A Restraint Regime on MIRV Flight-Testing in South Asia

By Zafar Khan

November 7, 2018

Editors' note: This essay is part of an initiative launched by the Stimson Center's South Asia Program, which we call the Off Ramps Initiative. The nuclear competition among China, India, and Pakistan is accelerating with the introduction of new ballistic and cruise missiles. Counterforce capabilities are growing. China has begun to place multiple warheads on some of its ballistic missiles, Pakistan has advertised its ability to do so, and India has demonstrated this capacity in its space program. Diplomacy is dormant as these and other nuclear capabilities expand. What to do? Stimson has asked rising talent in this field, as well as a few veterans, to offer creative ideas that can help ameliorate and decelerate this dangerous triangular nuclear competition.

Introduction

A restraint regime on multiple independently targetable re-entry vehicle (MIRV) flight-testing becomes imperative at time when strategic stability is decreasing in South Asia. India is embarking on multiple projects and sophisticated delivery systems – including MIRV technology – while Pakistan seeks effective countermeasures to retain balance, if not parity, against its adversary. The result is an intensified security dilemma. It is imperative to note that effective countermeasures can also undermine the credibility of the adversary's deterrent forces thereby fostering further "entanglement" and escalatory reactions.[1]

India and Pakistan would be wise to pursue a mutual restraint regime on the flight-testing of MIRVs. This could be one element of a wider strategic restraint regime (SRR) that Pakistan proposed more than a decade ago, adapted to current realities. Once MIRVs are flight tested on military launchers, prospects for strategic restraint will be far more remote because neither side will be able to count on restraint for missiles capable of carrying MIRVs. Instead, both are likely to presume worst-case thinking that such missiles are carrying MIRVs. In addition to promoting strategic stability, it is expected that a restraint regime on flight-testing of MIRVs and on ballistic missile defense (BMD) systems could help reduce the cost of spending on deterrent forces, maintain deterrence at lower levels, and remove one pathway to preemptive counterforce targeting

between India and Pakistan.[2] A MIRV flight-testing restraint regime would allow India and Pakistan to help sustain deterrence stability and avoid repeating the errors of the Soviet Union and the United States during the Cold War.

This *Off Ramps* essay proposes restraint on the flight-testing of MIRVs as an element of a broader SRR between India and Pakistan. I will discuss the rationale for restraint on the flight-testing of MIRVs, the hurdles confronting India and Pakistan in accepting this proposal, and the reasons why these hurdles might be surmountable.

Why Restraint on MIRV Flight-Testing Matters?

One important reason why India and Pakistan might be amenable to a tacit agreement not to flight test MIRVs is that strategic stability is declining because of many advances in nuclear weapon-related programs, with the risk that both countries could get dragged into an unending arms race. A tacit agreement not to undertake MIRV flight-testing could become an important element in decelerating this strategic competition, saving expenditures, and removing one pathway to catalytic war prompted by fears of surprise attack by means of large numbers of ballistic missile warheads.

Second, Pakistan and India have good reason to consider a tacit agreement not to flight test MIRVs because both countries are acutely aware of what happened between the Soviet Union and the United States during the Cold War. While India and Pakistan are unlikely to mimic the superpowers by producing and deploying many MIRVed warheads, limited MIRV deployments could still have significant negative consequences, fueling an intensified arms race between the two South Asian rivals. An arms race facing India and Pakistan could be decelerated by creating some form of SRR that does not exist in South Asia. A tacit agreement not to flight test MIRVs could be an important element of this SRR, providing a key component for a proposed mutual restraint regime.

Third, a tacit agreement not to flight test MIRVs could help India and Pakistan avoid getting bogged down in pursuing comprehensive counterforce nuclear targeting strategies by means of medium- and longer-range ballistic missiles. Granted, other forms of counterforce targeting capabilities would continue to exist – for example, by nuclear-capable aircraft – but the most worrisome nuclear warfighting capabilities reside in ballistic missiles that are waiting to be multiplied in South Asia. The MIRVing of these missiles would increase mutual concerns of preemptive strikes, with significant consequences for strategic stability. If India pursued this course, Pakistan would have no choice but to pursue a strategy of effective and reliable countermeasures in a "new era of counterforce"[3] to sustain a balance in South Asia. The acceptance of mutual strategic restraint with respect to MIRVs could provide reassurance against worst cases and reduce mutual concerns over a catalytic war prompted by an accident or other triggering event.

Hurdles Toward Restraints on Flight-Testing MIRVs

Hurdles for agreeing on a joint tacit agreement of no MIRV flight tests exist for both India and Pakistan. The biggest hurdle for India of a joint tacit agreement not to flight test missiles carrying more than one warhead is that China will not be included. This means that India could fall further behind China if it does not MIRV while China does.

China is undergoing several strategic modernization and space warfare programs that might be of concern to India. For example, China's MIRV program, the modernization of its sea-and land-based deterrent, and its pursuit of advanced conventional capabilities and aircraft carriers are of concern for U.S. strategists.[4] These programs seem more directed at the United States than India, but may increase pressures on New Delhi to respond to Beijing. A tacit agreement with Pakistan to refrain from flight-testing MIRVs would restrict one avenue of India's response.

India might also be disinclined to join a restraint regime on MIRV flight-testing because Pakistan could be disadvantaged in such a competition, as India has the stronger economic base to produce MIRVed-capable land- and sea-based missiles. A refusal to entertain a proposed restraint regime on flight-testing MIRVs could be viewed in Pakistan as consistent with a strategy by India to exploit its economic potential and to seek escalation dominance.

One big hurdle for Pakistan might be that a joint tacit agreement against MIRV flight-testing could constrain its potential requirements for counterforce capabilities and full spectrum deterrence as an evolving part of Pakistan's credible minimum deterrence to plug deterrence gaps. A second big hurdle is that MIRVs are a cost-effective way to compete with India; without them, Pakistan would have to produce and field more missiles. Pakistan faces resource and budget constraints, so strategic planners might oppose ruling out an option that would be cost-effective.

A third hurdle for Pakistan would be India's continued interest and development of BMD technology. If or when India decides to deploy BMD, missiles carrying multiple warheads and penetration aids would presumably be needed to assure penetration of such defenses. Otherwise, New Delhi could perceive strategic incentives to opt for a preemptive counterforce strike posture. Pakistan does not believe in India's declared no-first-use (NFU) doctrine,[5] and suggestions by senior Indian strategic analysts to move away from NFU have only reinforced Pakistan's skepticism.[6] India's pursuit of both MIRVs and BMD could place Pakistan in an untenable position without MIRVs. It is most likely that Pakistan would pursue effective countermeasures in response to these developments if such a gap is deemed important to fill.

Surmounting These Hurdles

There are very strong hurdles to be surmounted for a MIRV flight-testing restraint regime to gain acceptance. Why, then, might these hurdles be surmountable?

There are at least two main reasons why both India and Pakistan might agree with this proposal. First, both countries have repeatedly stated their adherence to the principles of credible minimum deterrence and have not yet equated credible minimum deterrence with counterforce warfighting capabilities. If this crucial juncture is crossed, nuclear capabilities on both sides could grow significantly. Presumably, if a SRR is to take hold on the subcontinent, it could only be before MIRVs have been flight tested, not after MIRVs are inducted. By opting not to flight test MIRVs and pursue nuclear warfighting strategies of deterrence, India and Pakistan could avoid a costly, destabilizing, and open-ended nuclear competition.

This dilemma weighs heavily of both countries. Pakistan has resource constraints. India also faces a strategic security dilemma to deter both China and Pakistan.[7] The way out of these dilemmas is

to arrest the slide from credible minimum deterrence to nuclear warfighting strategies of deterrence. Nuclear postures of credible minimum deterrence, which are in the mutual interest of India and Pakistan, can be maintained in the absence of MIRV flight-testing. India and Pakistan's mutual security dilemma cannot easily be resolved or mitigated unless there is a mutual cooperation based on cost-benefit analysis.[8] If, however, MIRVs are flight tested, nuclear warfighting postures will be advanced, to the detriment of both countries.

A second reason is related to the first: the avoidance of a much-accelerated strategic competition in South Asia is inconceivable if India and Pakistan flight test and deploy BMD alongside MIRVs. If, however, they could agree through some form of restraint mechanism on deploying BMD, then it could become easier to consider restraints on MIRVs. The reason, as demonstrated during the Cold War, is that limits on offenses are unlikely without limits on defenses because defensives could well be considered complementary to strategic offenses.[9] This also applies to the nuclear deterrent relationship between India and Pakistan. As India improves its missile defenses, it could potentially impel Pakistan to increase effective countermeasures to defeat deployed defenses.

Conclusion

This is a critical juncture in the nuclear competition in South Asia. An unending arms race is in store for India and Pakistan unless bold ideas for strategic restraint are adopted. There is a dire need for a tacit agreement not to flight test MIRVs to encourage deterrence stability and help prevent the adoption of nuclear warfighting capabilities that could prompt catalytic war in the event of nuclear use. Arguably, mutual restraint in abstaining from flight-testing and deploying a technological-sophisticated capability such as MIRVs may seem far-fetched, but it is necessary to avoid a new phase of strategic competition.

Both India and Pakistan could agree to a tacit restraint regime on flight-testing MIRVs since this capability has not been fully developed and deployed. While India has demonstrated the capability through its *Prahaar* battlefield nuclear weapon flight-testing program[10] and its deployment of many satellites from a single space launch vehicle, this capability could soon be applied to military launchers. Pakistan has announced its capability to flight test MIRVs on military launchers,[11] but has yet to do so. A proposed restraint regime might be pursued at this junction because military flight-testing has yet to begin from both sides and because both countries have the ability to react in the event that a tacit agreement is broken.

Admittedly, there are high hurdles to be surmounted. India might want to MIRV because China has MIRVed. And Pakistan would likely MIRV if India has MIRVed. India's development of BMD systems could also largely impel Pakistan to MIRV in order to achieve capability to defeat the deployed system.[12] Nevertheless, these hurdles could be surmounted for one overriding reason: if India and Pakistan are lured into the pitfalls of nuclear warfighting doctrine rooted in counterforce targeting strategies, nuclear dangers would grow considerably.[13] This action-reaction paradigm stemming from a classic security dilemma could further undermine deterrence stability in South Asia, which is in neither India nor Pakistan's interest. Therefore, this proposal, ideally as part of an expanded SRR in South Asia, makes eminent good sense.

Dr. Zafar Khan (Ph.D., Strategic Studies, University of Hull, UK) is the author of *Pakistan's Nuclear Policy: a Minimum Credible Deterrence* (London and New York: Routledge, 2015).

Currently, he serves as an assistant professor in the Department of Strategic Studies, National Defense University, Islamabad, where he teaches nuclear strategy and strategic studies. His papers have appeared in various international peer-reviewed journals such as *Cambridge Review of International Affairs, Comparative Strategy, Washington Quarterly, Journal of Contemporary China, and Contemporary Security Policy*.

---

[1] James M. Acton, "Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War," *International Security* 43, no. 1 (Summer 2018), 56-99.
[2] Shivshankar Menon, *Choices: Inside the Making of India's Foreign Policy* (New Delhi: Penguin, 2016).
[3] Keir A. Lieber and Daryl G. Press, "The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence," *International Security* 41, no. 4 (2017): 9-49.
[4] U.S. Department of Defense, "Nuclear Posture Review," Office of the Secretary of Defense, April 2010, https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf.
[5] See Shamshad Ahmad, "The Nuclear Subcontinent: Bringing Stability to South Asia," *Foreign Affairs* (July/August 1999).
[6] Menon, *Choices.*
[7] Devin T. Hagerty, "India's Evolving Nuclear Posture," *The Nonproliferation Review* 21, no. 3 (2014): 295–315.
[8] Robert Jervis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 167-214.
[9] Jervis, "Cooperation under the Security Dilemma," 186-193.
[10] "Indian Army test launches Prahaar short-range ballistic missile," *Army Technology News*, September 21, 2018, https://www.army-technology.com/news/india-test-launches-prahaar-missile/.
[11] "Pakistan Conducts First Flight Test of Ababeel Surface-to-Surface Missile," *Dawn*, January 24, 2017, http://www.dawn.com/news/1310452.
[12] Zafar Khan, "India's Ballistic Missile Defense: Implications for South Asian Deterrence Stability," *The Washington Quarterly* 40, no. 3 (2017): 187-202.
[13] For interesting and detailed analysis on this, see Michael Krepon, Travis Wheeler, and Shane Mason, eds., *The Lure and Pitfalls of MIRVs: From the First to the Second Nuclear Age* (Washington, DC: Stimson Center, 2016).