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## Nuclear Security in Pakistan: Separating Myth From Reality

[Feroz Hassan Khan](#)

Pakistan is passing through an extremely delicate phase in its history. Recent instability in Pakistan, including the Taliban's advance into settled areas, prompted the Pakistani military to undertake large-scale military operations in the Swat Valley. As military and Taliban forces fight in the rugged tribal terrain, several Western analysts have raised concerns about the future of nuclear Pakistan.[1]

The nightmare specter of nuclear weapons, nuclear material, or a whole country falling into al Qaeda or Taliban hands is invoked, creating fear and mistrust between critical allies in the war against terrorism. The risk of a dangerous policy outcome in the United States, based on flawed assumptions, is now far greater than the probability either of nuclear weapons falling into the hands of Taliban and other extremists or of the disintegration of Pakistan itself. Any misstep against a nervous nuclear-armed country would be a greater mistake than any made in Iraq. Fortunately, the current top leadership in the United States can distinguish reality from myth.[2] Nevertheless, misperceptions about weapons of mass destruction have influenced U.S. decisions too recently to be ignored in a discussion of the current situation in Pakistan.

Western fears about Pakistani nuclear security range from valid to bizarre. The more valid concerns involve theft of material, sabotage, unauthorized use of nuclear weapons, and insider-outsider collaboration. The potential for terrorist infiltration into the program is a concern for Western analysts and the Pakistani nuclear establishment. The bizarre fear involves the allegation that Pakistani armed forces and intelligence agencies, who are the custodians and guardians of the nuclear arsenal, could be accomplices to such an act as Taliban sympathizers.[3] An alternate scenario posits that the inability of the armed forces to defeat the Taliban extremists would result in abdication of the Pakistani state to the Taliban.[4] Gen. Tariq Majid, chairman of Pakistan's Joint Chiefs of Staff Committee, called such scenarios "plain mischievous" and said they "need to be contemptuously dismissed." [5]

President Franklin D. Roosevelt famously said, "The only thing we have to fear is fear itself." [6] His words aptly describe the prevalent fears in regard to the situation in Pakistan today. Two main dangers emanate from the hype on nuclear insecurity in Pakistan. The first danger is that the grossly exaggerated threat perception in the West may prompt the United States into policy choices it would later regret.[7] The second danger is that continuing media focus on this issue stokes Pakistani paranoia about U.S. intentions. These fears and suspicions about U.S. intervention inside Pakistan could provoke that country to take defensive actions against foreign intervention rather than focusing on the possibility of reducing internal threats to nuclear security and could further fan anti-U.S. public sentiment. It is true that stability in Pakistan is shaky, its fledgling democracy is in transition, and it is facing internal threats from extremists. Until recently, decision-makers in Pakistan were in a state of denial and reacted only when the Taliban threat exploded in their faces. Therefore, it is justified to worry and ask questions about the security of a nuclear-armed country undergoing such a traumatic experience. It would be equally correct to weigh the seriousness of the threat against the ability of the state's security apparatus and its nuclear security measures to prevent the worst from happening.

This article examines the nuclear security of Pakistan in light of recent developments: the increasing threat of the Taliban and reports of Pakistan's expanding nuclear arsenal. The article will explore the backdrop of Pakistan's nuclear development in relation to U.S. policy. It will then examine the perceptions of insecurity and explain how Pakistan's threat priorities differ from U.S. concerns. Next, it will explain Pakistani efforts to establish a nuclear management system and the development of nuclear security culture. The article will conclude by examining the U.S. role in the evolving Pakistani nuclear security regime.

## **Backdrop: Regional Security**

The nuclear dimension of regional security in South Asia is essentially a deterrence construct between India and Pakistan.[8] Although little has changed between India and Pakistan in the decade following their 1998 nuclear tests, the regional security landscape has been completely altered. [9] The region now faces new forms of asymmetric threat, the likes of which have never been experienced.

The war in Afghanistan, now in its eighth year, has metastasized into a classic insurgency and expanded into Pakistan. The impact of the Afghan war against the Soviets in the 1980s, insurgency in Indian-administered Kashmir, and domestic changes brought about during the Zia ul-Haq era have had a deleterious impact on the social fabric of Pakistan. New forms of religious-based militancy and an ethos of jihad were introduced in Pakistan at a time when the country was politically abandoned by its Western allies and slapped with nuclear sanctions.[10] Thus began a bitter history of distrust between Pakistan and the United States.[11]

Under these challenging and often unhealthy circumstances, Pakistan's covert nuclear program incubated and matured into an operational deterrent. The United States and Pakistan never saw eye to eye with regard to the latter's nuclear ambitions. Since the mid-1970s, every effort the United States undertook to block, stymie, and dissuade Pakistan eventually failed to stop Pakistan in its quest to acquire a nuclear deterrent.[12] The story of Pakistan's clandestine means of acquisition is widely known,[13] but less is known about the context, which involves domestic national politics, regional security, and intense geopolitical engagement with the United States.[14] By the turn of the century, the U.S. policy of rolling back Pakistan's nuclear capability had become an unrealistic objective. The United States instead sought to restrict Pakistan's nuclear capability to a minimum deterrence posture and dampen the security competition with India.

During the 1980s and 1990s, while Pakistan was building its nuclear program, issues of nuclear security and command and control were not the prime concern. That changed after Afghanistan-based terrorists attacked the United States on September 11, 2001, and news spread about a meeting in the summer of 2001 of two retired Pakistani scientists, Sultan Bashiruddin Mahmood and Abdul Majeed, with Osama bin Laden. Until then, concerns about "loose nukes" and nuclear material smuggling were focused on the former Soviet Union. Three years later, the shocking revelations about Abdul Qadeer Khan's nuclear smuggling network made Pakistan's nuclear program even more controversial.

## **Perceptions of Insecurity**

States managing a nuclear weapons program typically have three main types of nuclear security concerns. First, every nuclear-capable state worries about the external threat of a preventive strike by hostile powers against its nuclear facilities. Second, such states worry about physical invasion of the state by a hostile neighbor. The third and probably the most dangerous concern is insider-outsider collaboration. Pakistan has lived with all three categories of threats since the inception of its nuclear program. Like every state, Pakistan's program places great emphasis on secrecy and compartmentalization. In the past, no single office, organization, or authority held ultimate responsibility for supervision. For the past decade, there has been a National Command Authority (NCA) with a dedicated secretariat (the Strategic Plans Division, or SPD), which is responsible for all nuclear-related activities.[15] Since these institutions were established, events, controversies, and deterioration of the regional and domestic environment have forced Pakistan to tighten its oversight and control.

The Taliban threat within Pakistan is a new phenomenon. The militant group led by Baitullah Mehsud belonging to the tribal belt in Waziristan calls itself the Tehrik-e-Taliban (TTP). The TTP is an extremist fringe whose activities have now expanded from the tribal areas into the settled areas of Pakistan. This provoked military operations that continue today and have resulted in the displacement of millions of people. The exact size of the Taliban in Pakistan is not

known, but estimates range from 5,000 to 15,000. Grisly practices such as the public flogging of a young woman in April, against a backdrop of kidnapping, bombings of schools and mosques, and general killing of innocent civilians, turned the Pakistani public against any accommodation with the TTP or any other religious extremist organization. The tipping point arrived when the TTP exploited the "peace deal" and advanced further inland. The Pakistani public was shocked at the actions of an elected government that abdicated to such a force by negotiating a deal.[16]

Pakistan's armed forces are a half-million strong, and the country has a moderate Muslim populace with a history of repeatedly rejecting religious political parties.[17] The country has reacted forcefully against the Taliban, so the fear that Pakistani nuclear weapons could fall into the hands of the Taliban is totally misplaced.[18] As explained by Naeem Salik in a recent op-ed, there is "no causal relationship between the military operations against the Taliban and the security of Pakistan's nuclear arsenal." [19]

Nuclear security is a function of nuclear management, which covers both the nuclear arsenal and peaceful nuclear energy. The force goals and the size of the nuclear arsenal are determined by a comprehensive examination of national threats and responses to them. Meanwhile, nuclear energy requirements are based on long-term national development planning. Mixing the two together as a general expansion of nuclear capacity confuses the issue. Further, the terms "proliferation" and "nuclear security" are often used interchangeably. For example, Pakistani purchase of light-water power reactors under International Atomic Energy Agency (IAEA) safeguards should not be a proliferation concern. [20] The security of this expanding nuclear infrastructure requires an examination of the state's nuclear security regime, explained below.

### ***External and Internal Threats***

Pakistan does not have an enviable geography. It is surrounded by giant nuclear-armed neighbors Russia, China, and India. Its elongated shape lacks depth, making lines of communication vulnerable to India. Pakistan's western provinces consist of territories that are volatile because of border disputes (the Durand Line with Afghanistan) or internal tribal unrest, leaving the security managers of the state with extremely difficult choices. Pakistan's strategic planners are acutely aware of these structural vulnerabilities and account for them when selecting sites for sensitive nuclear and strategic organizations. They balance external threats, internal volatility, technical requirements, resource availability, and the secrecy requirements of every sensitive site. Therefore, generalized statements about nuclear weapons falling into the hands of the Taliban are disconnected from the reality on the ground.

Since the late 1970s, Pakistan's perceptions of threats to its nuclear program were externally oriented. Preventive strikes or sabotage of the program were hypothetical considerations until Israel successfully struck Iraq's Osirak reactor in 1981. Pakistan quickly assessed that India would mimic Israel. The proximity of Pakistan's centrifuge uranium-enrichment plant at Kahuta to the Indian border forced Pakistan to secure it and other strategic sites with air and ground defenses.[21] In the mid-1980s, Indian plans for a preventive strike were leaked to the press, confirming Pakistani fears. India later shelved the plan, but the notion never died in the minds of the Indian military. In the winter of 1986-1987, the Indian military planned Brass Tacks, a provocative military exercise designed to give India an excuse to strike at Kahuta.[22] By then, the new mysterious site tucked in the foothills of Islamabad had become a source of curiosity to spies and diplomats. Layers of security were added to protect the program not only from external attacks but also from spies and news reporters. Around this period, the Afghan jihad against the Soviets expanded, as did Pakistani nuclear infrastructure.

The nuclear security culture was originally designed to protect the autonomy of the scientists so that their work could continue unhindered. Because of the significance of the cause, managers of the program had no authority to question the motives and practices of the scientists. This enabled Khan to take advantage of the lack of proper accountability. Another reason that Pakistan wanted to avoid publicizing the program was the risk of losing U.S. aid by triggering various U.S. laws designed to stop Pakistani efforts.[23]

### ***Physical Invasion of the Country***

Pakistan has existed under the threat of invasion throughout its existence. Several wars were fought with India, one of which resulted in Pakistani national dismemberment. Even during the British Raj, the Indian subcontinent lived under

the threat of physical invasion, especially from armies using historical routes such as the Khyber and Bolan Passes. New doctrines of wars to defeat and destroy Pakistan continue to be contemplated, practiced, and exercised in India. [24] Since the mid-1980s, six major military crises of varying degrees of intensity have forced Pakistan to consider physical invasion from India an existential threat in perpetuity. This perception cannot be wished away unless India and Pakistan undertake a structured and sustained program of conflict resolution, in conjunction with conventional and nuclear arms control measures. The Pakistani armed forces must balance three dimensions: India, Afghanistan's threat to the western border, and internal extremist threats. [25] When selecting strategic sites, Pakistan carefully takes these threats into account. Material storage, missile silos, and movement of sensitive material and personnel are being carefully and professionally watched, and best practices are being developed to prevent security breaches. [26] Details of such procedures cannot be publicly shared for obvious security reasons. No state with nuclear weapons is likely to discuss its operational management; it is always shrouded in secrecy. [27]

### ***Insider-Outsider Collusion***

Insiders in the program could have one of several motives. Some could be driven by economic incentives. Others may see an opportunity for political gain. Some may be driven by revenge, grudges, jealousies, psychiatric disorders, and so on. Also, moles or spies could reveal nuclear secrets to outside powers, help sabotage or destroy the program from within, or disclose a site's location to facilitate outside attacks. U.S. media reports and publications from authors widely known to base their writings on U.S. government leaks have reinforced perceptions in Pakistan that its nuclear infrastructure must be protected as much from allies as from hostile groups. [28]

Finally, there is the danger from religious fanatics. In the case of Pakistan, it is not just the proximity of terrorist groups but also trends in some segments of society that are under the influence of religious cults. [29] These factors have made the managers of nuclear security more alert than ever as details in the next section explain.

### **Institutional Changes**

After the nuclear tests in 1998, the Pakistani nuclear program faced three major needs: to review national security policies, institutionalize the management of the nuclear program, and develop a prudent strategy for a robust strategic force. [30] The first challenge required Pakistan to have a national security apparatus capable of comprehensively analyzing national security policy in changing times. This challenge is being tackled nationally at the political level. The remaining two challenges involve the NCA, which comprises the top civilian, military, and scientific decision-makers in the country. The SPD, formed in 1999, provides institutional oversight on nuclear decision-making.

Pakistan's strategic force goals are designed to redress the vulnerabilities described above and to restore strategic balance. Matching warhead to warhead or accumulating fissile stocks for military purposes is not the goal. The objective is to ensure deterrence stability by calculating a minimum deterrence posture that is related to the increasing capabilities of its adversary, namely India.

Next, nuclear technology is for civilian use as well. Pakistan's 25-year plan calls for an installed capacity of 8,800 megawatts of nuclear energy. [31] Nuclear force goals and nuclear energy will thus remain essential national priorities.

As the nuclear program expands, Pakistan's nuclear security regime must meet a higher qualitative and quantitative standard. The armed forces, widely acknowledged to be Pakistan's most stable institution, are responsible for the custody and development of Pakistan's nuclear safety regime. In fact, Pakistan's nuclear management, including nuclear security and safety, has been more widely discussed and scrutinized than that of any other power. The professional and technical ability of Pakistan ought to be encouraged rather than disparaged.

### ***Evolution of Security Culture***

Nuclear security culture evolved in Pakistan after the September 11 attacks. [32] Pakistan improved its supervisory procedure for military and scientific manpower. The security division of the SPD established a reporting system for monitoring the movements of all officials. Two identical programs for employment security were created: the Personnel Reliability Program (PRP) and the Human Reliability Program (HRP), for military and civilian personnel, respectively. A security clearance system of annual, semiannual, and quarterly review was created. Counter Intelligence Teams were

created to act as the daily eyes and ears of the SPD. Weekly, monthly, and quarterly reports for the security of all organizations are maintained by the SPD to prevent theft, loss, or accident.

Next, a system of sensitive material control and accounting was introduced. The system was derived from modern training, possibly modeled on U.S. national laboratory procedures. The system involved regular and surprise inspections to tally material production and waste in order to maintain transparency and accountability. Under a careful, secret plan instituted by the SPD, professional guards at static sites and escorts with tight security procedures are involved during transportation. Special theft- and tamper-proof vehicles and containers are used.[33] In peacetime, nuclear weapons are not mated with their delivery systems and are not operationally deployed. Operational secrecy precludes specific discussion of management of nuclear arsenals, but a two-man rule and, in some cases, a three-man rule is followed, with physical safety and firewalls built into the weapon system to prevent any unauthorized launch.[34]

The inception of the Nuclear Security Action Plan (NSAP), organized by the Pakistan Nuclear Regulatory Authority (PNRA), was a very important development in Pakistan's nuclear security management. The PNRA is an independent body responsible for civilian programs, but it coordinates closely with the SPD. The two organizations complement each other by sharing best practices.

The main task of the NSAP is to manage all nuclear activities and radioactive sources that are under regulatory control and to develop a sustainable national system. Nuclear security emergency centers and procedures to secure orphan radioactive sources and to secure borders against any illicit trafficking have been put in place. Rigorous inspections are one key element of the PNRA's activities to strengthen controls. Another is the training of a wide variety of personnel from all major organizations. The training involves nuclear security, physical protection, emergency preparedness, detection equipment, recovery operations, and border monitoring. The organizations involved in training are the Coast Guard, Frontier Corps, Pakistan Rangers, Customs, Emergency & Rescue Services, National Disaster Management Cell, intelligence services, law enforcement agencies, and all strategic organizations including offices from the SPD.[35]

A Nuclear Security Emergency Coordination Center has been established in Islamabad, which is the focal point of coordination, by all the government agencies mentioned above. In addition, regional offices in all major cities have been established, creating a network of six emergency-response mobile laboratories. The primary job of this network, which was completed in December 2008, is to track and respond to any threat of illicit nuclear material, a radioactive source, or a radiological dispersion device ("dirty bomb"). Finally, the NSAP has established border controls at major crossing points with state-of-the-art screening procedures with the help of the IAEA and the U.S. Department of Energy.[36]

## **The U.S. Role**

The recent hype and, at times, irresponsible writing by U.S. academics with serious credentials has created a sense of cynicism in Islamabad, reinforcing beliefs that the recent chatter is a prelude to aggressive counterproliferation measures by the United States.[37]

Many claims, such as those in a recent *Boston Globe* article[38] alleging the existence of a secret joint Pakistani-U.S. strategy for U.S. access to Pakistan, are baseless.[39] Pakistan is very careful in seeking assistance on nuclear technology from the United States, especially if the assistance is perceived to be of an intrusive nature. Like other nuclear-capable states, Pakistan jealously guards its locations and nuclear best practices from any outside influence or knowledge.[40] However, it is always keen to learn of other countries' nuclear security measures and to acquire detection equipment at seaports, airports, and other border crossings.

In 2001, U.S. Secretary of State Colin Powell offered nuclear security assistance to Pakistani President Gen. Pervez Musharraf. The SPD carefully examined the offer and accepted training but declined technology transfers, which they perceived as intrusive or likely to compromise program secrecy. Since then, Pakistan has benefited from advanced-level training from U.S. national laboratories and has improved its best practices in accordance with its own security culture.[41] There has been no further acceptance by Pakistan of any assistance from the United States, especially permissive action links (PALs), the coded mechanical or electrical locks designed to prevent unauthorized arming or

detonation of a nuclear weapon.

There are two issues regarding cooperation on PALs. First, the U.S. export control laws restrict sharing PAL technology with other countries, especially with countries that are not parties to the nuclear Nonproliferation Treaty (NPT).[42] Second, transferring PALs not only helps prevent unauthorized use, but also can encourage the recipient state to deploy and disperse the weapons, thus facilitating nuclear use. There are objections from the proposed recipient as well. The recipient state would have to share details of its nuclear weapons design for the technology transfer to work.[43] No country shares such secrets.

In fact, alarmist stories in the U.S. media actually undermine any possibility of positive U.S. assistance.[44] U.S. speculation about contingency plans and pre-emptive weapons seizure leads to greater Pakistani distrust of the United States. Referring to conjecture on U.S. plans to seize nuclear sites, Michael Krepon accurately summed up Pakistani anxieties: "I think these plans-if they exist and I'm not sure that they do-[are] unlikely to be successfully executed and would result in multiple mushroom clouds. So I think this is a bad idea, and it's a bad idea even to talk about it." [45]

What the United States can do is explain to Pakistan its own experience with nuclear security management. The United States cannot boast of a perfect security record itself.[46] Nevertheless, as the most experienced nuclear power, the United States can share its nuclear security practices, performances of the system, and the likelihood of mishaps.

Pakistan has three decades of experience in producing, transferring, and storing fissile stocks and weapons. Pakistani security managers have also learned to put in place detection equipment and security barriers, as well as set up checkpoints and customs posts. Such types of performance are easily measurable and can be improved with little assistance required.

The effectiveness of the nuclear security culture is difficult to measure, which is true for all nuclear powers, including the United States. It involves institutionalization of standing operating procedures and practices beyond individuals. No matter how good a system is, it will require constant improvement. Other countries cannot measure the effectiveness of Pakistan's system, but generic training and the sharing of experience will help improve it. The efficacy of any system is tested only when a mishap or near-miss occurs. It is important for any organization to learn the ways by which a clever and determined criminal might overcome security. Only then can the physical and technical limitations of the system be evaluated. For example, managers may have confidence in existing detection sensors, but a clever criminal can manipulate them by rigging the system or discerning the alarm threshold and stealing quantities below that threshold.

The United States has produced sensitive sensors and software that can detect radiation at an extremely low level. Pakistan is unlikely to accept foreign-made sensors in any of its sensitive sites, but it can use these devices at major geographical chokepoints. By utilizing its elaborate network of river systems and canals, which restrict movement, Pakistan can make broader security improvements. The United States can help Pakistan modernize its NSAP by installing modern sensors and radiation monitors for portal monitoring at locations acceptable to Pakistan. This would help prevent terrorist transport of conventional explosives as well as illicit radiological material. Modern sensors at key bridges on Indus River systems, for example, will help nuclear security and internal security against suicide bombers.

The most difficult aspect of measuring effectiveness comes from the unpredictability of human motivations. Motivated individuals can always elude effective barriers. Therefore, Pakistan must constantly maintain a very close watch over the system, in addition to upgrading and improving the PRP and HRP. Simply adding more guards and security personnel will not suffice; Pakistan must constantly evaluate its system to detect potential failures. The security divisions of the SPD and intelligence services have layers of security and counterintelligence mechanisms for all sensitive sites. They are highly active and alert in updating, monitoring, and keeping a vigilant watch to detect and respond to any undesirable proclivities within the system. Western countries can share their experience with Pakistan to help improve the screening and certification procedures of its PRP and HRP. The implementation of UN Security Council Resolution 1540, which establishes a requirement for countries to take measures to prevent proliferation of nuclear, chemical, and biological weapons and their delivery systems, is extremely important, and Pakistan is believed to have taken serious steps to enforce international standards. National security considerations, however, prevent the SPD from publishing its results. Notably, Pakistani safeguards have always been in good standing with the IAEA, and Pakistan is a member of almost all international safety and security conventions.

## Conclusion

Pakistan lives in a security-intensive environment, with internal and external threats. Nuclear weapons form an essential ingredient of its national security. Pakistan's pursuit of a nuclear capability is fraught with a history of friction with the United States. Pakistan has refused to be coerced on the nuclear question and views U.S. concern over nuclear security as "deliberate misinformation" and a "vicious campaign unleashed to malign and discredit" its achievement.[47]

Despite widely known limitations, Pakistan has done remarkably well in establishing a nuclear security regime and an evolving nuclear security culture that requires encouragement and support. It has been quite liberal in briefing U.S. officials, academics, and even journalists about its nuclear management. Over several years, Pakistan has sent officials, technicians, and administrators to receive training on modern technical solutions and management under the aegis of mutually acceptable arrangements that cater to each side's sensitivities.

Veiled threats and unsubstantiated criticism of its efforts can push an important nuclear-armed country in distress into directions highly undesirable for Pakistan and the United States. As critical allies in the war against violent extremism, the two countries have more pressing issues to tackle. Majid sums up the Pakistani perceptions of external or internal threats and the country's likely response: "Let it be known that Pakistan is confident but not complacent. Our security apparatus prepares and practices contingencies to meet all such eventualities and would not be deterred from taking any action whatsoever in ensuring that our strategic assets are jealously safeguarded. Any attempt to undermine our core capability will be strongly resisted and defeated." [48]

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## ENDNOTES

1. See Bruce Riedel, "Pakistan and the Bomb," *The Wall Street Journal*, May 30, 2009; Bryan Bender, "Pakistan, US in Talks on Nuclear Security," *Boston Globe*, May 5, 2009, [www.boston.com/news/nation/washington/articles/2009/05/05/pakistan\\_us\\_in\\_talks\\_on\\_nuclear\\_security/](http://www.boston.com/news/nation/washington/articles/2009/05/05/pakistan_us_in_talks_on_nuclear_security/); Andrea Shalal-Esa, "U.S. Lawmaker Worried by Sag in Support for Defense," Reuters, June 24, 2009 (quoting Representative John Murtha [D-Pa.] about U.S. airstrikes against Pakistani nuclear targets).
2. Statements from President Barack Obama and senior U.S. political and military leaders have provided assurances on the security of the Pakistani nuclear program, even though they have recognized the internal instability and weak governance. See <http://edition.cnn.com/2009/POLITICS/04/29/obama.transcript/> (Obama's statement on the occasion of 100 days in office).
3. See Leonard Spector, "Pakistan, Taliban and Global Security - Part I," *YaleGlobal*, May 8, 2009; Riedel, "Pakistan and the Bomb"; David Albright, Paul Brannan, and Robert Kelley, "Pakistan Expanding Dera Ghazi Khan Nuclear Site: Time for U.S. to Call for Limits," *ISIS Imagery Brief*, May 19, 2009, p. 4.
4. Bender, "Pakistan, US in Talks on Nuclear Security."
5. See "No Compromise on Nukes: Pakistan," Indo-Asian News Service, June 18, 2009, <http://in.news.yahoo.com/43/20090618/876/twl-no-compromise-on-nukes-pakistan.html>.
6. Franklin D. Roosevelt, first inaugural address, Washington, D.C., March 4, 1933, <http://bartelby.org/124/pres49.html>.



7. See Simon Tisdall, "Pakistan Nuclear Projects Raise US Fears," *The Guardian*, May 3, 2009 (quoting Pakistani Ambassador to the United States Husain Haqqani).
8. For details, see Feroz Hassan Khan, "The Independence/Dependence Paradox: Stability Dilemmas in South Asia," *Arms Control Today*, October 2003, pp. 15-19.
9. India and Pakistan have failed to resolve their conflict, and the United States continues to intervene to defuse crises but shies away from mediation because of Indian sensitivity.
10. For Zia ul-Haq's policy, see Robert G. Wirsing, *Pakistan's Security Under Zia, 1977-1988* (London: MacMillan, 1991). For the ethos of jihad, see Zahid Hussain, *Frontline Pakistan: The Struggle With Militant Islam* (New York: Columbia University Press, 2007), pp. 12-32.
11. See Steve Coll, *Ghost Wars* (New York: Penguin, 2004).
12. Feroz Hassan Khan, "Nuclear Proliferation Motivations: Lessons From Pakistan," in *Nuclear Weapons Proliferation in the Next Decade*, ed. Peter Lavoy (New York: Routledge, 2008), pp. 69-85.
13. See Mark Fitzpatrick, ed., "Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks," *IISS Strategic Dossier*, May 2007.
14. See Peter Lavoy, "Nuclear Proliferation Over the Next Decade: Causes, Warning Signs, and Policy Responses," *The Nonproliferation Review* (November 2006), pp. 441-442; Feroz Hassan Khan, "Nuclear Proliferation Motivations: Lessons From Pakistan," *The Nonproliferation Review* (November 2006), pp. 501-517.
15. Lt. Gen. Khalid Kidwai, lecture at the Naval Postgraduate School, Monterey, California, October 27, 2006 (hereinafter Kidwai lecture). See Fitzpatrick, "Nuclear Black Markets."
16. The term "abdication" to the terrorists was used by U.S. Secretary of State Hillary Rodham Clinton, whose view was echoed by Obama in the April 29, 2009, speech marking his 100th day in office. For the transcript, see <http://edition.cnn.com/2009/POLITICS/04/29/obama.transcript/>.
17. The only exception was in the 2002 elections, when a coalition of religious parties won a plurality in the North West Frontier Province to form a provincial government. The coalition was routed in the 2008 elections.
18. See Tisdall, "Pakistan Nuclear Projects Raise US Fears."
19. Naeem Salik, "Comment: Riedel and the Pakistani Bomb," *Daily Times*, June 18, 2009, [www.dailytimes.com.pk/default.asp?page=2009%5C06%5C18%5Cstory\\_18-6-2009\\_pg3\\_2](http://www.dailytimes.com.pk/default.asp?page=2009%5C06%5C18%5Cstory_18-6-2009_pg3_2).
20. Ibid.
21. Feroz Hassan Khan and Peter Lavoy, "Pakistan: The Dilemma of Nuclear Deterrence," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford: Stanford University Press, 2008), pp. 220-221.
22. Scott D. Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton, 2003), pp. 93-95. See Scott D. Sagan, "The Perils of Proliferation," in *South Asia in 2020: Future Strategic Balances and Alliances*, ed. Michael R. Chambers (Carlisle, Pa.: Strategic Studies War College, 2002), pp. 198-199.
23. See the 1977 Glenn and Symington Amendments and the 1985 Pakistan-specific Pressler Amendment to the Foreign Assistance Act of 1961.
24. See, for example, Walter Carl Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security*, Winter 2007/08, pp. 158-190.

25. Ladwig, "A Cold Start for Hot Wars?" pp. 158-190; S. Paul Kapur, "India and Pakistan's Unstable Peace: Why Nuclear South Asia Is Not Like Cold War Europe," *International Security*, Fall 2005, pp. 138-139.
26. See Zafar Ali, "Pakistan's Nuclear Assets and Threats of Terrorism: How Grave Is the Danger?" Henry L. Stimson Center, July 2007, [www.stimson.org/southasia/pdf/PakistanNuclearAssets-070607-ZafarAli-FINAL.pdf](http://www.stimson.org/southasia/pdf/PakistanNuclearAssets-070607-ZafarAli-FINAL.pdf); Abdul Mannan, "Preventing Nuclear Terrorism in Pakistan: Sabotage of a Spent Fuel Cask or a Commercial Irradiation Source in Transport," Henry L. Stimson Center, April 2007, [www.stimson.org/southasia/pdf/VFMannan.pdf](http://www.stimson.org/southasia/pdf/VFMannan.pdf).
27. See Ashton B. Carter, John D. Steinbruner, and Charles A Zraket, *Managing Nuclear Operations* (Washington, DC: Brookings Institution, 1987), p. 1.
28. Seymour Hersh, "Watching the Warheads: The Risk to Pakistan's Nuclear Arsenal," *The New Yorker Magazine*, November 5, 2001, pp. 48-54. Hersh alleges that "an elite Pentagon undercover unit [has been] trained to slip into foreign countries and find suspected nuclear weapons, and disarm them if necessary.... [The unit] has explored plans for an operation in Pakistan." See David Albright, "Securing Pakistan's Nuclear Weapons Complex" (paper for the 42nd Strategy for Peace Conference, Warrenton, Virginia, October 25-27, 2001), [www.isis-online.org/publications/terrorism/stanleypaper.html](http://www.isis-online.org/publications/terrorism/stanleypaper.html); Nigel Hawkes, "The Nuclear Threat: Pakistan Could Lose Control of Its Arsenal," *Times Online*, September 20, 2001.
29. See Hasan-Askari Rizvi "Re-socialising Pakistan," *Daily Times*, June 7, 2009, [www.dailytimes.com.pk/default.asp?page=2009%5C06%5C07%5Cstory\\_7-6-2009\\_pg3\\_2](http://www.dailytimes.com.pk/default.asp?page=2009%5C06%5C07%5Cstory_7-6-2009_pg3_2).
30. Kidwai lecture.
31. Pakistan's energy requirement for the next 25 years is about 163,000 megawatts. Nuclear energy's share will be 8,800 megawatts, necessitating a twenty-fold increase in its current civilian nuclear capacity. For a description of Pakistan's Vision 2030 project, see Zafar Bhutta, "Nuclear Power Plants of 1280MW: Pakistan to Seek Financing From China," *Daily Times*, September 4, 2008, [www.dailytimes.com.pk/default.asp?page=2008\04\09\story\\_9-4-2008\\_pg5\\_1](http://www.dailytimes.com.pk/default.asp?page=2008\04\09\story_9-4-2008_pg5_1).
32. Pakistan's definition of nuclear security is "[t]he prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities." Jamshed Hashmi, presentation at a workshop by the Partnership for Global Security, Washington, D.C., February 21-22, 2008 (hereinafter Hashmi presentation).
33. Kidwai lecture; Mannan, "Preventing Nuclear Terrorism in Pakistan," pp. 30-31.
34. For further details, see Kenneth N. Luongo and Naeem Salik, "Building Confidence in Pakistan's Nuclear Security," *Arms Control Today*, December 2007, [www.armscontrol.org/act/2007\\_12/Luongo](http://www.armscontrol.org/act/2007_12/Luongo).
35. Hashmi presentation.
36. Luongo and Salik, "Building Confidence in Pakistan's Nuclear Security."
37. For example, assertions in *The Wall Street Journal* by former CIA official Bruce Riedel, who is also one of the senior advisers on Obama's "AfPak" policy, are not viewed in Pakistan as academic but rather quasi-official U.S. views. See Salik, "Comment"; S.M. Hali, "Why Bruce Riedel Has Lost My Respect," *The Nation* (Pakistan), June 3, 2009.
38. Bender, "Pakistan, US in Talks on Nuclear Security."
39. Air Cmdr. Khalid Banuri, communication with author, June 5, 2009 and June 29, 2009. The Pakistani Ministry of Foreign Affairs held a media briefing on May 7, 2009, and said there was no truth to the *Boston Globe* assertions.
40. Kidwai lecture; Lt. Gen. Khalid Kidwai, interview with author, Rawalpindi, Pakistan, April 19, 2009.

41. Strategic Plans Division, briefing to Naval Postgraduate School team, Islamabad, February 25, 2007. The briefing was part of the U.S.-Pakistan Track II Strategic Dialogue for Long-Term Partnership.
42. U.S. laws make an exception for sharing such technology only with NPT nuclear-weapon states. Pakistan is not a party to the NPT.
43. Garima Singh, "Interview With Brig Feroz Hassan Khan," *Strategic Insights*, Vol. 4, No. 7 (July 2005), [www.ccc.nps.navy.mil/si/2005/Jul/khanJul05.asp](http://www.ccc.nps.navy.mil/si/2005/Jul/khanJul05.asp).
44. For a perfect example of reinforcing Islamabad's concerns, see Riedel, "Pakistan and the Bomb." His selective historical account and characterization of the security of nuclear arsenals is shaky and a sad example of deliberate alarmism.
45. Elaine M. Grossman, "Talk of U.S. Plans to Secure Pakistani Nuclear Weapons Called 'Wildly Hypothetical,'" *Global Security Newswire*, June 10, 2009.
46. In October 2006, classified documents were stolen from Los Alamos National Laboratory and found in a trailer park. This led to the resignation of National Nuclear Security Administration head Linton Brooks. See Adam Zagorin, "A Breach in Nuclear Security," *TIME*, April 19, 2007. In August 2007, a U.S. Air Force B-52 mistakenly carried nuclear warheads across the country.
47. "No Compromise on Nukes: Pakistan."
48. Ibid.

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