
NUCLEAR SOUTH ASIA

A GUIDE TO INDIA, PAKISTAN, AND THE BOMB

**CHAPTER 7 GUIDE
THE FUTURE OF “NUCLEAR SOUTH ASIA”**

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ABOUT NUCLEAR LEARNING

Nuclear Learning is an online initiative produced by the [Stimson Center's South Asia Program](#) to sharpen strategic analysts' understanding of nuclear programs, doctrines, and postures in South Asia and beyond. *Nuclear Learning* pursues this mission by making diverse viewpoints accessible via open online courses, nurturing vibrant communities of “nuclear learners” on social media, and providing opportunities for students to engage with experts in the field.

The first *Nuclear Learning* course—“[Nuclear South Asia: A Guide to India, Pakistan, and the Bomb](#)”—is available for free at www.nuclearlearning.org. “Nuclear South Asia” is the most comprehensive collection of perspectives on India and Pakistan’s nuclear trajectories available online. It includes 8.5 hours of video content and features lectures from more than 80 leading scholars and practitioners, including former senior diplomats and military officers. In addition to lectures, the course includes quizzes, recommended readings, and a pass/fail final exam.

Upon completing “Nuclear South Asia,” students will be able to:

- Understand the factors motivating India and Pakistan’s nuclear programs, doctrines, and postures;
- Assess the impact of emerging policies and capabilities on deterrence stability;
- Describe India and Pakistan’s positions vis-à-vis the Nuclear Non-Proliferation Treaty (NPT) and other elements of the global nuclear order;
- Analyze crisis episodes, management challenges, and confidence-building efforts on the Subcontinent; and
- Propose innovative solutions to reduce nuclear competition and dangers in South Asia.

Students have the option of earning a Stimson-issued certificate, an important credential for academic and professional advancement. To earn a certificate, students must watch the video lessons, complete the quizzes and surveys, and pass a final exam.

Due to high demand, a second *Nuclear Learning* course on conventional and nuclear deterrence in Southern Asia is under development for release in 2019.

LEARNING OBJECTIVES

In the final chapter of *Nuclear South Asia*, students will become familiar with elements shaping the future of South Asia. These include the pursuit of ballistic missile defense (BMD) systems, multiple independently targetable re-entry vehicles (MIRVs), and counterforce targeting strategies. Students will also understand the potential evolution of India’s no first use (NFU) doctrine, increased competition in the Indian Ocean Region (IOR), and India and Pakistan’s declared intentions to move nuclear weapons to sea. Finally, this chapter looks at China’s past, present, and future role in South Asia. Students will be encouraged to think critically about how content from Chapters 1 through 6 of *Nuclear South Asia* might shape how we think about the future of the region.

KEY TERMS

Below is a list of definitions of the key terms from this chapter.

Ballistic Missile Defense (BMD): A defense system designed to track and destroy ballistic missiles before they reach their intended target. BMD systems are designed to launch rockets to intercept re-entry vehicles (carrying warheads) and explode, destroying the missiles in the air.¹

Counterforce Targeting: The threat to use nuclear weapons to destroy military targets. Counterforce targeting requires many nuclear weapons of varied ranges, including weapons with high accuracy, to strike military targets.² By engaging in counterforce targeting, national leaders seek to underscore the risks to an adversary of crossing the nuclear threshold, as well as a belief that once this threshold is crossed, nuclear weapons have military utility.

Countervalue Targeting: The threat to use nuclear weapons to destroy cities. Leaders in states that rely on countervalue targeting believe that nuclear weapons have political, but not military, value.³

Credible Minimum Deterrence: The posture of maintaining nuclear weapons at the minimal level necessary to deter nuclear threats against oneself.⁴ Whereas some observers emphasize the “minimum” aspect, others emphasize the “credible” aspect.⁵ The “minimum” camp tends to view credible minimum deterrence as implying a commitment to a small nuclear arsenal and the avoidance of arms racing.⁶ The “credible” camp holds that states should pursue whichever capabilities make deterrence credible regardless of their effect on arsenal size or competitive dynamics.

Crisis Management: The attempt to defuse a crisis through communication, confidence-building measures, or other reassuring actions.⁷ This may take place on the initiative of the two potential combatants, or a third party may intervene to broker a solution and de-escalate the crisis.

Full-Spectrum Deterrence (FSD): Pakistan’s nuclear doctrine, which was adopted to deter India not only from strategic use of nuclear weapons, but conventional war against Pakistan.⁸ FSD is a “kind of deterrence by denial, more akin to flexible response or graduated response doctrines” and therefore

¹ “How Does Missile Defense Work?,” Union of Concerned Scientists, accessed May 4, 2018, <https://www.ucsusa.org/nuclear-weapons/missile-defense/how-gmd-missile-defense-works>.

² 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), https://www.stimson.org/sites/default/files/file-attachments/Lure_and_Pitfalls_of_MIRVs.pdf.

³ Hans M. Kristensen, Robert S. Norris, and Ivan Oelrich, “From Counterforce to Minimal Deterrence: A New Nuclear Policy on the Path Toward Eliminating Nuclear Weapons,” Occasional Paper (Washington, DC: Federation of American Scientists and the Natural Resources Defense Council, April 2009).

⁴ Rajesh Rajagopalan, “India’s Nuclear Doctrine Debate,” Carnegie Endowment for International Peace, June 30, 2016, <http://carnegieendowment.org/2016/06/30/india-s-nuclear-doctrine-debate-pub-63950>.

⁵ Vipin Narang, “Five Myths about India’s Nuclear Posture,” *The Washington Quarterly* 36, no. 3 (August 2013): 143–57.

⁶ Nishant Rajeev, “A Holistic Approach to India’s Nuclear Doctrine,” *The Diplomat*, May 24, 2017, <https://thediplomat.com/2017/05/a-holistic-approach-to-indias-nuclear-doctrine/>.

⁷ Polly Nayak and Michael Krepon, “U.S. Crisis Management in South Asia’s Twin Peaks Crisis” (Washington, DC: Stimson Center, September 2006), https://www.stimson.org/sites/default/files/file-attachments/Twin_Peaks_Crisis.pdf.

⁸ “A Conversation with Gen. Khalid Kidwai,” Carnegie International Nuclear Policy Conference, moderated by Peter Lavoy, March 23, 2015, <https://carnegieendowment.org/files/03-230315carnegieKIDWAI.pdf>.

requires a “larger arsenal size and a greater variety of both warheads and delivery systems” for countervalue and counterforce targeting.⁹

Multiple Independently Targetable Re-entry Vehicle (MIRV): A missile that carries multiple warheads, each of which can be directed to a different target.¹⁰

No First Use (NFU): A policy whereby a nuclear power pledges to only use nuclear weapons in retaliation and that it will not be the first user of nuclear weapons in a conflict.¹¹

⁹ Naeem Salik, “Pakistan’s Nuclear Force Structure in 2025,” Carnegie Endowment for International Peace, June 30, 2016, <https://carnegieendowment.org/2016/06/30/pakistan-s-nuclear-force-structure-in-2025-pub-63912>.

¹⁰ Krepon, Wheeler, and Mason, *The Lure and Pitfalls of MIRVs: From the First to the Second Nuclear Age*.

¹¹ Rajagopalan, “India’s Nuclear Doctrine Debate.”

CONTENT OVERVIEW

In this section, we provide an overview of all the lectures and supplemental materials in Chapter 7 of *Nuclear South Asia* on www.nuclearlearning.org.

BACKGROUND: “THE FUTURE OF ‘NUCLEAR SOUTH ASIA’”

This course webpage provides an introduction to the key developments that can be a part of South Asia’s nuclear future: the pursuit of ballistic missile defense (BMD), multiple independently targetable re-entry vehicles (MIRVs), and counterforce targeting strategies. It also introduces the potential evolution of India’s no first use (NFU) doctrine, increased competition in the Indian Ocean Region (IOR), and India and Pakistan’s declared intentions to move nuclear weapons to sea. Finally, the course page introduces China and Pakistan’s close relationship and China’s role in “nuclear South Asia.”

7.1: “BALLISTIC MISSILE DEFENSES (BMDs), MULTIPLE INDEPENDENTLY TARGETABLE RE-ENTRY VEHICLES (MIRVs), AND COUNTERFORCE TARGETING”

Run Time: 8:05

Lecturers: James Acton (Carnegie Endowment), Michael Krepon (Stimson Center), and Naeem Salik (Centre for International Strategic Studies)

Key Points:

- According to James Acton, a ballistic missile is a rocket powered for the first few minutes of flight, and then the re-entry vehicle containing a warhead falls freely under gravity in an arc back to the earth.
 - Missile defenses aim to intercept the re-entry vehicle before it explodes. So, they are basically other rockets that fire at an incoming rocket. Sophisticated defenses aim to collide directly with the incoming warhead. Less sophisticated defenses aim to explode in the vicinity of the warhead.
 - MRVs are systems that have more than one warhead on a missile, whereby the warheads go down in pre-programmed patterns and are not maneuverable in relation to one another. On the other hand, more sophisticated technology allows the aiming of different warheads at different targets, i.e. MIRVs.
- Michael Krepon explains that countervalue targeting aims at “soft targets,” meaning cities, in order to deter attacks. In contrast, counterforce targeting aims at military targets, which includes a broader set of targets and exists in the realm of war-fighting concepts.
- James Acton states that there are two key arguments against missile defense. The first is cost effectiveness, since it is extremely expensive. The second argument is the idea that an opponent can build missiles cheaper and faster than interceptors can be built, which could contribute to an arms race.
- According to Naeem Salik, a limited missile defense with limited capability will lead to the tendency to carry out a first strike and destroy as many enemy systems as possible before those systems can be launched. Thus, missile defenses encourage preemptive tendencies and greater risk-taking during crises.
- According to Krepon, MIRVs increase the number of warheads a side can target against another side, encouraging the other side to vertically proliferate.
 - Moreover, they encourage the opponent to make targets harder to find and spend money on mobilizing them; this happened during the Cold War.

7.2: “MIRVs, BMDs, AND COUNTERFORCE TARGETING ON THE SUBCONTINENT”

Run Time: 7:45

Lecturers: Michael Krepon (Stimson Center), Toby Dalton (Carnegie Endowment), Rajesh Rajagopalan (Jawaharlal Nehru University), Feroz Khan (Naval Postgraduate School), and Manpreet Sethi (Centre for Air Power Studies)

Key Points:

- According to Michael Krepon, MIRVs are leading India, China, and Pakistan towards a higher level of strategic competition, along with new advanced cruise missiles, sea-based deterrence, and the move towards counterforce targeting.
 - China has already flight tested MIRVs, Pakistan has advertised its ability to do so, and India has proven it is also capable through its space program.
- Toby Dalton explains that given Pakistan’s interest in offensive capabilities, in particular its long-range missile systems, it would not be surprising to see it pursue MIRVs.
 - The U.S.-Soviet experience demonstrates that this goal, combined with a more counterforce posture and a growth of capabilities and arsenal size, will create new instabilities never experienced before in South Asia.
- According to Rajesh Rajagopalan, emerging MIRVs or BMDs will not affect India’s deterrence posture because India’s posture is a minimal deterrent doctrine. This means that as long as India has some level of second strike capability, that is more than adequate to deter threats.
 - There is a possibility that a BMD system could affect India’s second-strike capabilities, but for now, BMD technologies are not at a level to provide a sufficient shield against ICBM-range missiles.
- Feroz Khan predicts that the combination of ballistic missile defense and India’s MIRVing capability would tilt the offense-defense balance in favor of India. This would be a long-term worry for Pakistan, but the BMD program would not cover much land. It may also give a false sense of security to India, as they would only be able to defend a small number of targets.
- According to Manpreet Sethi, MIRV technology is evolving in South Asia; China wants to develop these technologies to defeat U.S. missile defense. If the Chinese move in this direction, India might also do so.
 - It could serve as a good arms control measure between India and China if both countries agreed to not have MIRVs.
 - Both India and China have no first use policies, but MIRVs are essentially first strike weapons.

7.3: “THE NO-FIRST-USE (NFU) DEBATE”

Run Time: 7:52

Lecturers: Vipin Narang (Massachusetts Institute of Technology), Mansoor Ahmed (Harvard University), Manpreet Sethi (Centre for Air Power Studies), Ruhee Neog (Institute of Peace and Conflict Studies), and Michael Krepon (Stimson Center)

Key Points:

- Vipin Narang mentions that India has professed a “no first use” (NFU) doctrine since 1998. This has been part of its official 2003 doctrine, which has not been revised since.
 - However, he adds that there is evidence that Indian NFU is changing, including the fact that Indian doctrine includes an exception to NFU (as India threatens nuclear retaliation in the event of a chemical or biological weapons attack).

- There are growing authoritative voices in India that argue India should not be bound by a strict NFU policy.
- Narang believes that India's nuclear dyad is stabilized by India's NFU policy. Moving away from NFU puts India and Pakistan in so-called "first strike instability," whereby Pakistan might fear for the survivability of its forces if India is believed to potentially strike first.
- According to Mansoor Ahmed, India's defense minister and other authoritative figures have suggested that India needs to develop a comprehensive capability to achieve some type of escalation dominance during conventional conflicts.
 - A severe conventional counterforce strike by India could generate unintended consequences by inadvertently convincing Pakistani leadership that India aims for a total destruction of Pakistani forces.
- Manpreet Sethi argues that NFU is a credible deterrence strategy because India does not have a role for using a nuclear weapon first and coming out looking better given the secure second-strike capabilities of both Pakistan and China.
- According to Ruhee Neog, the complications of first use include: the state with a first use policy controls the decision to escalate, the political leadership of that state must decide at what point it will use nuclear weapons, thus lowering the nuclear threshold, and the level of military preparedness increases.
 - In circumstances where the adversary has an assured second-strike capability, and Indian doctrine promises to respond massively in the event of first use, neither country will be in a "better position" after using nuclear weapons.
- Michael Krepon states that a country can try to declare its disinclination to use counterforce capabilities by not deploying limited ballistic missile defenses, which are both expensive and largely ineffective. Countries can also avoid actions that trigger nuclear-tinged crises.
 - The United States has sent \$300 billion on its BMD system, but it still does not work.

7.4: "INDIA AND PAKISTAN'S MARITIME INTERESTS AND THREAT PERCEPTIONS"

Run Time: 7:01

Lecturers: Nilanthi Samaranyake (Center for Naval Analyses), C. Raja Mohan (Carnegie India), and Moeed Yusuf (U.S. Institute of Peace)

Key Points:

- Nilanthi Samaranyake explains how both India and Pakistan have several interests in the Indian Ocean, including a shared interest in the stability of sea lanes given their strategic dependence on the maritime domain for trade.
 - India is also interested in projecting power across the region, where it sees itself to be a natural leader. Pakistan's geographical interests are more limited than India's, and its primary concerns regard the safety and security of Arabian Sea lanes.
- According to C. Raja Mohan, India used to define its maritime threats through the fear of American naval power. India used to support a collective security solution as the ideal.
 - Now, India sees Chinese power projection in the Indian Ocean as a bigger threat, which has moved it towards cooperation with the United States. While in the past India has neglected the maritime domain because of land-based threats from Pakistan and China, the maritime domain is increasingly important in India's strategic calculus.

- According to Samaranayake, Pakistan’s threat perceptions are to protect against attacks on shipping. The Pakistan Navy participates in combined maritime forces and is very dependent on the maritime economy.
- Moeed Yusuf argues that Pakistan’s maritime threat perceptions center on India’s growing naval capabilities. Increasingly, Pakistan has given importance to the Chinese developing Gwadar to help counter India. The Indian Ocean is the only blue water space where there is still an opportunity for countries to capture space and increase their competition.
 - However, Pakistan still focuses on land-centered thinking and might use China as a hedge in the Indian Ocean against India.
 - Yusuf questions whether those in Pakistan have grasped the importance of the naval platforms during or after the fallout from Kargil (see Lesson 5.6).
- Samaranayake adds that China’s growing presence in the Indian Ocean can be analyzed on two levels: military and commercial.
 - The blurring of these two levels alarms observers, as China has become a regular feature in the operating life of the Indian Ocean. Chinese economic projects in the Indian Ocean sometimes concern those in New Delhi because of the projects’ strategic significance.

7.5: “NUCLEAR WEAPONS AND THE INDIAN OCEAN”

Run Time: 9:04

Lecturers: Vipin Narang (Massachusetts Institute of Technology), Diana Wueger (Naval Postgraduate School), Nilanthi Samaranayake (Center for Naval Analyses), C. Raja Mohan (Carnegie India), and Moeed Yusuf (U.S. Institute of Peace)

Key Points:

- Vipin Narang states that India’s submarine-launched ballistic program (SLBM) is designed to ensure India’s second-strike capabilities.
 - India has increasingly focused on developing the K-4 missile, a solid fuel missile with a 3,500-km range that could operate throughout the Indian Ocean and maintain the ability to target China’s east coast and strategic centers.
 - The goal is to provide India a truly security second strike capability against China as it worries that its land-based missiles might be targeted by China in a potential conflict.
- According to Diana Wueger, Pakistan is farther from a nuclear-powered submarine, and their current conception is to place nuclear weapons on diesel-powered submarines. However, there is some likelihood that Pakistan will move towards naval nuclear reactors.
- According to Nilanthi Samaranayake, the United States is acutely interested in crisis stability in the case of an India-Pakistan conflict, especially with the potential for conflict in the Indian Ocean.
- Wueger predicts that it is likely that over the next couple of years that there will be greater acquisition of conventional submarines and anti-submarine assets.
 - If India finds a Pakistani nuclear submarine, will India (a) think it is a conventional submarine and legitimate target, or (b) will Pakistan feel threatened by having an Indian submarine on its tail? This evokes the “use-or-lose” problem, whereby Pakistan might feel compelled to use its nuclear submarine preemptively.
- According to C. Raja Mohan, if anti-submarine warfare picks up, submarine invulnerability will be improved by new technological developments. New technologies, especially in the realms of autonomy and artificial intelligence, are increasing the invulnerability of submarines.

- According to Wueger, the question of an Indian blockade has been given thought by the Indian Navy. Pakistan's one major port, Karachi, handles 90 percent of its trade flows.
 - A naval blockade would be more of a commercial than military threat because if shipping companies cannot insure boats traveling to Karachi due to safety concerns, then shipping there will stop.
- According to Moeed Yusuf, Pakistan's nuclear red lines are ambiguous. India's difficulty to determine how far it can go against Pakistan is a key pillar of Pakistan's deterrence strategy.
 - Pakistan's weakness is the risk of a naval blockade were a crisis to erupt, since Pakistan cannot protect its naval flank. This means that the red line on the naval front is likely very low.
 - Whether or not India could employ a naval blockade long enough without provoking a serious response from Pakistan is an open question.

7.6: "CHINA'S ROLE IN 'NUCLEAR SOUTH ASIA'"

Run Time: 9:43

Lecturers: Andrew Small (German Marshall Fund), Thomas F. Lynch III (National Defense University), Rajeswari Rajagopalan (Observer Research Foundation), Yun Sun (Stimson Center), and Mushahid Hussain Syed (Pakistani Senate Committee on National Defence)

Key Points:

- Andrew Small describes the China-Pakistan relationship as security-centric. The relationship developed in the early-to-mid sixties as a result of the India-China War and the India-Pakistan War when both sides realized there would be a mutual strategic advantage from security cooperation.
- According to Thomas F. Lynch III, the mutual suspicion and antipathy between India and China and India and Pakistan is the paramount driver in the Pakistan-China relationship.
 - China has often sided with Pakistan in an array of interactions contributing to the complexity of the South Asia security landscape. This has added to Pakistan's ability to withstand pressures in the UN Security Council and other international forums.
 - Pakistan has often turned to China to overcome sanctions hurting Pakistan's civilian nuclear program. There is evidence that China provided assistance for Pakistan's nuclear reaction cycle, fuel development cycle, and nuclear know-how that led to the first Pakistani nuclear test.
- According to Small, China's role in Pakistan's nuclear program has been critical. China sometimes provided technical support and nuclear materials, and Chinese scientists have in some ways been very integrated in the Pakistani nuclear program.
 - China also sold missiles directly to Pakistan and laterally helped Pakistan develop its own indigenous missile program.
- Rajeswari Rajagopalan explains how India-China-Pakistan dynamics have figured prominently in the past decade. In particular, China-Pakistan cooperation increasingly determines India's posture in the region.
- According to Yun Sun, China is concerned about Pakistan's internal stability and whether Chinese expanding influence in South Asia through measures such as the Belt and Road Initiative (BRI) would put China and India into a confrontational position.
- According to Small, the China-Pakistan Economic Corridor (CPEC) is a multi-billion project of Chinese investments in Pakistan. The bulk of these investments are in energy, and the rest focus

on infrastructure investments, special industrial zones, interconnectivity projects, and the Gwadar port.

- In reality, the “corridor” is more of a large-scale investment package, which, if successful, would lead to broader forms of industrial cooperation.
- Mushahid Hussain Syed argues that China has given a vote of confidence in the future of Pakistan through its investment projects. The challenges of these projects include security and the capacity of Pakistan to absorb assistance with speed and safety.

7.7: “CHINA'S FUTURE ROLE IN CRISIS MANAGEMENT”

Run Time: 12:42

Lecturers: Yun Sun (Stimson Center), Teresita Schaffer (U.S. Department of State), Andrew Small (German Marshall Fund), Thomas F. Lynch III (National Defense University), Manoj Joshi (Observer Research Foundation), and Moeed Yusuf (U.S. Institute of Peace)

Key Points:

- According to Yun Sun, China must first answer the question of what it wants to see when India and Pakistan are engaged in a crisis. It does not want to see border instability there, nor to put Pakistan at a disadvantage.
 - In the past, China has played the role of a crisis manager in South Asia through several approaches, but many question China’s ability to put pressure on Pakistan.
 - China can be objective in a crisis scenario between India and Pakistan, but will likely not be neutral.
- Teresita Shaffer explains that China has normally shied away from involvement in India-Pakistan negotiations, as it tends to view itself as a great power that does not engage in smaller disputes.
 - Its special relationship with Pakistan is something it is largely unwilling to negotiate, but it has used its influence to affect Pakistan’s actions before.
- According to Andrew Small, China has played a role as a crisis manager between India and Pakistan before. Post-nuclearization, it has tended to find ways to help both sides de-escalate, in relatively close cooperation with the United States.
 - An example is the 1999 Kargil conflict (see Lesson 5.6), when China took a firm stance with Pakistan and encouraged them to pull back.
 - India does not have an interest in seeing China play a mediating role given China’s special relationship with Pakistan. However, China has shown that it is not always willing to step in on Pakistan’s behalf. As such, Pakistan has understood that there are limits to the steps China is willing to take.
 - China may be willing to support Pakistan via weapons sales, diplomatic protection, but not in the form of a full-scale Chinese intervention.
- Thomas F. Lynch III believes that China is misunderstood by many in the West as being able to step up and perform a crisis management role.
 - China does not have the credibility to act as a crisis manager, as it has been viewed by India as unfairly siding with Pakistan.
 - The second issue concerns Chinese access: China’s pattern of accessing Pakistani senior leaders is asymmetric compared to its ability to access Indian leaders.
- According to Manoj Joshi, China is seen by India as an ally of Pakistan and therefore cannot play the role of a neutral third party.

- However, it has not directly supported Pakistan in past crises (especially in Kargil). This suggests that China can play a role only if a clear perception arises that it is not an ally of Pakistan.
- Sun adds that the biggest distinction between the Chinese playbook and the U.S. playbook is that China's first move would be to call the United States and ask it to take more action. Conversely, the United States will likely not ask China for a similar amount of pressure or diplomacy.
 - China sees itself as a player, but not the main responsible party, if and when a crisis emerges. However, it could cooperate with the United States because of the perception that China and Pakistan's close relationship (and thus Chinese influence over Pakistan) could mirror U.S. influence over India.
- According to Moeed Yusuf, nuclear crises are so important that third parties tend to work with each other and back up the de-escalation agenda before all other considerations. Thus, the Chinese, Russians, British, and other players tend to line up behind the United States to convince India and Pakistan to de-escalate before considering other interests.
 - Yusuf predicts that this pattern will largely remain intact, unless the global structure fundamentally changes.

RECOMMENDED READINGS

For greater depth, we encourage students to peruse these recommended readings:

John Garofano and Andrea Dew, *Deep Currents and Rising Tides: The Indian Ocean and International Security* (Washington, DC: Georgetown University Press, 2013).

<https://books.google.com/books?id=LXt5GOH7OFQC>.

Michael Krepon, "The Counterforce Compulsion in South Asia," *Arms Control Wonk*, April 12, 2017.

<http://www.armscontrolwonk.com/archive/1203018/the-counterforce-compulsion-in-south-asia/>.

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).

https://www.stimson.org/sites/default/files/file-attachments/Lure_and_Pitfalls_of_MIRVs.pdf.

Sameer Lalwani and Hannah Haegeland, "The Debate Over Indian Nuclear Strategy Is Heating Up," *War on the Rocks*, April 5, 2017. <https://warontherocks.com/2017/04/the-debate-over-indian-nuclear-strategy-is-heating-up/>.

Shivshankar Menon, *Choices: Inside the Making of India's Foreign Policy* (Washington, DC: Brookings Institution Press, 2016). <https://books.google.com/books?id=GduACwAAQBAJ>.

C. Raja Mohan, *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific* (Washington, DC: Carnegie Endowment for International Peace, 2012).

<https://books.google.com/books?id=gwmVCwAAQBAJ>.

Vipin Narang, Remarks at "Plenary: Beyond the Nuclear Threshold: Causes and Consequences of First Use" (Washington, DC: Carnegie International Nuclear Policy Conference, March 2017).

<https://fbfy83yid9j1dqsev3zq0w8n-wpengine.netdna-ssl.com/wp-content/uploads/2013/08/Vipin-Narang-Remarks-Carnegie-Nukefest-2017.pdf>.

Iskander Rehman, *Murky Waters: Naval Nuclear Dynamics in the Indian Ocean* (Washington, DC: Carnegie Endowment for International Peace, 2015).

http://carnegieendowment.org/files/murky_waters.pdf

Naeem Salik, *Learning to Live with the Bomb* (Karachi: Oxford University Press, 2017).

https://books.google.com/books?id=_PXhAQACAAJ.

Manpreet Sethi, *Nuclear Arms Control and India: A Relationship Explored* (Washington, DC: Arms Control Association, 2010). https://www.armscontrol.org/act/2010_09/Sethi.

Andrew Small, *The China-Pakistan Axis: Asia's New Geopolitics* (New York: Oxford University Press, 2015). <https://books.google.com/books?id=Z8CHCwAAQBAJ>.

Diana Wueger, "India's Nuclear-Armed Submarines: Deterrence or Danger?" *The Washington Quarterly* 39, no. 3 (2016): 77–90.

<https://www.tandfonline.com/doi/abs/10.1080/0163660X.2016.1232636>.

DISCUSSION QUESTIONS

Below is a sample list of discussion questions to get students thinking and talking about the issues from this chapter in class.

1. How, if at all, do ballistic missile defenses (BMDs) contribute to escalation?
2. What is the difference between countervalue and counterforce targeting, and which is more escalatory?
3. Why are MIRVs significant to South Asia's nuclear landscape?
4. Is there evidence that India is moving away from its NFU doctrine? What is the benefit of a NFU doctrine, and why might India consider moving away from one?
5. What are India and Pakistan's respective threat perceptions in the Indian Ocean?
6. Why would India and Pakistan seek to focus on nuclear submarine programs in the future? What are the dangers of nuclear submarines in the Indian Ocean?
7. What is China's role in the India-Pakistan relationship?
8. How has China historically responded during crises in South Asia, and why might this change?
9. Are you optimistic or pessimistic about the future of "nuclear" South Asia?