



## PAKISTAN: Instability raises nuclear safety concerns

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**SUBJECT:** Threats to the security of the country's nuclear weapons.

**SIGNIFICANCE:** The recent test-firing of a nuclear-capable missile raises questions about the security of Pakistan nuclear weapons at a time when a serious political crisis threatens to cause splits within the military, raising questions about command and control systems and concerns around the security of the nuclear programme.

**ANALYSIS:** Pakistan on August 25 successfully test-fired a new air-launched cruise missile capable of carrying a nuclear warhead. The missile, named Ra'ad (meaning thunder in Arabic), has a range of 220 miles. Its firing was part of the country's efforts to upgrade its nuclear weapons delivery capabilities in response to India, whose civilian nuclear agreement with the United States has been described by President Pervez Musharraf as a threat to regional stability (see [INDIA/US: Nuclear deal faces prolonged impasse - June 12, 2007](#)).

**Nuclear programme.** There is little public information about Pakistan's nuclear facilities, but important assets (reactors, uranium enrichment sites, plutonium reprocessing sites, research and development centres, nuclear testing and weaponisation facilities) are located across the four provinces of Punjab, North-west Frontier Province, Baluchistan and Sindh. Having launched a civilian nuclear programme in 1955, Pakistan first sought to become a nuclear weapons state in 1972:

- Absent a strong technological base, it secretly looked overseas for skills and equipment.
- Nuclear scientist Abdul Qadeer Khan procured secret centrifuge designs from a multinational consortium's facilities in Holland in the mid-1970s.
- Pakistan first successfully tested its nuclear weapons technology in 1998, shortly after India.
- In 2003, it was disclosed that Pakistan had helped Iran, North Korea and Libya develop nuclear programmes, with Khan the focus of subsequent investigations.
- After a swift Pakistani investigation, Khan confessed on television that "many of the reported activities did occur and these were invariably initiated at my behest".

**Security issues.** Khan was put under house arrest and the authorities introduced nuclear export control measures that conformed with International Atomic Energy Agency guidelines. However, several aspects of the Khan case remain unresolved, leaving lingering concerns about nuclear control and safety. The majority of individuals involved in the illicit transfer of nuclear weapons technologies (in Pakistan and Europe) have not been prosecuted successfully, making the possible re-emergence of a similar network a pressing concern.

Moreover, there are grounds for doubt that Khan was a 'rogue element' operating on his own (as asserted by Musharraf in his memoirs). It is hard to imagine that Khan -- who recently defeated the deeply unpopular Musharraf in a series of mock presidential elections by up to 99% of the vote -- could have functioned without some level of cooperation by Pakistani military personnel and intelligence services.

Such suspicions were fuelled by perceptions that his treatment by the authorities was lenient, and by the refusal of Pakistani authorities to grant US officials and Congress access to him. Safety concerns are particularly acute in the context of the serious political instability and extremist violence unfolding in the country, which has raised the prospect of a split within the military. The military has had direct control of the nuclear programme since 1977, and the fall of President Zulfikar Ali Bhutto (see [PAKISTAN: Musharraf faces danger if instability grows - July 24, 2007](#)).

**Military control.** Over past few decades, civilian involvement in overseeing the nuclear programme has been gradually reduced, which arises in part because of the controversial fact that the president is a serving military officer. The military's central role is institutionalised in three key bodies, namely:

- the National Command Authority (NCA), which brings together the ten most senior political and military decisionmakers -- five of each if the president is a civilian;
- the Strategic Plans Division, led by Lieutenant General Khalid Kidwai, which serves as the NCA secretariat and is in charge of developing and managing nuclear capability; and

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- a Strategic Forces Command within each branch of the military, which is responsible for planning, control and directives on the use of nuclear weapons.

This command and control system has yet to be tested in a crisis situation, but may be challenged in the months ahead. If the political or security situation deteriorates further, there is a risk that differences between senior military leaders and middle ranking officers will grow, or that splits could emerge in what has largely been an organised and highly-disciplined force to date.

Civil-military tensions, weak and unstable political institutions and flawed decision-making processes were characteristics of the political situation in the 1980s and 1990s that enabled the Khan proliferation network to develop. In the present situation, there are doubts about the capacity and priorities of the security forces that are tasked with safeguarding national nuclear facilities. For example, they have failed to stem the spread of the Taliban.

**Extremist threat.** The presence of jihadist groups has implications for nuclear safety:

- There are signs that religious extremist organisations in Pakistan have nuclear ambitions (although there is no evidence that al-Qaida or its associated groups operating in the region have made any progress on acquiring nuclear expertise) (see [PAKISTAN: Flawed policy exacerbates jihadist threat - August 16, 2007](#)).
- There is nuclear infrastructure in the North-west Frontier Province, which is ruled by conservative religious political parties and is adjacent to tribal areas where the Taliban are strong and al-Qaida have a presence.
- Two suicide bombings in July hit an area in Islamabad close to important nuclear facilities.

**Expansion ambitions.** The US-based Institute for Science and International Security in 2006 claimed that Pakistan is developing a large nuclear facility at Khushab (in Punjab) that will be able to produce enough plutonium to make 40 to 50 nuclear weapons per year. This has been disputed by government sources in Islamabad and Washington, but it is known that Pakistan is heavily investing in the nuclear sector (see [INTERNATIONAL: Fissile cut-off talks remain unlikely - August 1, 2007](#)).

While this reflects military objectives -- Pakistan is particularly keen to acquire the second strike capability which it currently lacks -- it is also to meet energy demands. Pakistan faces acute electricity shortages (which earlier this year led to serious protests) and hopes to substantially increase its nuclear energy generating capacity from around 19,500 megawatts per year (see [PAKISTAN: Energy crisis is looming - January 22, 2007](#)).

Requests from Islamabad for Washington to consider an equivalent to the US-India nuclear collaboration deal have been rejected (see [PAKISTAN/US: Frustration is growing over Musharraf - August 8, 2007](#)). Instead, Pakistan has looked to China for a similar deal, and recently approached the Nuclear Suppliers Group offering to match Indian commitments on the separation of civilian and military nuclear programmes and inspections in return for civilian nuclear cooperation. However, it has made no progress and has rejected calls to sign the Non-Proliferation Treaty (particularly while India refuses to do the same).

**International cooperation.** Nevertheless, the government appears to be aware that concerns around the safety of its nuclear programme are growing, and is open to recommendations on addressing them. On visits to the United States and the United Kingdom in 2005-06 to discuss nuclear security, Kidwai referred to the existence in Pakistan of systems equivalent to the 'two-man rule' and 'permissive action links' (security devices on nuclear weapons designed to prevent unauthorised use) that the United States and some other nuclear-weapons states rely on to protect against loss of control, inadvertent weapons use and accidents. It is estimated that around 8,000 officials are tasked with securing nuclear facilities. There also have been credible reports of US-Pakistan cooperation in this sphere, though this highly sensitive cooperation is not discussed publicly.

**CONCLUSION:** A lack of certainty about the extent and nature of earlier proliferation activity makes it difficult to assess Pakistan's nuclear safety and control measures. The military is the custodian of these and can expect to remain so even in the event of transition to civilian rule. The key question is its competence in this role, and the risk of a fracture in the command structure should there be a split within the military as result of intensified political instability.

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