vienna seminar, bilateral sessions, and a comprehensive military dialogue. Third, both sides would move towards mobile, single-warhead ICBMs and improve the survivability of their submarine-launched ballistic missiles (SLBMs) and C3I capabilities under agreed terms.

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67. Kenneth Brower, "Economic Implications of Military Doctrine and Weapons Design," in *Gorbachev's Revolution*, p. 70.



Fourth, strategic stability at lower levels would be maintained by joint custodianship of the strategic status quo *vis-a-vis* all other parties. The result would ease both sides' military burden, create the preconditions for comprehensive international security, and considerably lower the risk of nuclear and space war.

This approach of minimum deterrence and mutual strategic defense systems is recent, but there are important signs that it is winning growing support. The debate on this potential policy could divide the military, enhancing the rising role of civilian analysts in strategic and defense policy-making. Not long ago IMEMO, an *institutchiki* bastion, opposed this approach. Its 1987 yearbook, edited by Aleksei Arbatov, strongly opposed space-based systems. In one of several chapters written by him for the yearbook, Arbatov rebutted Colin Gray, arguing that if strategic defense systems -- even if only partially effective -- are deployed in an environment where offensive weapons still exist, they will be even more effective against retaliation once a preemptive or surprise first-strike has already taken out most enemy strategic forces. The temptation of launching a first strike makes defensive systems fundamentally destabilizing under the present balance, contended Arbatov. Both sides' well-grounded fear that this is indeed the purpose of SDI and larger ABM forces will heighten their respective expectations of a preemptive strike to ensure target penetration. The side with an ABM system thus has added motives for aggression. Arbatov predicted that the situation will deteriorate if both sides have ABM systems, as mutual fears would increase geometrically. This explains why the USSR renounces the deployment of a large-scale strategic defense system along SDI lines, he noted at the time.<sup>68</sup> Constructing SDI would duly force Moscow to build space systems and countermeasures to SDI, Arbatov contended, something which the USSR easily could do.<sup>69</sup>

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68. *IMEMO Yearbook*, pp. 261-262, 586.

69. *Ibid.*, pp. 69-70, 88-89.

Arbatov charged that without a definite goal, even reductions in strategic offensive forces would erode strategic stability due to technological improvements. The U.S. contention that SLBMs are stabilizing is belied by U.S. efforts to reduce Soviet SLBMs and land-based ICBMs through negotiation or intimidation -- the Maritime Strategy.<sup>70</sup> Arbatov alleged that U.S. plans and strategy aimed to synchronize counterforce strikes against Soviet forces, strategic leadership and C3I targets from invulnerable platforms, making SDI a program for a limited counterforce war.<sup>71</sup> He contended that new conventional and cruise missiles, having little warning time and striking from unpredictable locations, are more destabilizing than ICBMs because they can hit Soviet C3I and EW targets. Thus their modernization is also destabilizing.<sup>72</sup> Launching space-based, directed energy weapons is the most extreme example of such a surprise strike; these weapons could paralyze Soviet C3I installations in minutes and degrade the Soviet Union's retaliatory capability.<sup>73</sup> Since U.S. counterforce goals suggest that it seeks a preemptive, first strike capability, its goals encourage the USSR to launch a preemptive strike as well.<sup>74</sup>

Arbatov noted that wherever the U.S. and USSR are in agreement, military programs whose retaliatory capability deters war must maintain strategic stability. One criterion for stability is thus reliable, second strike systems which insure that aggression is punished in kind. "Such a capability is based on the principle of reasonable sufficiency, taking into account the forces and programs of the other side."<sup>75</sup> Talking about the Soviet

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70. Ibid., pp. 116-122.

71. Ibid., p. 205.

72. Ibid., p. 244.

73. Ibid., p. 269.

74. Ibid., p. 213.

75. Ibid., p. 213.

concept of stability, he embraced the arguments of Yazov and others at that time. The main element in Soviet doctrine, strategy, and planning is the prevention of nuclear war, he concluded, not preparation for surprise and preemptive strikes should the other side choose to attack. However, he conceded, the very uncertainty about Soviet military plans acts as a deterrent.<sup>76</sup>

Even in 1987, the year in which Arbatov expressed these views, there were differing voices. For example, in a major study of the Navy's strategic use, role, and missions, protégés of Admiral Gorshkov advocated a frankly aggressive nuclear- and space-fighting doctrine for naval and combined arms warfare. They stipulated that the navy's main strategic mission was to repel air and space missile attacks on the USSR.<sup>77</sup> The authors of the study openly postulated the existence and use of space and ABM systems for these ends and rated the utility of surprise strikes very highly. However, in the second chapter, which outlines the Navy's forecasting methodology (and probably that of the Soviet military as a whole), they argued that by the year 2000, the U.S. would not successfully build the number of ships and strategic platforms required by its strategy of long-range fire strikes on the USSR.<sup>78</sup> Their evaluation induces a certain optimism about the likelihood of an immediate Soviet response to U.S. strategic modernization programs, adding weight to the argument that only a political solution can stabilize the military and technological environment. If the military-political situation is not radically altered during the forecasting period 1987-2000, implies the naval study, the basic principles upon which the USSR

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76. Ibid.

77. See Chapter 1 in Rear Admiral Nikolai Petrovich V'iunenko, Captain First Rank Boris Nikolaevich Makarev, and Captain Second Rank Valentin Dmitrievich Skugarev, *Voенно-морской флот: роль, перспективы его развития, использование* (Moscow: Voenizdat, 1987).

78. Ibid., p. 47.

develops its navy will not change substantially, given the life-cycles of existing U.S. and Soviet naval vessels and weapons.<sup>79</sup>

The argument of Gorshkov's protégés not only justifies the changes in Soviet military doctrine, strategy, and policy associated with "new thinking," it also opens the door to proposing the deal on minimum deterrence. This is especially true as naval arms control -- the most elusive goal of Soviet leaders -- grows in importance. Shevardnadze has observed that the easiest way to launch a surprise strike today is from the sea.<sup>80</sup> This observation justified his call, during a visit to Canada in February 1990, for an open seas and open space agreement involving comprehensive exchange of military strategic data on naval exercises and manoeuvres, together with pre-launch inspection of space rocket payloads.<sup>81</sup> General-Lt. Starodubov, head of the arms control section of the Central Committee's International Department, recently charged the U.S. with seeking to limit Soviet land-based ICBMs while enhancing U.S. SDI and SLBM programs. Espousing an equilibrium not in quantity and quality, but sufficient to deter aggression, he observed that the side with stronger naval forces inevitably has superiority. The modernization of U.S. naval and amphibious forces threatens the prevailing equilibrium because the combat potential of naval arms during land-based operations is "not inferior, but in many cases superior, to the potential of the corresponding land-based weapons."<sup>82</sup> The Soviet campaign for naval arms control thus fits in well with the objective of mutual SDI programs and limited strategic force modernization for both the U.S. and the USSR. It bears noting

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79. *Ibid.*, p. 55.

80. Paul Lewis, "Moscow Urges Sharing of Naval Data," *New York Times*, 13 February 1990, p. A10.

81. *Ibid.*

82. General-Lt. Starodubov, trans. in "Need for Talks on Naval Forces Argued," FBIS, *Daily Report*, 11 January 1990, p. 4.

that the 1987 IMEMO yearbook, hardly a mouthpiece for the military, endorsed the naval force structure advocated by Gorshkov's protégés, excepting carriers and the anti-submarine warfare (ASW) mission hierarchy.<sup>83</sup>

Officials like Roald Sagdeev, director of the Academy of Sciences' Institute for Space Research, began advocating cooperation in space as early as 1987, suggesting a United Nations space organization to protect space and the environment.<sup>84</sup> In September 1988 Major General Yuri Lebedev, Deputy Chief of the Treaty and Legal Directorate of the Soviet Army's General Staff, contended that if no accord to ban space defense systems was possible, then a treaty to limit or reduce them would be "inevitable."<sup>85</sup> Petrovskii had stated in March 1988 that, while reasonable sufficiency meant eliminating all nuclear systems, it was necessary to reach the goal in stages. "At every stage security should be strengthened and **strategic stability** increased. In each stage there should be mutual or multilateral understandings on the definition of both nuclear and conventional **reasonable sufficiency** and a commitment to preserving stability at the lowest level of this sufficiency."<sup>86</sup> [Boldface in text.]

In February 1989, Ednan Agaev, second secretary of the International Organizations Directorate of the USSR Ministry of Foreign Affairs, published an article in the ministry's journal *International Affairs*. Agaev's alternative to "offensive deterrence" -- an offensive, aggressive mutually assured destruction (MAD) doctrine allegedly enshrined by the 1972 ABM treaty -- is "defensive deterrence." By replacing multiple independent re-

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83. *IMEMO Yearbook*, p. 437.

84. Roald Sagdeev, trans. in "Space Chief Favors Setting up World Agency," *FBIS, Daily Report*, 21 July 1987, pp. U2-3.

85. Quoted in McConnell, "Soviet Military Strategy Towards 2010," p. 23.

86. "Defining Prerequisites of State Security," *JPRS*, p. 14.

entry vehicle (MIRV) systems with single warhead ICBMs, Agaev's defensive deterrence would be founded on "powerful shields" (non-SDI ABM systems) and "shortened swords" (radical reductions in offensive warheads).<sup>87</sup> A joint custodianship regime would be established to preserve the USSR as a superpower, making it a regulator of world strategic order together with the U.S.

In March 1989 Aleksei Arbatov published his celebrated attack on the Soviet military, "How Much Defense is Enough?" This withering blast at the military revealed Arbatov's conversion to a new view on space-based systems. He now declared that the ABM system permitted under SALT I did not suffice to defend the USSR from the West, and that protection against terrorist, accidental, and third party strikes required a Soviet SDI program, even if "thin."<sup>88</sup> The fact that Arbatov's proposal contravened the ABM treaty ardently defended by official Soviet policy, as Major General Liubimov pointed out in his critique of the civilian analyst's article, did not stop the Foreign Ministry journal from refusing to publish Liubimov's riposte to Arbatov.<sup>89</sup> More recently, Arbatov forecast that strategic arms reductions below the projected 50% target of START cannot be effected merely by reducing carriers and warheads. In his view, such cuts require banning or drastically limiting systems that can undermine stability at lower levels of the strategic nuclear balance. Mutual cuts leading to joint regulation of the strategic balance would produce a new strategic status quo, moving the U.S. and the USSR away from a policy of simple arms reductions. Regulation would require channeling progress in military

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87. Ednan Agaev, "Towards a New Model of Strategic Stability," *International Affairs*, no. 3 (March 1989): pp. 106-103. [*International Affairs* is the English language version of *Mezhdunarodnaia zhizn'*.]

88. Quoted in McConnell, "Soviet Military Strategy Towards 2010," p. 23.

89. *Ibid.*, pp. 23-24.

technology into "non-destabilizing" systems, such as space systems, defense forces and weapons, and anti-missile, anti-aircraft, and ASW systems.<sup>90</sup>

At the same time, Lvov noted that, while both sides seek to reduce arms and move towards more stabilizing systems, they will not succeed as long as the current mistrust prevails. Rather, both sides will attempt to insert "circumvention points" into future accords because they continue to compete militarily.<sup>91</sup> Reducing arms to an agreed minimum level necessitates limiting the superpower rivalry, Lvov explained. He argued that the first step to reduce this rivalry should be to eliminate "circumvention points" in existing treaties. The second step should be the inclusion of the entire agenda of strategic-military operations in negotiations, both for present and future developments. Lvov proposed that Moscow and Washington each define the preferable military-strategic situation it wants to obtain through future strategic arms reductions and modernization, and then jointly work to attain that status quo.

This scenario entails the "closest interaction" in coordinating military organizational plans, force modernization, criteria of stability and instability for weapon systems; mutual shunning of destabilizing systems; a move towards systems in tune with defensive military doctrine; and regular consultations, communication, and confidence building measures. This process would increase predictability and stability at lower levels of nuclear confrontation. Lvov concluded that support for new strategic defensive systems would probably decline in conditions of mutual trust and interaction resulting from cooperation in reducing offensive systems.<sup>92</sup>

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90. Alexei Arbatov, "New Military Thinking in East and West," *New Times*, no. 1 (January 1990): pp. 24-25.

91. Lvov, trans. in " "Disarmament" Approach Preferred over "Deterrence," " *JPRS*, pp. 2-5.

92. *Ibid.*, p. 5.

In July 1989 Lednev attacked the whole concept of retaliatory strikes and counterforce that underlies military programs in both the U.S. and the USSR. He pointed out that both sides are increasing survivability of current systems while simultaneously developing offensive and defensive systems, reinforcing mutual insecurity. Agreements restricting technology without a political accord are bound to fail, Lednev charged, recommending that both sides limit offensive systems along the lines described by Lvov. Defense would then become unnecessary because offense would be survivable and protected. Indeed, unilateral resort to space defense becomes, in Lednev's words, a "barbarian's tactic," as counterforce would be impossible due to ICBM mobility and SLBM survivability. SDI forces could conduct only countervalue strikes under these conditions.<sup>93</sup> Lvov, too, worried that new systems will only destabilize the balance, contending that common sense and responsibility dictate the steps outlined by him. Both analysts seem to agree that mobile single warhead ICBMs would reduce mistrust, encourage arms control, and limit or restrain the introduction of new weapons.<sup>94</sup>

At this point, during the period from May to July 1989, Arbatov's protégé A.G. Savelev published an article in IMEMO's journal which echoed both the navy's view of its missions and Arbatov's new line. He wrote that deterrence destabilizes the strategic balance because almost all actions that one side takes to increase its security are seen by the other side as a threat to its own security. The only way to neutralize the original threat is to create a corresponding threat to the first state, Savelev asserted; hence measures and countermeasures follow each other. He stated that Soviet military literature expresses three major missions and he chose precisely the hierarchy of missions listed by Gorshkov's

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93. "Counterforce Strategy," JPRS, pp. 2-6.

94. Ibid., p.4; and Lvov, trans. in " "Disarmament" Approach Preferred over "Deterrence," " JPRS, p. 2.



protegés. These are: repelling combined air and space missile attacks, neutralizing the enemy's military-economic potential by obstructing the enemy's sea lanes of communications and attacking economic targets on shore, and destroying enemy troop groupings.<sup>95</sup>

While Soviet leaders assert that their strategic forces are only for retaliation purposes, Savelev noted that steps to strengthen those forces even in peacetime can lead to a sharp and rapid horizontal and vertical escalation of conflicts. This fact justifies efforts to limit an arms race which has reached the point where technology is outpacing political negotiations. The very existence of strategic systems obliges the military to find the most effective means of using them, he explained, causing others to respond in an equivalent manner. The resulting fears have a destabilizing effect on conventional, tactical nuclear and strategic nuclear systems.

Despite these fears, Savelev pointed out that the overwhelming majority of Soviet military leaders believe that their armed forces cannot fully renounce offensive operations. Admitting that conventional forces can reliably deter attacks and rout the enemy, he criticizes the Soviet military's hope to retain counteroffensive capability under defensive doctrine. The military must be restructured to prevent war, he continued, calling for a restructuring of the anti-missile and anti-troop forces in particular. In the case of a nuclear attack, Savelev argued, the armed forces' main strategic task should be to implement an assured retaliation which would not altogether destroy the enemy's strategic potential. Since such a goal is unattainable, he declared that the military's first priority must be to guarantee the survivability of strategic forces and C3I installations, not preserve its capability to launch counterforce strikes and rapid actions.<sup>96</sup>

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95. See V'iunenko, Makarev, and Skugarev, *Voенно-morskoi flot*, pp. 219-268.

96. A.G. Savelev, trans. in "NATO, Warsaw Pact Doctrines Viewed," FBIS, *Daily Report*, 13 July 1989, pp. 4-10.

The mission of conventional forces also must be revised, charged Savelev. A rout is impossible without strong counteroffensive potential and true conventional superiority, but such superiority would contradict political and military realities. Success in routing enemies inevitably leads to escalation, either horizontal or vertical, if not both, he argued. Thus counteroffensive capability must be renounced in favor of purely defensive capability accompanied by efforts to localize conflict.<sup>97</sup> Security options must guarantee the absence of attack capability, not pose military threats. The military must, in his opinion, constantly think in political terms about what countermeasures potential enemies are likely to take in response to its actions, how those actions are perceived, and whether they promote stability. In each case, Savelev contended, the army must assess the outcome of unilaterally renouncing one action or another from both the military and political points of view.<sup>98</sup>

This attack on previous positions was followed by an article by V.S. Etkin, Chief of the Applied Physics Department of the Academy of Sciences' Space Research Institute, in which he expressed fears about developing space systems. Noting that no means now exist for monitoring submarines, Etkin cited the contention of U.S. observers that the first state to gain a space-based system will gain military superiority by virtue of its ability to monitor submarines. These observers (and presumably Moscow as well) analyze superpower oceanographic research to this end.<sup>99</sup>

Etkin omitted to say that a U.S. success would destroy the Soviet Navy's anti-missile mission, as a space-based system would preempt Soviet sub-surface ballistic nuclear and sub-surface nuclear submarines (SSBNs and SSNs, respectively) -- the navy's

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97. Ibid.

98. Ibid., p. 11.

99. V.S. Etkin, trans. in "Space Based Monitoring Seen as Anti-Terror Tool," FBIS, *Daily Report*, 26 July 1989, p. 92.

main forces. His omission is another sign that the navy might agree with Arbatov on a "thin" SDI program, since such a program would forestall or limit such adverse developments and ease Soviet counterforce targeting requirements. Arbatov's proposals would also help increase the navy's survivability, improve its C3I, and probably raise its status in the Soviet military. Lednev's recommendations for single warhead mobile ICBMs and hardened, single warhead SLBMs with improved survivability also point to this harmony of interests; the adoption of these recommendations would substantially reduce the sea-based missile threat and all chances of a surprise U.S. first strike.

If ASW is not restricted, Soviet military analysts imply, large SSBNs with multiple missiles will be more visible targets in increasingly transparent oceans. ASW restrictions would, however, negate the potential of space-based systems, including that of submarine detection, because the whole issue of strategic defense would then become moot. If both sides are restricted to survivable, second-strike systems, who needs space defense? The U.S. Navy's reaction to this ingenious move to undermine its entire strategic and procurement program is obvious. But it certainly solves many problems of the Soviet Navy, another reason suggesting probable navy support of Arbatov's line.

Etkin advocates an international organization to prevent instability resulting from military applications of oceanographic research. The organization would not only be an international space body, but would also supervise space-based oceanic research and verify strategic arms reductions. He believes that similar supervision and verification should be conducted with respect to space-based ABM systems designed for global conflict between the superpowers. What would happen if a conflict is not global, but rather the result of terrorist attacks or accidental launches? Etkin's limited, technically feasible system would respond by using ground-based and space-based positions to combat non-mass missile

launches.<sup>100</sup> Therefore, he concludes, an international organization in which both superpower members have ABM systems is necessary, lest we live in continual fear of fanatics or accidents.<sup>101</sup> It is not surprising that Shevardnadze accepted this point, arguing in Ottawa for an open sea and open space regime. Etkin argues that his proposed organization would help lead the world from a balance of terror to one of trust and, finally, to one of global superpower cooperation, effectively ending the Cold War.<sup>102</sup>

In December 1989 Kuznetsov followed Etkin with an even grander perspective. He listed the missile potentials of third world, non-aligned, pro-Western states: Israel, South Africa, Pakistan, India, and South Korea -- managing to thus omit Iraq and North Korea. Kuznetsov then pointed out that although chances of superpower war are decreasing, those for wars between third world states are increasing for this very reason. To solve this problem, he called for a superpower or international regime to put all global trouble spots "under unremitting control."<sup>103</sup> Such a regime would be feasible only with joint satellite monitoring and, possibly, mutual "thin" ABM systems to limit missile proliferation. The military analyst observed that a middle road between limiting missile diffusion and infringing upon the legitimate interests of countries "which seek to secure peaceful access to space" must be found.<sup>104</sup> Moreover, the spread of missiles to zones of tension could even undermine the process of settling regional conflicts and nuclear

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100. Ibid.; "Counterforce Strategy," JPRS, pp. 5-6.

101. Etkin, trans. in "Space Based Monitoring," FBIS, p. 92.

102. Ibid.

103. Kuznetsov, trans. in "Spread of Missile Technology Discussed," FBIS, *Daily Report*, 20 December 1989, p. 2.

104. Ibid., p. 3.

disarmament, he asserted, as the more states that have missiles, the more people will think twice about scrapping their systems.<sup>105</sup>

The most amazing example of contemporary Soviet thinking on this issue occurred at a conference in January 1990 in Albuquerque, New Mexico. The conference organizers hoped to win Soviet agreement on banning nuclear reactors in space, or at least their support for the ban. This ban, it is widely believed, would irredeemably cripple space-based ABM programs. Soviet delegates not only opposed banning nuclear reactors, they actively sought to sell their tested reactors to the Americans, despite American efforts to argue the merits of a ban!<sup>106</sup>

## V

Lest one believe that Arbatov's views are strictly civilian and lack military support or official backing, much evidence suggests otherwise. At the very least, debate is underway on all strategic and operational issues. This author has suggested an affinity between the navy's definition of its mission and the position of military reformers. There are also other signs of this possible "entente." The navy's Tbilisi-class aircraft carriers are intended to provide fighter air cover for surface ships and inflict missile strikes on the enemy before it can enter within striking range of the USSR. These new carriers comport with Arbatov's "How Much is Enough?", which called for a navy sufficient to defend the coast from carrier battle groups and amphibious forces and to project SSBNs in coastal waters. These forces would not, however, be able to attack NATO's SLOC or seek and destroy Western SSBNs, and would lack the carriers desired by the Soviet navy. The force structure suggested by

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105. Ibid. p. 4.

106. Daniel Hirsch, "Soviet Reactors for SDI?" *International Affairs* (January 1990): pp. 151-152. This move effectively torpedoed U.S. efforts to legislate a ban in order to persuade the Soviets enact a ban as well.

Arbatov fits the description of Gorshkov's heirs: a structure which envisions air defense ships with surface-to-air missiles (SAMs) cooperating with ship-based fighter aircraft to attack both strategic and deck-based enemy aircraft (and their missile platforms) which operate far from Soviet borders.<sup>107</sup>

Other military writers have agreed with Arbatov. Colonel V. Strebkov wrote an article seeking to substantiate scientific criteria for parity in which he criticized the exclusively quantitative approach to parity that dominated military thinking under Brezhnev. He observed that the capability to inflict unacceptable damage far exceeded what was quantitatively needed for parity levels, even though this capability was an objective factor in strategic stability. Therefore, he concluded, the level of military competition is irrational and one side can reduce its systems with no damage to its security or the strategic balance.<sup>108</sup>

This is, of course, a call for unilateral reductions in the number of strategic weapons while permitting their improved quality. Strebkov argues that damage unacceptability should be the qualitative criterion of parity, but that today, the status quo is a balance of terror. Going beyond Yazov, Gareev, and Moiseev, he argues that sufficiency is multi-dimensional. It can be offensive or defensive and reasonable. The former is really the quest for military superiority; this is what the West and, by implication, Soviet military leaders, believe sufficiency means. Attacking those who claim that sufficiency must be defined by the other side's parameters, he declares this stance would consign the USSR to an arms race which is not always justified. In any case, today's balance is too high, he asserts, and political ways must be found to lower it. Strebkov

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107. Floyd D. Kennedy, Jr., "Soviet Bid -- Deck Carriers: Offensive or Defensive?" *Defense 2000* (February 1990): pp. 11-12.

108. Colonel V. Strebkov, trans. in "Criteria of Military-Strategic Parity, Sufficiency," *JPRS, Arms Control*, 11 July 1989, p. 13.

criticizes those who argue against parity for not spelling out proposals on the qualitative parameters they seek. Although he criticizes the West for adhering to nuclear deterrence even at low levels, he admits that both sides must cooperate politically and strategically to reach the lowest possible level of balance. Strebkov also shares the perception of the Soviet military that sea- and air-launched cruise missiles (SLCMs and ALCMs, respectively) present a growing threat to the WTO and the USSR.

His recommendations, therefore, are most interesting. Since, in Strebkov's view, the criterion for strategic sufficiency is retaliatory capability, even under the worst circumstances, we must consider raising the viability of forces needed to retaliate against nuclear strikes. Both symmetrical and asymmetrical actions are possible in Strebkov's scenario.<sup>109</sup> The forces affected would be the same single warhead mobile ICBMs and hardened and improved SLBMs referred to by Agaev. Strebkov seems to be trying to cover his tracks here. However, his true orientation is revealed by his statement that the qualitative structure of WTO and NATO forces, as well as those of the superpowers, is becoming the paramount factual criterion of parity.<sup>110</sup> By standing the official definition of sufficiency on its head, he apparently indicates his support for joint strategic defense programs along with strategic arms reductions and qualitative modernization. Strebkov's orientation suggests that -- apart from the navy -- support for a program along the lines sketched by Agaev and Arbatov exists elsewhere in the military.<sup>111</sup>

Since the summer of 1989, there are more indications that this position is gathering support. Iziunov and Kortunov at that time observed that technological progress

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109. *Ibid.*, pp. 14-15.

110. *Ibid.*, p. 15.

111. As cited in "Counterforce Strategy," JPRS, pp. 5-6; and Hung P. Nguyen, "A Potential Soviet Compromise on Ballistic Missile Defense" (Alexandria, Virginia: Center for Naval Analyses, November 1989), pp. 3-4.

was fast eroding a parity erroneously based on quantitative analyses of forces. They echo Strebkov when they claim that capability to inflict unacceptable damage is far from requiring numerical equality in weapons. In any case, they contend that the USSR's former ability to achieve this quantitative goal by spending a greater share of national income on military power than the West is disappearing.<sup>112</sup> Should the arms race become more burdensome, it will inevitably erode the military-technical component of Soviet power. This is particularly true should the USSR go into space, note Iziunov and Kortunov, since even the U.S. had to turn to its allies for support for SDI.<sup>113</sup> They argue instead for a timely retreat to "earlier prepared and **defensive positions**" [boldface in text]. Such positions would include programs to enhance the defensive aspects of doctrine and, implicitly, force structure, in order to achieve sufficiency and more openly abandon numerical parity.<sup>114</sup> In other words, these programs would achieve sufficiency according to Strebkov's criteria.

Even franker arguments have appeared recently -- Trofimenko's article in the Spring 1990 edition of *The Washington Quarterly*, for example. Trofimenko now claims to be puzzled by the Soviet argument that SDI, a defensive system, is destabilizing, when Soviet programs and doctrine are defensive. He then attacks that position, arguing that a buildup of defensive forces automatically degrades the other side's offensive forces and vice-versa, demonstrating the operational linkage between offense and defense. American plans to develop SDI would, he claims, lead the USSR to invoke the vital interest clause and opt out of START negotiations. However, if START produces the expected progress in offensive arms reductions, Trifomenko believes that the reduced feasibility of producing

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112. Alexei Iziunov and Andrei Kortunov, "The Soviet Union in the Changing World," *International Affairs*, no. 8 (August 1989): pp. 47-50.

113. *Ibid.*, p. 54.

114. *Ibid.*, p. 55.



ABMs using current physics and engineering would generate greater mutual understanding, making SDI unnecessary. He argues that, in any event, deterrence will be replaced as a means of ensuring stability during periods of multipolarity and declining mistrust between blocs or of increased confidence between blocs.<sup>115</sup>

All of these arguments seem to be part of the broader debate on minimum nuclear deterrence. As both sides face the vexing constraints and multiple arguments inherent in modernizing their nuclear forces after a successful START agreement, they must confront both their own and the other side's doctrines and constraints. Analysis of the minimum nuclear deterrence debate shows that many issues must again be resolved.<sup>116</sup> It is also clear that participants in the Soviet security debate not only realize the need to manage and influence the doctrinal debate with the U.S. at a more sophisticated level, they also realize that the debate itself is a key aspect of internal Soviet power struggles and decision-making.<sup>117</sup>

Clearly Shevardnadze's 1989 Wyoming concession, untying SDI from the current START negotiations, can undoubtedly open the door to a mutual ABM accord in return for further reductions and limitations on offensive weapon systems. The concession implies that some sections of the Soviet military might see positive aspects in this kind of deal; there are compelling Soviet strategic and technological reasons for limiting SDI. The concurrent American concession in Wyoming, dropping U.S. insistence on banning mobile ICBMs, could be part of the emerging structure of subsequent strategic regimes for both

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115. Genrikh Trofimenko, "The End of the Cold War, Not History," *The Washington Quarterly* XIII, no. 2 (Spring 1990): pp. 27-31.

116. See Stephen Shenfield, "Minimum Nuclear Deterrence: The Debate Among Soviet Civilian Analysts" (Providence, Rhode Island: Center for Foreign Policy Development, Brown University, 1989), pp. 22-23.

117. See Kipp, "Soviet Military Doctrine," pp. 4, 22.

superpowers.<sup>118</sup> This "regime" would be a cornerstone of a wholly new Soviet relationship with the United States: joint custodianship of the global strategic order based on shared interests concerning many issues, not just concerning strategic defense systems and offensive force modernization. Certainly there is support for this "regime" in Europe and the United States.<sup>119</sup>

More relevant to U.S. concerns, however, is the expectation of certain Soviet circles that progress on these and other issues on the U.S.-Soviet agenda -- namely, regional conflicts -- could lead to a revolutionary U.S.-Soviet partnership going beyond joint custodianship of the strategic order. Agaev argues that the present and emerging perspectives of both sides concerning a safe world have a number of "fairly promising coincidences."<sup>120</sup> Kortunov goes the furthest, positing two basic orientations for future Soviet-American relations. In the first, both sides share a common concern to prevent nuclear war through disarmament and dialogue on security. As these problems are solved, U.S.-Soviet bilateral ties will diminish in importance. Europe and East Asia are economically and geographically closer to the USSR than is the U.S., which has few incentives for developing further ties with Moscow. Thus in the nineties, the two states are expected to behave like "bored spouses" who get divorced after a lengthy marriage and hasten to exploit their freedom to explore new relationships. Other countries, too, will gain, as they will finally emerge from the background of world politics.

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118. See Shenfield, "Minimum Nuclear Deterrence;" and Matthias Pluegge, "De-linkage: New Soviet Stance on SDI," *International Defense Review* (November 1989): p. 1467.

119. See "Disarmament Seen to Increase Need for Satellite Surveillance," FBIS, *Daily Report: West Europe*, 23 January 1990, pp. 58-60; and Steve Weber, "Realism, Detente, and Nuclear Weapons," *International Organization* 44, no. 1 (Winter 1990): pp. 55-82.

120. Agaev, "Towards a New Model of Strategic Stability," p. 99.

Kortunov's second orientation sees both sides as "natural partners" in the nineties, even after concluding conventional and strategic arms agreements. In this view, the U.S. and the USSR will be drawn together by the size of their territories, shared psychological traits, pressures from new and growing power centers, and many common social, economic, and cultural problems. In part, their interaction will deepen and stabilize so as to avoid their own disintegration, world instability, or worse. Kortunov argues for the second view not only because it serves Soviet interests, but because he believes that no one can replace the superpowers. The first alternative abdicates responsibility; without deeper superpower interaction, Kortunov alleges that the world could become a dangerous and unpredictable place.<sup>121</sup>

Whether or not this second alternative becomes Soviet state policy is difficult to determine. On one side stands the military leadership and on the other, the *institutchiki*, together with perhaps the Navy and some independent-minded officers. The Ministry of Defense contends that parity must be maintained at all costs, but favors a lower level leading to the abolition of all nuclear weapons -- holding to Gorbachev's former policy rejecting both minimum nuclear deterrence and the idea of deterrence as a whole. The Defense Ministry defines sufficiency as effective retaliation, with equivalent Soviet weapon systems for any the U.S. might build, SDI being prominent among them.<sup>122</sup> This faction apparently hopes to deploy forces having some offensive capability in order to counter surprise attacks on C3I targets by high-tech weapons. Such forces would possess the space weapons needed to fulfill the likely missions of a space TVD.

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121. Andrei Kortunov, "Natural Partners, not Bored Consorts," *New Times*, no. 1 (January 1990): pp. 26-27.

122. See "Military-Strategic Parity," JPRS, pp. 3-8.

A revealing example of such views today can be found in a recent interview with the Chief of Staff of the USSR Strategic Rocket Forces (SRF), General S.G. Kochemasov. He commented that in a short period of time, the Soviet Union successfully created a new science and industry which allowed it to enter the missile age, create a new branch of the armed forces, and cement Soviet stability on "rocket pillars." For him, a further lessening of tensions largely depends on developing strategic arms. When asked whether the SRF can respond to new U.S. systems with minimum expenditure, he not only praised the SRF's battle preparedness and capacity for asymmetric measures, he asserted that no new program could give the U.S. strategic superiority. General Kochemasov implicitly argued for continuing countermeasures at all levels; in his view, the way out of the impasse is zero nuclear weapons with strict verification. He also invoked the nuclear threat to the third world, arguing that if the USSR disarms, so must Britain and France, as the latter are increasing their threat to the third world. Finally, when queried as to whether a 50% reduction would change the SRF's status as the main component of Soviet strategic nuclear forces, he said there was no need to disturb the force correlations that have developed historically. Changing the existing structure would be very costly in terms of developing the strategic nuclear components in which the Soviet Union trails the U.S., he contended, and would lead to an inevitable decline of the potential of Soviet nuclear forces, and thus of nuclear parity overall.<sup>123</sup>

The *institutchiki* view, implicit in the works of Arbatov and his colleagues, accepts a stage of minimum nuclear deterrence for an undefined duration. Force structure programs in this scenario aim at survivability and equivalent BMD systems. This structure supposedly amounts to a rejection of the first-strike strategic nuclear option against the U.S., but does not rule out offensive or defensive options against third parties. One should

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123. "Visit to Strategic Rocket Forces Main Staff," FBIS, *Daily Report*, 23 February 1990, pp. 88-89.

remember, however, that until recently these same analysts called any space system a first-strike system. Alternatively, this vision could perhaps lead to a post-START freeze of the current strategic balance and allow for a less disruptive approach to strategic modernization issues for the U.S. and its allies. Of course, the possibility of a Soviet ambush of arms control negotiations -- holding START and further modernization hostage to SDI-- is also possible.<sup>124</sup> In both the START negotiations and any future negotiations, the U.S. should explore Arbatov's "line" so as to avoid mutual misunderstandings and recriminations. Today there is finally evidence of official Soviet interest in this approach: Shevardnadze's December 1989 speech to the European Parliament in Brussels revealed a tolerance for minimum nuclear deterrence and an acceptance of the idea of negotiating this issue of the Western agenda.<sup>125</sup>

If this approach becomes official Soviet policy, it would signify the victory of those analysts in the USSR who advocate a political mission for Soviet armed forces in space in order to provide the nation with strategic security. Soviet space forces, according to this policy, would probably be secure against U.S. first-strike programs. If Moscow also renounces the first-strike option, it would derail the U.S. strategy of achieving technological superiority -- the strategy which fueled the arms race and led the Soviet Union to its present strategic-economic impasse. Derailing the arms race would be a major political victory for Moscow, confirming that the first task of weapon systems is to prevent war. Joint custodianship of strategic nuclear arms, limited offensive modernization, and sanctioned BMD systems in space are the most appealing options for the USSR. Whether or not these programs conform to U.S. interests is moot; Arbatov's line seems to offer

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124. See Nyugen, "A Potential Soviet Compromise," pp. 3-7.

125. "Shevardnadze Addresses Europarliament on German Issue," FBIS, *Daily Report*, 20 December 1989, p. 30.

Moscow a way out of a technological and strategic dead end while salvaging future options for competition in space and on earth, including all military options inherent in a space TVD. If the first task of military doctrine is to prevent war, and if strategic defense is the main mission of space forces, then an accord permitting mutual strategic defense systems is certainly a heaven-sent strategy, as well as a heavenly mission, for the USSR.