

A Comprehensive Missile Control Regime: It's Not too Soon²⁸

Today, with the US ballistic missile defense program threatening to erode existing nuclear arms control mechanisms, regional confrontations in which ballistic missiles play a central role in the Middle East, South Asia, and Northeast Asia, and the possibility of an arms race in space looming large, the concept of a comprehensive missile control regime is well worth revisiting. A truly comprehensive missile control regime, going beyond horizontal nonproliferation measures such as the Missile Technology Control Regime and placing real limits on states with sophisticated existing missile programs, could provide a means to stem arms races that threaten to both accelerate and grow more interrelated and complex.

The technical issues involved in achieving a missile control regime or the elimination of long range missiles have been the subject of a number of useful proposals in recent years.²⁹ The concept of a comprehensive missile control regime may be worth renewed attention by those whose primary focus is the control and elimination of nuclear arsenals, an area where the available avenues for progress appear to be blocked.

One possible first substantive restraint in such a regime, a comprehensive flight test ban, could help stem a wide range of high-tech arms racing, from both national and theater ballistic missile defense efforts to new generations of precision air and sea launched stand-off missiles. In the United States, which continues to outspend all conceivable adversaries on missile development as well as on missile defenses, both types of program are justified to the public principally as “counterproliferation” weapons aimed at deterring weapons of mass destruction and ballistic missile delivery systems. Such an arms control regime would stop ongoing missile programs in the countries the US deems a threat. Therefore the rationale offered for the development of both ballistic missile defense and the wide range of other expensive, destabilizing “counterproliferation” weapons either under development or on the wish list of the powerful military aerospace interests now ascendant in the United States – e.g., stealthier cruise and other long range stand-off missiles with greater hard target kill capabilities, and, further down the line, precision conventional weapons delivered through or from space – is undercut.

A broad missile flight test ban would also directly impede development of both ballistic missile defenses and a variety of long-range, precision hard-target capable conventional weapons – both of which also threaten to have a destabilizing effect on the still-deadlocked stand-off among the nuclear weapon states.

Proposals for missile control encompassing the phased elimination of the missile arsenals of the nuclear weapon states generally have received little official attention.

²⁸ This article draws on a collaborative paper in progress on missile control regimes with Zia Mian, M.V. Ramana, and Jurgen Scheffran. All errors, however, should be attributed to the author.

²⁹ See, for example, J. Jerome Holton, Lora Lumpe, and Jeremy J. Stone, “Proposal For a Zero Ballistic Missile Regime” in *1993 Science and International Security Anthology*, AAAS, 1993, pp. 379-396; Lora Lumpe, “Zero Ballistic Missiles and the Third World” in *Arms Control*, Volume 14, number 1, April 1994, and other relevant Federation of American Scientists articles available at <http://www.fas.org/asmp/campaigns/missile.html>; J. Scheffran, “Verification of Missile Bans and Monitoring of Space Launches,” in W. Liebert, J. Scheffran, eds., *Against Proliferation: Towards General Disarmament*, Proceedings of the First INESAP Conference, Agenda-Verlag, 1994, pp. 156-164; J. Scheffran, “Elimination of Ballistic Missiles: An Important Step Towards a Nuclear-Weapon-Free World” in: J. Rotblat, M. Konuma, eds., *Towards a Nuclear-Weapon-Free World*, World Scientific, 1997, pp. 310-326.

What seems to be required to control and eliminate long range missiles is a formal arrangement that will:

- recognize the problem of ballistic missiles and comparable delivery systems and express appropriate concern,
- commit to eliminate these weapons as soon as practicably possible,
- identify the fundamental political and scientific issues involved in meeting such a goal, and
- provide a mechanism to tackle these issues in a systematic step-by-step manner through a scheduled negotiating process.

One possibility is an approach similar to international conventions dealing with environmental problems such as the Vienna Convention on Protection of the Ozone Layer and the UN Framework Convention on Climate Change. These conventions set up a standing negotiating process, a Conference of Parties that is mandated to find means to meet the goals of the agreement.

As in these conventions, a missile framework agreement might set up a formal negotiating process for dealing with ballistic missiles, anti-missile systems, and analogous weapons systems, with a clear goal of eliminating them. The agreement would result in a series of phased steps towards the ultimate goal. As a reflection of the seriousness of the issue, countries could commit to a moratorium on the further development, testing and deployment of ballistic missiles and anti-missile systems at the outset. Such a measure would be like earlier nuclear test ban moratoria that created a conducive climate for negotiations.

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The flight test ban and launch control regime elements of a moratorium on ballistic missile development could help prevent future arms races, and development of long range conventional weapons operating from or through space. Although not a substitute for a more comprehensive Outer Space Treaty that would unambiguously prohibit the deployment of weapons in space, a launch control regime that included inspections would help reveal efforts by any nation to place weapons in space. A ban on test flights of ballistic missiles could also have an immediate positive impact on the most volatile areas of emerging international arms competition, especially in South Asia, the Middle East, and Northeast Asia.³⁰

A genuinely comprehensive missile control regime should also limit other means of delivery that can substitute for ballistic missiles, such as cruise missiles and other long range stand-off missiles. An immediate flight test ban that extends to such systems would limit the development of weapons found to be particularly threatening by many less technologically advanced states, since they are being used with increasing frequency and also appear to have lowered the “political threshold” to engaging in military action within some of the most powerful states.

It is important to recognize that the initial steps described here would leave the US, Russia, and several other states still able to project power globally through their long range bombers, their

³⁰ For an analysis of the applicability of such a regime to the case of South Asia, see Zia Mian and M.V. Ramana, “Beyond Lahore: From Transparency to Arms Control” in *Economic and Political Weekly*, April 1999, pp. 17-24.

aircraft carriers, and cruise-missile-armed naval vessels. A process placing restrictions from the beginning on ballistic missile development by all states might also require that such forces be withdrawn to their respective national territories and stood down, perhaps through a side agreement on de-alerting.

Verification

Verification of a comprehensive missile control regime faces more difficult political obstacles than technical ones.³¹ The technical verification problems certainly would not be insurmountable if wealthy states were willing to spend an appreciable fraction of the resources now spent on missile development, production, launch, guidance, and targeting infrastructure and related technologies on an international verification apparatus. The national technical means of several of states already are capable of detecting and closely monitoring ballistic missile launches. Tests of anti-ballistic missile systems also should be relatively easy to track.

The monitoring of missile launches can focus on a number of observable characteristics in both the missile itself and the infrastructure employed to manufacture and test it. Both missile launches and much of the infrastructure are visible to existing means of remote intelligence gathering. Satellite images of sufficient quality to be useful for verification purposes are becoming available to an increasing number of states, and even commercially to the public.

One possible way to develop ballistic missiles for military uses covertly is to disguise tests as space launches for civilian purposes.³² Despite the overlap in infrastructure and testing in the early phases of development, however, there are likely to be some detectable differences in such characteristics as flight trajectory, payload, guidance systems, and reentry, which could be used to distinguish a sophisticated military ballistic missile program from a civilian program. A missile control regime would still require additional means of verification, including routine and challenge inspections of space and missile launch facilities, monitoring of the destruction of missiles, monitoring of facilities previously used for ballistic missile production and those still used for civilian space purposes, and pre-launch inspection and observation of civilian space launches.³³

Conclusions

The effort to achieve a global missile control regime provides a kind of positive mirror image of the endless quest for military supremacy through technology. The militaries of the most powerful states, despite the impediments posed by vested interests in existing programs, attempt to do long range planning, in part because the development cycle for complex weapons systems commonly takes a decade or more. Disarmament advocates, too, must think long term – the time to cut off emerging

³¹ “The status of missile development programs is less difficult to track than nuclear weapons development. New missile systems must be tested thoroughly and in the open.” Testimony of William Webster before the Senate Governmental Affairs Committee, 18 May 1989, quoted in Lora Lumpe, “Zero Ballistic Missiles and the Third World.” On flight test bans and their verification see also Lora Lumpe, “A Flight Test Ban as a Tool for Curbing Ballistic Missile Proliferation,” INESAP Information Bulletin No. 4, January 1995.

³² See J. Scheffran, “Dual-Use of Missile and Space Technologies,” in G. Neuneck, O. Ischebeck, eds., *Missile Proliferation, Missile Defense and Arms Control*, Nomos, 1993; J. Scheffran, “Verification of Missile Bans and Monitoring of Space Launches”; J. Scheffran, “Elimination of Ballistic Missiles: An Important Step Towards a Nuclear-Weapon-Free World”.

³³ See J. Scheffran, “Verification of Missile Bans and Monitoring of Space Launches.”

arms races is now, before weapons systems which are only on the drawing boards today have developed unstoppable momentum and constituencies in respective military services, military research and development laboratories, military contractors, and parliaments.

A global missile control regime and the types of steps it should encompass could provide a common focus both for discussion and for organizing efforts for disparate elements of the world's peace movements. These now include the long established anti-nuclear weapons organizations and the large but dispersed grassroots anti-nuclear movement, the growing movement against US space weapons deployment and ballistic missile defense, as well as growing peace movements in regions threatened by dangerous new arms races, particularly South Asia.

A comprehensive missile control regime provides a positive alternative to the illusory destabilizing techno-fixes of counterproliferation weaponry and missile defense, rather than implicit recourse to the arid scholasticism of deterrence doctrine and the premeditated terror of deterrence practice. Even if achieving a missile control regime is unlikely in the near future, discussion of such a regime might – by providing a different perspective on technology development, the dynamics of arms racing, verification issues, and the reasons claimed for constant upgrades to military forces – help break the current deadlock in nuclear arms reduction efforts. The chances for progress will be improved if the attention – and pressure – of broader civil society can be brought to bear, perhaps through a campaign for a comprehensive flight-test ban as the first step away from the abyss of a new arms race, a step which would be effective, simple for a wider public to understand, and relatively easy to verify.

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Science and the Future of Space

Our future Air Force Space Command (AFSPC) capabilities will enable a fully integrated Aerospace Force to rapidly engage military forces worldwide. Our space forces will move beyond being primarily force multipliers to also being direct force providers. Global real-time, situational awareness will be provided to our combatant commanders through space-based Navigation, Satellite Communications (SATCOM), Environmental Monitoring (EM), Surveillance and Threat Warning (S&TW), Command and Control (C2), and Information Operations (IO) systems. Robust and responsive spacelift and improved satellite operations capabilities will provide on-demand space transportation and on-demand space asset operations ensuring our ability to access and operate in space. Full spectrum dominance in the space medium will be achieved through total space situational awareness, protection of friendly space assets, prevention of unauthorized use of those assets, negation of adversarial use of space and a fully-capable National Missile Defense (NMD). Our ICBMs will continue to provide a credible strategic deterrence, while advanced, conventional weapons operating in or through space will provide our National Command Authorities (NCA) with formidable and flexible options for prompt, global, conventional strike.

Air Force Space Command, Strategic Master Plan FY02 and Beyond, February 9, 2000, Executive Summary.