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## PAKISTAN'S NUCLEAR PROGRAM

## Laying the groundwork for impunity

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Contemporary analysts of Pakistan's nuclear program speciously assert that Pakistan began acquiring a nuclear weapons capability after the 1971 war with India in which Pakistan was vivisected. In this conventional account, India's 1974 nuclear tests gave Pakistan further impetus for its program.<sup>1</sup> In fact, Zulfikar Ali Bhutto, Pakistan's first popularly elected prime minister, initiated the program in the late 1960s despite considerable opposition from Pakistan's first military dictator General Ayub Khan (henceforth Ayub). Bhutto presciently began arguing for a nuclear weapons program as early as 1964 when China detonated its nuclear devices at Lop Nor and secured its position as a permanent nuclear weapons state under the Nuclear Nonproliferation Treaty (NPT). Considering China's test and its defeat of India in the 1962 Sino-Indian war, Bhutto reasoned that India, too, would want to develop a nuclear weapon. He also knew that Pakistan's civilian nuclear program was far behind India's, which predated independence in 1947. Notwithstanding these arguments, Ayub opposed acquiring a nuclear weapon both because he believed it would be an expensive misadventure and because he worried that doing so would strain Pakistan's western alliances, formalized through the Central Treaty Organization (CENTO) and the South-East Asia Treaty Organization (SEATO). Ayub also thought Pakistan would be able to buy a nuclear weapon "off the shelf" from one of its allies if India acquired one first.<sup>2</sup>

With the army opposition obstructing him, Bhutto was unable to make any significant nuclear headway until 1972, when Pakistan's army lay in disgrace after losing East Pakistan in its 1971 war with India. Bhutto seized the reins of Pakistan's remnants and began the program, which gained more widespread report in the wake of India's oddly appellationed 1974 "Peaceful Nuclear Explosion." Yet Bhutto's tenure at the helm of Pakistan's budding nuclear program would be shortlived. After General Zia ul Haq's 1977 coup ousted Bhutto and culminated in his execution, the army seized control of the program. Despite establishing the Strategic Plans Division (SPD), an ostensibly inter-agency organization erected after the 1998 reciprocal nuclear tests by India and then Pakistan, the army retains control over the program for most intents and purposes.

While there are numerous histories of Pakistan's nuclear weapons program available,<sup>3</sup> in this chapter I make two modest interventions to the existing corpus. First, whereas conventional scholarship<sup>4</sup> presumes Pakistan to be a covert nuclear power since 1990, I argue that Pakistan has been a covert nuclear power for much longer, perhaps since as early as 1979. Second, marshalling evidence from the U.S. National Security Archives, I show that India was very much aware of Pakistan's nuclear developments throughout the 1970s and 1980s. These admittedly reserved

alterations of the conventional wisdom imply that scholars should reconsider how they view earlier conflicts between India and Pakistan such as Operation Brasstacks throughout the 1980s and 1990s. Whereas Cohen and others argue that Brasstacks was not a nuclear dispute because “Pakistan had not yet acquired a nuclear weapon,” the evidence I put forward here suggests that this crisis was, in fact, a nuclearized crisis.<sup>5</sup>

The remainder of this chapter is organized as follows. I first review the history of Pakistan's program, focusing upon the early years of inception, in hopes of persuading scholars to re-examine Pakistan's nuclearization timeline as an independent variable to explain Pakistan's increasing risk acceptance with respect to initiating conflict with India.<sup>6</sup> Second, I briefly survey the progress that Pakistan made between 1990 and 2016 with respect to the development of nuclear weapons and delivery vehicles. Third, I review doctrinal evolution and the ways in which Pakistan uses its nuclear weapons to deter India from responding to Pakistan's various terrorist and other outrages; to avert the international community from enforcing punitive measures; and to extract economic rents from the United States and other bilateral and multilateral actors. I conclude with a summary of the arguments advanced here and the implications that they afford.

### **Becoming a covert nuclear weapons state: hook or by crook**

Whereas India's Prime Minister Jawaharlal Nehru and Atomic Energy Commission (AEC) Chairman Homi Bhaba “sought to win for their country all the prestige, status, and economic benefits associated with being a nuclear power, including the option of building ‘the bomb,’” prior to India's 1947 independence, Pakistan's nuclear program did not begin until the mid-1950s under the Atoms for Peace Initiative begun by U.S. President Eisenhower.<sup>7</sup> While Pakistan established the Pakistan Atomic Energy Commission (PAEC) in 1956, at that time its chairman reported to a “relatively junior officer in the Ministry of Industries and had no direct access to the chief executive,” and the civilian bureaucracy “had an apathetic attitude” towards the initiative.<sup>8</sup> Pakistan's civilian nuclear program received a fillip in 1958 when Zulfikar Ali Bhutto became the Minister of Fuel, Power and Natural Resources and remained in this capacity until 1962, after which he assumed the role of Minister of Foreign Affairs. During his tenure, Bhutto promulgated the Pakistani Institute of Nuclear Sciences and Technology (PINSTECH), and began arguing that Pakistan should develop a nuclear weapons capability after China's 1964 test in Lop Nor.<sup>9</sup>

Bhutto's unwavering advocacy for a nuclear weapon was further confirmed by the events pertaining to Pakistan's 1965 war,<sup>10</sup> which Bhutto believed would enable Pakistan to seize the portion of Kashmir under India's administration. Bhutto misjudged and Pakistan failed to win the war it had initiated. Bhutto drew three conclusions from this episode. First, Pakistan's military capabilities were woefully limited. Second, Pakistan's participation in the CENTO and SEATO treaties would not bring its allies to its defense in a war with India. (Note that those treaties specifically pertained to wars with communist powers, not neighborhood actors responding to Pakistan-initiated hostility.) Third, it would be perilous should Pakistan not secure a nuclear deterrent. In 1965 Bhutto declared that “Pakistan will eat grass or leaves, even go hungry” to acquire a nuclear weapons capability.<sup>11</sup>

Ayub, then head of Pakistan's armed forces, eschewed Bhutto's nuclear vision, arguing that it would be a costly boondoggle and that it would estrange Pakistan's western allies who were needed to help Pakistan build up its conventional armed forces. Moreover, Ayub believed Pakistan would be able to obtain a nuclear weapon from the United States or another ally should India develop one, thereby eliminating the need for Pakistan to attain this capability independently.<sup>12</sup> Some of Ayub's subordinates shared Bhutto's assessments of India. For example, Major M. Zuberi opined in *The Pakistan Army Journal*, that once India, with its preexisting conventional

advantages, acquired a nuclear weapon, “Pakistan would be reduced to a status of an innocuous spectator . . . A nuclear India would automatically claim the right for leadership of areas in her immediate vicinity if not the entire non-communist Asia and Africa.”<sup>13</sup>

Given that Pakistan was firmly under the thumbs of Generals Ayub (1958–1969) and then Yahya Khan (1969–1971), Bhutto’s vision for a nuclear Pakistan remained deferred until 1972. By the time Yahya Khan resigned in ignominy on December 20, 1971, the entire army was viewed with contempt both because it lost the 1971 war and because it had disingenuously claimed that it had been winning the war.<sup>14</sup> Bhutto, whose party had won the most seats in West Pakistan in the 1970 elections, became Pakistan’s president, commander in chief, and first civilian Chief Martial Law Administrator. He immediately prioritized Pakistan’s nuclear weapons program both because he believed doing so was required to secure Pakistan’s interests vis-à-vis India and he wanted Pakistanis to believe that a civilian – not the army – could bequeath to Pakistan the ultimate guarantor of its security.<sup>15</sup>

In January 1972, Bhutto convoked several dozen of Pakistan’s nuclear scientists at a meeting in Multan and tasked them with producing a nuclear bomb within five years.<sup>16</sup> Bhutto placed Munir Ahmad Khan as the head of the PAEC and instructed him to report directly to Bhutto.<sup>17</sup> Like neighboring India’s corollary body, the PAEC initially focused upon harvesting weapons-grade plutonium both because M.A. Khan was a plutonium expert and because Pakistan could recover and reprocess existing plutonium from its civilian reactor, the Karachi Nuclear Power Plan (KANUPP).<sup>18</sup> Several challenges became apparent with this option. First, KANUPP was inefficient and under International Atomic Energy Agency (IAEA) safeguards. Second, as Pakistan emerged as a proliferation risk, western states began restricting access to reprocessing technology.

With the plutonium route becoming ever-more problematic, Pakistan diversified its options by following a “less technically efficient, but more discreet, highly enriched uranium (HEU) route.”<sup>19</sup> Two events increased the allure of this alternative. First was India’s so-called “Peaceful Nuclear Explosion” of May 1974. Second was a September 1974 letter to Bhutto from a previously-unknown Dr. Abdul Qadeer Khan (A.Q. Khan) in which he, impelled by India’s test, offered to help his native Pakistan acquire a nuclear weapon. A. Q. Khan had obtained his PhD in metallurgy from a Belgian university and was working for a Dutch member of the Urenco enrichment consortium, where he had translated a German report on centrifuge technology, among other tasks. Bhutto requested that Khan remain in the Netherlands so that he could access more technical knowledge, but he fled to Pakistan in 1975 with stolen centrifuge designs when he attracted the suspicion of the Dutch government. Dissatisfied with PAEC’s abysmal progress, Bhutto emplaced A.Q. Khan in direct control of the centrifuge project.<sup>20</sup>

By the time A. Q. Khan arrived in Pakistan, the asymmetry in power with India was too clear to ignore, and the country’s military was fully on board with developing a nuclear weapon.<sup>21</sup> Given that the SEATO and CENTO treaties specifically excluded aiding Pakistan in a conflict with India, Pakistan’s army began to distrust their utility.<sup>22</sup> Finally, India’s 1971 intervention in what had been a civil war in East Pakistan coupled with its nuclear test in 1974 provided further evidence for the army’s perduring beliefs about “India’s hegemonic designs” in South Asia.<sup>23</sup>

In 1977, Zia ul Haq (henceforth Zia) deposed, imprisoned, and later executed Bhutto. While in jail, Bhutto drafted an autobiography-cum-manifesto defending his actions and policies titled *If I am Assassinated*, in which he expositis that he – not the army – conferred to Pakistan a nuclear weapons capability. Bhutto declared braggadociously that when he became President, Pakistan’s nuclear program lagged India’s by two decades, but by 1977, Pakistan was on the threshold of possessing a nuclear capability. While Christian, Jewish, and Hindu civilizations, as well as the

Communist powers, had acquired a nuclear weapons capability, he blustered that it was he who delivered this capability to the entirety of Islamic civilization.<sup>24</sup>

Pakistan's nuclear program was an issue that President Jimmy Carter took up when he became president in early 1977. In fact, Pakistan's successful pursuit of a nuclear arsenal was "the most significant frustration for the Carter administration's nonproliferation policy."<sup>25</sup> Curiously, despite Bhutto's proclamation in 1965 that Pakistan would eat grass if needed to acquire a nuclear weapon, U.S. intelligence did not seriously consider the possibility that Pakistan would seek this capability until India tested in 1974.<sup>26</sup> After the French deal fell through under considerable U.S. pressure, the CIA assessed that the "available data points to a judgment that even a very crude Pakistani nuclear device is probably many years away. A mix of shortcomings in scientific know how, likely difficulty in acquiring or developing critical reprocessing facilities capable of producing usable plutonium, domestic financial problems . . . all increase the odds against Pakistan going nuclear – perhaps for the next decade or even longer."<sup>27</sup>

By August 1978, the U.S. Undersecretary of State for Political Affairs, David Newsom, was considering various concerns pertaining to the language and intent of the Glenn Amendment, triggered by the French transfer of reprocessing technology. The cancellation of the French deal dispensed with the transfer of technology issue, but it did not alleviate concerns about Pakistan's intention to develop such a capability indigenously. Newsome raised these issues with Yaqub Khan, Pakistan's ambassador to the United States, and discussed with him the desirability for a written statement that Pakistan would not pursue such an indigenous reprocessing technology. Khan balked and bluntly explained to Newsome that such a request was "not realistic because if Pakistan really wanted to go ahead with reprocessing it would not matter how many assurances Pakistan provided."<sup>28</sup> Pakistan's Minister of State for Foreign Affairs, Agha Shahi, on another occasion similarly maintained that even private assurances were not possible.<sup>29</sup>

Later that year, Zia further told a Saudi newspaper that "if Pakistan possesses such a weapon it would reinforce the power of the Muslim world" because no other Muslim country had such a weapon.<sup>30</sup> Nonproliferation proponents in the U.S. Congress were growing increasingly wary of Pakistan and were not enthusiastic about resuming aid to Pakistan unless Islamabad could lay to rest any suspicions about developing a reprocessing capability. Pakistani officials refused to give such assurances. Shahi, for example, told Undersecretary Newsom that it was "impossible for the [Government of Pakistan] to provide public or private assurances" on Pakistan's intentions for reprocessing.<sup>31</sup> Moreover, he asserted that Pakistan "has the unfettered right to do what it wishes and will retain all its options."<sup>32</sup>

We now know that U.S. intelligence did not thoroughly understand the options that Pakistan had cultivated. Even as the afore-noted CIA study was being written, A.Q. Khan had already established his secret procurement network and was making considerable headway in acquiring technology required to construct a centrifuge facility. Moreover, neither the CIA nor the U.S. Department of State was aware of the preexisting extent of Chinese-Pakistani cooperation. In an August 1975 meeting, Hummel met with the Chinese ambassador to Pakistan, Lu Weizhao. He reported his satisfaction over the apparent credibility of Chinese assurances that it would not help Pakistan. Nuclear expert Robert Galluci responded to Hummel's assertion in his own cable, pointing out that Beijing did have the expertise to build a reprocessing plant, albeit less sophisticated than that of France, and that the Chinese *could* help the Pakistanis extract plutonium from the KANUPP plant.<sup>33</sup>

As the regional situation deteriorated in Afghanistan and in Iran, the United States still wanted to find a way to provide military sales and increased development aid despite Pakistan's recalcitrance on the nuclear issue. By December of 1978, it became clear how little the United States knew about the progress Pakistan was making when the CIA learned from European intelligence

that Pakistan was constructing a uranium enrichment plant, a possibility the organization had not previously considered in its April 1978 assessment. A subsequent report assessed that “Pakistan’s efforts to acquire foreign equipment for a uranium enrichment plan now under construction have been more extensive and sophisticated than previously indicated. Despite the best efforts of nuclear supplier states to thwart these activities, Pakistan may succeed in acquiring the main missing components for a strategically significant gas centrifuge enrichment capability.”<sup>34</sup> This revelation had implications for India’s own nuclear program, as the report suggested that there were “signs of heightened concern” in India.<sup>35</sup>

The early months of 1979 proffered more revelations about the progress of Pakistan’s nuclear program, and “unspecified intelligence going back to 1977 on Pakistan’s attempts to ‘import critical components’ had also surfaced.”<sup>36</sup> A cable dated January 1979 reveals curious information about the Indians’ assessment of Pakistan’s program. In that cable, an Indian official referred to as “Shankar” averred that Pakistan could weaponize within two to three months.<sup>37</sup> The State Department sought to assure India that the United States was “watching the Pak situation very closely” and “that, even with a priority effort, it would take the Paks a number of years [three to five], and that we are taking steps to try to dissuade them from any efforts at acquiring such capabilities.”<sup>38</sup>

In February 1979, the United States confronted Zia with photographic information about the facility at Kahuta, which Zia rubbished as “ridiculous.” Ambassador Hummel warned Zia that the divergence between what the United States was learning about Pakistan’s program and Pakistan’s official statements increased the likelihood that Symington Act sanctions, which prohibited most forms of U.S. assistance to any country that traffics in nuclear enrichment technology or equipment outside of international safeguards.<sup>39</sup>

The United States tried, but failed, to persuade Pakistan through an “audacious buyoff” to abandon its nuclear push.<sup>40</sup> By March 1979 the United States learned Pakistan had acquired critical technologies for its enrichment program. The Department of State assessed that Pakistan was rapidly building a “secret uranium enrichment plant which by 1983 will begin to yield sufficient quantities of fissile materials to support a nuclear weapons program.”<sup>41</sup> When confronted, Zia confirmed the status of the enrichment program, and the United States was left with no option but to apply Symington sanctions in April 1979. Initially, the Americans did not want this decision to be known publically; Washington did not even officially notify Islamabad that the United States had terminated aid programs or address the issue of their future continuation.<sup>42</sup>

Meanwhile, the Indian and British media became aware of Pakistan’s progress in reprocessing technology.<sup>43</sup> One Department of State memo suggested that though Indian and British media were aware of the sanctions decision, State believed it was best to “continue to deal with this matter on a confidential basis for as long as possible.”<sup>44</sup> Documents from this period demonstrate Indian knowledge of Pakistan’s progress. Secretary of State Cyrus Vance wrote to President Carter urging him to personally intervene to manage the diplomatic fallout over the imposition of sanctions. In this letter, Vance explained to Carter that “India has detailed knowledge of the Pakistani enrichment program, and [Prime Minister Morarji] Desai has written Zia of his concern about Pakistani nuclear activities.”<sup>45</sup> American efforts to shield their policy decisions from the media were obviated by India’s “persistent efforts to stimulate international public attention to Pakistan’s weapons-related programs” by writing editorials and news stories publicizing Pakistan’s progress in centrifuge enrichment.<sup>46</sup> In October of 1979, the U.S. Embassy in New Delhi cabled the Secretary of State to describe a private meeting between (presumably) the U.S. Ambassador and India’s Prime Minister Desai. When asked what he planned to do about the danger posed by Pakistan, Desai responded “should the Pakistanis develop an explosives capability . . . [or] if he discovered that Pakistan was ready to test a bomb or if it exploded one, he would act at [once] to ‘smash it.’”<sup>47</sup> By June of 1979, State reported rumors about a potential nuclear test in 1979.<sup>48</sup>

With the Soviet invasion of Afghanistan, Zbigniew Brzezinski – President Carter's national security advisor – told Carter that Washington needed Pakistan's support to oust the Red Army from Afghanistan. Doing so would “require . . . more guarantees to [Pakistan], more arms aid, and, alas, a decision that our security policy cannot be dictated by our nonproliferation policy.”<sup>49</sup> The Carter administration suspended its proliferation concerns and proposed a \$400 million aid package (divided equally between economic and military assistance) to Zia. Zia rebuffed the offer as mere “peanuts” and waited for Ronald Reagan to win the election.

Upon assuming office in January 1981, he agreed to provide \$3.2 billion dollars in military and economic aid over five years.<sup>50</sup> Before Zia accepted the assistance, he requested the Reagan administration to explicate its position on his country's nuclear program, which Zia averred was a sovereign right. In turn, Secretary of State Alexander Haig,

made it clear that the nuclear issue would not be the ‘centerpiece’ of [the] US–Pakistan relationship. He did, however, strike a note of caution, that in case Pakistan were to conduct a nuclear test, the Congress would not allow the Reagan administration to cooperate with Pakistan in the manner in which it was intended.<sup>51</sup>

In essence, the Pakistani and American governments tacitly agreed that “the Reagan administration could live with Pakistan's nuclear program as long as Islamabad did not explode a bomb.”<sup>52</sup> This understanding became U.S. law when the U.S. Congress passed Reagan's assistance plan, which included a six-year waiver of the 1979 Symington Amendment sanctions and simultaneously banned economic and military assistance to any country that exploded a nuclear device.<sup>53</sup>

Nonetheless, discomfiture about Pakistan's intentions and capabilities persisted among American anti-proliferation proponents in the U.S. Congress, Department of Defense, and intelligence agencies.<sup>54</sup> A December 1982 Newsweek article detailing Pakistan's covert nuclear reprocessing technology procurements alleged that China supplied Pakistan with uranium and blueprints for a nuclear bomb and asserted that a Pakistani scientist had stolen enrichment technology from Holland. By June 1983, the Department of State declared “There is unambiguous evidence that Pakistan is actively pursuing a nuclear weapons development program” and confidently claimed that Pakistan's significant progress was due to generous assistance from China.<sup>55</sup> A.Q. Khan further vexed American nonproliferation advocates in April 1984 when he disclosed to the *Nawai-i-Waqt* (an Urdu-language Pakistani newspaper) that Pakistan could produce weapons-grade enriched uranium. In June of that same year, U.S. Senator Alan Cranston declared that Pakistan could produce “several nuclear weapons per year” and rebuked the State Department for its insouciance about Pakistan's program.<sup>56</sup>

Despite the increasingly negative international attention, Pakistan remained a vital component of the Reagan White House's efforts to oust the Soviets from Afghanistan. To assuage concerns in Congress, the Reagan Administration fashioned a new compact with Zia, extracting from him an assurance that Pakistan would not develop a nuclear weapon as long as he was in power. Vice President George Bush explained to Zia that “‘exploding a device, violating safeguards, or reprocessing plutonium would pose a very difficult problem for the Reagan administration’ and that the nuclear issue continued to be a very sensitive topic in the United States.”<sup>57</sup> It appeared as if the “Americans knew about Pakistan's enrichment effort, and were prepared to live with it, if Pakistan did not detonate a nuclear explosive device.”<sup>58</sup> Despite Zia's assurance, the media continued to report upon Pakistan's progress in developing a bomb, which prompted President Reagan, in September 1984, to exhort President Zia of serious consequences should Pakistan enrich beyond five percent.<sup>59</sup> This was the first time that Washington offered a clear read line. Zia remained evasive.<sup>60</sup>

In the fall of 1984, the Reagan administration sought Congressional approval for yet another aid package of 4 billion dollars over six years. This time, nonproliferation proponents such as Senator John Glenn repudiated the administration for continuing to believe Zia's blatant mendacities.<sup>61</sup> To resolve this impasse between the Reagan administration and the U.S. Congress, the White House, working with the Pakistani Ministry of Foreign Affairs, and key members of Congress passed the Pressler Amendment in July 1985.<sup>62</sup> The Amendment required the U.S. President to certify both that Pakistan did not possess a nuclear weapon as a pre-condition for security assistance.<sup>63</sup> The legislation essentially moved the U.S. red line from an enrichment threshold – which Pakistan had likely already surpassed – to possession of an actual nuclear weapon. However, Brig. (Retd) Feroz Khan, formerly of Pakistan's Strategic Plans Division, reported that by the time the Pressler Amendment was passed, Pakistan already possessed a nuclear device. As early as 1984, Pakistan had a "large bomb that could be delivered . . . by a C-130."<sup>64</sup> This assessment roughly coincides with earlier statements by Abdul Sattar, a former foreign minister, who claimed that Pakistan developed nuclear device as early as 1983.<sup>65</sup>

In the spring of 1988, the United States and the Soviet Union brought an end to the Afghan war with the Geneva Accords. Pakistan was no longer indispensable to U.S. strategic interests, and American presidents found it increasingly difficult to justify continued security assistance to the country that had frustrated it for so long. In November 1988, Reagan did in fact make the certification necessary for continued aid, but he wrote in his letter that "as Pakistan's nuclear capabilities grow, and if evidence about its activities continue to accumulate, this process of annual certification will require the President to reach judgments about the status of Pakistani nuclear activities that may be difficult or impossible to make with any degree of certainty."<sup>66</sup> One year later, President George Bush wrote to the U.S. Congress that he had "concluded that Pakistan does not now possess a nuclear explosive device" but warned that Pakistan persisted with "its efforts to develop its unsafeguarded nuclear program."<sup>67</sup> To Pakistan's amazement, President Bush declined in October 1990 to make the certification, thereby invoking sanctions that had been deferred since 1982.<sup>68</sup>

### Transitioning from a covert to an overt nuclear weapons state

While under sanctions from the United States throughout the 1990s, Pakistan continued to make progress in developing both nuclear weapons themselves and the aircraft and missile vehicles with which to deliver them. On May 11 and 13, 1998, India detonated several nuclear devices in the Pokhran desert. On May 28, Pakistan reciprocated with its own nuclear tests in Balochistan's Chagai hills. These tests rendered both India and Pakistan *de facto*, although not *de jure*, nuclear weapons states.<sup>69</sup> Since 1998, Pakistan has worked to develop its command and control infrastructure (i.e. Strategic Plans Division) and its nuclear doctrine.<sup>70</sup> Oddly, the much-anticipated nuclear arms race between India and Pakistan did not materialize. In fact, India has been so slow to develop its nuclear arsenal that Perkovich and Dalton caution India to close this emerging gap but assert that India lacks the political attention required to overcome the numerous bureaucratic problems that have undermined its much-discussed but yet to be implemented defense modernization. Instead, India has focused upon developing its conventional capabilities enabled by its sustained economic growth over the last 25 years.<sup>71</sup>

As of November 2016, experts believe that Pakistan has a stockpile of 130–140 warheads and has plans to continue growing its arsenal with four plutonium production reactors and ever-expanding uranium enrichment facilities. Kristensen and Norris predict that Pakistan's arsenal may grow to 220–250 by 2025, which would render Pakistan the world's fifth-largest nuclear weapons state.<sup>72</sup> Pakistan is also developing several land-based mechanisms to deliver warheads, which will join nuclear-capable aircraft (modified F-16s and Mirage Vs) in Pakistan's existing

weapons delivery vehicle cache. Pakistan's ballistic missile arsenal includes the longer-range, solid-fueled Shaheen-III, with an estimated range of 2,750 km and 1,000 kg payload. This missile can target all of mainland India as well as Indian-controlled islands in the Bay of Bengal. This is in addition to the two-staged, solid fuel Shaheen-II, Ghaznavi (est. 2,000 km range, 1,000–1,100 kg payload); the solid-fueled Ghaznavi (est. 290 km range, 800 kg payload); and the liquid fueled Ghaur (est. 1,300 km range, 700 kg payload). Pakistan is also continuing its development of the Babur nuclear-capable cruise missile fired from a multi-launch vehicle with an estimated 700 km range and 300 kg payload. Pakistan tested its Ra'ad, an air-launched cruise missile purported to have a range of 350 km with a payload of 350 kg, in January 2016, and it may also seek to develop sea-launched versions of the Babur and Ra'ad.<sup>73</sup>

Pakistan's most worrisome recent behavior is its much-publicized pursuit of so-called theater ballistic nuclear weapon (or tactical nuclear weapon), ostensibly in response to India's putative Cold Start doctrine.<sup>74</sup> In 2011, the country's Inter-Services Public Relations (ISPR) division announced that Pakistan had successfully developed and tested a "Short Range Surface to Surface Multi Tube Ballistic Missile Hatf IX (NASR)." According to the ISPR press release, the NASR will "add deterrence value to Pakistan's Strategic Weapons Development program at shorter ranges. NASR, with a range of 60 km, carries nuclear warheads of appropriate yield with high accuracy, shoot and scoot attributes. This quick response system addresses the need to deter evolving threats."<sup>75</sup> Yet apart from Pakistan's claims, little is known about the actual recent progress made in miniaturizing the warheads for deployment.<sup>76</sup>

### Coercing the world with nuclear weapons

The international community at large and the United States fears that Pakistan's nuclear weapons, materials, or technology may fall into the hands of non-state actors. These fears may be overblown in some measure.<sup>77</sup> Since the 1998 tests and the revelations of A.Q. Khan's black market entrepreneurialism, Pakistan has undertaken important efforts to bolster its nuclear command, control, and security arrangements, which most of the well-rehearsed doomsday scenarios fail to consider. In 2000, President Musharraf promulgated the so-called National Command Authority along with the Strategic Plans Division (SPD), the NCA's secretariat, and the specialized strategic forces.<sup>78</sup> The SPD's principle brief is protecting Pakistan's strategic assets both from internal and external threats. After all, if terrorists can infiltrate Pakistan's program, so could hostile state agencies (i.e. India, the United States, Israel). SPD has a three-tiered security perimeter for nuclear facilities; systems for investigating and monitoring personnel, developing and deploying physical counter-measures, and fielding counter-intelligence teams meant to identify potential threats.<sup>79</sup> While these developments are encouraging, one should remember that the United States Air Force lost track of half a dozen nuclear war heads for 36 hours in August 2007, despite decades of work on command, control, and security arrangements.<sup>80</sup>

Most of these enhancements offer protection from theft during peacetime, when the weapons themselves are neither assembled nor mated to their delivery vehicles. However, Goldberner and Ambinder's reporting has raised concerns. The authors claimed that SPD routinely moves its nuclear weapons among the fifteen or more facilities where they are maintained. Sometimes this movement occurs for maintenance reasons. Sometimes it occurs to complicate foreign intelligence efforts to identify their peace-time locations. They also assert that on occasion weapons components are moved via helicopter or road. Furthermore this report claims that Pakistan does not employ well-defended convoys or armored vehicles to transport these assets. Instead, SPD opts to "move material by subterfuge, in civilian-style vehicles without noticeable defenses, in the regular flow of traffic. Per both Pakistani and American sources, vans with a modest security profile are sometimes



the preferred conveyance.”<sup>81</sup> Quoting a senior U.S. intelligence official, they report that SPD also began “using this low-security method to transfer not merely the ‘de-mated’ component nuclear parts but ‘mated’ nuclear weapons.”<sup>82</sup> Given Pakistan’s ever-degrading security environment, this report aggravates American fears about non-state actors being able to acquire the weapons.

Security of the nuclear weapons and their components is also exacerbated during periods of conflict with India when Pakistan (and probably India as well) is thought to assemble the warheads and mate them with their delivery systems. As the conflict intensifies, Pakistan may forward deploy these assembled and mated weapons, both for potential employment and to guarantee a retaliatory capacity. During these periods, apprehensions about theft or other unauthorized transfer of weapons or components are more plausible than when they are in garrison, as Clary notes. Equally discomfiting, when the assembled and mated nuclear weapons are forward deployed, the “two-man” rule may be insufficient to prevent accidental or unauthorized launch amidst the heightened strain of emergency.<sup>83</sup>

Doctrinally, Pakistan deliberately cultivates ambiguity about the conditions under which it would use its nuclear weapons against India. It is this strategic instability that Pakistan cultivates that allows it to use its proxy actors in India and elsewhere with impunity (the so-called “instability-instability paradox.”<sup>84</sup> Pakistan relies on nuclear weapons to restrain India, both by raising the costs of Indian action against Pakistan and by bringing in the United States and other actors to dampen and then roll-back the conflict once it commences. The United States and other international actors are motivated to intervene for two reasons. First, preventing an Indo-Pakistan conflict that could potentially escalate to a nuclear confrontation remains an important U.S. objective. The resulting devastation would be unprecedented, and few countries other than the United States would be positioned to conduct the humanitarian disaster relief that would follow. Pakistan’s proliferation of theater nuclear weapons will shorten the timelines of international intervention because these foreign actors will want to mobilize before Pakistan can begin assembling, mating, and forward deploying its nuclear weapons. Pakistan therefore uses these risks to catalyze foreign intervention before India can effectively mobilize to inflict conventional damage to Pakistan. In other words, this international action serves to shield Pakistan from the consequences of its egregious behavior.

Moreover, as I have argued elsewhere, Pakistan benefits directly from the pervasive concerns about non-state actors acquiring its nuclear materials because these apprehensions empower Pakistan to extract rents from the United States and large multi-lateral institutions such as the International Monetary Fund who fear that Pakistan is simply too dangerous to fail. After all, if Pakistan was not plagued with Islamist militants and if there were no nuclear weapons that could be stolen, the United States and others would be more willing to explore negative inducements to compel Pakistan to cease using terrorists as tools of foreign policy. Instead, the United States and other countries and institutions continue to support Pakistan through economic and security assistance, which in turn enables Pakistan to continue investing in the very assets (nuclear weapons and terrorists) that so discomfit the international community in the first place. Unless the international community were to remove itself from Pakistan’s coercion mechanism, it is likely to continue engaging Pakistan in this way.<sup>85</sup>

## Conclusions and implications

In this chapter I make several arguments, some of which have not been made explicitly before. First, nuclear weapons have figured in the Pakistan army’s strategic culture since the 1970s, even though Z.A. Bhutto prioritized them much earlier.<sup>86</sup> Once the army endorsed nuclear weapons, Pakistan could further innovate at the lower ends of the conflict spectrum as others have noted.<sup>87</sup>

Second, I argue that scholars should begin to reconsider their timeframe for the “nuclearization of the subcontinent.” Whereas most scholars treat Pakistan as a “nuclear state” as late as 1990, I argue that we should consider Pakistan as a “nuclear state” much earlier. It is not unreasonable to use 1979 as the last year when we could consider Pakistan to truly be non-nuclear.<sup>88</sup> By this time, Pakistani writers were already arguing that Pakistan’s nuclear program conferred to Pakistan some form of existential deterrence. Notably, in the late 1980s General Zia-ul-Haq opined “that ambiguity is the essence of deterrence.”<sup>89</sup> Beg also explicated that a “state of uncertainty and ambiguity . . . serve[s] as a meaningful deterrence.”<sup>90</sup> Cultivating this ambiguity, and thus strategic instability, is a central element of what Paul Kapur describes as the “instability–instability paradox” that characterizes Indo–Pakistan security competition and allows Pakistan to rely on nonstate actors to conduct attacks in India with impunity.<sup>91</sup> Finally, as I have documented extensively elsewhere, Pakistani defense writers understood that their nuclear capabilities would allow Pakistan to employ low-intensity conflict with greater impunity.<sup>92</sup> Cohen also observed Pakistan’s nuclear capabilities “would provide the umbrella under which Pakistan could reopen the Kashmir issue” as well as neutralize “an assumed Indian nuclear force.”<sup>93</sup>

Third, I also present evidence that India was aware of these developments as early as the late 1970s. Prime Minister Desai seemed to have begun “tak[ing] the Pakistan nuclear explosive program more seriously, and that the Indians might take action to deal with it, either before or after a test.”<sup>94</sup> It is difficult to argue that subsequent Indian leadership would not be forced to consider Pakistan’s nuclear progress and status. Taken together this information should force scholars of South Asian security to reexamine assumptions about the nuclear nature of crises that took place prior to 1990. The best candidate for such a re-evaluation is the so-called Brasstacks crisis of 1986–1987. Although a thorough investigation of this question is beyond the scope of this chapter, the evidence I marshal suggests that it likely was indeed a confrontation influenced by nuclear considerations.

As Pakistan’s program has evolved, its nuclear arsenal has ceased to simply serve only as a means to counter India’s conventional superiority and to undermine potential doctrinal evolution. Today and in the recent past, Pakistan explicitly uses and has used these weapons to catalyze international activity immediately after a Pakistan-sponsored terror attack, thereby shielding the nation from the consequences of its action.<sup>95</sup> The conjoined specter of nuclear weapons and Islamist terrorists is also part of Pakistan’s strategy to extort rent from the international community, which has been persuaded that the consequences of Pakistan’s failures would be catastrophic.

The implications of this analyses strongly suggest that the long-warn U.S. approach to managing Pakistan through lucrative allurements has failed to retard Pakistan’s behaviors even modestly since the United States elected to waive nuclear-related sanctions when President Reagan assumed the White House. During the 1980s, Pakistan continued developing its arsenal while working closely with the United States. More recently, despite high-levels of American investments in Pakistan since 9/11, Pakistan has pursued battle-field nuclear weapons. It is difficult to not conclude that American financial and security assistance has underwritten these developments while providing the United States little meaningful leverage to influence Pakistani behavior. The evidence I present here strongly suggests the United States requires a new policy approach towards Pakistan’s nuclear activities. Left to its own devices, Pakistan will continue to persist with a suite of dangerous policies that have long served its purposes.

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