Pakistan Nuclear Chronology

This annotated chronology is based on the data sources that follow each entry. Public sources often provide conflicting information on classified military programs. In some cases we are unable to resolve these discrepancies, in others we have deliberately refrained from doing so to highlight the potential influence of false or misleading information as it appeared over time. In many cases, we are unable to independently verify claims. Hence in reviewing this chronology, readers should take into account the credibility of the sources employed here.

Inclusion in this chronology does not necessarily indicate that a particular development is of direct or indirect proliferation significance. Some entries provide international or domestic context for technological development and national policymaking. Moreover, some entries may refer to developments with positive consequences for nonproliferation.

2011-2001

27 May 2011
The Defence Committee of the Pakistan National Assembly has asked for additional measures to strengthen the security of Pakistan's nuclear weapons program.

25 May 2011
Indian Defense Minister A.K. Antony expresses concern over the security of Pakistan's nuclear weapons in the wake of the terrorist attack on the Pakistan naval aviation base Mehran, near Karachi. Antony says, "Naturally it is a concern not only for us but for everybody. Our services are taking all precautions and are ready round-the-clock. But at the same time we don't want to over-react."

25 May 2011
United States diplomatic cables released by Wikileaks dating to the period 2005 to 2009 show that Washington has tried to persuade various countries, including Turkey, France, and China, to prevent industrial firms based in those countries from exporting equipment and machinery to Pakistani entities that could assist Islamabad's nuclear and missile programs.

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25 May 2011
Pakistani Taliban spokesman Ehsanullah Ehsan says that the Taliban has no intention of attacking Pakistan's nuclear weapons arsenal, adding that "Pakistan is the only Muslim nuclear-power state," and that the Taliban does not want to change this status. Regarding Pakistan's military partnership with the United States, he asks, "isn't it a shame for us to have the Islamic bomb, and even then we are bowing down to the pressures of America?"

25 May 2011
A United States diplomatic cable released by Wikileaks and dated 18 April 2008, quotes the then Pakistan People's Party (PPP) Co-Chair Asif Ali Zardari as saying that in his opinion, the International Atomic Energy Agency (IAEA) should get direct access to Pakistani nuclear scientist A.Q. Khan. Zardari became president of Pakistan later that year. In addition, the director general of the Strategic Plans Division (SPD), Lt. Gen. Khalid Kidwai said in a meeting with U.S. Ambassador Anne Patterson that Khan was a national hero and that there was support for him from domestic political parties.

21 May 2011
A United States diplomatic cable dated 2 December 2009 and released by Wikileaks to an Indian newspaper, The Hindu, states that Washington "has no intention to seize Pakistani nuclear weapons or material and has confidence in the ability of the Pakistani government to protect its nuclear assets."

17 May 2011
In an article for Newsweek magazine, disgraced Pakistani nuclear scientist Dr. A.Q. Khan writes that Islamabad's motivation for nuclear weapons arose from a need to prevent "nuclear blackmail" by India. He also writes that in his opinion, Pakistan's current nuclear efforts "have been to perfect the design, reduce the size of the weapons to fit on the warheads of our missile systems, and ensure a fail-safe system for their storage."

15 May 2011
Commercial satellite imagery analyzed by Newsweek magazine shows that Pakistan is speeding up construction of its fourth plutonium production reactor at the Khushab nuclear complex. The facility could be operational by 2013.

13 May 2011
Prime Minister Yusuf Raza Gilani inaugurates the country's third nuclear power plant, located in Chashma, Punjab province. The facility, the second unit of the Chashma Nuclear Power Plant (CHASNUPP-2), has been built with
Chinese assistance.

6 May 2011
A United States diplomatic cable dating to early 2009 and released by Wikileaks to an Indian newspaper, The Hindu, states that Pakistan army chief, Gen Ashfaq Parvez Kayani does not support President Asif Ali Zardari’s statement from late 2008 to the Indian media in which he favored Islamabad adopting a no-first use posture.

6 April 2011
Pakistani Ambassador to the United Nations Abdullah Hussain Haroon criticizes the nonproliferation and disarmament policies followed by major powers. In a speech at the United Nations Disarmament Commission, he strongly opposes the "blatant violations of national and international non-proliferation obligations by major states as manifested by their support for NSG waiver to one non-NPT state," and the "selectivity, exceptionalism, discrimination and double standards by major powers in the area of nonproliferation, for commercial and strategic considerations."

6 April 2011
In light of the crisis at the Fukushima Nuclear Power Plant in Japan, the Pakistan Nuclear Regulatory Authority (PNRA) orders the inspection of nuclear facilities in Karachi and Chashma. The PNRA notes that the facilities are "on par with international requirements."

17 March 2011
General David Petraeus, commander of U.S. forces in Afghanistan, reports to members of Congress that extremists in Pakistan could be interested in acquiring nuclear weapons. He notes that the Pakistani Taliban "value access to nuclear weapons or other weapons that could cause enormous loss of life." However, he adds that "there is quite considerable security for the Pakistani nuclear weapons."

11 March 2011
Nadeem Akhtar, a Pakistani national in Maryland, is indicted for exporting prohibited items from the United States to nuclear entities in Pakistan that are under U.S. Commerce Department sanctions. The items include nuclear-grade resins, calibration machinery, and radiation sensors.

9 March 2011
The International Atomic Energy Agency (IAEA) approves a plan to monitor two nuclear power reactors China plans to build in Pakistan. The two 340-megawatt light-water reactors are to be built at the Chashma Nuclear Power...
Plant in Punjab province. China had built one reactor at Chashma prior to 2004 and states that the two reactors to be built pre-date Chinese membership in the Nuclear Suppliers Group (NSG). A U.S. State Department official voices concerns that the new reactors at Chashma "appear to extend beyond cooperation that was 'grandfathered' when China was granted NSG membership." However, India gives its assent to the deal, noting there is nothing within the statute that would prohibit the transfer of nuclear reactors to Pakistan.


2 March 2011
The head of U.S. Central Command Gen. James Mathis states during a congressional hearing that Pakistan's nuclear weapons program is receiving "no direct funding" from the United States.


22 February 2011
During his visit to Japan, Pakistani President Asif Ali Zardari suggests that Tokyo should consider nuclear technology cooperation with Islamabad.


21 February 2011
Islamabad asserts that it is a responsible nuclear weapon power with "impeccable credentials and custodial controls of its strategic assets," according to Foreign Office Spokesperson Tehmina Janjua.


19 February 2011
Indian National Security Advisor Shivshankar Menon says that there is concern over the safety of nuclear weapons and materials in Pakistan.


9 February 2011
Pakistan is constructing a fourth plutonium production reactor, according to commercial satellite imagery of the Khushab nuclear complex analyzed by the Institute for Science and International Security.


4 February 2011
Pakistan's government is expected to approve new restrictions on the shipment of weapons of mass destruction materials as well as missile technology and biological agents. The new regulations would eliminate loopholes in current regulations.


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2 February 2011
The Pakistani Foreign Office rejects media reports that Islamabad is rapidly expanding its nuclear weapons arsenal. Foreign Office spokesperson Abdul Basit says that, "in the nuclearized environment of South Asia, Pakistan continues to follow a responsible policy of maintaining credible minimum deterrence. Pakistan is mindful of the need to avoid an arms race with India but would never compromise on its national security."

31 January 2011
Media reports allege that Pakistan has accelerated the expansion of its nuclear arsenal, and is said to possess at least 100 warheads. This could mean Pakistan is the world's fifth largest nuclear weapon state, with an arsenal larger than those of France and the United Kingdom.

26 January 2011
Islamabad opposes the proposal to admit India into the Nuclear Suppliers Group (NSG). Zamir Akram, Pakistani Ambassador to the United Nations in Geneva, says at the Conference on Disarmament that, "these developments will amount to a paradigm shift in strategic terms. The message that such steps transmit is that the major powers can change the rules of the game if it is in their interest to do so. Apart from undermining the validity and security of the international nonproliferation regime, these measures shall further destabilize security in South Asia."

20 January 2011
The Australian government says that there are no concerns over recent reports that some of the uranium that it exports to China might be transferred to Pakistan. Australian ambassador for counter-terrorism Bill Paterson states that, "we are not concerned about that at all...We are completely confident that that no Australian uranium ends up in a weapons program anywhere."

2 January 2011
Under a two-decade old agreement, India and Pakistan exchange their lists of nuclear facilities. This annual confidence building measure came into force in January 1991 under the bilateral Agreement on the Prohibition of Attack Against Nuclear Installations.

22 December 2010
Washington imposes penalties totaling $3.75 million on a Chinese company for transferring "high-performance coatings" manufactured in the United States to a nuclear entity in Pakistan. The company, Shanghai-based PPG
Paints Trading Co., made the sales between June 2006 and March 2007 to the Chashma nuclear complex in Pakistan.


16 December 2010

A news report says that the International Atomic Energy Agency (IAEA) inadvertently assisted Pakistan in its nuclear weapons program. In the period after the 1998 nuclear tests, the IAEA provided Pakistan with financial and technical assistance for development of its uranium mines, and Islamabad diverted mined uranium from those locations to its nuclear weapons program.


2 December 2010

United States diplomatic cables released by Wikileaks say that according to diplomats at the U.S. embassy in Islamabad, Pakistan is working on manufacturing tactical, battlefield nuclear weapons for possible use against Indian forces. In addition, a cable dating back to February 2009 quotes U.S. Ambassador to Islamabad Anne Patterson, as saying, "our major concern is not having an Islamic militant steal an entire weapon but rather the chance someone working in GOP (government of Pakistan) facilities could gradually smuggle enough material out to eventually make a weapon."


30 November 2010

A United States diplomatic cable sent in 2009 by U.S. Ambassador to Pakistan Anne Patterson, and released by Wikileaks, says that Islamabad was unwilling to allow the U.S. to remove highly enriched uranium from a Pakistani research reactor. According to Patterson, Pakistani officials warn that, "if the local media got word of the fuel removal, they certainly would portray it as the United States taking Pakistan's nuclear weapons."


8 November 2010

Pakistani government officials say that China will supply Pakistan with a fifth nuclear reactor, apart from the third and fourth reactors that it has agreed to construct for Pakistan at the Chashma nuclear complex. Beijing has already provided Islamabad with one reactor at that complex, and is in the process of constructing a second one there.


26 October 2010

Pakistan's Prime Minister, Yusuf Raza Gilani, says the government will take every possible measure to maintain its...
minimum credible deterrence posture.
—"Minimum credible deterrence to be maintained at all costs: PM," Daily Times, 26 October 2010.

25 October 2010
Indian Army Chief General V.K. Singh says concern remains over Pakistan's nuclear arsenal falling into the hands of terrorists but "feels these weapons are secure."

22 October 2010
The Obama Administration has asked Pakistan for more details of its civilian nuclear agreement with China. According to Richard Holbrooke, Special Envoy for Pakistan and Afghanistan, "We have asked for more information on the Chinese-Pakistan arrangement to see how they fit in with international regimes."
—"U.S. asks for Pak-China nuke arrangement details," The Times of India, 22 October 2010.

20 October 2010
The United States government reiterates that it is not conducting any negotiations with Pakistan on a civilian nuclear cooperation agreement along the lines of the U.S.-India nuclear deal. According to U.S. Deputy Special Representative for Afghanistan and Pakistan, "We're not in any discussions with the Pakistanis on civilian nuclear cooperation."

8 October 2010
Pakistan’s Lahore High Court prohibits disgraced nuclear scientist Dr. A.Q. Khan from making any public statements on the country’s nuclear program.
—"Pak court bars A.Q. Khan from speaking on nuke programme," The Indian Express, 8 October 2010.

6 October 2010
A report by the Institute for Science and International Security concludes that Pakistan has made considerable progress in constructing its third heavy-water reactor at the Khushab nuclear complex, which is used for the production of weapons-grade plutonium. According to the report, construction of the third reactor has taken much less time than did the complex’s second reactor.

29 September 2010
Pakistan reiterates that no other government will be allowed direct access to A.Q. Khan. Foreign Ministry Spokesman Abdul Basit states that, "A.Q. Khan is a closed chapter."

28 September 2010
The Chairman of the Pakistan Atomic Energy Commission Ansar Pervez is unanimously elected as Chairman of the IAEA Board of Governors for 2011 to 2012. Previously, Pakistan held this position from 1962 to 1963 and from
—"Pakistan to chair IAEA Board for third time," The Hindu, 28 September 2010.

24 September 2010
U.S. Ambassador to India Timothy Roemer says that the China-Pakistan deal for supply of two nuclear reactors may not be approved by the Nuclear Suppliers Group because of Islamabad’s past record, and contrasts this with India's record.
—"China-Pak nuke deal may not get NSG nod given Pak’s past: U.S.," The Indian Express, 24 September 2010.

24 September 2010
China informs the IAEA that it will implement an agreement with Pakistan on the export of two nuclear reactors for Islamabad’s Chashma nuclear complex. Beijing has said that the reactor deal is part of a 2003 agreement between the two countries. These will be the third and fourth reactors at the complex. According to the Chinese communication to the IAEA, the reactors will be placed under international safeguards.
—Pranab Dhal Samanta, "Out in open: China tells IAEA it'll sell n-reactors to Pakistan," The India Express, 24 September 2010.

23 September 2010
Undersecretary of Energy for Nuclear Security Thomas D’Agostino says that the Nuclear Suppliers Group (NSG) needs to focus on the China-Pakistan deal for supply of two nuclear reactors to Pakistan.

23 September 2010
Pakistan communicates to the IAEA that it needs more nuclear power plants to address serious energy requirements, and that the IAEA should assist countries in this regard. This is conveyed by Dr. Ansar Pervez, Chairman of the Pakistan Atomic Energy Commission (PAEC), in a speech at the IAEA’s annual conference in Vienna. Pervez also says that the second nuclear reactor at the Chashma nuclear complex will be commissioned in 2011.

22 September 2010
A Chinese Foreign Ministry spokesperson confirms that Beijing is planning to supply two nuclear reactors to Islamabad. The spokesperson, Jiang Yu says that, "This project is based on an agreement signed between the two countries in 2003 about cooperation in the nuclear power field." At the same time, regarding reports of the China National Nuclear Corporation (CNNC) negotiating another deal with Pakistan for a 1-gigawatt nuclear reactor [Note: See NTI Pakistan Nuclear Chronology 20 September 2010], she says, "we don't understand this matter. You can make further inquiries with the company."

20 September 2010
The China National Nuclear Corporation (CNNC) is in negotiations to construct a 1-gigawatt nuclear power reactor

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in Pakistan, according to Qiu Jiangang, vice-president of the CNNC.

3 September 2010
Disgraced Pakistani nuclear scientist Dr. A.Q. Khan says in an interview that his country's nuclear weapons have prevented a conventional war with India. In an interview with Newsweek Pakistan, he states that, "our nuclear program has ensured our survival, our security, and our sovereignty... I am proud to have contributed to it together with my patriotic and able colleagues."
—"Pakistan's Nuclear Arsenal Has Prevented War with India: A.Q. Khan," The Times of India, 3 September 2010.

20 August 2010
Pakistan's military asserts that the country's nuclear and military facilities are safe from the effects of the massive flooding that have hit the nation. The Director General of Inter-Services Public Relations, Maj. Gen Athar Abbas states that, "there is no danger to our nuclear and defense installations from flooding." Pakistan is constructing a nuclear power plant near the Indus river which has been overflowing following heavy rains.
—"Nuclear, Defence Sites Safe after Flooding: ISPR," The Daily Times (Pakistan), 20 August 2010.

20 July 2010
United States Secretary of State Hillary Clinton has conveyed Washington's concerns to China regarding the proposed export of two nuclear reactors to Pakistan. In response to a question, Secretary Clinton says at a press conference that, "We believe that the NSG (Nuclear Suppliers Group), which has recently met to examine the sale that you are referring to, has posed a series of questions that should be answered because as part of any kind of transaction involving nuclear power, there are concerns by the international community, and Pakistan knows that." She says that Pakistan's history on proliferation matters "raises red flags" and so these issues should be addressed.

25 June 2010
The Nuclear Suppliers Group meeting this week in New Zealand ended without a clear statement from China on its plans to sell two nuclear reactors to Pakistan. Several NSG members had sought clarifications on this matter. The deal would violate NSG guidelines since the group has not provided Pakistan with an exemption to its rules.

24 June 2010
Earlier this month, the China Nuclear Industry Fifth Construction Company and the CNNC Zhongyuan Engineering Corp. signed a contract in Shanghai to cooperate in building two nuclear plants at the Chashma nuclear complex in Pakistan.

18 June 2010
The Pakistan Foreign Office spokesman Abdul Basit has said that Pakistan's nuclear cooperation with China is

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under IAEA safeguards, and that it is "totally for peaceful purpose."

**18 June 2010**
The Chairman of the Joint Chiefs of Staff Committee, Gen. Tariq Majid has said that Islamabad retained its nuclear deterrent capability not out of choice but out of compulsion arising from a "power imbalance" in the region. At the convocation ceremony of the National Defense College, Islamabad, he also talked of nuclear security matters saying that Pakistan considered, "security to be a non-issue, and strongly suggest that it is time to move beyond this issue. The world must accept our nuclear reality, and stop unwarranted insinuations to create alarms and deny us the related benefits."

**17 June 2010**
The Chinese Foreign Ministry spokesman Qin Gang has said that nuclear cooperation between China and Pakistan is for peaceful purposes and "under supervision of the International Atomic Energy Agency."

**17 June 2010**
The United States government has said that the proposed deal for supply of two nuclear reactors by China to Pakistan requires an exemption to its rules by the Nuclear Suppliers Group. According to State Department spokesperson, P.J. Crowley, the deal "appears to extend beyond cooperation that was grandfathered when China was approved for membership in the NSG."

**14 June 2010**
The Chairman of the Joint Chief's of Staff Committee, General Tariq Majeed has reiterated that Pakistan's nuclear weapons are the basis for the country's minimum deterrence strategy and that they would be retained at any cost.

**10 June 2010**
The Pakistan Foreign Office spokesman Abdul Basit has said that concerns regarding Iran's nuclear program should be resolved through negotiations, and maintained that Tehran has the right to a peaceful nuclear program. The spokesman also said that Pakistan was willing to mediate in the negotiation process.

**29 May 2010**
The Lahore High Court has said once again that A.Q. Khan is a "free citizen" in response to a petition by Khan challenging restrictions put on the scientist by the government. The judgment also said that the government was responsible for providing security to Khan.

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27 May 2010
Pakistani Defense Minister Chaudhry Ahmed Mukhtar has said that the Pakistan's nuclear assets were secure and that the international community is satisfied with the security arrangements around this "strategic wealth."

12 May 2010
The United States government is reviewing the recent decision by China to construct two nuclear reactors in Pakistan. According to Deputy Secretary of State James Steinberg, "... this is something that is still under discussion among all of us. Obviously it's important from our perspective that all countries live up to their commitments."

8 May 2010
Pakistan Prime Minister Yusuf Gilani has said that Pakistan must be recognized by the international community as a "de jure nuclear power." Speaking at the annual training exercises of the Army Strategic Force Command (AFSC), he said that the international community should stop focusing on nuclear security concerns, and that, "these were laid to rest at the Nuclear Security Summit where Pakistan forcefully projected a forthright stance on the issue and the world expressed satisfaction at Pakistan's nuclear security arrangements."

5 May 2010
The U.S. Assistant Secretary of State for South and Central Asian Affairs, Robert Blake, has said that China's proposed deal to supply two reactors to Pakistan requires "an exception of the guidelines of the Nuclear Suppliers Group."

30 April 2010
The China National Nuclear Cooperation (CNNC) has confirmed that it will supply two 340 MW nuclear reactors to Pakistan's Chashma nuclear complex, in a $2.375 billion deal. CNNC earlier built the Chashma-1 reactors and is constructing the Chashma-2 reactor which will be operational in 2011.

28 April 2010
Beijing has agreed to construct two nuclear reactors in Pakistan, according to officials in the two countries. The reactors will be constructed at Chashma, where China has already built one reactor and is constructing a second one. According to the China National Nuclear Corporation, in February this year, the two governments had concluded an agreement on financing of the two reactors. The Shanghai Nuclear Engineering Research and Design Institute had been contracted last year to design the new reactors.

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21 April 2010
The United States has said that it is hopeful that Pakistan would agree to discussions at the Conference on Disarmament on banning the production of fissile material. U.S. Ambassador to the Conference on Disarmament, Laura Kennedy said that, "We hope they will come to agree with us that they can engage in negotiations and protect their national security interests as the same time."

16 April 2010
Pakistani government sources have welcomed Indian Prime Minister Manmohan Singh’s recent statement that the issue of a nuclear cooperation agreement between Pakistan and the United States was a bilateral matter between the two countries. Pakistani Foreign Office spokesman Abdul Basit said that, "It is good to see India taking a position based on the principle of non-discrimination." Recently, the Pakistan government had taken umbrage at the Indian government's official statement which said that, "we hope the international community would strike the right balance between meeting the energy needs of any country while taking on board its track record with regard to proliferation of nuclear technology and weapons of mass destruction."

13 April 2010
At the Nuclear Security Summit in Washington, Pakistani Prime Minister Yousuf Gilani said that Islamabad’s nuclear assets are completely secure. He said, "let me assure you that Pakistan's nuclear assets are in safe hands and Pakistan is fully aware of its responsibilities on that count."

13 April 2010
Pakistan has offered nuclear fuel services to the international community, at the Nuclear Security Summit in Washington. In an official statement, Pakistani Prime Minister Yusuf Gilani said that, "as a country with advanced nuclear fuel capability, Pakistan is in a position to provide nuclear fuel cycle services under IAEA safeguards, and participate in any non-discriminatory nuclear fuel cycle assurance mechanism."

12 April 2010
Islamabad has asked the international community to allow it non-discriminatory access to civilian nuclear assistance. In an official statement on its nuclear policy ahead of the Nuclear Security Summit in Washington, the government said that, "Pakistan has more than 35 years of experience in running nuclear power plants. With trained professional manpower and a strong nuclear safety and security culture, Pakistan fully qualifies for participation in civil nuclear cooperation at the international level."

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12 April 2010
The Pakistan government has expressed concern over the Australian Defense Minister John Faulkner's decision to block an export shipment of two atomic absorption spectrophotometers by an Australian company, GBC Scientific Equipment, to a Lahore-based company, Capital Engineering Services. The action was taken under the Weapons of Mass Destruction (Prevention of Proliferation) Act.

9 April 2010
The United States government has asked Pakistan to focus on alleviating its immediate energy needs rather than concentrate on getting a civilian nuclear agreement like the Indo-U.S. nuclear deal. The U.S. Embassy's Deputy Chief of Mission, Gerald Feierstein said to reporters that, "we have started discussions on the civilian nuclear energy deal and we will continue them but Pakistan's energy crisis needs immediate attention and for that we are working on plans that can come to fruition in the short-term."

8 April 2010
Beijing will support Islamabad at the nuclear security summit in Washington this month on several matters, including Pakistan's quest for a civilian nuclear cooperation agreement with the United States, according to discussions in a special meeting of the Pakistan National Assembly's parliamentary committee on national security.

8 April 2010
The United States government has said that Pakistan will not be provided with a civilian nuclear agreement. Assistant Secretary of State for Public Affairs P.J. Crowley told journalists that, "we are focused on Pakistan's energy needs, but, as we said last week, right now that does not include civilian nuclear energy."

7 April 2010
The Pakistan government has said that it is eligible for a civilian nuclear agreement. At a meeting of the Parliamentary Committee on National Security, Prime Minister Yousuf Gilani said that a "well-established, foolproof safety and security culture fully qualifies Pakistan for equal participation in civil nuclear cooperation at the international level, which would help us in addressing our immediate energy problems and would bring greater stability as well."

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6 April 2010
The Australian government has prevented export of two atomic absorption spectrophotometers to a Pakistani company under the Weapons of Mass Destruction (Prevention of Proliferation) Act. The equipment was sought to be exported by an Australian company, GBC Scientific Equipment under a US $115,000 deal.

30 March 2010
The Pakistan government has concluded an agreement with China on the financing of the Chashma-3 and Chashma-4 nuclear reactors. As part of the agreement, Beijing will finance 82 percent of the $1.912 billion cost as a 20-year soft loan.

29 March 2010
A Pakistani court has reiterated that A.Q. Khan is a free man while at the same time specifying the prior notice that Khan has to provide to the government regarding his movements.

24 March 2010
According to a report by the Institute for Science and International Security, satellite imagery suggests that Pakistan's second plutonium production reactor, at the Khushab nuclear complex, has begun operations.

24 March 2010
United States Secretary of State Hillary Clinton has said that Washington would "consider" Islamabad's quest for a civil nuclear cooperation agreement along the lines of the Indo-U.S. nuclear agreement. However, she said that the Indo-U.S. agreement did not conclude "easily or quickly" and that it took several years of strategic dialogue.

23 March 2010
U.S. Ambassador to Pakistan Anne Patterson has said that Washington would consider "working-level talks" with Islamabad on a civilian nuclear agreement.

23 March 2010
The federal government has petitioned the Lahore High Court to restrain disgraced scientist A.Q. Khan from making any statements and to investigate reports in The Washington Post regarding transfer of nuclear technology.
17 March 2010
Pakistan President Asif Ali Zardari has said that the United States should help Pakistan in accessing civilian nuclear technology which would assist in solving the country’s energy crisis and also help overcome the trust deficit between the two countries. He made these remarks in a meeting with the visiting Director of U.S. National Intelligence, Dennis Blair.

10 March 2010
Pakistan has sought assistance from the international community its increase its nuclear power generation capacity. Deputy Chairman of the Pakistan Planning Commission, Ishfaq Ahmad made a statement in this regard at the International Conference on Access to Civil Nuclear Energy in Paris, saying that the international suppliers should help on a "non-discriminatory basis," given that Pakistan is "water-scarce" and "energy-starved."

28 February 2010
According to an analysis, the visit of the Pakistani Prime Minister Yousuf Gilani to Khushab nuclear complex in late February to congratulate engineers and scientists might have marked the completion of the country’s second plutonium production reactor, Khushab-II.

28 February 2010
The United States government has informed Pakistan that it would not be given a civilian nuclear cooperation agreement along the lines of the Indo-U.S. nuclear deal.

29 January 2010
The Pakistani National Assembly has approved the National Command Authority (NCA) Bill, 2009. The bill legally establishes the NCA and authorizes it to take charge of the country’s nuclear assets. The NCA came into being in 2000.

26 December 2009
According to Pakistani news reports, five United States citizens, who were arrested this month for planning terrorist attacks in Pakistan, have claimed one of their intended targets was the Chashma nuclear power plant.

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11 December 2009
Pakistan has asserted that any assistance being provided by major powers to India's nuclear weapons program would be detrimental to peace and stability in the region. The statement was made by Foreign Ministry spokesman Abdul Basit.

29 June 2009
Pakistan has insisted that it is not accepting any U.S. funds or expertise to strengthen the security of its nuclear weapons program, stating that its command and control framework is "completely indigenous."

14 June 2009
The Pakistan government has increased the budgetary allocation for the atomic energy sector's research and development by 10 percent from Rs (Pakistani) 3.28 billion to Rs. (Pakistani) 3.61 for the financial year 2009-10.

19 May 2009
Pakistani government and military officials have asserted that the United States cannot forcibly take over Islamabad's nuclear weapons, amidst some news reports that a U.S. military unit had been trained for this specific purpose and was stationed in Afghanistan awaiting orders to deploy.

17 May 2009
According to a bill introduced in the U.S. House of Representatives, H.R. 1463, the Pakistan government will have to allow the United States to directly interrogate all individuals who participated in nuclear proliferation activities, the key reference being to A.Q. Khan. In the absence of such direct interrogation, the bill seeks to restrict military assistance to Islamabad.

16 May 2009
According to Pakistani government officials, French President Nicholas Sarkozy informed Islamabad that Paris favored a nuclear agreement with Pakistan along the lines of the Indo-U.S. nuclear agreement. However, French officials stressed that they were willing to assist Islamabad in improving the security of its nuclear weapons, without commenting on a broader nuclear deal.

5 May 2009
According to a news report, Islamabad and Washington have commenced discreet talks on expanding the U.S. role
in securing Pakistan's nuclear weapons program. This includes proposals to secure radioactive materials that could be used in a "dirty bomb" and transfer of some highly enriched uranium to the U.S.


3 May 2009
According to a report by the Institute for Science and International Security, Pakistan is on the verge of completing construction of two plutonium producing reactors at the Khushab facility, near Islamabad.


1 May 2009
According to Pakistani news reports, the classified side of the Pakistan Atomic Energy Commission's budget has been cut by almost 35 percent and only 15 percent of the budget has been released for non-classified programs. The global economic recession is considered to be the main reason behind these financial cuts.


29 April 2009
According to a news report, Pakistan has shared highly classified information on its nuclear weapons with some select Western nations to reassure them on the security of its nuclear arsenal. This comes at a time of growing international concern from the threat of Taliban expansion and violence in the country, and its implications for Islamabad's nuclear security.


16 April 2009
The Pakistan Atomic Energy Commission (PAEC) has proposed setting up additional nuclear plants with a capacity of 8,800 MW by 2030. These plants would include additions to the existing Chashma and KANNUP nuclear complexes.

—"Pakistan to Set up More 8,800 MW Nuclear Plants by 2030," BBC Monitoring South Asia Political, Lexis-Nexis.

14 April 2009
According to a report in the Pakistani newspaper, Business Recorder, quoted in the Times of India, Islamabad has approved the commencement of construction of two nuclear power plants of 340 MW each, to be built at the Chashma nuclear complex with Chinese assistance. The project is expected to cost $2.37 billion. According to the report, Beijing had earlier approved the project in principle, however, because of extensive news reports on this matter, the proposal was set aside.


7 April 2009
Dr. Ansar Pervez took over as the new head of the Pakistan Atomic Energy Commission (PAEC), following the end of the three-year tenure of Dr. Anwar Ali. Pervez, who got his PhD in 1977 from the Rensselaer Polytechnic Institute, earlier served as general manager of the Chashma Nuclear Power Unit-2. According to subsequent

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Pakistani news reports, Pervez has not served in the classified side of the country's nuclear program, which is a break from tradition.


9 February 2009
In an attempt to reassure the international community, Pakistan has stated that it would ensure that A.Q. Khan would never again be in a position to disseminate nuclear technology and expertise, and that Islamabad would continue to monitor his activities and regulate his international travel.


7 February 2009
A Pakistani court freed disgraced physicist A.Q. Khan from house arrest, which had been imposed on him in 2004 after he confessed to masterminding an illicit nuclear proliferation network. The decision eases some of the pressure on the Pakistani government from conservative groups that have campaigned for his release. U.S. officials remained concerned about the impact of the release on potential nuclear proliferation activities, as also the refusal of Islamabad to allow international investigators to directly question Khan.


25 November 2008
Pakistani President Asif Ali Zardari said in a video conference with Indian journalists that Islamabad favored a no-first use policy on nuclear weapons, apparently reversing one of the key tenets of Pakistan's nuclear strategy. But the remark was dismissed in Pakistan as having been "off-the-cuff" and there was no indication that Pakistani military leaders had approved of it or even had prior knowledge of Zardari's proposal.

—Ravi Velloor, "Pakistan 'Won't be First to Use N-Arms'; Zardari's Comment Causes Confusion at Home and in India," The Straits Times (Singapore), November 25, 2008, Lexis-Nexis.

6 November 2008
Pakistan and China have not concluded any new agreement to export additional Chinese reactors to Pakistan beyond Chashma 1 & 2, according to the Pakistani ambassador to Austria. There had been several media reports since 2006 which claimed that the two countries were on the verge of signing a nuclear agreement that would include supply of additional nuclear reactors to Islamabad.


23 October 2008
According to Pakistani foreign minister Shah Mahmood Qureshi, Beijing will assist Pakistan in developing two additional nuclear power reactors (Chashma 3 & 4) through a Sino-Pakistan agreement concluded during Pakistani President Asif Ali Zardari's visit to China in October.
5 October 2008
Beijing and Islamabad will set up the Pak-China Joint Power corporation to develop technology and solicit investment for nuclear and coal-based power plants, including the 3rd and 4th phases of the Chashma nuclear power complex.

18 September 2008
According to Pakistani ambassador to Jordan, Mohammad Akhtar Tufail, Islamabad and Amman have discussed civilian nuclear cooperation, with Islamabad offering its expertise in uranium prospecting and "peaceful enrichment of uranium." In this regard, there have been discussions on sending a few Pakistani nuclear experts to Jordan for teaching purposes and to assist in prospecting and mining phosphate and uranium.

30 July 2008
Pakistani Prime Minister Yusuf Gilani called upon the United States to provide civilian nuclear technology to Islamabad along the lines of the Indo-U.S. nuclear agreement.
—“Pakistan PM Urges US to provide Civil Nuclear technology,” BBC Monitoring South Asia, July 30, 2008, Lexis-Nexis.

14 July 2008
According to a news report, disgraced Pakistani scientist A.Q. Khan has stated that Islamabad had provided North Korea with used P-1 centrifuges in 2000.

15 June 2008
International investigators have found that computers belonging to the A.Q. Khan nuclear proliferation network had nuclear weapons designs more advanced than were previously believed to be in possession of the network. The advanced designs are similar to the design of the nuclear device tested by Pakistan in 1998. However, Islamabad has insisted that Khan did not had access to these technical designs. It is unclear whether these designs were illicitly transferred to the network's customers.

31 May 2008
Disgraced Pakistani scientist A.Q. Khan has recanted his confession that he illicitly provided North Korea, Iran, and Libya with nuclear technology and expertise. He claimed that he was forced to make the confession in 2004 under
pressure from the then Pakistani President Pervez Musharraf.

12 March 2008
Three people were killed following a gas leakage at a Pakistan Atomic Energy Commission (PAEC) heavy water plant at Groat, near Khushab. The facility was completed in 1996 with Chinese help and is not covered by International Atomic Energy Commission (IAEA) safeguards.

4 March 2008
According to the Pakistan Nuclear Regulatory Authority (PNRA), Pakistan is safe from the effects of harmful radioactive rays. PNRA Advisory Committee Chairman Dr Iqbal Hussain Qureshi stated that the organization had launched a campaign to make people aware of radioactive rays and preventive measures to combat their negative effects, even as Pakistan is moving toward installing more nuclear power facilities by 2030.

24 February 2008
According to Stanford University Professor Siegfried Hecker, North Korea has denied receiving any assistance in nuclear weapons technology from Dr. A.Q. Khan. In meetings with Hecker, Pyongyang dismissed Khan's confession in 2004 that he had transferred nuclear technology to North Korea. Pyongyang has insisted that there have been no dealings between North Korea and Pakistan on uranium enrichment technology.

20 February 2008
US Joint Chiefs of Staff Chairman Admiral Mike Mullen has stated that Islamabad's nuclear weapons are under protection of adequate safeguards to prevent militants from gaining access to the devices. His visit to Islamabad also involved briefings on safety and security procedures.

12 February 2008
Two technicians of the Pakistan Atomic Energy Commission have been kidnapped by masked gunmen in Dera Ismail Khan district of North West Frontier Province, which borders Afghanistan. The local police chief stated that they did not know whether the kidnapping was carried out by militants or criminals. The technicians were on a project to map mineral deposits in the mountains.

7 February 2008
The head of Pakistan's Strategic Plans Division has stated that there is no ban on anyone meeting Dr. A.Q. Khan. The only condition is that Khan should consent to the meeting, according to Lt. Gen. Khalid Kidwai. He did not comment on the statement by Pakistan Muslim League-Q secretary general Mushahid Hussain that Khan would be

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freed after the national assembly election. Kidwai stated that there was no change in Khan’s status.

6 February 2008
According to the Secretary General of Pakistan Muslim League-Q, Mushahid Hussain, nuclear scientist Dr. A.Q. Khan might be released after the national assembly election later this month. He said that, "I have all the hope that Dr Qadeer will be released after the elections and his rightful place in society will also be restored."

27 January 2008
A top Pakistani official, identified later as Lt. Gen. Khalid Kidwai, in charge of Pakistan's nuclear weapons, has stated that the country's nuclear arsenal remains secure and has dismissed fears over the safety of these weapons and materials. Kidwai refuted the possibility of militant groups gaining access to Pakistan’s nuclear devices. "We are conscious of this threat," he said. "As the military, we should be prepared for worst contingencies." However, he said that an attack by Islamic extremists on Pakistan's nuclear facilities was impossible, and if such an attack did take place, "it will be pre-empted through intelligence or we will be able to minimize the damage." At the same time he said that the "security alertness" around the nuclear program had gone up.

10 January 2008
The head of the International Atomic Energy Agency, Dr. Mohammed El-Baradei has warned that instability and the political crisis in Pakistan could be exploited by Al Qaida to seize the country's nuclear weapons. In Islamabad, Pakistani government officials have rejected these concerns saying that there are no credible threats to the country’s nuclear arsenal.

1 January 2008
The Pakistani and Indian governments exchanged lists of nuclear facilities under Article-II of the "Agreement on Prohibition of Attacks Against Nuclear Installations and Facilities" between the two countries of 31 December 1988.
—"Pakistan, India exchange nuclear installations' lists," BBC Monitoring South Asia - Political, Lexis-Nexis.

15 December 2007
The National Command Authority, the top decision-making body on Pakistan’s nuclear weapons met today and reiterated once again that it was capable of defending the country against any 'misadventure.' The NCA took into account concerns in the international media regarding the security of Pakistan's nuclear weapons. The meeting also reviewed various projects related to Pakistan’s nuclear capability and endorsed proposals for bolstering the

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country’s deterrent capability.
—"Pakistan command authority says security 'foolproof'," BBC Monitoring South Asia - Political, Lexis-Nexis.

14 December 2007
Pakistan President Pervez Musharraf has issued an ordinance that provides a legal basis for the National Command Authority (NCA), the top decision-making body for the country's nuclear weapons program. The NCA has been in existence since 1999. The ordinance has to be ratified by the national assembly in the next six months. The ordinance formalized the president as head of the NCA.

12 December 2007
Two plutonium-based nuclear reactors near Khushab (Punjab) will be completed by 2009. The reactors will manufacture adequate material for military purposes, and are deemed too small for commercial purposes.

11 December 2007
According to sources, China may provide Pakistan with five additional nuclear power plants, each with a capacity of 300-1000 megawatt. According to Western diplomats, Beijing has already agreed to give Islamabad 300-MW nuclear power plants as part of Chashma nuclear power project-I and II, and may also transfer two additional plants of the same capacity for phase III and IV of the Chashma project.

20 November 2007
The Pakistan government has confirmed reports of cooperation with the United States on securing Islamabad's nuclear weapons. But it has insisted that this cooperation has involved training activities and interactions to help strengthen surveillance programs. Equipment transferred to Pakistan has been termed as basic and is reportedly meant for tracing nuclear materials and to forestall any illicit transfers of these materials. Islamabad has insisted that the security of its nuclear assets is given top priority and that it is important for the most effective practices to be employed.

13 November 2007
The Pakistan government refuted reports in the international media that questioned the security of its nuclear weapons. According to a foreign ministry spokesman in Islamabad, since 1998, Pakistan's nuclear weapons have been under firm multilayered institutional control with the appropriate organizational and administrative entities in place. Reacting to reports of external contingency plans, he also stated that Pakistan has sufficient retaliatory capability to defend its strategic program and sovereignty.
8 November 2007

Pakistani President Gen. Pervez Musharraf declared a state of emergency Saturday and suspended the constitution after it appeared the nation’s highest court might invalidate his recent election. His move resulted in waves of protests led by lawyers. Former Pakistani Prime Minister Benazir Bhutto, who recently returned to the country after several years in exile, also yesterday expressed concern that nuclear weapons might fall into extremists’ hands, Agence France-Presse reported (Agence France-Presse/Spacewar.com, Nov. 7). U.S. intelligence agencies are studying the potential for a nuclear weapon or fissile material to go missing amidst the chaos in Pakistan, the Los Angeles Times reported today.


31 October 2007

Pakistan on Monday called on the international community to evolve "a new consensus on disarmament and non-proliferation, which would encompass the new framework for the peaceful uses of nuclear energy". Addressing the UN General Assembly session convened to consider the "Report of the International Atomic Energy Agency (IAEA)," Pakistan’s Ambassador to the United Nations Munir Akram said: "We hope the UN Secretary-General will consider convening an international conference or a special session of the General Assembly, to evolve such a new consensus".


24 August 2007

Pakistan plans to build a new uranium enrichment complex that would be dedicated to producing fuel for the nation’s domestic nuclear power program, the Press Trust of India reported yesterday (see GSN, April 11, 2006). The Pakistan Atomic Energy Commission would allow international inspectors to monitor the centrifuge facility slated to be erected in Kundian. The facility would enrich uranium to contain 3 percent of the uranium 235 isotope, a standard level for light-water reactor fuel, according to PTI.


3 July 2007

A Pakistani official yesterday dismissed reports that Abdul Qadeer Khan, former head of the nation’s nuclear program and a global nuclear trafficking ring, had been released from house arrest, United Press International reported (see GSN, July 2). "There is no change in Khan’s status," said Pakistani Foreign Ministry spokeswoman Tasnim Aslam, according to the Voice of America. "He continues to lead a quiet life with his family," she added.


31 January 2007

Pakistan plans to join the Nuclear Suppliers Group, a 45-nation body that sets guidelines for trading nuclear materials and technology, the Pakistani Daily Times reported yesterday (see GSN, Mar. 21, 2006). The goal was described in a report of a government planning commission, which did not address a major possible stumbling

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
Pakistan's refusal to sign the Nuclear Nonproliferation Treaty.

15 January 2007
Police in north-west Pakistan say they have foiled a bid to abduct six officials working for the Pakistan Atomic Energy Commission (PAEC). According to local sources, at least 20 armed men raided the PAEC office in the village of Banda Daud Shah in Karak district on Sunday night. The kidnappers took the officials hostage and set off with them towards the Orakzai agency in the nearby tribal areas. However, they were stopped at the checkpoint after exchanging gunfire with security forces. All the hostages were freed.

26 December 2006
Pakistan: Iran has the right to pursue nuclear technology for peaceful purposes, Pakistan's Foreign Ministry said Tuesday, opposing U.N. sanctions against the Middle East nation for its refusal to halt uranium enrichment.
"Pakistan had never been in favor of sanctions against Iran," Foreign Secretary Riaz Mohammed Khan said. "We always emphasized that there ought to be a diplomatic solution of the Iranian nuclear issue." Khan's comments came after the U.N. Security Council unanimously approved a resolution on Saturday to bar countries from supplying Iran with materials and technology that could contribute to its nuclear and missile programs.
—"Pakistan says Iran has right to nuclear technology for peaceful purposes" International Herald Tribune, www.iht.com.

16 November 2006
Pakistan said it successfully test-fired a new version of its nuclear-capable medium-range missile Thursday, a show of power a day after peace talks with India that were criticized by domestic hard-liners. The North Korean-designed Ghauri missile, also known as the Hatf 5, was launched to mark the end of military exercises at an undisclosed location, an army statement said. The missile with a range of 800 miles could easily strike deep into neighboring India, Pakistan's nuclear-armed foe.

15 November 2006
India and Pakistan agreed on measures to combat terrorism and prevent an accidental nuclear conflict in South Asia at the first peace talks since a terrorist attack on Mumbai's train network in July, Pakistan's foreign secretary said Wednesday. Blaming the attack - which killed more than 200 people - on militants based in Pakistan, and on Islamabad’s intelligence service, India put the talks on hold. The key to resumption was a deal to create what was described as an "anti-terrorism mechanism" that could help the historic rivals work together to halt attacks like those in Mumbai. Pakistani Foreign Secretary Riaz Mohammed Khan told reporters that, at talks that began Tuesday, he and Indian Foreign Secretary Shiv Shanker Menon had agreed to set up a three-member commission to exchange information on terror threats. A Foreign Ministry official from each side is to work with the group, he said.

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24 July 2006
The White House on Monday sought to discourage Pakistan from expanding its nuclear weapons program after a published report that it was building a powerful new reactor that could generate plutonium for 40 to 50 nuclear bombs a year.

30 April 2006
A top Pakistani nuclear official detained nearly two years ago in a probe into a proliferation network run by disgraced scientist Abdul Qadeer Khan had been freed, a military spokesman said. Mohammed Farooq, who worked as director general of the country's main nuclear enrichment facility, Khan Research Laboratories, was freed last week, chief military spokesman Major General Shaukat Sultan told Agence France-Presse.

3 January 2006
Pakistan has denied a report it is in talks to buy between six and eight nuclear reactors from China in a deal worth up to $10bn (£5.8bn). Britain's Financial Times newspaper quoted an official saying construction could begin in 2015 and take 10 years. Such a deal would add more than 4,000 megawatts of electricity to Pakistan's national grid, the paper said. But a spokeswoman said that while Pakistan was considering more nuclear energy, the FT report was "baseless".

28 December 2005
Pakistan began construction today of a second nuclear power station with China’s help at Chashma in Punjab province. Prime Minister Shaukat Aziz launched work on the 325-megawatt power plant, a twin to an adjacent station of the same capacity already in service since 2000. 'Today's concrete-pouring ceremony of Chashma-2 marks yet another landmark in Pakistan-China relations and a milestone in the history of nuclear technology in Pakistan,' Aziz told a gathering of senior Chinese and Pakistani officials. The 850 mln usd project is expected to start production in 2011, a Pakistan Atomic Energy Commission spokesman told Agence France-Presse.

8 September 2005
Pakistan should have the same access to U.S. civilian nuclear technology that President Bush has proposed for India, the Pakistani ambassador to the United States says. Jehangir Karamat, Pakistan's former army chief, also warned that "the balance of power in South Asia should not become so tilted in India's favor, as a result of the U.S. relationship with India, that Pakistan has to start taking extraordinary measures to ensure a capability for deterrence and defense." The Bush administration is working to persuade Congress to approve a deal that would ship civilian nuclear technology to India. In return, New Delhi would have to place its civilian facilities under safeguards of the United Nations' nuclear watchdog agency. On Thursday, two undersecretaries of state, Nicholas Burns and Robert Joseph, were to testify before a House International Relations Committee hearing on the India-U.S. nuclear agreement. Critics, however, contend that Pakistan's is a different case from India's. A.Q. Khan, a
national hero known as the father of Pakistan's bomb, ran a network smuggling nuclear weapons technology.


25 August 2005
Pakistan’s president, Gen. Pervez Musharraf, confirmed for the first time that a Pakistani nuclear scientist had provided North Korea with centrifuge machines that could be used to make fuel for an atomic bomb, a Japanese news agency reported. In an interview Tuesday with Kyodo News, Musharraf said the former head of his country’s nuclear program, Abdul Qadeer Khan, had sent "centrifuges - parts and complete" to North Korea. The Pakistani leader did not divulge the number of centrifuges that had arrived in North Korea, saying, "I do not exactly remember the number." Musharraf also said Khan might have sent North Korea uranium hexafluoride, which can be enriched in centrifuges and then processed into fuel for civilian nuclear reactors or atomic warheads.


11 August 2005
Pakistan successfully test-fired its first cruise missile on the 62nd birthday of President Gen. Pervez Musharraf, who hailed Thursday's launch as a move toward "military balance" in the region. Archrival India declined to comment on the test of the Babur missile, which has a range of 310 miles and is capable of carrying nuclear and conventional warheads. Pakistan fired the missile from an undisclosed location without notifying India - just days after the two governments formalized an agreement on telling each other in advance about missile tests.


5 August 2005
India and Pakistan have started a fresh round of talks aimed at building trust on military issues and avoiding an accidental nuclear war, officials said. The two sides hope to finalize an agreement to notify each other ahead of missile tests and upgrade an existing hotline to reduce risks of nuclear accidents, an Indian foreign ministry spokesman said.


10 April 2005
Pakistan will be holding talks with the Nuclear Suppliers Group on Monday as a "nuclear weapon state." Quoting Foreign Ministry spokesman Jalil Abbas Jilani the report says that the visit of the NSG delegation will provide an opportunity to Pakistan to explain the steps taken by Pakistan for the establishment of export control regime for sensitive materials and technologies.


9 April 2005
Dr Ishfaq Ahmed, special adviser to the prime minister on the strategic program, said on Friday that Pakistan would build more nuclear power plants after the Chashma Nuclear Power Plant Unit-2 (CHASNUPP-2) to achieve its target of generating 8,800mw by 2020. He was speaking at the ground-breaking ceremony of the Chashma-2project, which will be completed by 2011 at a cost of Rs51 billion. The project, with a gross production capacity of 340mw, will be jointly built by the China National Nuclear Corporation (CNNC) and the Pakistan Atomic Energy

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10 March 2005
The Pakistani information minister admitted today that Abdul Qadeer Khan, the father of Pakistan's nuclear programme, gave nuclear technology to Iran, but insisted the government knew nothing of the transaction. It was the first time the Pakistani government admitted that Dr Khan actually gave material to Iran, though they have said in the past that his criminal group sold technology and blueprints to several countries. "Dr Abdul Qadeer gave some centrifuges to Iran," Sheikh Rashid Ahmed told the Associated Press in a telephone interview. "He helped Iran in his personal capacity, and the Pakistan government had nothing to do with it."

27 November 2004
Pakistan on Saturday defended its efforts to halt leaks of nuclear technology amid suggestions that a new CIA report says a renegade scientist provided more help to Iran's nuclear weapons program than previously disclosed. The CIA - which provides the U.S. Congress with six-month updates on reported efforts by Iran, Iraq, Libya, North Korea and Syria to obtain chemical, biological, radiological and nuclear weapons technology - posted an unclassified version on its Web site this week. Analyzing the report, The New York Times said it indicates that bomb-making designs provided by Abdul Qadeer Khan to Iran in the 1990s were more significant than Washington has said.
—"Pakistan downplays report on nuclear leaks to Iran, Libya" USA Today, www.usatoday.com.

2 July 2004
President Pervez Musharraf might have pardoned Mr Khan for selling nuclear technology but the scientist remains under de facto house arrest. Pakistani officials hinted that Mr Khan, 67, might stay in confinement for the rest of his life.
—"Bleak future for Pakistan's 'bomb hero'" Telegraph, www.telegraph.co.uk.

21 June 2004
India and Pakistan agreed Sunday to set up a hotline between their foreign ministries to reduce the threat of accidental nuclear war, giving a small but helpful nudge to a nascent peace process that began with a meeting between their leaders in January. The announcement came at the end of two days of talks on nuclear confidence-building measures. Delegates from the two sides, who described the atmosphere surrounding the talks as friendly, also agreed to continue a moratorium on nuclear testing, except in what they termed "extraordinary" circumstances.
—"India, Pakistan to Set Up Hotline" Washington Post Foreign Service by John Lancaster.

6 May 2004
The United States and Pakistan have not struck a deal enabling Islamabad to go easy on the founder of Pakistan's nuclear program while ratcheting up its fight against al Qaeda in tribal regions, Pakistani President Pervez

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Musharraf said Sunday.

17 March 2004
The government told the National Assembly on Tuesday that Pakistan had come out 'clear' from the nuclear proliferation scandal and there was no question of rolling back its nuclear program. Responding to a call-attention notice from five PPP members during the morning sitting on a private members' day, Information Minister Shaikh Rashid Ahmed denied reports that IAEA (International Atomic Energy Agency) experts could inspect the country's nuclear programme.

19 February 2004
"We do have before us now a sort of a basic road map for a Pakistan-India peace process to which we have both agreed," Pakistani Foreign Secretary Riaz Khokar said at a news conference after a two-hour meeting with his Indian counterpart, Shashank, who uses one name. "We hope this road map will eventually lead to the settlement of all outstanding disputes between India and Pakistan and in the direction of durable peace." Before the two leaders met, Indian officials had resisted reviving direct talks, accusing Pakistan of backing Islamic insurgents in the part of Kashmir that India controls. But India relented after [Pervez Musharraf] agreed to a joint statement pledging that he would "not permit any territory under Pakistan's control to be used to support terrorism in any manner." In an telephone interview Wednesday night from London, where he is traveling on official business, Pakistani Interior Minister Faisel Saleh Hayat said Jamaat ul-Dawa had not been banned "because there is no credible substantive evidence that it is indulging in activities against the interest of Pakistan or using Pakistan as a base to harm the interest of people or governments or countries outside" Pakistan.

18 February 2004
President Pervez Musharraf rejected any move to bring in foreign inspectors to monitor Pakistan's nuclear weapons or civil nuclear facilities after the father of the country's atomic bomb confessed this month to selling nuclear secrets to Libya, Iran and North Korea. "We are not interested in competing with India," Musharraf said in an interview in Wednesday's newspaper. But he said that in the next few weeks Pakistan would test-fire its Shaheen II missile, which has a range of 2,000 km (1,200 miles), making it capable of striking just about anywhere in India.

7 February 2004
Pakistan's foreign minister said his country would cooperate fully with the U.N.'s atomic agency after the nation's top nuclear scientist admitted he gave weapons secrets to other countries.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
4 February 2004
The United States is standing by key ally Pakistan after the father of its nuclear weapons program admitted he had shared nuclear secrets with other nations. White House spokesman Scott McClellan said Wednesday the United States will work closely with Pakistan to win the war on terrorism. "We appreciate their efforts to address what is a serious concern, which is proliferation of weapons of mass destruction."

2 February 2004
The man who founded Pakistan’s nuclear program, Abdul Qadeer Khan, has confessed to transferring nuclear technology to North Korea, Iran and Libya. The government maintains it has not sanctioned the transfer of any nuclear secrets.

29 January 2004
Pakistani investigators probing leaks of nuclear technology now believe that Abdul Qadeer Khan, known to his countrymen as "the father of the bomb," and a senior colleague, assisted Iran and Libya through an international network operating out of Dubai. An intelligence source said on condition of anonymity that while the identities of the nuclear traffickers are still being uncovered, "it is beyond any doubt that at least two Pakistani scientists constituted a major source of supply for the network."
—"Pakistan's nuclear salesmen are identified" San Francisco Chronicle, Juliette Terzieff.

24 December 2003
A lengthy investigation of the father of Pakistan’s atomic bomb, Abdul Qadeer Khan, by U.S. and European intelligence agencies and international nuclear inspectors has forced Pakistani officials to question his aides and openly confront evidence that their country was the source of technology to enrich uranium for Iran, North Korea and other nations.
—"Pakistan backs off nuclear aid denials Senior official promises a broad inquiry on alleged help to Iran and North Korea" International Herald Tribune, December 24, 2003 by: William Broad, David Rohde and David E. Sanger.

23 December 2003
Pakistan said on Tuesday that rogue scientists driven by "ambition and greed" may have spread nuclear technology to Iran - Islamabad's most explicit acknowledgment of such help, prompted by questioning from the U.N. atomic watchdog. The admission, after months of denials, is the latest in a wave of nuclear disclosures, following revelations from Libya and Iran. Pakistan said it was cooperating with the U.N. International Atomic Energy Agency after the agency's inspections of Iranian nuclear facilities showed that international and "Pakistani-linked individuals" had acted as "intermediaries and black marketeers."
—"Iranian disclosure prompts admission from Pakistan it may have rogue nuclear scientists" USA Today, www.usatoday.com.

2 November 2003
One man was killed and another injured on the weekend in a blast at a liquid nitrogen plant which is part of a
nuclear research facility at Nilore, 25 km (16 miles) from the Pakistani capital, the state-run news agency said. The Associated Press of Pakistan (APP) said the explosion occurred at the Pakistan Institute of Engineering and Applied Sciences, an educational wing of the Pakistan Atomic Energy Commission. Officials have launched an investigation to determine the cause of the blast, the agency said. APP said no Pakistani nuclear facility had been affected. Pakistan has two nuclear power plants, one in the southern port city of Karachi and one in Mianwali, southern Punjab. It also has its own nuclear arsenal, as does arch-rival India.

—"Blast at Pakistan nuclear research site kills one" www.planetark.com.

4 October 2003
Pakistan fired a surface-to-surface, nuclear-capable rocket on Friday in its first test in months, but it denied that the launch had anything to do with stalled peace talks with India.

—"Pakistan Tests Missile Able to Hit Sites in India," NYT, October 4 2003.

7 July 2003
Pakistan President Gen. Pervez Musharraf insisted on Monday that his country’s nuclear arsenal is under tight control and will not fall into the "wrong hands," after officials said that $3 billion in U.S. aid depends in part on Pakistan exporting no nuclear technology. "Pakistan will never proliferate," President Pervez Musharraf told scientists at a college near the capital Islamabad, the state-run news agency said. "Pakistan's nuclear potential is under very strong custodial control."

—"Musharraf says Pakistan will keep its nuclear arsenal from 'wrong hands' "AP Worldstream, July 7, 2003 by: MUNIR AHMAD, Associated Press Writer.

6 May 2003
After 16 months of stony silence, interrupted by the near outbreak of war last June, India and Pakistan are suddenly making all the right moves to start peace talks. Monday, Pakistan raised the stakes by offering to get rid of its nuclear arsenal if India followed suit. The reasons for this spring warming trend - initiated by India - are still coming to light. But they range from the swift US victory in Iraq and mounting concern over nuclear proliferation and terrorism to a legacy quest by India's ailing prime minister, Atal Behari Vajpayee. Diplomats here say this may be the best chance in years to defuse tensions between two nuclear powers that have fought three wars in the past half century. "The most interesting thing about these peace moves is that they come when absolutely nothing is happening on the ground," says a Western diplomat who monitors the Kashmir dispute closely.

—Scott Baldauf and Amol Sharma, "India, Pakistan suddenly talk peace" The Christian Science Monitor.

3 April 2003
Serious, ongoing and potentially catastrophic problems in geopolitically important but politically weak Pakistan are getting too little attention from U.S. officials while Iraq remains America's primary foreign policy focus, according to think tank experts who follow South Asia.


8 January 2003
The Pakistani government on Wednesday rebuked allegations that a top Pakistani nuclear scientist has helped
North Korea and Iraq develop nuclear arms, saying Pakistan has a consistent and established record of safeguarding its nuclear technology. A U.S. newspaper last week quoted a senior aide of former U.S. President Bill Clinton as saying that the Pakistani scientist, A.Q. Khan, would top the list of people who had contributed in nuclear proliferation.
—"Pakistan Nuclear Scientist 1 8 0169 Pakistan rejects allegations over nuclear scientist" Kyodo World News Service, January 8, 2003.

30 December 2002
Pakistan President Pervez Musharraf suggested Monday that he'd been prepared to use atomic weapons if neighbor India had invaded earlier this year when tensions peaked. But his government later backed off the assertion, saying he was not referring to the use of such weapons.

20 October 2002
Political changes will not affect Pakistan's nuclear policies as the country's forces will continue to control its nuclear weapons, a Pakistani minister told United Press International on Sunday. The minister's pledge follows U.S. intelligence reports that Pakistan helped North Korea build nuclear weapons. The reports have had an unsettling affect on Pakistan, where both government and opposition forces have been busy denying them.

19 October 2002
US intelligence officials have concluded that Pakistan, a vital ally since last year's terrorist attacks, was a major supplier of critical equipment for North Korea's newly revealed clandestine nuclear weapons program, current and former senior American officials said on Thursday. The equipment, which may include gas centrifuges used to create weapons-grade uranium, appears to have been part of a barter deal beginning in the late 1990s in which North Korea supplied Pakistan with missiles it could use to counter India's nuclear arsenal, the officials said.

15 August 2002
Pakistan will not allow U.N. monitors to inspect its nuclear facilities, President Pervez Musharraf said Thursday. In an interview with Russia's Izvestia newspaper, Musharraf also ruled out the possibility of a nuclear war between India and Pakistan. "Our nuclear facilities are fully secure and there's no need for inspection by U.N. experts," the official Associated Press of Pakistan news agency quoted him as saying.

6 July 2002
If communications are disrupted during a war with India, Pakistan's nuclear missiles could be launched by army officers acting without central authority, according to senior British sources and critics of the country's nuclear programme. Officially, the control rests with President Pervez Musharraf who, apart from being head of government, is chairman of the joint chiefs of staff. But critics say that shortcomings in the command system mean that in the event of a crisis a brigadier or corps commander could have only a few minutes to decide whether to
order a nuclear strike, risking Indian retaliation.
—"Finger on nuclear button is not Musharraf's" Telegraph, www.telegraph.co.uk.

3 March 2002
Ambassador Maleeha Lodhi disputed a report in Sunday's Washington Post that identified Bashiruddin Mahmood as a past chairman of the Pakistani Atomic Energy Commission. Lodhi said Mahmood did not have the knowledge of or access to sensitive nuclear material. "He was a very junior official in our nuclear establishment and therefore would never have the kind of knowledge or capability to frankly share or impart to anybody," Lodhi said on CNN's "Late Edition with Wolf Blitzer." Pakistan has had no incidents of nuclear theft, leakage of nuclear material or unauthorized access to nuclear research, the ambassador said.

29 January 2002
Pakistan has decided not to press criminal charges against two of its nuclear scientists whose reported contacts with Osama bin Laden stirred fears of nuclear terrorism, according to officials and a lawyer involved in the case.

27 January 2002
In a message to Indian Prime Minister Atal Behari Vajpayee to mark India's Republic Day, Pakistani President Pervez Musharraf sent his "sincere felicitations" and said Pakistan wanted good relations with its eastern neighbor. His message comes one day after India tested a nuclear-capable missile, a move condemned by Pakistan and described as "risky" by the European Union as it came at a time of high tensions.

2 January 2002
India and Pakistan Monday exchanged information on their nuclear facilities, according to The Washington Post. Meanwhile, tensions loomed over the two countries as they each moved military forces toward their common border, according to reports. The exchange of nuclear facility data, which includes locations of nuclear installations, has been an annual practice since 1992, the Post reported. The exchange began under an agreement between the two countries that stipulated they would not attack each other's nuclear facilities in the event of war. The recent information swap is seen as an effort to reduce tensions between the two countries since an attack by Islamic militants on the Indian Parliament on Dec. 13.

13 March 2001
Pakistan's 300MW-Chashma nuclear power plant has stopped functioning because of a "technical fault." Nuclear scientists from China and the Pakistan Atomic Energy Commission are trying to fix the fault, but for the time being the plant remains out of commission.
—"Pakistan's new nuclear plant develops 'technical fault,' shut down" Al-Akhbar (Islamabad), FBIS Document: SAP20010314000042, 13.
27 January 2001
Pakistan’s Chief of Naval Staff, Admiral Abdul Aziz Mirza has said that if necessary Pakistan will deploy nuclear weapons on submarines.
—"Pakistan Navy Chief: "We Will Install Nuclear Arms on our Submarines, if Needed" Dawn (Karachi), FBIS Document: SAP20010127000053, 27.

26 January 2001
According to Pakistan’s former Chief of Army Staff, General (Retd.) Mirza Aslam Beg, Pakistan concluded in 1989 that it had an adequate nuclear deterrent and did not need to increase it. Beg said, "we wanted a credible minimum deterrent and that deterrence is related to the very minimum number of devices that we needed and a very minimum capability to deliver those...and that we achieved in 1989 when Benazir Bhutto was prime minister and that is still the policy we follow." Beg also claimed that Pakistan’s nuclear arsenal was safe because "we [Pakistan] have a bomb-in-the-basement policy where not even a bomb is placed over there, not a device, but components are put together if needed...and then it is many miles away from the delivery system, that is, the missiles and aircraft...that by itself provides tremendous security, an in-built safety which is not understood by people who don't understand the real logic of our program or the restrictions we have imposed on ourselves."

2000-1995
26 September 2000
The Chashma nuclear power plant, built under a turnkey contract with the China National Nuclear Corporation, was handed over to the Pakistan Atomic Energy Commission on 26 September 2000.
—"China Hands Over Chashma Nuclear power Plant to Pakistan" Radio Pakistan (Islamabad), 27 September 2000 FBIS Document SAP20000927000020.

25 July 2000
Pakistan announced yesterday measures to formally organize its commercial exports of nuclear material. The trade ministry reported that the possible exporters will require a certificate from the Pakistani Atomic Energy Agency allowing them to export specific nuclear equipment and material. The report categorized certifiable nuclear material as follows: natural uranium, depleted uranium, enriched uranium, thorium, plutonium, zirconium, heavy water, tritium, beryllium, natural and industrial radioactive materials on the condition that their radiation level be less than 200 micro-curies per gram, and enriched nuclear graphite provided it has no less than five parts boron per million and that its density exceed 1.5g/cm3. The items listed are regulated whether they are found as metal, a chemical derivative, or within another material that contains one or more of said elements.

The report defines the specific nuclear equipment as any equipment utilized to produce and use the applications of nuclear energy, or for generating energy for nuclear reactors. The listed equipment includes: pressure vessels for reactors, machines to load or unload reactor fuel, primary cooling tubes, reactor monitoring systems, internal

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equipment for reactors, and any equipment directly related to the reactor containers that control the level of energy in the reactor core or it cooling.


**12 June 2000**

The Pakistan Atomic Energy Commission (PAEC) has started reprocessing operations at New Labs in Rawalpindi, which is located next to the Pakistan Institute of Nuclear Science and Technology (Pinstech). New Labs separates the plutonium from spent fuel from the PAEC’s unsafeguarded Khushab reactor. This could enable Pakistan to build plutonium-based nuclear weapons. The weapons that Pakistan tested in May 1998 were all uranium-based. According to unnamed senior US government officials, the Khushab reactor and the reprocessing plant are capable of producing 8-10kg of unsafeguarded weapons-grade plutonium per year. Access to plutonium could allow Pakistan to design more compact nuclear warheads for ballistic missiles. According to US officials, the Pakistani government is under pressure from its scientists to test a plutonium weapon. However, one unnamed analyst said that PAEC had taken the steps to conduct another nuclear weapons test, in case India was to carry out another test of its thermonuclear weapon.


**3 February 2000**

On 3 February 2000, Pakistan announced that it has created a National Command Authority (NCA) to facilitate the command and control of its nuclear weapons. The NCA will compromise the Employment Control Committee (ECC), the Development Control Committee (DCC), and a Strategic Plans Division (SPD). The head of government, General Pervez Musharraf, will head the committees. The other members of the ECC will be the ministers of foreign affairs (deputy chairman of ECC), defense, and interior, the chairman of the joint chiefs of staff committee, the chiefs of the armed forces, and the director-general of the SPD. The DCC will include the chairman of the joint chiefs of staff committee (deputy chairman of DCC), the chiefs of the armed forces, the director general of the SPD, and a "representative of the strategic organization and scientific community".


**4 August 1999**

On 4 August 1999, Pakistani officials said that foreign investment in Pakistan dropped by 51 percent in 1998 due to the US-led international economic sanctions. Officials said foreign investment declined from $822 million to $403 million during fiscal year 1997-1998. Total direct foreign investment also fell 37 percent to $376 million and portfolio investment fell 87 percent to $27 million. Economic sanctions were imposed on Pakistan after it conducted nuclear tests on 28 May 1998. The International Monetary Fund (IMF), World Bank, and Asian Development Bank also suspended all aid packages to Pakistan after the nuclear tests.

1 July 1999

On 30 June 1999, during a debate in the Pakistani Senate, Religious Affairs Minister Raja Mohammad Zafarul Haq said, "Pakistan has the right to react with all military might at its disposal in case its security was threatened." He said that the purpose of developing weapons becomes "meaningless if they are not used when they are needed to be used." He said that the use of nuclear weapons is "the right of the country if its security is in jeopardy." He said, "Nuclear weapons are not meant to be kept on the shelf if security of the motherland is threatened." He said, "We have nuclear deterrent and would like to reiterate it is for our national security not for formal exhibition." He said Pakistan would use all available resources, "including the nuclear option," for its national security.


27 May 1999

In late May 1999, Pakistani Director General of the Pakistan Atomic Energy Commission (PAEC) Mirza Mansoor Beg said Pakistan made nuclear devices that could be detonated at short time intervals and could be moved far distances without inconvenience. Beg said the major challenge on Pakistan's nuclear path was acquiring a nuclear reactor denied by sanctions on Pakistan. He said the nuclear plant was designed and manufactured independently by Pakistan. He said that telemetry technology was also developed independently by Pakistani scientists.


25 May 1999

In late May 1999, Pakistani nuclear scientist Abdul Qadeer Khan said in an interview that the 28 May 1998 nuclear tests had not depleted Pakistan's stockpile of nuclear material. Khan said, "We [Pakistan] have been making the nuclear material for a long period...We have enough stock for our security and for deterrence, more than enough." Khan was asked if A. Q. Khan Research Laboratories had produced any bombs since the 28 May 1998 nuclear tests. Khan replied, "Sure, because as long as you don't sign the Nonproliferation Treaty (NPT) the process will be carried on." He said A. Q. Khan Research Laboratories was trying to improve the efficiency of Pakistan's nuclear warheads and delivery vehicles. He said, "the process would not be slowed even if Pakistan signed the Comprehensive Test Ban Treaty (CTBT)." Khan said the CTBT would not prevent Pakistan from conducting, "cold tests" and perfecting its designs. Khan also said the 28 May 1998 nuclear tests had, "more or less finished" the Pakistan-India arms race.


22 January 1999

Officials at the Pakistan Atomic Energy Commission (PAEC) announced on 21 January 1999 that the 330 MW Chashma nuclear power plant, currently being built with Chinese assistance, would start commercial production by the end of 1999. Officials said that the final tests for the plant should be completed by August 1999.


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15 December 1998
Dr. Ashfaq Ahmad, chairman of the Pakistan Atomic Energy Commission (PAEC), said on 14 December 1998 that Pakistan was one of the few countries that has been able to master the nuclear fuel cycle. He said that the 29 May 1998 nuclear tests enabled Pakistanis to "hold our heads high in the international community." He said that the PAEC would try to focus in the future less on foreign trading to ensure long-term self-reliance in the area of nuclear technology.

Ahmad pointed out that Pakistan mines and refines its own uranium, is the only Muslim country with an operational nuclear power plant [at Karachi], and is constructing a second nuclear plant at Chashma. He also noted that Pakistan had to produce its own fuel and heavy water after Canada stopped its nuclear assistance in 1976. Thereafter, Pakistan modernized the instrumentation and control system of the nuclear plant at Karachi, which contributed to extending its design life by ten years. He also gave much of the credit for Pakistan's success in the nuclear field to the Pakistan Institute for Science and Technology (PINSTECH).


17 November 1998
According to "reliable sources of the [Pakistani] Federal Government," Pakistan has started producing plutonium for use in hydrogen, plutonium, and neutron weapons. According to this report, Pakistan is capable of producing thermo-nuclear and neutron bombs. Pakistani experts claim that the Khushab nuclear reactor is producing Plutonium 239 (Pu-239), an artificial radioactive element used in some nuclear weapons.


12 November 1998
Top Pakistani nuclear scientist Dr. Abdul Qadeer Khan said that although Pakistan "is capable of developing the hydrogen bomb," it does not need to since it responded to India's nuclear detonations in May 1998 with nuclear tests of its own. He said that even if Pakistan were to sign the Comprehensive Test Ban Treaty (CTBT), it would not affect Pakistan's ability to develop a hydrogen bomb. Khan said "the nuclear arms and missile capabilities of Pakistan are enough to respond to any aggressive design of the enemy."


24 September 1998
Pakistan's Prime Minister Nawaz Sharif said on 23 September 1998 that he would sign the Comprehensive Test Ban Treaty (CTBT). Sharif said he would sign the CTBT only if the United States lifted sanctions. The sanctions were imposed on Pakistan in May 1998 after it conducted its nuclear tests. Sharif said that "Pakistan's adherence to the treaty will take place only in conditions free from coercion or pressure." In addition he said that "we expect that the arbitrary restrictions imposed on Pakistan by multilateral institutions will be speedily removed and that discriminatory sanctions against Pakistan will be lifted." UN Secretary General Kofi Annan applauded Pakistan's decision. He said that "the government of Pakistan is to be commended for heeding the concern of the international community."


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19 August 1998
According to Pakistani industry officials, centrifuges are being produced at the Pakistan Steel Mills, which have been used in uranium enrichment for the past several months. The Pakistan Steel Mills operate under the Kahuta Laboratories. The Mills have been closed since 1989 but are currently in the last stages of modernization. The Mills are producing 40,000 tons of "different type of chemical and special steel," including low carbon maraging steel which has applications for Pakistan's defense industries and nuclear program. Dr. Qadeer Khan, head of the Kahuta Research Laboratories, expressed the importance of the Mills, stating that Pakistan cannot import such materials due to international sanctions.

11 June 1998
In June 1998, Israel's ambassadors to the United States and the United Nations received assurances from their Pakistani counterparts that Pakistan will not transfer nuclear technology or materials to Iran or to other Middle Eastern countries. Israeli officials had feared that Iranian Foreign Minister Kamal Harrazi’s visit to Pakistan shortly after its May 1998 nuclear weapons tests was a sign that Pakistan was preparing to sell nuclear technology to Iran.

28 May 1998
Pakistani Prime Minister Nawaz Sharif reported on 28 May 1998 that Pakistan conducted five nuclear tests and had "settled the score with India." Sharif also reported that Pakistan would weaponize its intermediate-range ballistic missile Ghauri with nuclear warheads. In addition, Sharif criticized the international community’s response to India's nuclear tests and said, "Pakistan was left with no choice but to detonate its own nuclear devices." Finally, while Pakistanis cheered in the streets of Islamabad, India's parliament erupted into shouting as opposition leaders blamed the government for starting a nuclear arms race.

1 December 1997
Pakistan’s Foreign Secretary Shamshad Ahmed told the newspaper "Jang" in November 1997 that the day India signs the Comprehensive Test Ban Treaty (CTBT), Pakistan "will immediately do so." Until that time, Ahmed said Pakistan will not be made a "hostage to India by signing the CTBT before India." Pakistan perceives India’s nuclear program as a threat to the regional security of South Asia and is, therefore, insisting on a regional solution.

23 September 1997
In a speech to the United Nations on 22 September 1997, Pakistani Prime Minister Nawaz Sharif offered to begin discussion with India on a non-aggression pact between the two countries, and on mutual restraint on nuclear weapons and delivery systems. Sharif's proposal included a deal to demonstrate "mutual and equal restraint in the nuclear and ballistic [missile] fields. All this and much more can be achieved if India joins us in pursuing our current dialogue to its successful culmination." Sharif and Indian Prime Minister Inder Kumar Gujral met at the United Nations on 23 September 1997, but did not discuss the Pakistani proposal.
8 September 1997
Pakistani Prime Minister Nawaz Sharif acknowledged his country’s nuclear capability on 7 September 1997 in Lahore. "The issue of nuclear capability is an established fact. Hence the debate on this issue should come to an end," said Sharif while urging the media not to discuss it further. Referring to Pakistan's nuclear program, he said the country had progressed significantly, and said, "we have left that stage (developmental) far behind." Sharif is to meet with US President Bill Clinton in late September 1997 to discuss, among other issues, the Comprehensive Test Ban Treaty (CTBT).


13 August 1997
Pakistan's top nuclear scientist, Qadeer Khan, stated on 12 August 1997 that the nuclear program in his country would continue despite criticism from the West. "It is so central to our security, and national security is so dear to us, that we don't care who is saying what about our peaceful program," Khan said. He added that efforts of scientists had placed Pakistan into the "club of six or seven countries capable of enriching uranium up to 95 percent for use in weapons of mass destruction." The fact that there has been no war between India and Pakistan since 1971 indicates the importance of this deterrent, said Khan. Also Khan rejected the notion of a nuclear and missile arms race between India and Pakistan. "Call it an arms race or defense preparedness. We take pride in our endeavors in the nuclear field, which originally came as a response to the Indian nuclear test in 1974." Head of the Kahuta Research Laboratories (KRL), Khan described the suburban Islamabad facility as the pride of every Pakistani and the best achievement in the past 50 years in a country where "the state of science and education is otherwise pathetic." He refused to respond when asked if Pakistan actually possessed a nuclear device.


27 July 1997
Pakistani foreign minister Gohar Ayub Khan said in an interview to the BBC World Service that Pakistan was ready to sign a treaty with India on non-use of nuclear weapons, "even though it would put Pakistan at a disadvantage." Asked if Pakistan possessed nuclear weapons, Ayub Khan said, "No, we are against nuclear weapons."


20 March 1997
In an interview conducted by an unnamed Urdu-language newspaper in Lahore, Pakistan, former Pakistani Army chief Mirza Aslam Beg said Islamabad successfully tested its "atomic bomb capability" using computer simulation. He said Pakistan’s next task is to focus on delivery systems for its "nuclear capability." Beg said he has no knowledge that Pakistan has missiles which could carry nuclear warheads. He added that F-16 aircraft could be used for such a task.


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4 August 1996
Mohammed Saleem, an employee at Pakistan's high commission in London, was deported in July 1996 after the UK's Security Service (MI-5) identified him as the head of Pakistan’s nuclear procurement network. Saleem was deported for recruiting a network of Pakistani-born scientific students at UK universities to collect sensitive nuclear information. Saleem also sought to procure nuclear-related materials and arrange lines of credit and export licenses for Pakistan's nuclear program. The British Home Office said that "since late 1991, Mohammed Saleem has been conducting covert nuclear procurement activities in Britain." The information and materiel was provided to the A.Q. Khan Research Laboratories in Kahuta. Saleem denied the charges.

28 March 1996
In March 1996, unnamed Pakistani nuclear officials denied allegations made by the magazine "Power in Asia" that a 50 MW power reactor has been built near Khushab. Khushab was reported to be the first indigenously built reactor in Pakistan. Pakistan also is locally manufacturing some of the components for the 300 MW Chashma reactor.

29 February 1996
On 29 February 1996, a Pakistani Foreign Office spokesman stated that "Pakistan has never acquired any nuclear weapons technology from China." According to the spokesman, China exported nuclear technology for peaceful use to Pakistan, not weapons technology, and this transfer does not violate any international treaties.
—"Pakistan Denies Import of N-Technology from Beijing" Xinhua (Beijing), 29 February 1996 FBIS-TAC-96-004.

25 February 1996
Pakistan's political leadership is reportedly considering a nuclear test in reaction to India's planned test. Pakistani nuclear scientists have plans, which include a choice of site, to conduct their own test "in a short time frame." U.S. intelligence officials allegedly told the Washington Post that they have satellite photos of excavation work at a shaft in the Chagai hills that could be used to conduct a nuclear test. The Pakistani Foreign Ministry denied the allegations. Former Pakistan Army Chief Mirza Aslam Beg said that in the 1980s, the U.S. deliberately ignored a report by attache to the U.S. embassy in Pakistan, Richard Barlow, that Pakistan was gaining a nuclear capability. According to Beg, U.S. embassy officials were "regularly briefed" on the progress of the Pakistani nuclear program. According to a 4 January 1996 report in the Pakistani newspaper The Muslim, the U.S. alleged that China was assisting Pakistan in building a uranium centrifuge plant at Wah. The Muslim report also cited Pakistani officials as confirming that Pakistan was constructing another enrichment plant in Golra Sharif.

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20 January 1996

During 18 January 1996 talks in Tokyo with Japanese Prime Minister Ryutaro Hashimoto, Pakistani Prime Minister Benazir Bhutto revealed that Pakistan has achieved "parity" with India in its "capacity" to produce nuclear weapons and their "delivery capability." Bhutto said that Pakistan "cannot afford to negate the parity we maintain with India" in the nuclear area. Bhutto's statements represent a departure from Pakistan's previous policy of "nuclear ambivalence."


6 January 1996

Pakistani Prime Minister Benazir Bhutto said that if India conducts a nuclear test, Pakistan could be forced to "follow suit." According to Bhutto, Pakistan hopes "the day will never arise when we have to use our knowledge to make and detonate a [nuclear] device and export our technology." However, Bhutto believes that a nuclear test by India will "trigger a proliferation race" on the subcontinent. In a related statement, Muslim League Party Spokesman Mushalid Hussain said if India conducts a nuclear test, the Muslim League will demand that Pakistan "examine its options" because of the threat to Pakistan's national security. Former Pakistani Army Chief Aslam Beg added that Pakistan should quicken its nuclear development, but urged restraint in regard to a possible Pakistani nuclear test, saying, "Pakistan should not become a party to such madness". Western diplomats said that an Indian nuclear test would threaten peace in the region by ruining "the delicate ambiguity that each country maintains about its nuclear programme."


20 July 1995

A 20 July 1995 report by the Pakistani Foreign Affairs Committee urged the state nuclear industry to recommence producing weapons-grade uranium (U-235 enriched to 90 percent). Such calls have been made in light of two factors, an imminent fissile material cut-off and the perceived need by Pakistani leaders to stockpile enough highly-enriched uranium (HEU) to "ensure sufficiency." Since a February 1992 announcement by the Pakistani Foreign Secretary that Pakistan had "permanently frozen production of highly enriched uranium and weapons cores," Pakistan has presumably continued to produce low-enriched uranium (LEU); the former Pakistani Army Staff chief has indicated that a limit of 3-5% U-235 was established. Thus, Pakistan presently possesses two uranium stockpiles, one of HEU and another of LEU (which could be enriched to produce HEU). To fully ascertain Pakistan's nuclear capability, it is necessary to approximate the quantity of LEU that the country owns. Assuming that Pakistan has produced only LEU in running the Kahuta reactor at full capacity for four years, Pakistan could have obtained an additional 5-17 MT of LEU. The following are scenarios developed to estimate time frames for the possible enrichment of Pakistan’s LEU into HEU: (1) If Pakistan now possesses 130kg of HEU, then it will be

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possible to double the HEU stockpile in 11-30 weeks; (2) If Pakistan now possesses 200kg of HEU, then it will be possible to double the HEU stockpile in 18-54 weeks.


1 July 1995

Pakistan's Kahuta plant, which started up in the early 1980s, has produced about 170kg highly-enriched uranium (HEU), an amount sufficient to produce 8-12 weapons. The initial stage of Pakistan's nuclear weapons production cycle involves mining uranium ore at Baghalchar and Qubul Khel, and milling the uranium at Dera Ghazi Khan and the Atomic Energy Minerals Center in Lahore. The nuclear plant at Dera Ghazi Khan then purifies and transforms the material into uranium hexafluoride gas (UF6) at an annual rate of 200 MT. More than 1,000 high-speed centrifuges at Kahuta enrich the UF6 to 93 percent, producing about 20kg of HEU per year. Pakistani representatives claim the Kahuta plant has already been re-designed to only produce low-enriched uranium (LEU), used to fuel the Chashma reactor. However, Pakistan also has a pilot-scale centrifuge site in operation in Sihala. Furthermore, some reports indicate another enrichment facility is under construction at Golra, but Kahuta program director A.Q. Khan denies these allegations. Finally, the Pakistani Ministry of Defense and the A.Q. Khan research center finalize the production process by molding HEU into nuclear weapon components.


1 July 1995

U.S. officials say China is providing assistance in the construction of Pakistan's 40 MW Khusab nuclear reactor. The former head of Pakistan's Atomic Energy Commission, Munir Ahmad Khan, insisted that Pakistan is building the reactor completely on its own. The Khusab reactor is not under IAEA safeguards, which means that any plutonium produced there could legally be used to build atomic weapons, although it would first have to be reprocessed. Pakistan has not "mastered" the process of plutonium extraction, although it received transfers of experimental plutonium processing technology from European companies in the 1970s. In the 1980s, Pakistan built a small plutonium extraction facility called "New Labs." The Khusab reactor could produce tritium, which Pakistan already attempted to produce by irradiating lithium. In the 1980s, German firms sold Pakistan parts for a tritium purification facility. Later, Pakistan attempted to procure from Germany 30 tons of aluminum tubing, used to "clad lithium for irradiation in a reactor."

In its 1992 Militarily Critical Technology List, the U.S. Defense Department (DOD) described Pakistan’s capability to produce a nuclear reactor independently as "limited." The report noted that Pakistan would probably require assistance in obtaining or producing key nuclear materials, such as beryllium, boron, carbide, hafnium, zirconium, lithium, graphite, and high-purity bismuth. The report also found Pakistan’s nuclear program to be deficient in critical production and testing equipment for nuclear components, including furnaces, multi-stage light gas guns, transient recorders, oscilloscopes, flash X-ray equipment, capacitors, pulse generators, high-speed computers, and sophisticated electronics.


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14 June 1995
On 14 June 1995, sources report that construction of the Chashma nuclear reactor that China has exported to Pakistan is underway and should be finished on schedule. Pakistan has already paid seven of 15 payments for the reactor. The plant is modeled after China’s new indigenously constructed 300 MW Qinshan nuclear plant. The 300-MW Chashma is located 280km from Islamabad. The primary contractor in this project is the China Zhongyuan Foreign Engineering Corporation. The secondary contractors are Shanghai Institute of Nuclear Engineering Research and Design; two subsidiaries of the China Zhongyan Nuclear Construction Company, the Ground Construction Company and the Installation Company; the Shanghai Nuclear Equipment Company; and the Qinshan Nuclear Company. The Pakistan Atomic Energy Commission’s scientific and engineering services directorate, which is carrying out 17 percent of the project’s civil works, has manufactured the main coolant piping. There are also plans for Pakistan to make nuclear power plant parts. China has agreed to train 148 Pakistani technicians at Qinshan. On 14 July 1995, the first group of 83 people completed the study program at Qinshan.


23 May 1995
In a 23 May 1995 debate on a pending foreign aid bill, the U.S. Senate’s Foreign Relations Committee voted 15 to 1 to modify the Pressler Amendment and ease restrictions on military aid to Pakistan. The amendment to the foreign aid bill, sponsored by Senator Hank Brown, retains the ban on arms transfers to Pakistan, but a spokesman for Pakistan’s Foreign Office hailed the move as a success for Pakistani Prime Minister Benazir Bhutto’s personal diplomacy, and as a step toward the eventual repeal of the Pressler law. In a 8 May 1995 question hour, India’s Foreign Affairs Minister R.L. Bhatia had warned that any transfer of sophisticated weapons systems to Pakistan under less restrictive U.S. legislation would force India to take counter-measures. The Pakistani media’s reaction to the Foreign Relations Committee’s decision was guarded, with one major daily reporting only "partial vindication" and warning that "U.S... pressure on the nuclear program is... likely to continue unabated".


4 April 1995
On 4 April 1995, U.S. President Bill Clinton called for modification of the Pressler Amendment. Without hinting at the extent of the changes he envisions, Clinton said that a revised law would make the U.S. "a stronger force for peace and reconciliation" in South Asia. The Chairman of a Senate Foreign Relations subcommittee, Hank Brown, said although he would not support the complete repeal of the Pressler Amendment, he would like to see some modification. In its current form, the Pressler Amendment has a negative effect on a major U.S.-Pakistan conventional arms deal. U.S. Arms Control and Disarmament Agency (ACDA) Director John Holum agreed with
Clinton, saying that although the Pressler Amendment had served U.S. nonproliferation goals in the past, a change would allow U.S. South Asian policy "more flexibility."

Clinton's statement came one day before the arrival in Washington of Pakistani Prime Minister Benazir Bhutto, who is expected to argue that the law is unfair because it is country-specific and ineffective since it forces Pakistan to rely heavily on its nuclear deterrent. There had been some earlier indications that the Clinton Administration was leaning toward proposing a modification of the Pressler law. The first sign was on 7 March 1995 when Undersecretary of Commerce Jeffrey Garten testified before a Senate Foreign Relations subcommittee and said the Pressler Amendment handicaps U.S. business interests in Pakistan. On 9 March 1995, Assistant Secretary of Defense Joseph Nye testified to the same subcommittee that "fine tuning" of the Pressler Amendment was needed.


April 1995

In early April 1995, at the opening ceremony of Pakistan's National Center for Non-Destructive Testing (NDT) and the Pakistan Welding Institute, Pakistan Atomic Energy Commission (PAEC) Chairman Ishfaq Ahmad Khan commented that Pakistan's nuclear goals include the achievement of self-reliance in the construction of nuclear power plants. The ceremony was led by Minister for Industries and Production Mohammed Asghar. Khan said the centers would operate on a commercial basis. PAEC speaker Pervaiz Butt revealed that Pakistan plans to have a nuclear power generating capacity of 2,000 MW by the year 2003, and 8,000 MW by 2010. Butt conceded that some foreign assistance would be required before Pakistan can begin manufacturing its own nuclear reactors. Pakistan has established a zircalloy tube plant and other specialized centers and institutes to develop nuclear technology, including "an Institute for Nuclear Power Centre for Nuclear Instrumentation & Computer Control." NDT Center Director Dr. Khalid Ibrahim said the Welding Institute, which provides training for work on various nuclear plant components, has already certified 250 welders.


March 1995

In early March 1995, head of the Saudi secret services Prince Turki ibn Faycal held talks with Pakistani Prime Minister Benazir Bhutto. Faycal's purpose was to convince Pakistan to halt contacts with Iran on military and nuclear activities.


Back to Top

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1994

26 November 1994
Pakistani Prime Minister Benazir Bhutto gives an interview, in which she says that the refusal of the US to deliver F-16 jets, which Pakistan has paid for, is strengthening the position of hardliners who want Pakistan to develop nuclear weapons. Bhutto says that her country would like recognition for refraining from detonating a nuclear device or exporting nuclear technology, despite the October 1990 cut-off in US military assistance.


5 November 1994
Pakistani President Farooq Leghari expresses his nation’s desire to acquire technology from China to build a nuclear power plant (at the end of his trip to China).


2 November 1994
Pakistani Prime Minister Benazir Bhutto arrives in France for an official three-day visit, during which she will address the possible sale of a French nuclear power plant. Tomorrow (November 3), Bhutto and French officials are expected to discuss reviving a 1984 contract for France to supply Pakistan with a 900 MW nuclear reactor. Bhutto states that France and Pakistan are engaged in "high-level" negotiations concerning the delivery of the reactor and that she is "optimistic" that the talks will be successful.


24 September 1994
US Secretary of Energy, Hazel O'Leary, states that the US and Pakistan are considering to enter a cooperation agreement for nuclear power safety. O'Leary says that she has spoken with the Chairman of the Pakistan Atomic Energy Commission (PAEC), Ishfaq Ahmad, about the possibility of cooperating in regards to nuclear safety and added that she was "open to continue the discussions."

Pakistan Atomic Energy Commission (PAEC) officials state that preliminary results of a fuel channel integrity assessment of the Karachi Nuclear Power Plant’s (KANUPP) 137 mw reactor, carried out by the Atomic Energy of Canada Ltd., were "very positive and encouraging."


15 September 1994
Pakistani Prime Minister Benazir Bhutto travels to Madrid, Spain to meet with Spanish President Felipe Gonzales. During her meeting, the prime minister says that Pakistan is committed to nuclear nonproliferation and is seeking
a regional ban on nuclear weapons in South Asia, even though it has the necessary materials and knowledge for constructing a nuclear weapon.


August 1994
Dr. Beatrice Heuser, professor of European security and nuclear strategy at King's College in London, describes Pakistan's attempt to obtain more plutonium (apparently from Russia) as "worrying."


August 1994
US Intelligence agencies discover that Pakistan is going forward on a deal to purchase M-11 missiles from China. Former Prime Minister Nawaz Sharif recently stated that Pakistan possesses a nuclear bomb. This statement has increased concern among proliferation experts that Pakistan will employ the Chinese missiles (M-11) for the delivery of nuclear warheads.


8 August 1994
China is currently constructing the Chashma nuclear power plant in Pakistan under International Atomic Energy Agency (IAEA) safeguards. It is likely that Pakistan will order a second 300 MWe plant from China. Since Pakistan is not a signatory to the NPT, it cannot obtain nuclear technology from countries other than China.


3 August 1994
At a press briefing in New Delhi, a German official of the External Affairs Ministry says that the German government has taken action against German firms covertly supplying nuclear technology to Pakistan and has deported two Pakistani diplomats who were involved in the transactions.


July 1994
Pakistan's Foreign Minister Asif Ahmad Ali, signs a joint memorandum on mutual understanding and cooperation with Ukraine. Ali declines to comment on Ukraine's non-participatory status in regards to the Nuclear Non-Proliferation Treaty (NPT). He also says that Pakistan is in favor of nonproliferation in Asia, but due to security issues, it (Pakistan) "cannot take such obligations unilaterally."

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July 1994
It is reported that the construction of the Pakistani Chashma Nuclear Power Plant (Chasnupp) is being aided by international experts from the International Atomic Energy Agency (IAEA) and China. In fact, safety experts from the IAEA have inspected Chasnupp's design. As of this date (July 1994), a group of 61 Pakistani engineers and scientists are undergoing formal training in China in the operation and maintenance of a nuclear plant.

It is believed that the technology and know-how obtained from these joint operations will spill over into areas other than nuclear technology. It is hoped that local participation in the design and construction will contribute to the knowledge and experience of scientists and technicians involved in the future creation of nuclear power plants.


30 June 1994
During a visit to Dublin, Ireland, Pakistani Prime Minister Benazir Bhutto states that India's deployment of the Prithvi missile system, which is capable of carrying a nuclear warhead, could instigate an arms race in South Asia. Bhutto also says that Pakistan has shown "tremendous restraint" and has yet to detonate a nuclear device despite India's nuclear test and recent test-firing of its missile system.


23 June 1994
At an annual conference of scientists held in Nathiagali, Pakistan, Pakistani President Farooq Leghari says that Pakistan would like to attract private investment for building nuclear power plants so that it can confront the power shortage in the country. Farooq states that all new nuclear power plants would be placed under International Atomic Energy Agency (IAEA) safeguards and that he hopes that the US and other countries (advanced in nuclear technology), would reevaluate Pakistan's nuclear program and give it "credit for the tremendous self-restraint" that it has shown and remove the restrictions currently in place.


14 June 1994
Pakistani Foreign Minister Sardar Aseff states that Pakistan "could not give up the nuclear weapons option" until its disputes with India over Kashmir are resolved.


May 1994
Pakistan's opposition parties urge Prime Minister Benazir Bhutto to resign after Foreign Minister Sardar Assaf...
announced that Pakistan may allow the US to conduct non-intrusive inspections of Pakistan's nuclear facilities. The Foreign Office later states that Pakistan will only accept such a proposal if the inspections would apply to India as well.


18 May 1994
Pakistani Foreign Minister Sardar Assef Ali says that Pakistan would be willing to permit US inspections of its nuclear facilities. Ali says, "Pakistan is ready to consider any US proposal for non-intrusive means to verify that our nuclear program is not weapons oriented."


15 May 1994
Pakistani Chief of Naval Staff, Admiral Saeed M. Khan, tells student-officers of the Pakistan Navy Staff College that the Indian Navy is working on a program to develop a nuclear propulsion capability.


5 May 1994
Former Pakistani Army Chief General, Mirza Aslam Beg, reveals that Pakistan's nuclear arsenal is controlled by the National Nuclear Command Authority (NNCA). Beg alleges that the NNCA, created in the 1970's, is operated by the Joint Operations Centre out of the General Headquarters of the army in Rawalpindi and is led by the "chief executive." Also according to Beg, all NNCA decisions are made by the Nuclear Command Committee, composed of the prime minister, the president, the army chief, and three other unspecified individuals.

Beg claims that "the NNCA determines the state of readiness which has to be maintained at all times...and lays down in great detail the policy of how the various components will be placed, protected and safeguarded." Beg also describes the potential delivery systems for Pakistan's nuclear arsenal, when he says that "we already have the F-16's, Mirages and the M11's which we are now getting from China...Through the missile program...we should have a delivery system with a very effective, accurate, guiding system provided on the missiles."


April 1994
During his visit to Pakistan, Iranian Parliament Speaker Ali Nategh Noori denies Western media reports that he held talks with Pakistani officials concerning cooperation between Iran and Pakistan in the field of nuclear technology. Some US officials claim that Iran is trying to purchase weapons technology from Pakistan.


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20 April 1994
The China Nuclear Corporation (CNNC) begins training 60 Pakistani engineers and technicians in China, in the areas of nuclear power plant (NPP) operation and maintenance, as agreed to in the contract under which it provided the 300 MW Chashma NPP to Pakistan. At the conclusion of the course (training) at the post-graduate school, the trainees will receive hands-on instruction at China's Qinshan plant, whose design is being used in the construction of the Chashma plant.

9 April 1994
US Deputy Secretary of State Strobe Talbott states that talks with Pakistani diplomats concerning Pakistan's nuclear program have been good but that more work remained to be done. Talbott is hoping to convince Pakistan to allow a verifiable cap of its nuclear program in exchange for a one-time waiver of the Pressler Amendment, which would allow the US to deliver 38 F-16 aircraft. On a related note, Talbott visits Pakistan shortly after Prime Minister Bhutto announced, "if we are unilaterally pressed for the capping, it will be discriminatory and Pakistan will not agree to it."

29 March 1994
US Deputy Secretary of State Strobe Talbott and Pakistan's Ambassador in Washington D.C., Maleeha Lodhi, discuss the possibility of convening an international conference on nuclear nonproliferation in South Asia. The proposed conference would include all permanent members of the UN Security Council, as well as Japan and Canada. Pakistan is also seeking a one-time waiver of the Pressler Amendment to permit the delivery of 40 F-16 aircraft from the United States. In exchange for the waiver, Pakistan would allow international inspections of its nuclear facilities only if India allows inspections as well.

20 February 1994
The Prime Minister's special assistant on economic affairs, Shahid Hasan, states that Pakistan is considering "at the highest level," a French offer to revive an agreement signed during the previous Pakistan People's Party government, whereby France would supply Pakistan with a nuclear power plant.

January 1994
Pakistan establishes a nuclear research institute at the Pakistan Institute of Nuclear Science and Technology (PINSTECH), designed to study nuclear steam supply systems. The new institute will also study the work done at other establishments run by the Pakistan Atomic Energy Commission (PAEC) and will give advice on research and

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development and design engineering and safety enhancement at Pakistan's nuclear power plants.

31 January 1994
A five-member delegation from the US Arms Control and Disarmament Agency (ACDA), led by acting director Tom Graham, will visit Pakistan (Feb. 1-3, 1994), to participate in discussions with Pakistani officials regarding the Pakistani nuclear program. A US Embassy spokesman says that the ACDA team, which is expected to call on Pakistan to join the Conference on Disarmament, may bring up the question of Pakistan joining the Comprehensive Test-Ban Treaty (CTBT).

17 January 1994
Pakistan Atomic Energy Commission (PAEC) Chairman, Ishfaq Ahmad says that Pakistan will soon be able to build its own nuclear power plants, saying "in fact, a successful experiment in this regard has already been made." He stresses Pakistan's commitment to pursue its nuclear program, which he characterizes as "totally peaceful" and directed only towards "the social uplift of the people." Ahmad adds that the Pakistan Institute of Nuclear Science and Technology (PINSTECH) has been in charge of the nuclear research and development program, which has been underway for 25 years. At KANUPP, Ahmad says, Pakistani scientists have "prepared spare parts and a full-fledged computer program." In addition, he says that Pakistan's 300 MW Chashma nuclear power plant, being built with the aid of China, is expected to become operational by 1996.

13 January 1994
A group of Canadian engineers representing the Candu Owners Group recently conduct an inspection of Pakistan's 137-MW Karachi Nuclear Power Plant (KANUPP) and find no evidence of hydride corrosion of the fuel channel walls, a common problem found in Canadian-produced Candu reactors after twenty years of service. The inspection team works under the auspices of the International Atomic Energy Agency (IAEA) as part of the Safe Operation of KANUPP (SOK) program developed in 1989.

1 January 1994
Pakistani Prime Minister Benazir Bhutto is angered by statements made by Federal Minister for Special Education-Sher Afghan Khan Niazi and Pakistan Atomic Energy Commission (PAEC) Chairman Ashfaq Ahmed concerning the state of the Chashma Nuclear Power Plant, and consequently issues a directive effectively banning public statements on nuclear power plants. Back in December 1993, Afghan Khan Niazi reportedly told Bhutto that the 300-MW Chashma nuclear power plant, which is being built with Chinese assistance, could be unsafe because of the way in which its monitoring system is being developed.

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1993

31 December 1993
The Indian and Pakistani Foreign Ministers are scheduled to meet in Islamabad to discuss their disagreements on nuclear developments in the region, which could risk a nuclear war if not resolved. Both neighboring states have stockpiled substantial amounts of fissionable material that would allow them to create and detonate nuclear devices within a short period of time.

30 December 1993
Ashfaq Ahmed, Chairman of the Pakistan Atomic Energy Commission (PAEC), announces at a science conference in Lahore that Pakistan processes all of its uranium domestically and does not need to import uranium since it exploits its own reserves. Ahmed says that Pakistani scientists are self-sufficient and do not rely on foreign assistance or cooperation in the nuclear field. He also states that Pakistan is capable of building its own nuclear power plants and that its scientists have been able to indigenously build a number of major power plant components that were imported in the past. Ahmed adds that Pakistan's nuclear program is for peaceful ends only and that the issue of rolling back the program is political in nature and does not involve the scientists.

7 December 1993
Pakistani Prime Minister Benazir Bhutto refutes charges made by the opposition that she intends to cut back the nation's nuclear program in order to appease US interests. Bhutto says that, "As long as there is no threat to our security, the programme will remain peaceful. We have explained to the United States that we cannot roll back our nuclear programme."

25 November 1993
Pakistani Prime Minister Benazir Bhutto says that Pakistan has reopened talks with France over transfer of a nuclear power plant promised by French President Francois Mitterand in 1990. France had put the discussion of the transaction on hold because there was uncertainty as to whether Pakistan would allow full International
Atomic Energy Agency (IAEA) inspections of its nuclear facilities. Bhutto has since told France that "Pakistan is ready to fulfill all the safeguards in this regard." She states that, "the nuclear power plant shall be the best example of French-Pakistan friendship." Pakistan has previously stated that it would not allow international inspections of its nuclear facilities unless India agrees to do so as well. Western diplomats raise the question whether Pakistan can afford a nuclear plant from France.


9 November 1993
The Canadian High Commissioner to Pakistan, Louis A. Delvoie announces that Canada can no longer provide technical assistance to Pakistan's Karachi Nuclear Power Plant (KANUPP) because of Pakistan's refusal to sign the Nuclear Nonproliferation Treaty (NPT) and accept full scope safeguards. This announcement reflects Canada's uniform nuclear cooperation policy with all of the UN member countries. Delvoie states that, "there is absolutely no misunderstanding between the two sides on this issue." Delvoie also mentions that approximately twelve Canadian technicians are currently assisting in the safety operations at the Pakistani plant.


6 November 1993
US Assistant Secretary of State Robin Raphel meets with Pakistani Prime Minister Benazir Bhutto and Army Chief General Abdul Waheed in Islamabad to discuss US-Pakistan relations and differences in regards to the Pakistan nuclear program. However, little progress is made on the nuclear issue between the two sides.


3 November 1993
At the annual report of the International Atomic Energy Agency (IAEA) at the United Nations, Pakistani delegate Ahmed Kamal complains about restrictions imposed on the transfer of nuclear technology for peaceful purposes. Kamal says that such restrictions are based on narrow-mindedness and a superiority complex. Kamal also mentions that Pakistan has made several proposals to create a South Asian nuclear free zone and that it is committed to nuclear nonproliferation.


28 October 1993
Pakistani Foreign Minister Sardar Asif Ahmad Ali speaks before the Pakistani National Assembly and states that Pakistan has no intention of rolling back its nuclear program. Ali says that the nuclear program plays a very important role in the country's economic development and national security. Minister Ali also says that Pakistan's leaders have chosen not to build nuclear weapons and not to transfer sensitive nuclear technology to other countries.

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20 October 1993
Recently-elected Pakistani Prime Minister Benazir Bhutto says that Pakistan will proceed with its nuclear program which US intelligence believes is oriented toward the development of nuclear weapons. Bhutto says that the nuclear program "will be continued because Pakistan cannot allow India to have an atom bomb while we stay out of the running." Bhutto suggests that relations between the US and Pakistan will remain tense and that she intends to address the issue of the Pressler Amendment which bans US aid to Pakistan unless the President declares that Pakistan does not have nuclear weapons. Bhutto says Pakistan will consider "the aspect of regional non-proliferation" and "the questions of taking on the whole question of Pressler and how it can be removed." She also hopes that France will carry out a previously suspended deal to supply Pakistan with a nuclear power station.


19 October 1993
Recently-elected Pakistani Prime Minister Benazir Bhutto, announces that she wishes to resolve any misunderstandings that exist between the United States and Pakistan in regards to Pakistan's nuclear program. Bhutto says that she would like to "renew the old relationship of friendship which we have had with the US."


12 October 1993
Swedish Foreign Minister Margaretha AF Ugglas makes a speech in New Delhi in which she urges India and Pakistan to join the Nonproliferation Treaty (NPT). The foreign minister advises that such a step would do much to ease the present tensions in South Asia.


5 October 1993
Yuriy Sergeyev, director of the information service of the Ukrainian Foreign Affairs Ministry, reports that Ukraine has never sold nuclear technologies to either Pakistan or Libya. Sergeyev says that Ukraine would not engage in such activities due to its membership in the International Atomic Energy Agency (IAEA) and other international organizations.


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1 October 1993
Canada will aid Pakistan under International Atomic Energy Agency (IAEA) supervision, in a safety inspection of its Canadian-built Karachi Nuclear Power Plant (KANUPP). The plant is scheduled to close on October 5th for the inspection, which is expected to last for one month (Oct-Nov 1993).

24 September 1993
Pakistani Prime Minister Moeen Qureshi says that Pakistan has suspended its nuclear program and that he expects the United States to review its embargo on economic and military aid to Pakistan. Qureshi states that Pakistan is "not proceeding any further beyond the given point that we have reached in our nuclear programme," and that it "is not working on making any nuclear weapons of any kind." Qureshi also says that he believes that the US will rescind the embargo because of the growing military imbalance between Pakistan and India and the need for a deterrent against Indian aggression.

19 September 1993
Organization of Islamic Conference (OIC) Secretary General Hamid al-Ghabid and President Wasim Sajjad call for peaceful nuclear cooperation among Islamic countries, during a presentation to the OIC’s Committee on Scientific and Technological Cooperation in Islamabad. Both officials reiterate Pakistan's commitment to continue its nuclear program.

16 September 1993
Pakistan Senator Qazi Hussain Ahmed, chief of the Pakistan Islamic Front (PIF), vows to make Pakistan a nuclear power if his party is elected. Ahmed says that nuclear capability would serve as a deterrent which would secure peace and tranquility.

September 1993
Pakistan Foreign Secretary Shaharyar Khan and US Assistant Secretary of State for South Asian Affairs-Robin Raphael, along with other US and Pakistani officials, meet in Washington DC to discuss regional security and nuclear nonproliferation in South Asia. Secretary Khan states that the talks were "constructive and positive." He also notes that he was pleased with the Clinton Administration's fair approach toward both India and Pakistan on nuclear issues. Lastly, Khan reiterates Pakistan's promise to eliminate its nuclear program if India does so as well and states that Pakistan has halted its nuclear program "at the 1990 level" but has not rolled it back.

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August 1993
The Japanese government releases an aid package of $350 million to Pakistan while asserting that future Japanese aid will be linked to changes in Pakistan's nuclear program and defense budget. The economic aid package was originally scheduled to be released in December 1992, but was delayed after former Prime Minister Benazir Bhutto admitted on a Japanese television program that Pakistan had a nuclear weapons program.


26 July 1993
General Mirza Aslam Beg, former Chief of Staff of the Pakistani Army, denies that he made the statement that Pakistan had tested a nuclear weapon in 1987. Beg was quoted in the Awaz International as saying that "Pakistan crossed the line in 1987," and that "Pakistan carried out the test in cold laboratory conditions and it was very successful." However, Beg later told the newspaper Jang that "there's no such thing as a cold test"; he says, "That statement was wrongly attributed to me." Dr. Abdul Qadeer Khan, a Pakistani nuclear scientist, says that he had no knowledge that Pakistan had "ever made any experimental nuclear explosion"


8 April 1993
After a three day visit to Pakistan, Russian Foreign Minister Andrey Kozyrev announces that the two countries have agreed to cooperate in nuclear power projects "in accordance with appropriate international safeguards." He says that Russia is willing to supply Pakistan with nuclear power plants.

6 April 1993
Pakistan and Russia sign a nuclear cooperation agreement. Activities under the agreement will be carried out in accordance with appropriate international safeguards.

April 1993
After a three day visit to Pakistan, Russian Foreign Minister Andrey Kozyrez announces that the two countries have agreed to cooperate in nuclear power projects "in accordance with appropriate international safeguards." He says Russia is willing to supply Pakistan with nuclear power plants.

24 February 1993
Pakistan and the International Atomic Energy Agency (IAEA) sign an agreement for the application of safeguards in connection with the supply of a nuclear power station from the People's Republic of China to Pakistan. The IAEA Board of Governors approved this agreement back on June 19, 1992.

31 January 1993
A five-member parliamentary delegation from the Democratic People's Republic of Korea led by the Chairman of the Standing Committee of the Supreme People's Assembly, Yang Hyong-sop, meets with Pakistani Senate Chairman Wasim Sajjad in Islamabad to discuss the nuclear situation in South Asia. Sajjad states that Pakistan supports the peaceful use of nuclear energy and has called for a Nuclear Non-Proliferation Treaty (NPT) meeting for all South Asian nations. According to Sajjad, the NPT will only work if all South Asian countries, including India, sign the treaty. Yang Hyong-sop agrees with Sajjad in that Pakistan should adopt a regional approach on nuclear nonproliferation.

26 January 1993
Pakistani nuclear scientist, Dr. Abdul Qadeer Khan, gives an interview to Family Magazine in which he asserts that the Kahuta nuclear plant is used only for enriching uranium, the same uranium which will be used in the 300-megawatt nuclear plant that Pakistan is acquiring from China. Khan also states that Pakistan's ability to enrich uranium ensures its self-reliance and also saves foreign exchange.

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15 January 1993
The Pakistani government decides to accept the Pakistan Atomic Energy Commission's (PAEC's) "Safe Operation of KANUPP," a plan to enhance the life of the Karachi Nuclear Power Plant (KANUPP). The plan has cleared the Cabinet Committee on Energy, and the Finance Ministry will release Rs. 154 million for the first installment of the six-year renovation process. Canada will return to the assistance of Pakistan by offering technology to renovate KANUPP through the Candu Owners Group. KANUPP currently serves as a training facility for Pakistani nuclear scientists and provides access to Western technology.


4 January 1993
Pakistan and India exchange lists of their nuclear sites for the second year in a row in compliance with a 1988 agreement of nonaggression toward each other's nuclear installations. Neither India nor Pakistan discloses the content of the lists to outside sources as both nations have declined to sign the Nuclear Non-Proliferation Treaty and claim that their nuclear programs are only intended for peaceful purposes.


1992
26 December 1992
Pakistan begins to excavate the site for the 300 megawatt pressurized water reactor it is buying from the People's Republic of China (PRC). The excavation ceremony at Chashma is attended by Chinese ambassador to Pakistan, Zhou Gang, and the Chairman of the Pakistan Atomic Energy Commission (PAEC), Ishfaq Ahmad. It is said that the PRC will supply Pakistan with the plant, despite strong objections from the US and other Western nations. The contract for the PWR was signed in Beijing on 3 December 1991 and Pakistan made its first down-payment earlier this year in February. The PRC and Pakistan have made plans for equipment manufacture, while construction is projected to start next year.


18 December 1992
Mohammad Nawaz Sharif, the Pakistan Prime Minister, says that Pakistan will not allow inspections of the nuclear facilities at Kahuta. Secondly, he says that Pakistan would sign any non-discriminatory agreement with India on the nuclear issue, as long as it guaranteed that the two countries will be "at par in letter and spirit." He adds that reports of Pakistan possessing a nuclear warhead are untrue and repeats that its nuclear program "is geared

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entirely to peaceful purposes." Sharif also says that, "We have to confront over one hundred nuclear warheads of the enemy [India] that threaten our security."


17 December 1992
Pakistan Prime Minister Mohammad Nawaz Sharif visits Japan for the first time and meets with Japanese Prime Minister Kiichi Miyazawa. Sharif agrees to Miyazawa's proposal to hold bilateral talks with Japan on nuclear proliferation issues. These talks will be similar to those that Japan will hold with India early in 1993. In reference to the Japanese-Indian talks to be held, Sharif believes that "Japan can play a very effective role in that issue." Japan has a new policy of connecting economic assistance to disarmament and nuclear nonproliferation.


1 November 1992
In 1990, the research reactor at the Pakistan Institute of Nuclear Science & Technology (PINSTECH) was shutdown. However, since then it has been upgraded from 5 MW to 9 MW and is back on line. It has also been converted to low-enriched uranium fuel.


13 October 1992
Iranian Ambassador to Pakistan Agha Mohammad Javad Mansuri denies that the government of Iran is considering cooperation with Pakistan in the nuclear sector. The Iranian Ambassador said that European countries were spreading rumors of joint work between Pakistan and Iran on the development of nuclear technology.


8 September 1992
Iranian President Ali Akbar Hashemi-Rafsanjani rejects allegations that Pakistan and Iran are cooperating in the development of nuclear weapons. He says Iran is not developing nuclear weapons and that the question is "only relevant to Pakistan itself."


20 August 1992
Pakistan’s Secretary General of Foreign Affairs-Akram Zaki says Pakistan and the PRC (China) will stand by (honor) all bilateral agreements signed, even if they concern the supply of a nuclear power plant.


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12 August 1992
A Pakistani Foreign Office spokesman says that the PRC-Pakistan agreement for a 300 MW nuclear power plant was completed under International Atomic Energy Agency (IAEA) safeguards. He notes that Pakistan has the sovereign right to develop peaceful nuclear energy.

20 July 1992
The Nuclear Suppliers Group's (NSG's) stance prohibiting Western vendors from equipping a 300 MW PWR in Pakistan has put the Pakistan Atomic Energy Commission (PAEC) under great pressure. Western vendors stated that the PRC (China) would be unable to supply the reactor without their help and that the deal would likely fall through because China is unable to supply key components of the reactor. France, Germany and Japan supplied components to construct the Chinese Quinshan reactor.

7 July 1992
Pakistani General Inam al-Haq is convicted in Philadelphia for conspiracy to falsify statements for an export license for maraging steel-350. Al-Haq was the partner of Arshad Pervez, a Pakistani-born Canadian, who was found guilty in 1987 for attempting to illegally export beryllium from the US to Pakistan. Pervez was also indicted for attempting to bribe a US customs agent for an export license for maraging steel and falsifying end-use statements.

1 July 1992
At the inauguration ceremony for the re-designed research reactor at the Pakistan Institute of Nuclear Science and Technology (PINSTECH), Pakistani President Ghulam Ishaq Khan states that Pakistan will not give up its peaceful nuclear program, since Pakistan sees the peaceful development of nuclear technology as a sovereign right. Punjab Chief Minister Ghulam Haider Wyne states that Pakistan needs nuclear technology for its industrial and agricultural sectors and expresses regret that some Western countries have blocked the transfer of nuclear technology to Pakistan.

15 June 1992
The International Atomic Energy Agency (IAEA) Board of Governors approves a draft agreement from Pakistan requesting IAEA safeguards for the 300-MW Chinese nuclear power plant under construction at Chashma. Pakistan Atomic Energy Commission (PAEC) officials say that Pakistan will now be able to incorporate safeguard measures during construction.

**11 June 1992**
France declines to supply a nuclear power plant to Pakistan. France had agreed to provide the plant during Pakistan's Prime Minister’s visit to France, earlier this year in January. France had earlier canceled the sale of a nuclear reprocessing plant to Pakistan. A Foreign Office Spokesperson states that France has made changes in its nuclear equipment export policy and the chances of a sale of a power plant to Pakistan are "remote". France refuses to enter any nuclear transaction with a country that refuses to sign the NPT. Pakistan's unwillingness to sign the NPT unless India does seems to be the reason for France backing out on the deal.


**10 June 1992**
A spokesperson for Pakistan’s Foreign Ministry says that there is a "very, very remote possibility" that France will supply a nuclear power plant originally promised for Pakistan in 1990 by French President Francois Mitterrand. The spokesperson also notes that France will only export nuclear plants to countries which have adopted full International Atomic Energy Agency (IAEA) safeguards. Pakistan is only willing to accept full-scope IAEA safeguards if India does so also. Both India and Pakistan claim that their nuclear programs are for peaceful purposes but neither has signed the NPT.


**4 June 1992**
The Pakistan National Assembly approves the allocation of 693 million rupees (US $27 million) to the PRC (China) as down payment for a 300 MW PWR. The contract was signed back in December 1991 between Pakistan and the China National Nuclear Corporation. Also, Pakistani and Chinese engineers are already working on the details of the turnkey project.


**25 May 1992**
Pakistan upgrades a 1960s US model research thermal reactor from 5MW to 10MW. The Director of the Pakistan Institute of Nuclear Science and Technology (PINSTECH) says that the reactor will now use lower-enriched fuel, 20% U-235 instead of the 93% U-235 used in the past. The new fuel is fabricated in China. Ishfaq Ahmed, Chair of the Pakistan Atomic Energy Commission (PAEC), says that his commission is preparing to overhaul the 137MW KANUPP power plant and to purchase standardized nuclear plants from China and possibly other friendly countries. President Ghulam Ishaq Khan says that Pakistan's success in upgrading the research reactor was especially important given the western countries' embargo on the transfer of nuclear technology to the developing countries because of its potential dual use. He also states that Pakistan will continue to develop its nuclear program, but it will not transfer sensitive technology to third countries because of its commitment to

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nonproliferation. He also thanks China for assistance in development of the Pakistani nuclear program and the planned purchase of a 300MW nuclear power plant.


**May 1992**

Javed Iqbal Abbasi, Pakistan’s Parliamentary Affairs Minister, says that work has begun on the installation of a 300-MW nuclear plant, which will be supplied by China. The plant is scheduled to start operation by the end of 1998.


**30 April 1992**

The management of the Karachi Nuclear Power Plant (KANUPP) submits a proposal to the Pakistani government under which KANUPP could operate economically until 2012 if electricity generated can be sold at competitive prices, the government allocates more money for safety improvements, and Canada continues to allow technical support for safety improvements. The KANUPP project, called Safe Operation of KANUPP, has been endorsed by the International Atomic Energy Agency (IAEA).


**23 April 1992**

In recognition of the Karachi Nuclear Power Plant's (KANUPP's) successful operation for twenty years, the Pakistan Atomic Energy Commission (PAEC) collaborated with the Tokyo Centre of the World Association of Nuclear Operators to present a seminar in Karachi, on the topics of ageing, refurbishment and life extension of nuclear power plants. Pakistan's government is considering upgrading KANUPP, a Canadian unit with a 30 year design life.


**13 April 1992**

Pakistan’s Minister of State for Foreign Affairs- Siddique Khan Kanju says that Pakistan has "certain technical nuclear capability" for peaceful uses. Kanju endorses Federal Defense Minister- Syed Ghous Ali Shah’s statement on Pakistan’s nuclear capability. He says that Pakistan is reiterating its sincere proposals for creating a nuclear-free zone in South Asia.


**13 March 1992**

In a Pakistani Parliament debate, Senator Tariq Chaudry argues that Pakistan must explode a nuclear device prior to attending a proposed 5-nation conference on nuclear nonproliferation in South Asia. Since India detonated a nuclear device in 1974, Chaudry says that it (India) would not "be affected" by signing the NPT, but that Pakistan would be at a disadvantage since it has not exploded a device.

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12 March 1992
Pakistani Prime Minister Nawaz Sharif says that China's accession to the Non-Proliferation Treaty (NPT) does not change his call for a five-nation conference on a regional nuclear weapons-free zone, but he also says that he has proposed bilateral negotiations to India's prime minister.


9 March 1992
A spokesperson for the Pakistan Atomic Energy Commission (PAEC), says that the Karachi Nuclear Power Plant (KANUPP) is running under full safeguards and has been inspected regularly by the International Atomic Energy Agency (IAEA). The IAEA states that the plant's "procedures and safeguards" meet international standards. The PAEC and IAEA will continue to observe the plant.


29 February 1992
High-ranking Kazakh and Pakistani officials meet in Kazakhstan to discuss cooperation in the area of nuclear technology between the two states. Following the meeting, Kazakhstan declares its willingness to cooperate with Pakistan in nuclear technology, as it is convinced that Pakistan's nuclear program is a peaceful one.


20 February 1992
Pakistani State Minister for Foreign Affairs- Mohammad Siddique Kanjoo says that Pakistan will use its nuclear capability only for peaceful purposes and will not transfer this technology to other countries. Pakistan is ready to sign the NPT simultaneously with India. In addition to its proposals for a five-nation conference on nuclear nonproliferation in South Asia, Pakistan supports a regional nuclear test ban treaty, a joint declaration with India renouncing production of nuclear weapons, and negotiating a system of bilateral nuclear inspections and simultaneous adoption of IAEA safeguards by India and Pakistan.


20 February 1992
Australian Minister of Foreign Affairs and Trade, Senator Gareth Evans, says that Australia is "deeply disturbed" by the admission by Pakistani Foreign Secretary, Shahryar Khan, that Pakistan has nuclear weapons capability. Australia appreciates the honesty but fears this admission by Pakistan will challenge the international nuclear nonproliferation regime. Evans also says that his country welcomes Pakistan's claim that it will not transfer nuclear technology.
10 February 1992
Abida Hussein, Pakistan's Ambassador to the US, and Fakhr Imam, Pakistani Minister for Education, both speak at George Washington University. Hussein says that Pakistan began its nuclear weapons program in 1978 and that until the current acknowledgement by Foreign Secretary Shaharyar Khan that Pakistan has nuclear weapons capability, Pakistan's governments had not admitted the truth about its program. She confirms Khan's statement and says Pakistan has a "freeze" on nuclear weapons development and will discuss disarmament with India but will not "roll back" its program unilaterally. Hussein says that the nuclear deterrent had lessened the chance of war between India and Pakistan. She also discussed growing (non-nuclear) ties to the Islamic Republics of the former Soviet Union.

8 February 1992
Pakistani Foreign Secretary Shahryar Kahn says that Pakistan has the capability to build a nuclear weapon, but it has not and will not build one, nor will it transfer nuclear technology to other countries. He says that the current government has frozen its nuclear weapons program and wants to meet with India to discuss regional nuclear disarmament as encouraged by the US, Russia, and the PRC. Khan also mentions that Pakistan would only roll back its nuclear program if India does so as well. He proposes that India and Pakistan agree on "mutual inspections" of each other's nuclear facilities.

1 February 1992
Pakistan's Atomic Energy Commission (PAEC) will offer a 1-year training program in nuclear technology.

1 February 1992
Pakistan denies reports that it has exported enriched uranium to Iraq, and says that there has been no cooperation between the two countries. Pakistan is the only Muslim country capable of enriching uranium.

1 February 1992
Prime Minister Nawaz Sharif denies the rumors that Pakistan is helping rebuild and upgrade an Iranian research reactor along the lines of its own Atomic Research reactors-PARR I & PARR 2.
1 February 1992
In an interview with the Asia-Pacific Defense Reporter, Pakistani Prime Minister Nawaz Sharif states that Pakistan supports regional nuclear non-proliferation regimes. Sharif’s proposal for a regional regime for South Asia--to include Pakistan, India, the PRC, the US, and the CIS--has been supported by all countries except India, which has recently indicated it will reconsider its initial rejection of the proposal. Sharif declares that "Pakistan will not produce nuclear weapons." Pakistan is willing to accept any inspections and international safeguards that are applied in a non-discriminatory manner.

29 January 1992
A spokesperson for the Pakistani Foreign Office says that Pakistan and France have "agreed in principle" to sign an agreement on cooperation in peaceful uses of nuclear technology but that the details had to be worked out. The agreement was made when Pakistan’s Prime Minister was in France recently.

14 January 1992
The Bush administration tells Pakistan that it must destroy the parts it is believed to have for at least two nuclear weapons before the US will resume aid. The Pakistani government of Nawaz Sharif denies that it has the parts, and states that complying with the US demand would create a political problem since nuclear capability is an important symbol of prestige for Pakistan. Meetings between the new army chief of Pakistan, General Asif Nawaz, and US officials did not resolve the dispute. Pakistan says it has stopped production of enriched uranium and oralloy (made from uranium for nuclear weapon cores) in order to meet US conditions for aid renewal.

13 January 1992
U.S. Senator Larry Pressler concludes a visit to Pakistan by calling on the country to "take steps publicly to dismantle its nuclear bomb and its nuclear capability."

13 January 1992
Pakistani Prime Minister, Mohammed Nawaz Sharif, announces that France will pay Pakistan US $118-million as compensation for breaching a deal made in 1974 to supply Pakistan with a reprocessing plant. The deal was made by then-Prime Minister Zulfikar Ali Bhutto, but was canceled by France in 1978 after its nuclear export policy was changed in 1977. The Pakistani Atomic Energy Commission (PAEC) former Chairman, Munir Ahmed Khan, says that Pakistan had been seeking more money but the sum would cover costs of civil work PAEC had spent on the project. The French firm Saint Gobain Nucleaire (SGN), now Societe General pour les Techniques Nouvelles, was to help build the plant. A French Foreign Office spokesman indicates that France will not confirm the dollar figure of the
compensation until after the visit by Prime Minister Mohammed Nawaz Sharif, which is scheduled for January 15-19, 1992.


13 January 1992

U.S Senator, Larry Pressler says that the US "is convinced," that Pakistan possesses a nuclear device. Pressler says that the US fears "an Islamic bomb" either in Pakistan or in the Central Asian republics of the former USSR. An anonymous Pakistani official said that his government had told the US that it is not aiding Iran in its attempts to build nuclear weapons, a statement contrary to US intelligence reports. The official said that an Iranian request made within the last few years to former army chief of staff Mirza Aslam Beg for access to Pakistan's nuclear weapons technology was turned down. In exchange for this access, Iran offered a pledge to write off Pakistan's debts and meet its financial needs.


9 January 1992

China states that it will provide credit for financing Pakistan's purchase of a 300-MW Pressurized Water Reactor (PWR). The turnkey project is estimated to cost $600 million (US) and will be modeled on China's Qinshan-1 nuclear plant. China will also supply the first core and two reloads. Also, the PWR will be under International Atomic Energy Agency (IAEA) safeguards. Furthermore, the 300-MW PWR will be of indigenous Chinese design, with major components being supplied by foreign companies, including Mitsubishi of Japan (reactor vessel), Klein, Schanzlin & Becker of China (major pumps) and Framatome of France (instrumentation and control equipment).


2 January 1992

The Parliament of Tajikistan reveals that the government is considering selling enriched uranium and technology for uranium production. Interested parties from Iran, Iraq, Turkey, Saudi Arabia and Pakistan have all visited the former Soviet republic. Tajikistan is rich in uranium and new deposits have recently been discovered.


2 January 1992

India and Pakistan exchange lists of their nuclear-related facilities-including uranium enrichment plants-under the terms of a 1988 agreement (which came into force in 1991) by both countries not to attack each others' installations. According to the agreement, India and Pakistan will exchange these lists, annually. Neither party has signed the Non-Proliferation Treaty (NPT) or allows International Atomic Energy Agency (IAEA) inspections at its nuclear installations. However, Pakistan continues its pledge to sign the NPT if India agrees to as well.


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1 January 1992
Pakistan and India exchange lists of their nuclear facilities in accordance with the 1988 agreement between the two countries prohibiting attack on each other's nuclear sites. The agreement came into force in 1991. This is the first such exchange of lists.

1991

12 December 1991
Abida Hussain, Pakistan's new ambassador to the United States, wants the United States to convene a regional conference on nuclear nonproliferation in South Asia. She says that a new opportunity to move forward on the issue was provided when the People's Republic of China (PRC) announced that it was willing to sign the Non-Proliferation Treaty (NPT). Hussain also states that India has been unwilling to renounce nuclear weapons because China has them as well.

1 December 1991
A report, published by Pakistan's National Conservation Strategy (NCS), states that the Karachi Nuclear Power Plant (KANUPP) could be threatened by earthquakes of up to 7.6 on the Richter scale.

1 December 1991
The Karachi Nuclear Power Plant (KANUPP), located on Pakistan's coast, is being threatened by erosion caused by monsoons. The plant's management is taking measures to deal with the problem.

1 December 1991
Zahid Ali Akber, Chairman of the Pakistani Water and Power Development Authority (WAPDA), suggests that Pakistan's nuclear power plants be placed under the direction of his utility, in order to end international concerns that the plants are involved in weapons production. The Government's response to this suggestion is positive.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
25 November 1991
India states that it is "ready to consider" the Pakistani proposal for a five nation conference on the topic of nuclear proliferation in South Asia. Besides India and Pakistan, the conference would also include the US, USSR and China.

November 1991
J. Hashmi, Director of Pakistan's Karachi Nuclear Power Plant (KANUPP), expects Cegelec of France to sign a contract for $40 million, in order to supply and install instrumentation and control equipment as part of an upgrading program at KANUPP. The entire upgrading program is expected to be worth $16 million.

November 1991
Ishfaq Ahmad, Chairman of the Pakistan Atomic Energy Commission (PAEC), says that Pakistan is planning to modernize the Karachi Nuclear Power Plant (KANUPP), in order to increase its capacity and extend its life. Ahmad says that the redesign of the Pakistan Research Reactor (PARR-1) has moved Pakistan closer to its goal of manufacturing a nuclear reactor indigenously.

31 October 1991
The Pakistan Research Reactor (PARR-1), located at the Pakistan Institute of Scientific and Industrial Research (PINSTECH), is redesigned and upgraded, and goes critical. The conversion work allows the reactor to operate at 10 MW on 20% enriched fuel and should extend the life of the reactor another 25 years beyond its original 25-year design life. Pakistan Atomic Energy Commission (PAEC) engineers are considering a similar 25-year life expansion for the Karachi Nuclear Power Plant (KANUPP).

22 October 1991
Pakistani nuclear scientist, Dr. Abdul Qadir Khan, says that Pakistan has in fact become a nuclear power and is working on building "sophisticated arms to fulfill its requirements." This achievement comes 10 years after Pakistan setup its first nuclear enrichment plant at Kahuta in 1981 and makes Pakistan one of the few countries in the world with nuclear technology and know-how.

21 September 1991
China will set up two thermal power reactors in Muzzaffargarh, Pakistan, based on the agreement signed in Beijing.
by the chairman of Pakistan's Water and Power Development Authority and the chief of the Chinese Machinery and Equipment Export Corporation. The cost of the reactors will be $157 million.


17 September 1991

Ishfaq Ahmad, Chairman of the Pakistani Nuclear Energy Commission, states that for the last 19 years, Pakistan has supported the formation of a South Asian nuclear weapon-free zone and continues to seek a regional approach to nuclear nonproliferation. Ahmad says that Pakistan's nuclear program is entirely peaceful and necessary for its socioeconomic development. He encourages more cooperation between the developed and developing nations for peaceful uses of nuclear energy.


9 September 1991

Pakistani Finance Minister Sartaj Aziz and Chinese Vice-Minister for Foreign Economic Relations and Trade, Gu Yongjiang, sign a preliminary agreement which would entail Pakistan obtaining thermal power plants from China.


1 September 1991

The operators of the Karachi Nuclear Power Plant (KANUPP) expect to increase the plant's life by 10 years using locally produced resources. The plant is currently operating using only Pakistani maintenance (since 1972). The confidence of the Pakistan Atomic Energy Commission (PAEC) has risen after tests and upgrades have been performed using Pakistani mined and fabricated fuel.


1 September 1991

Pakistan refutes India's accusation that it (Pakistan) has received uranium in secret and says that all of its uranium imports have been registered with the International Atomic Energy Agency (IAEA). India had accused Pakistan of shipping the uranium from the port at Karachi to the Kahuta enrichment plant.


24 August 1991

Ramon Jean Hnatyshyn, Governor General of Canada, welcomes Pakistani Prime Minister Nawaz Sharif's proposal for nuclear nonproliferation in South Asia, during a ceremony accepting the new Pakistani High Commissioner, Retired Air Chief Marshal Hakimullah. Hnatyshyn says that Canada will welcome any efforts leading India and Pakistan to sign a nonproliferation agreement because it would benefit the entire region.

—"Envoy Assured of Canadian Support on Arms Control," Radio Pakistan Overseas Service (Islamabad), 24 August

**22 August 1991**
The Karachi Chamber of Commerce & Industry hosts a reception honoring Dr. Abdul Qadir Khan, the Director of the A.Q. Khan Laboratories at Kahuta. Khan speaks about the Kahuta project and says that he has trained replacements for himself, so that the project can continue in the future, should something happen to him. Khan also speaks about the establishment of the Ghulam Ishaq Khan Institute for Science & Technology, which is funded by the Bank of Credit and Commerce International (BCCI) of Pakistan.


**19 August 1991**
Wasim Sajjad, Chairman of the Senate and leader of the Pakistani delegation to the People's Republic of China (PRC), says (after returning from China) that Beijing is willing to work with Islamabad to implement Prime Minister Nawaz Sharif's plan for a nuclear-free zone in South Asia.


**11 August 1991**
A Pakistani delegation leaves for an official visit to the People's Republic of China (PRC), to discuss the prime minister's proposal on South Asian nuclear nonproliferation and other bilateral and regional relations, including the PRC's willingness to sign the Non-Proliferation Treaty (NPT). The delegation is led by Senate Chairman Wasim Sajjad and includes the Secretary General of Foreign Affairs, Akram Zaki, and other officials.


**6 August 1991**
Pakistani Senator, Mohammed Tariq Chowdhery, says that Pakistan should openly declare its nuclear capability and offer to sell its nuclear technology to other Islamic nations.


**1 August 1991**
In Norway, Olav Henriksen, Director for Euvinds, a small Norwegian trading company, and Knut Pettersen, Export Director of Norsk Data, are arrested for attempting to illegally export sensitive electronic equipment to Pakistan. This equipment has been seized by British customs officials. Pakistan bought similar equipment from Norway in 1987 but since then Norway has increased regulations on exports. Exports to Pakistan are restricted because it has not signed the Non-Proliferation Treaty (NPT). Furthermore, Pakistan has attempted to buy the computers from Norway but their efforts were denied by the Norwegian Foreign Ministry.
18 July 1991
An International Atomic Energy Agency (IAEA) site safety review team visits the site for the Chashma Nuclear Power Project in Pakistan and issue a report with recommendations. The team does not find anything that would make this site unacceptable. The Pakistan Atomic Energy Commission (PAEC) chooses this site only after studies which follow international practice and criteria are made.

18 July 1991
The Karachi Nuclear Power Plant (KANUPP) formulates emergency plans which detail how the plant would deal with any emergency situations. According to the Pakistan Atomic Energy Commission (PAEC), the plan has been discussed with many groups that would play a role in emergency plans, including the civil administration of Karachi, the police, the armed forces, and public and technical organizations.

14 July 1991
Prime Minister Nawaz Sharif calls the new Indian Prime Minister, P.V. Narasimha Rao, on the hotline, in order to discuss Sharif’s proposal for a five-nation conference on nuclear nonproliferation in South Asia. India’s position on the issue is that nonproliferation cannot be approached regionally but rather globally. Rao refuses to participate in "an arrangement in which no one knows what the other country is going to do in spite of the agreement."

11 July 1991
Prime Minister Nawaz Sharif threatens to declare war against "any country whose soil is used," in attacks on nuclear sites in Pakistan. Pakistani newspapers suggest that the group of Israelis who were abducted from Indian-ruled Kashmir in June 1991, were plotting to attack a secret Pakistani nuclear plant at Kahuta.

11 July 1991
A retired Pakistani Army Brigadier is arrested on a 1987 charge for attempting to illegally ship sensitive technology with financing from the Pakistani founded Bank of Credit and Commerce International (BCCI). This arrest also creates a "new link" between the BCCI and Pakistan's nuclear development program.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
4 July 1991
Ishfaq Ahmad, the new chairman of the Pakistan Atomic Energy Commission (PAEC) speaks at a ceremony at the Karachi Nuclear Power Training Center (KNPTC), which provides nuclear science training. Ahmad says that Pakistan ranks in the top 12 nuclear science countries in the world and is determined to gain self-reliance in the nuclear industry. Ahmad also stresses the importance of the training efforts of both the KNPTC and the Center for Nuclear Studies at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). Ahmad also praises the Karachi Nuclear Power Plant (KANUPP) personnel for their accomplishments.

3 July 1991
Hamid Nasir Chattha, Pakistani Minister for Planning & Developing and Science & Technology, speaks to the Council of Ministers of the South Asian Association for Regional Cooperation (SAARC) and focuses on the need for the SAARC to take the initiative in forming a regional agreement on disarmament and nuclear nonproliferation.

1 July 1991
Benazir Bhutto, former Prime Minister of Pakistan and leader of the opposition Pakistan People's Party (PPP) states that Pakistan has nuclear capability and would detonate a bomb in the event that India does. In an interview with the Independent TV, Bhutto proposes an Indo-Pakistani summit to deal with the issue of regional security. She recommends that the US, the UK, or Saudi Arabia to act as mediator.

1 July 1991
Ghulam Ishaq Khan, President of Pakistan, will not allow international inspections to take place at the Kahuta uranium enrichment facility. The president says that Pakistan is pursuing a peaceful nuclear program and that countries do not reveal their research to each other. The press in Pakistan sees the Kahuta facility as a possible target for Israeli armed forces. Moreover, Israel believes that Kahuta is involved in military activities and could supply Arab countries with nuclear weapons in the future.

July 1991
The closure of the Bank of Credit and Commerce International (BCCI) (founded in Pakistan in 1972), in most of the 69 countries where it has branches, adds to the deterioration of US-Pakistani relations, which have also been fueled by conflict over Pakistan's nuclear program.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
13 June 1991
Pakistani Prime Minister Nawaz Sharif speaks at the Carnegie Endowment in Washington DC and has forwarded his proposal for "nuclear nonproliferation in South Asia." During the speech, Sharif stresses the importance of ending the nuclear weapons race between India and Pakistan so that both countries could "devote their limited resources on urgently needed economic development."

12 June 1991
Pakistani Prime Minister Nawaz Sharif proposes the creation of a nuclear free zone in South Asia and would like the proposal to be sponsored by the US, USSR and the People's Republic of China (PRC). India rejects the proposal as a "ploy for resumed military aid." Also, a Pakistani delegation travels to Washington DC to discuss the halt of American aid to Pakistan in 1990, on account of Islamabad's nuclear weapons program.

11 June 1991
Ishfaq Ahmad, the new chairman of the Pakistan Atomic Energy Commission (PAEC), says that Pakistan is now one of the top twelve nations in the world in atomic science, and stresses the need for nuclear self-sufficiency. Pakistan continues to work to develop a nuclear reactor and has been able to produce its own nuclear fuel. The PAEC in Karachi is trying to fill the need for trained personnel and has provided postgraduate training to 200 engineers.

10 June 1991
New information is revealed in the Pakistan National Assembly in regards to the acquisition of a French Nuclear Power Plant. More specifically, Pakistan will soon begin negotiations with France, on the purchase of a 900-megawatt power plant. France would like to supply this 900-MW power plant instead of the reprocessing plant.

June 1991
A delegation of Pakistani Senators visits the United States in an attempt to end the US suspension on economic and military aid to Pakistan. US State and Defense Department officials tell the Pakistani Senators that the suspension (which began in October 1990) will continue until Pakistan proves it does not have and is not building nuclear weapons.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
June 1991
The US proposes to supply Pakistan with conventional weapons in exchange for a promise that the country will not attempt to buy or develop nuclear weapons.

6 May 1991
Former Prime Minister Benazir Bhutto states that nuclear testing will only isolate Pakistan. She calls for a regional approach to nuclear non-proliferation. Also, Pakistan agrees to sign the Nuclear Non-Proliferation Treaty (NPT) but only if India does the same as well.

3 May 1991
The French Ambassador to Pakistan, Jean-Pierre Masset, comments on a proposed sale of a nuclear power plant to Pakistan by France. The Ambassador says that there are three issues which complicate the deal: 1.) the issue of a reprocessing plant, 2.) the financial problems and 3.) Pakistan's status as a non-member of the Nuclear Non-Proliferation Treaty (NPT).

3 May 1991
President Ghulam Ishaq Khan proposes the convening of an international conference to form a comprehensive Nuclear Test Ban Treaty. He says that Pakistan supports nuclear nonproliferation, especially as a regional issue, citing last year’s bilateral treaty between India and Pakistan as a positive step toward keeping South Asia free of nuclear weapons. He is also encouraged by the INF Treaty between the US and USSR and hopes that it will aid in disarmament efforts.

1 May 1991
President Ghulam Ishaq Khan says that a regional approach to nuclear nonproliferation is the most effective way to resolve the problem in South Asia. He also stresses that Pakistan supports nuclear nonproliferation.

29 April 1991
Pakistani President Ghulam Ishaq Khan reiterates that Pakistan would not unilaterally open its nuclear facilities to international inspection. He states that other countries with peaceful nuclear programs did not run them openly.

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April 1991
Dr. Ishfaq Ahmad is named Chairman of the Pakistan Atomic Energy Commission (PAEC) succeeding Munir Ahmad Khan, who served as chairman for 19 years.

April 1991
Pakistan Atomic Energy Commission (PAEC) Chairman Munir Ahmed Khan does not believe that Pakistan's acquisition of two Pressurized Water Reactor's (PWR's) from France and China will pose any serious supply problems, due to Pakistan's indigenous supply of uranium and its fuel fabrication capability. However, Chairman Khan does not believe that Pakistan's Kahuta plant can supply enough fuel for both plants for an extended period.

April 1991
China offers to supply Pakistan with a nuclear power reactor with a is based on that of an indigenously developed 300 MWe Pressurized Water Reactor (PWR), Qinshan 2.

13-14 March 1991
The US and Pakistan hold a bilateral conference on the issue of aid. US Assistant Secretary of State for Economic and Business Affairs, Eugene McAllister says that US Presidential certification that Pakistan is not developing a nuclear bomb is necessary, if new aid to Pakistan is to be provided by the US.

14 March 1991
Pakistan is upgrading a 5 MW reactor, which was supplied by the US in 1965, to 10 MW using mainly indigenous capabilities including instrumentation and control, remote handling technology and fuel production and fabrication. Pakistan also possesses a reprocessing capability.

13 March 1991
Pakistan Atomic Energy Commission (PAEC) Chairman, Munir Ahmed Khan, retires. Senior PAEC member, Ishfaq Ahmad, steps in as interim PAEC chairman until a new chairman is nominated.
11 March 1991
Japan's Ambassador to Pakistan, Kunio Muraoka, suggests that Pakistan sign the Non-Proliferation Treaty (NPT). He adds that Japan would not cut off aid as the US has done; however, he says that Japan might consider selling a nuclear plant to Pakistan after it (Pakistan) signs the NPT and US firms might also step forward to do so.

7 March 1991
Pakistan's Finance Minister Sartaj Aziz says that China will provide Pakistan with financial and technical details for the delivery to Pakistan of a 300 MW nuclear power plant, within two months.

7 March 1991
Munir Ahmad Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC) says that people in the Pakistani government speak "too much" of Pakistan's ability to make a nuclear bomb, and that this is damaging to Pakistan's relationship with other countries, especially with signatories of the Non-Proliferation Treaty (NPT).

4 March 1991
Pakistani Foreign Minister Sahibzada Yaqub Khan, who recently resigned, says that Pakistan would continue its nuclear program even if military and economic aid to Pakistan are cut off.

March 1991
Pakistan adopts the International Atomic Energy Agency's (IAEA's) scale for the gauging and reporting of nuclear accidents.

March 1991
Dr. Munir Ahmed Khan, announces that he will not continue as chairman of the Pakistan Atomic Energy Commission (PAEC). His contract is set to expire this month. He says that the only hurdles to proposed reactor purchases from France and China are financial.

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22 February 1991
France renegades on the promise it made in 1990, to supply a nuclear plant to Pakistan. The PRC, which also promised to supply a plant to Pakistan, is also hesitating to do so. Pakistani officials say that negotiations have been suspended due to the refusals on loans. The US has apparently pressured France to cancel the deal, and it along with other European countries, is attempting to ensure that Pakistan does not import any nuclear technology.

21 February 1991
Pakistan Atomic Energy Commission (PAEC) Chairman, Munir Ahmad Khan, expresses Pakistan's support of a nuclear-free zone in South Asia, but also states that his country would only sign the Non-Proliferation Treaty (NPT) if India were to do so.

February 1991
The United States decides to return two-thirds of the aid that it was providing to Pakistan. Earlier, in October 1990, Washington had halted aid to Pakistan.

25 January 1991
Chinese President, Yang Shangkun, reiterates China's support for creating a nuclear-free Asia, shortly before leaving for Pakistan and Iran. President Yang further expresses support for proposals put forward by Pakistani Prime Minister Nawaz Sharif, for international consultations on nuclear non-proliferation in South Asia.

24 January 1991
Munir Ahmad Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC), says that the PAEC will restart the PARR-1 research reactor located at the Pakistan Institute of Nuclear Science and Technology (PINSTECH) in July of this year. The reactor will be restarted after it is dismantled, redesigned and rebuilt using Pakistan's indigenous resources. Khan also says that the People's Republic of China (PRC) is assisting in fuel fabrication for the rebuilt reactor, which will have its capacity upgraded from five to ten thermal megawatts (MW). The cost of the entire overhaul will be $2.5 million.
17 January 1991
Pakistan Atomic Energy Commission (PAEC) Chairman, Munir Ahmad Khan, remarks (during an interview) on the country's success in manufacturing nuclear fuel, and now, research and power reactors. Khan also thanks the People's Republic of China (PRC) for its support of Pakistan's nuclear program, especially the research reactor it (PRC) had provided. He also mentions the current negotiations for the 300 MW power reactor built by the PRC.

16 January 1991
Pakistan recommissiones a research reactor at Nilore, which was originally acquired in 1965, and double its output from 5 MW to 10 MW. Pakistan designs the reactor while China provides fuel fabrication services and financing. Pakistan Atomic Energy Commission (PAEC) Chairman, Munir Khan, says that the plant will operate under International Atomic Energy Agency (IAEA) safeguards and has been inspected.

Early January 1991
Recently, Pakistan's Foreign Secretary Shaharyar Khan and India's Foreign Secretary Muchkund Dubey conclude a third round of talks on the nuclear non-attack agreement. India and Pakistan will ratify the agreement in February 1991. Shaharyar Khan says that the agreement includes marking the locations of all nuclear installations in India and Pakistan, so that the two countries will not attack each others' nuclear facilities by accident.

1990
20 December 1990
normaly Bin Muslim, Deputy Director of the International Atomic Energy Agency (IAEA), says that the IAEA will help the Pakistan Atomic Energy Agency (PAEC) with the site selection for the two nuclear power plants which Pakistan is purchasing from France and China. The IAEA will also provide technical assistance for safety enhancements at the Karachi Nuclear Power Plant (KANUPP) and will grant $1 million to cover the expenses.

17 December 1990
Muchkund Dubey, Foreign Secretary of India, arrives in Pakistan for two days of bilateral talks on nonproliferation in South Asia. Dubey will discuss a Pakistani proposal for nonproliferation in the region, which was last discussed in July 1989 by the foreign secretaries of India and Pakistan. Furthermore, Shahryar M. Khan, Foreign Secretary of Pakistan, says that the two sides will discuss an agreement, signed by their prime ministers in early 1989, which

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prohibits attacks on each other's nuclear installations.

13 December 1990
France offers to export a second 900 MW nuclear reactor to Pakistan. This is in addition to the first offer made earlier in the year of a similar 900 MW nuclear reactor. Moreover, France is offering this second reactor at 30% less cost with attractive financing terms in order to compensate for the cancellation of a deal that would export a reprocessing plant to Pakistan (a decade ago).

9 December 1990
Normaly Bin Muslim, Deputy Director General for technical assistance at the International Atomic Energy Agency (IAEA), begins a four day inspection of several nuclear projects in Pakistan. During Bin Muslim's visit to Pakistan, Ghulam Ishaq Khan, President of Pakistan, stresses the peaceful nature of the Pakistani nuclear program. He says that developed countries should fulfill their contracts, such as improving safety standards at the Karachi Nuclear Power Plant (KANUPP). Bin Muslim tells Munir Ahmad Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC), that the IAEA would increase cooperation with Pakistan. The IAEA has been providing Pakistan with technical support in areas such as reactor safety, uranium exploration, and studies on research reactors. Pakistan will also receive training fellowships from the IAEA. Bin Muslim believes that Pakistan is in a position to offer technical assistance to other developing countries.

7 December 1990
A spokesman for the Pakistani Foreign Office says that the decision to place the 27KW miniature neutron source research reactor (MNSR) under International Atomic Energy Agency (IAEA) safeguards "was neither influenced by nor has it any bearing on Pakistan's relationship with the United States."

3 December 1990
The Pakistan Atomic Energy Commission (PAEC) and the International Atomic Energy Agency (IAEA) sign a safeguards agreement on a 27 KW miniature neutron source research reactor (MNSR). The research reactor was supplied to Pakistan by China and was opened earlier this year. MNSR uses 915 grams of high-enriched uranium fuel.

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December 1990
US Deputy Assistant Secretary of State, Teresita Schaffer, tells Pakistani Foreign Minister, Shahabzada Yaqub Khan, that the US Congress wants Pakistan to halt its uranium enrichment program.

December 1990
Henry Rowan, Assistant US Secretary of Defense, discusses with India and Pakistan a regional approach towards nuclear nonproliferation.

December 1990
The People's Republic of China's (PRC) Institute of Atomic Energy states that it assisted in the design and construction of a 27 kW research reactor (PARR-2) at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). The reactor went critical back on November 2, 1989.

29 November 1990
Prime Minister Nawaz Sharif says that he is ready to open talks with the United States on the nuclear program in Pakistan.

29 November 1990
Munir Ahmad Khan, chairman of the Pakistan Atomic Energy Commission (PAEC), says that talks are continuing over the import of a 300 MW nuclear power plant for the People's Republic of China (PRC) and a 900 MW PWR from France. The talks with France have slowed due to a financial crisis in Pakistan.

26 November 1990
Sartaj Aziz, Finance Minister of Pakistan, says that the Cabinet of Nawaz Sharif, Prime Minister of Pakistan, has authorized the opening of negotiations with the US in order to resolve a conflict over nuclear issues.

24 November 1990
The head of the Kahuta uranium enrichment facility, Dr. A. Q. Khan, says "that Pakistan was not making any atomic weapons."

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21 November 1990
US Congressman, Stephen Solarz, chairman of the Asian and Pacific Affairs Subcommittee, urges the US to cut off aid to Pakistan in order to pressure Pakistan into giving new guarantees that it will not build nuclear bombs.

15 November 1990
Dr. A Q Khan, Director of the Kahuta uranium enrichment plant in Pakistan, says that the nuclear program of Pakistan can be continued without aid from the United States. The US suspended aid to Pakistan due to concerns about the Pakistani nuclear program. Nawaz Sharif, the new Prime Minister of Pakistan, says that Pakistan has no nuclear bomb. Sharif also says, "we would be happy to sign the Nuclear Nonproliferation Treaty (NPT) provided India did the same."

7 November 1990
Prime Minister Nawaz Sharif says that the peaceful nuclear programme of Pakistan would be accelerated to accommodate growing energy needs and to make up for rising oil prices.

7 November 1990
Newly elected Prime Minister, Nawaz Sharif, says that Pakistan needs to construct new nuclear power plants.

6 November 1990
Nawaz Sharif is sworn in the new prime minister of Pakistan. He replaces Benazir Bhutto, who was dismissed during the summer of 1990 and failed to regain power in the election held on October 24.

29 October 1990
Klaus Frech, Judge of the Hanau District Court in West Germany, sentences three West German citizens, who were convicted of illegally exporting sensitive nuclear items to Pakistan. More specifically, the exported items included: fuel fabrication components and technology, a tritium extraction facility, and an attempt to export large amounts tritium gas.

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26 October 1990
Raja Zafarul Haq, the Pakistan delegate to the United Nations (UN), calls on the UN nations to allow states to acquire nuclear technology for peaceful uses. Haq also says that "Pakistan is committed to nuclear non-proliferation and peaceful nuclear energy."

20 October 1990
Kamal Azfar, special assistant to the prime minister, says that Pakistan will not sign the Non-Proliferation Treaty (NPT) unless India signs it first.

13 October 1990
Pakistan denies a Washington Post report that it (Pakistan) clandestinely attempted to import two high temperature furnaces, which could be used to produce nuclear weapons.

6 October 1990
The People's Republic of China (PRC) intends to sell a nuclear-powered attack submarine to Pakistan. Advanced negotiations which began in 1989 are currently ongoing between the two countries. Pakistan's purchase of this submarine seems to be a response to India's acquisition of a Soviet nuclear-powered, Charlie class attack submarine in 1989. The deal is estimated to cost around $63 million and will aid China in the modernization of its own naval program.

1 October 1990
The United States cuts off military and economic aid to Pakistan because it (US) suspects that Pakistan is developing nuclear weapons.

October 1990
The US Congress cuts off aid to Pakistan, which amounts to $500 million a year; because the Bush administration did not certify that Pakistan was not building a nuclear weapon and that the aid from the US is dissuading Pakistan from building nuclear weapons.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
27 September 1990
France and Pakistan are negotiating a financing formula for the 937 MW nuclear power plant deal which was finalized earlier this year in February. France proposes a financing formula and Pakistan plans to launch negotiations in the coming weeks. Pakistan will conclude whether they can afford to pay for the nuclear power plant, after talks are held on compensation for a reprocessing plant deal that France cancelled in 1978. The projected construction cost of the nuclear power plant is $1.5 billion.


15 September 1990
Pakistan is currently modernizing its safety system at the Karachi Nuclear Power Plant (KANUPP) in line with the recommendations made by the International Atomic Energy Agency (IAEA) in 1989.


September 1990
Ghulam Ishaq Khan, President of Pakistan, announces that more progress has been made on the sale prospect of a 300 MW nuclear reactor to Pakistan from the People's Republic of China (PRC). The agreement was reached in principle by both countries in 1989.


21 August 1990
Ghulam Mustafa Jatoi, Prime Minister of Pakistan, expresses appreciation and support for peaceful nuclear energy cooperation between the People’s Republic of China (PRC) and Pakistan, while meeting with Chen Zhaobo, Deputy General Manager of the nuclear industry company of the PRC.


19 August 1990
Chen Zhaobo, Vice-President of China National Nuclear Industry Corporation, leads a visiting delegation from the Chinese nuclear industry to meet with Pakistani President Ishaq Khan, in order to discuss peaceful nuclear energy cooperation.


12 August 1990
Framatome, the French nuclear contractor, says that the dismissal of Benazir Bhutto will not affect discussions between themselves and Pakistan for the export of a nuclear power plant to Pakistan. Framatome and the Pakistan
Atomic Energy Commission (PAEC) have a contract for the current feasibility study on the nuclear plant.

9 August 1990
The Pakistan Research Reactor-2 (PARR-2) is added to the facilities of the Centre for Nuclear Studies at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). PARR-2 uses highly enriched uranium fuel and joins PARR-1, which was commissioned in 1965 and is currently being renovated and upgraded. Pakistan is aided by the People's Republic of China (PRC) in obtaining PARR-2.

7 August 1990
Dominique Degot, Deputy General Manager and Vice President-international of Framatome of France, says that the nuclear vendor is preparing a bid to supply a pressurized water reactor (PWR) plant to Pakistan and that bids are expected to be ready by the end of 1990.

6 August 1990
Ghulam Ishaq Khan, President of Pakistan, ousts Benazir Bhutto from her position as prime minister. The nuclear contracts between France and Pakistan will not be affected by this change in the Pakistani government.

August 1990
Munir Ahmad Khan, chairman of the Pakistan Atomic Energy Commission (PAEC), says that French nuclear industry officials have indicated that the proposed 937-MW nuclear power plant at Chashma will cost $1.5 billion. Khan also says that further negotiations between France and Pakistan would be held only after the proposed general elections in Pakistan, which will be held on October 24, 1990.

27 July 1990
The Pakistan Atomic Energy Commission (PAEC) announces that Pakistan has commissioned its second atomic research reactor, which was built with assistance from the People's Republic of China (PRC) and was also designed by the PRC. The research reactor is located at the Center for Nuclear Studies (CNS), which is part of the Pakistan Institute of Nuclear Science & Technology (PINSTECH) near Islamabad, Pakistan. The new reactor is a pool type light water reactor that uses highly enriched uranium fuel.

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8 July 1990
Pakistan calls for the implementation of a nuclear non-proliferation pact in South Asia. Tanvir Ahmad Khan, Foreign Secretary of Pakistan, says that he is ready to discuss a non-proliferation agreement with Muchkund Dubey, Foreign Secretary of India.

5 July 1990
Prime Minister Benazir Bhutto’s government allocates $1.8 million for the Chashma Nuclear Power Plant in Pakistan's 1990-91 budget which started on 1 July 1990. The Pakistan Atomic Energy Commission (PAEC) has sought approximately $48 million.
—"Pakistan Government Cuts Funding This Year for Chashma Nuclear Plant," Nucleonics Week, 5 July 1990, Pg. 8; in NTI Nuclear and Missile Database, 5 July 1990, www.nti.org.

18 June 1990
The People’s Republic of China (PRC) refuses to supply Pakistan with "facilities and other assistance" for nuclear testing, although in November 1989 it (PRC) agreed to supply Pakistan with a nuclear reactor.

1 June 1990
The People’s Republic of China (PRC) is ready to start construction of the 300 MW pressurized water reactor (PWR) in Pakistan this year. The reactor will be based on the Chinese reactor at Qinshin. The PRC and Pakistan will agree later on what to do with the spent fuel from the 300MW PWR. Also, the Pakistan Atomic Energy Commission (PAEC) proposes a 20 year nuclear program with co-manufacturing of nuclear power plants in Pakistan with unspecified foreign companies.

June 1990
Munir Ahmad Khan, Chief of the Pakistan Atomic Energy Commission (PAEC), visits France, and a special envoy of French Prime Minister Michel Rocard, visits Pakistan (also during this month), for talks on commercial and technical matters of an unspecified nature.
—"Pakistan Government Cuts Funding This Year for Chashma Nuclear Plant," Nucleonics Week, 5 July 1990, Pg. 8; in NTI Nuclear and Missile Database, 5 July 1990, www.nti.org.

May 1990
Monique Landry, the Minister for External Relations and International Development of Canada, says that Canada cannot provide Pakistan with nuclear technology because Pakistan has not signed the Non-Proliferation Treaty (NPT). However, Canada will continue to provide safety information to Pakistan to operate the Karachi nuclear power plant (KANUPP).

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May 1990
Shunji Kobayashi, the Japanese Ambassador to Pakistan, says that Japan will not help the Pakistani atomic energy program until Pakistan signs the nuclear Non-Proliferation Treaty and accepts full safeguards.

29 March 1990
Prime Minister Bhutto addresses the Pakistan Atomic Energy Commission (PAEC) and calls upon the organization to redouble its efforts to implement its nuclear power programs. She promises that the government will continue to give its full support for the implementation of a peaceful nuclear program.

29 March 1990
Pakistani Prime Minister, Benazir Bhutto requests that Belgium participate along with France in the construction of the nuclear power plant at Chashma. However, this will depend on France's attitude toward sharing the work and Belgium's position on requiring safeguards on materials supplied. A Belgian official says that Belgium has signed the Nuclear Non-Proliferation treaty and has adhered to the London Suppliers Club guidelines, which do not require full-scope safeguards.

22 March 1990
Pakistan gives its highest civilian award to Atomic Energy Commission Chairman Munir Ahmad Khan, for "bringing Pakistan closer to self-reliance in nuclear technology." The award praises Khan for concluding deals with the PRC and France for the supply of nuclear power plants and for acquiring and developing complete nuclear fuel cycle technology for the Karachi power plant.

15 March 1990
The Pakistan Atomic Energy Commission (PAEC) says that the Karachi nuclear power plant (KANUPP) has been shut down for overhaul of the process saltwater pumps and for rectification of a mechanical problem of the fueling machine.

4 March 1990
Munir Ahmad Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC), states that the nuclear power
plant, which Pakistan intends to buy from France, will fall under International Atomic Energy Agency (IAEA) safeguards and will not be a threat to anyone.


1 March 1990

Pakistan is currently under a nuclear embargo which was imposed by the major nuclear countries (i.e.-US and Canada). The embargo has increased Pakistan's self-reliance and capabilities in the nuclear field. Furthermore, as a result of the embargo, Pakistan continues to experience shortages of heavy water, the moderator used in Pakistan's Karachi Nuclear Power Plant reactor (KANUPP).


1 March 1990

USSR Ambassador to Pakistan, V.P. Yakunin, says that Pakistan has to increase its power generation needs and that "once the required guarantees are provided, there is no harm in supplying a nuclear power plant to Pakistan."

Pakistan Production Minister, Shahid Zafar has discussed the issue on a visit to the USSR earlier this year and the Foreign Secretary of Pakistan, Tanveer Ahmad, will also do so in the future.


1 March 1990

Munir Ahmad Khan, chairman of the Pakistan Atomic Energy Commission (PAEC), says that there is little public opposition to nuclear power in Pakistan because the public sees benefits resulting from the application of nuclear technology to fields which effect their lives, such as agriculture or medicine.


March 1990

Dr. Raja Ramana, Minister of State for Defence of India and former Chairman of the Atomic Energy Commission (AEC), says that India would have to reconsider its ban on nuclear weapon production, depending on the evolving nature of the nuclear program of Pakistan. Ramana says that the sale of a 950 MW nuclear reactor from France to Pakistan does not pose a threat to India. He adds that India could import nuclear reactors but has chosen to produce them indigenously.


March 1990

Pakistan Atomic Energy Commission (PAEC) chairman, Munir Ahmad Khan, claims that the agreements with France and China for the acquisition of nuclear power plants by Pakistan, virtually ended a fifteen-year Western embargo and boycott of nuclear trade with Pakistan, even under international safeguards. Mr. Khan hopes that the trade of

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nuclear technology for peaceful purposes will be restored with Western nations.

**Early March 1990**
Belgium's Minister for European Affairs, Anne Marie Lizin, makes attempts to sell Belgian nuclear technology to Pakistan. More specifically, the nuclear trade would be focused on the nuclear reactor to be built by France. Lizin reportedly believes that the recent commitment by France to supply a nuclear reactor to Pakistan, should change Belgian policy towards Pakistan, so that Belgium is not left out of nuclear deals to be made there.

**28 February 1990**
The Indian Police Force in Uttar Pradesh recovers 250 grams of uranium from a man who was attempting to smuggle the material to Pakistan.

**26 February 1990**
Bob Oakley, the US Ambassador to Pakistan, expresses US displeasure at the recent agreement made between France and Pakistan for the sale of a nuclear power plant.

**26 February 1990**
USSR Ambassador to Pakistan, V.P. Yakunin, says that the USSR is considering a request from Pakistan for the supply of a nuclear power plant.

**23 February 1990**
Pakistan feels that it is capable of manufacturing the enriched uranium fuel required to operate the 900 MW nuclear plant offered recently by France and the 300 MW plant offered by the People's Republic of China (PRC) in December 1989.

**22 February 1990**
Qazi Hussain Ahmad, head of the key Islamic party in Pakistan, says that Pakistan should fabricate a nuclear device to meet the threat from India.
22 February 2006
The US Department of State expresses concern over the proposed sale of a nuclear power plant by France to Pakistan. A Pakistan Foreign Office spokesman responds and says that this concern is "groundless," and that France will stick to the deal. Furthermore, the spokesman also says that Pakistan is aware of the US concern about nonproliferation and stresses that its (Pakistan's) nuclear program is for peaceful purposes only. The Foreign Office spokesman also adds that the US expressed similar fears when China announced that it would provide a 300-MW nuclear plant to Pakistan.

21 February 1990
French President, Francois Mitterrand, announces (during his visit to Pakistan) that he has agreed to France selling a nuclear reactor to Pakistan. Pakistani Prime Minister, Benazir Bhutto also notes that complete safeguards will be provided for the French plant. Furthermore, Mitterrand and Bhutto also discuss the issue of a reprocessing plant.

13 February 1990
A mini-reactor made by China National Nuclear Industry Corporation, the first such reactor exported by the People's Republic of China (PRC), has come online in Pakistan.

1 January 1990
Dr. Munir Ahmed Khan, chairman of the Pakistan Atomic Energy Commission (PAEC) says that the People's Republic of China (PRC) and Pakistan have agreed on the construction of a nuclear power plant at Chasma. The PRC will be supplying most of the technology and expertise. The agreement had been reached in principle during a visit by PRC premier Li Peng in January 1989. The PRC will also supply enriched uranium to the facility until Pakistan develops its own enriched uranium supply. Furthermore, the plant will be operated under International Atomic Energy Agency (IAEA) safeguards.

1 January 1990
The Pakistan Atomic Energy Commission (PAEC) is currently redesigning its US-supplied research reactor which is installed at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). This action will help double reactor capacity while decreasing its requirements for highly enriched uranium. Presently, Pakistan can enrich uranium to 5% by using centrifuge technology. To reduce the cost of fuel, the PAEC is considering other enrichment techniques.

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1989

15 November 1989
Pakistan forms an agreement with The People's Republic of China (PRC) on the advancement of its (Pakistan's) nuclear program. The finalization of the agreement coincides with the visit of Chinese Premier Li Peng to Islamabad. Under the agreement, the PRC will help Pakistan build a 300 MW nuclear plant and will provide fuel and spares for the plant. A senior official of the Pakistan Atomic Energy Commission (PAEC) states that the nuclear plant will be a pressurized water reactor guaranteed by the International Atomic Energy Agency (IAEA) for safety and that the construction will commence in 1990 after the formal agreement between the PRC and Pakistan is signed.


19 October 1989
Pakistani Production Minister Shahid Zafar will hold talks with South Korean government and industry officials next week in South Korea, to explore the possibilities for cooperation in building nuclear power plants in Pakistan. South Korean firms have shown interests in the past, in regards to supplying nuclear power plants to Pakistan.


1 October 1989
The Atomic Energy Commissions of India and Pakistan sign a "strictly limited," agreement between themselves and the CANDU Owners Group (COG) in order to share information on CANDU operations. The agreement covers only information in the public domain and non relating to new technology or the exchange of material and equipment.


21 September 1989
Pakistan's minister of state for parliamentary affairs, Dr. Sher Afghan, states that France has expressed an interest in selling Pakistan a nuclear reactor under International Atomic Energy Agency (IAEA) safeguards without insisting that Pakistan should sign the Non-Proliferation Treaty (NPT).


24 August 1989
The Karachi Nuclear Power Plant (KANUPP) expects to return to operation next month after suffering a heavy water leak. The Pakistan Atomic Energy Commission (PAEC) assures the public that there is neither radiation damage nor did anyone receive radiation dosage. The PAEC exchanges information worldwide through the World Association of Nuclear Operators (WANO). Furthermore, the Pakistani government approves a five-year program

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to develop an indigenous capacity to design and manufacture nuclear power plants. This new nuclear power policy is meant to ensure that ultimately Pakistan will control its energy future.


17 August 1989
Munir Ahmad Khan, chairman of the Pakistan Atomic Energy Commission (PAEC), holds a press conference during which he notes that the "negative international attitudes," toward supplying Pakistan with nuclear technology is diminishing. Also, Prime Minister Benazir Bhutto visits France and discusses the possibility of purchasing a nuclear reactor. French President Francois Mitterrand is scheduled to visit Pakistan wither the end of 1989 or early 1990 in order to discuss the purchase of the reactor.


August 1989
A delegation from Pakistan led by Prime Minister Benazir Bhutto's defense advisor, retired General Imtiaz Ali, visit the People's Republic of China (PRC) to discuss nuclear cooperation between the two nations. Pakistan is looking to obtain three 300-MW nuclear power plants from the PRC. Cooperation between the two countries may also extend to the supply and manufacture of research reactors.


9 June 1989
Pakistani Prime Minister Benazir Bhutto assures the United States Congress that Pakistan "would not possess, nor do we intend to make a nuclear device." Despite assurances from the late President-Zia ul-Haq, Pakistan has apparently been conducting a nuclear weapons development project. US President George Bush informs Bhutto that US aid would be cut off if he finds that Pakistan possesses a nuclear weapon.


7 June 1989
Pakistani Prime Minister Benazir Bhutto speaks to a joint session of the United States Congress and says that Pakistan is willing to throw open its nuclear installations to inspection if other countries in the region do the same. Furthermore, she also says that there is a need for a nuclear-free zone in South Asia and for Pakistan and its neighbors not to conduct a nuclear test. Islamabad once again makes it clear that it has no intention of manufacturing nuclear weapons.


June 1989
Munir Ahmed Khan, chairman of the Pakistan Atomic Energy Commission (PAEC), announces Pakistan's entry into

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the World Association of Nuclear Operators (WANO) and the Candu Owners Group (COG). PAEC officials say that the technical information exchanges through COG and WAND, will help enhance the operational safety of the Karachi Nuclear Power Plant (KANUPP), which suffered from a 35 ton heavy water leak earlier this year. Canadian officials air concern over Pakistan’s entry into these two groups because this will allow Pakistan to exchange information with Canadian sources which would create a conflict with Canada’s nonproliferation policies.


22 May 1989
A 20-year program for nuclear power generation through reactors produced locally on the principle of "co-manufacturing," is drawn up by the Pakistan Atomic Energy Commission (PAEC). Prime Minister Bhutto approves of the principle, in which private industries of Pakistan would collaborate with some foreign firms in the development of nuclear reactors. Moreover, being a private-sector venture, Pakistan would not be required to sign the Non-Proliferation Treaty (NPT), which it is reluctant to do unless India does the same. Pakistan would have the capacity to generate about 6000 megawatts of nuclear power by the turn of the century.


11 May 1989
The Pakistan Atomic Energy Commission (PAEC) examines the causes of the defect in a valve at the Karachi Nuclear Power Plant (KANUPP) which caused a heavy water leakage last month. The leaked water is collected and will be purified in the purification unit for reuse when the plant becomes operational after inspections and repairs.


May 1989
The Pakistan Atomic Energy Commission (PAEC) shows a group of journalists the Karachi Nuclear Power Plant reactor (KANUPP), which leaked 30-35 tons of heavy water on April 18th. PAEC member S.M.N. Zaidi says that there are insufficient reserves of heavy water to refill the reactor. At the direction of Pakistani Prime Minister Benazir Bhutto, PAEC chairman Munir Ahmad Khan forms a high-level committee to investigate the reactor leak.


18 April 1989
The heavy water reactor at the Karachi Nuclear Power plant (KANUPP) leaks 30-35 tons of heavy water due to the failure of a gasket. The causes for the defect will be examined by the Pakistan Atomic Energy Commission (PAEC), in the near future.


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**20 March 1989**

The Karlsruhe Nuclear Research Center in West Germany (90% federally-owned) comes out and states that its cooperation with Pakistan is based solely on a 1974 cooperation agreement on the peaceful use of nuclear energy. The Center makes this comment in response to a news report about the export of nuclear weapons-related supplies from West German firms to Pakistan.


**1 March 1989**

The government of West Germany is investigating allegations that certain West German companies exported nuclear-related equipment to India, Pakistan and South Africa.


**10 February 1989**

Pakistan's Ambassador to the People's Republic of China (PRC), Akram Zaki, denies the claim that Pakistan is developing nuclear weapons with help from the PRC. The Ambassador says that Pakistan is against the diffusion of nuclear weapons.


**5 February 1989**

India's Prime Minister, Rajiv Gandhi, states that the Federal Republic of Germany (FRG) has provided Pakistan with atomic technology and the atomic material-tritium. Both Pakistan and the FRG deny this claim.


**3 February 1989**

US Congressman, Stephen Solarz, mentions a proposal under which the US would sell an atomic reactor to Pakistan, if Pakistan would agree to accept total safeguards for all of its nuclear installations, including the existing ones. A Pakistani Foreign Office spokesman responds by stating that Pakistan needs atomic reactors in order to meet its energy requirements and that these reactors will come under International Atomic Energy Agency (IAEA) safeguards. IAEA safeguards are currently being applied to the Karachi nuclear power plant. However, Pakistan does not agree that it should sign the Non-Proliferation Treaty (NPT), nor accept total safeguards, nor agree to verification or inspection of its nuclear installations. The spokesman adds that the cause of nuclear nonproliferation in the region can be carried forward "only through non-discriminatory and equitable measures."

31 January 1989
Pakistan proposes a "nuclear pact," in which Pakistan would receive US-made nuclear reactors in exchange for safeguards that their (Pakistan’s) nuclear program is used only for peaceful purposes.

29 January 1989
Pakistan announces that it is planning to hold consultations with the US in order to convince the American government that its (Pakistan's) atomic program is only for peaceful purposes and its objective is to increase the production of electricity.

23 January 1989
The Federal Republic of Germany's (FRG's) Minister of Economics, Helmut Haussmann, states that the FRG federal cabinet is expected to tighten export controls on nuclear equipment and materials. These measures have been triggered by the involvement of several FRG firms in illegal exports of nuclear materials and equipment to Pakistan, India and South Africa.

19 January 1989
The Pakistani press reports that talks will resume between France and Pakistan on the construction of a pressurized water reactor (PWR) plant. A senior French official denies any recent developments in French policy since May 1987, when France offered assistance in building a PWR. In addition, Pakistani Prime Minister, Benazir Bhutto, is planning a trip to the People's Republic of China (PRC), where she will continue the negotiation of supply of a research reactor from the PRC to Pakistan. Pakistani officials continue to reiterate their country's resolve for a peaceful nuclear program.

17 January 1989
A visiting US delegation to Pakistan led by Congressman Stephen Solarz is informed by Pakistani President Ghulam Ishaq Khan that Pakistan will set up its own nuclear power plants within the next ten years. Khan also suggests that the US should not resort to a "discriminatory policy," in regards to nuclear proliferation in South Asia.

13 January 1989
The government of India says that there is no evidence that a nuclear test by Pakistan was taking place at the People's Republic of China (PRC) testing ground located at Lop Nor. However, India is aware that the PRC is

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providing nuclear material to Pakistan.


**12 January 1989**

The Netherlands' Secret Service re-opens its file on a Dutch engineer, Hank Slebos, a suspected agent for Pakistan who has previously been accused of helping Islamabad develop a nuclear bomb. Slebos is believed to be the top agent for Dr. Abdul Qadeer Khan, director of nuclear research at Kahuta, Pakistan. Slebos was jailed for a year in July 1985 for exporting strategically sensitive material to Pakistan.


**10 January 1989**

The Federal Republic of Germany (FRG) states that it had authorized the firm Siemens AG, to export material to nuclear power plants in India and Pakistan. This claim is made as questions about sales have been raised in the FRG, following recent scandals over alleged illegal nuclear exports by other FRG firms to South Africa, India and Pakistan.


*Back to Top*

**1988**

**26 December 1988**

Two West German firms, Neue Technologien GmbH (NTG) and Physikalisch Technische Beratung (PTB), are under investigation for illegally exporting nuclear components and materials from Germany to Pakistan, India and South Africa. The illegal imports reportedly include both tritium and tritium processing equipment. NTG is being investigated for exporting components for fuel fabrication, a plant for processing of tritium and transport and storage containers for UF6 to Pakistan. PTB, the other firm under investigation, acknowledges that zircalloy cladding was sent to Pakistan for the KANUPP heavy water reactor.


**30 November 1988**

A Pakistani foreign office spokesman rejects the report of a British daily that alleges that Pakistan is assisting Iran in the establishment of a atomic center at Kuzmin.


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14 November 1988
Pakistan denies allegations made by the UK’s Observer newspaper that Iranians are being trained in Pakistan’s atomic energy institutions.

1 November 1988
A United States Government report states that Pakistan’s Kahuta enrichment plant may be able to produce enough weapons grade uranium to produce one to three explosive devices annually.

4 October 1988
The Pakistan Institute of Nuclear Science & Technology (PINSTECH) develops a new technique for exploring and mining uranium and thorium, which exist indigenously in large deposits in Pakistan. Pakistan continues to back up its indigenous attempts with efforts to acquire technology from the West. Islamabad approaches France with a request for tritium, an element used to increase the power of nuclear warheads.

2 October 1988
The USSR trade representative in Pakistan, Yuri S. Ossipov states during a press conference that a Pakistani request for Soviet assistance on a 900-MW nuclear power plant at Chashma has not been answered by Moscow. Chashma is one of 14 projects on a list forwarded to the Soviet Embassy in June 1988 for possible future assistance. Ossipov also states that the USSR is still considering what action to take on the various Pakistani offers, but he believes that one of the reasons for the delay is because of the limitation of the USSR’s export capacity due to already full export schedules.

27 August 1988
Indian police officials seize 2 kilograms of radioactive material bound for Pakistan from Petlad, India. The material was en route to one of the most infamous smugglers of Kutch.

18 August 1988
Pakistan’s Minister for Justice and Parliamentary Affairs Wasim Sajjad tells the Pakistani Senate that Islamabad is now considering an offer from France to supply a 900-MW nuclear power plant under International Atomic Energy

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Agency (IAEA) safeguards but without Pakistan signing the Non-Proliferation treaty (NPT). Sajjad notes that the acceptance of the French offer is contingent on the satisfactory resolution of the 1978 suspension of a contract between France and Pakistan, which would have supplied Pakistan with a reprocessing plant. The negotiations to solve the dispute in a mutually acceptable fashion are currently ongoing.


17 August 1988
Pakistan acquires the essential technology for the exploration of uranium resources and other materials, production of uranium concentrate and oxide, and manufacture of nuclear fuel elements ready to be used in power reactors. This is part of Pakistan's comprehensive effort to develop self-reliance in its nuclear power program.


9 August 1988
Pakistan draws up a comprehensive plan of action for indigenization of its nuclear program to achieve self-reliance in order to meet its needs for nuclear energy. This action is based on a lack of willingness by foreign countries to export nuclear supplies to Pakistan until it (Pakistan) signs the nuclear non-proliferation treaty (NPT) Pakistan's Minister for Justice states that Pakistan refuses to sign the NPT unilaterally, but will sign it if India does.


14 June 1988
A Pakistani foreign office spokesman denies the allegation that Pakistan signed a secret nuclear pact with Iran. The spokesman claims that no Pakistani scientists have visited Iran's nuclear plant in Bushehr in recent years, nor have Iranian nuclear experts received additional training in Pakistan.


13 June 1988
The United Kingdom's Observer confirms that Pakistan and Iran signed a secret nuclear cooperation agreement in 1987, which would allow Iranian engineers to develop their skills in Pakistan. This agreement took place between Reza Amrollahi, chairman of the Iranian Atomic Energy Organization and his Pakistani counterpart, Munir Ahmad Khan.


June 1988
The Pakistani Atomic Energy Commission (PAEC) announces that it plans to build up to five 900 MW light water reactors by the year 2000. The Pakistanis also deny a report that a second uranium enrichment plant was being

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built at Golra Sharif.

June 1988
A source at Iran’s Atomic Energy Organization denies the allegations from the UK’s Observer newspaper that Iran and Pakistan have signed a nuclear pact.

28 April 1988
Pakistan defers its negotiations with France over a reprocessing plant contract until after the French elections, when it (Pakistan) will resume them with a new (French) government. Pakistan wants a nuclear power plant as part of the settlement; while French officials maintain that they will not link aid for any project as part of the contract settlement. The Pakistan Atomic Energy Commission (PAEC) says that Pakistan should have a 5,000 MW generating capacity by the year 2000, but that goal appears unrealistic.

7 April 1988
The Pakistan Atomic Energy Commission (PAEC) begins to work on its pool-type research reactor which is located at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). The work entails changing the reactor form 5 MW to 10 MW and converting its core from 90% enriched uranium to 20% enrichment. The reactor is being modified to keep pace with new requirements and also because the United States refuses to provide fuel of such high enrichment.

28 March 1988
India and Israel reportedly discuss the possibility of attacking Pakistan’s nuclear facility at Kahuta. Both countries fear Pakistan’s nuclear bomb manufacturing know-how for different reasons: India fears that Pakistan will use the bomb in a regional conflict and Israel fears that Pakistan will share its know-how with other Arab states. Israeli officials believe that financial barriers are the only thing preventing Pakistani bomb proliferation.

10 March 1988
A spokesman for the Pakistan Atomic Energy Commission (PAEC) says that France has offered to supply a 900 to 1,000 MW nuclear power plant to Pakistan, if Pakistan agrees to drop its legal suit against the French failure to supply a contracted reprocessing plant in the late 1970’s. The PAEC has the financing set up for a reactor purchase, but considers the nuclear option to be costly and impractical. France is offering to supply the reactor to Pakistan

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without demanding its (Pakistan's) signatures of the Non-Proliferation Treaty (NPT), as long as the plant is under safeguards of the International Atomic Energy Agency (IAEA).


6 March 1988
U.S. experts claim that in the early 1980's, Pakistan obtained "a reliable, tested bomb design," from the People's Republic of China (PRC), in exchange for Pakistan's modern uranium-enriching technology. The U.S. experts also say that the bomb design is "sophisticated," permitting Pakistan to make a bomb weighing less than 400 pounds.

25 February 1988
A spokesman for the Pakistan Atomic Energy Commission (PAEC) reacts to allegations that Nukem (West German firm) illegally exported weapons-grade nuclear material to Pakistan. In response, the spokesman says that Pakistan received shipments of cobalt-60 under a license by Physikalisch Technische Bundesanstalt (PTB), for use by the Institute of Radiology and Nuclear Medicine in Lahore.

February 1988
Pakistan denies claims that it is constructing a second uranium enrichment facility in Golra Sharif. The information about the plant comes from U.S. space reconnaissance imagery, which monitored the construction of the facility over several months. The United States also reports that Pakistan's Kahuta facility has enriched uranium to 90%, which the Pakistanis deny and claim that the purpose of Kahuta is to enrich uranium for civil power reactors.

25 January 1988
West Germany launches a full-scale investigation into the charges that Transnuklear and Nukem (two German firms) had been involved in the transport of weapons-grade nuclear fuel to Pakistan, Libya and Sudan.

17 January 1988
Belgonucleaire, a Belgian company, is accused by a West German newspaper of participating with two West German firms in the clandestine transfer of fissionable material to Pakistan.

16 January 1988
A second West German company, Transnuklear, is accused of delivering fissile material to Libya or Pakistan.

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However, Federal Environmental Minister, Klaus Toepfer states that "no new proof has been offered regarding accusations that Transnuklear, delivered fissile material to Libya or Pakistan."

16 January 1988
The West German firm Alkern denies that it exported nuclear materials in an illegal manner. A spokesman for the company says that "Alkern has never delivered fissile material to countries of the Third and Fourth World, and that includes Libya and Pakistan."

1987
18 December 1987
A Philadelphia Jury finds Arshad Z. Pervez, the Pakistani-born Canadian businessman, guilty of conspiring to ship material to Pakistan that could be used to produce nuclear weapons.

25 September 1987
Pakistani Prime Minister, Mohammed Khan Juenejo, delivers a speech to the United Nations General Assembly in which he proposes "a nuclear-free zone and regional test ban treaty in South Asia." Junejo says that his government would accept a bilateral test ban between India and Pakistan.

22 September 1987
US President Ronald Reagan meets with Pakistan’s Prime Minister Mohammed Khan Junejo at the United Nations (UN) and presses his Pakistani counterpart to open his country’s nuclear installations to international inspection. This could possibly prevent the suspension of American aid to Pakistan by the US Congress.

28 August 1987
Pakistan’s Minister of State for Foreign Affairs Zain Noorani says that Pakistan will not accept "biased controls," over its peaceful atomic energy program. He also says that Pakistan is enriching uranium in small quantities for peaceful purposes and that Pakistan will offer to open its nuclear facilities to Indian inspection if India would do the same.

**24 August 1987**

Pakistani Prime Minister Mohammed Khan Junejo reiterates his government's resolve to develop nuclear technology in order to meet the country's growing energy requirements.


**6 August 1987**

Pakistan rejects renewed suggestions that it allow inspections of its nuclear sites in order to demonstrate that it is not making nuclear weapons. However, Pakistan says that it will cooperate in investigating charges that a Pakistani businessman was involved in efforts to illegally acquire material from the US that can be used to manufacture nuclear bombs.


**4 August 1987**

Pakistan states that its uranium enrichment program is for peaceful purposes and that it will accept safeguards for the South Asia Region. A Pakistani foreign office spokesman conveys to US Undersecretary of State for Political Affairs Michael Armacost that Pakistan will not accept any discriminatory constraints on its nuclear program.


**29 July 1987**

Arshad Z. Pervez, the Pakistani-Canadian and another Pakistani businessman, Imam ul-Haq, are, indicted in Washington DC, on charges that they illegally tried to export material to Pakistan that could be used to make nuclear weapons.


**22 July 1987**

Pakistan initiates its own investigation on the apparent effort by Pakistani businessman, Arshad Z. Pervez to illegally export material from the United States to Pakistan that could potentially be used in the manufacture of nuclear weapons. In this regard, the government in Islamabad issues an arrest warrant for Pervez.


**24 July 1987**

Pakistan's Prime Minister, Mohammed Khan Junejo, calls for a mutual inspection of the nuclear power plants in India and Pakistan but India rejects the proposal.

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18 July 1987
US Attorney, David F. Levi, announces the indictments of two Americans and one Hong Kong businessman for illegally exporting "sophisticated instruments and advanced computer equipment," (which can be used to make nuclear bombs) to Pakistan. More specifically, Levi charges that Arnold and Rona Mandel along with Leung Yiu Hung "illegally exported $993,000 worth of equipment to Hong Kong in 1982 and 1983, some of which went on to Pakistan."

16 July 1987
The United States presses Pakistan for an explanation in regards to the apparent effort by Pakistani businessman Arshad Z. Pervez to illegally acquire US material for making nuclear weapons.

15 July 1987
A Pakistani-Canadian businessman, Arshad Z. Pervez, is arrested in Philadelphia on charges that he tried to export material to Pakistan that could be used in making nuclear weapons. Pervez allegedly sought to buy and send 25 tons of a special steel alloy to Pakistan. This arrest follows a 20-month undercover investigation in which American business executives pretended to go along with the sale of the banned material and in which American and Canadian investigators assumed the role of company officials and Commerce Department licensing officers.

16 May 1987
French Foreign Minister Jean-Bernard Raimond discusses French cooperation with Pakistani Foreign Minister Sahabzada Yaqub Khan. France agrees to cooperate with Pakistan in order to meet Pakistan's energy needs. A French official says that the nuclear power plant that might be constructed in Pakistan will fall under International Atomic Energy Agency (IAEA) safeguards.

14 May 1987
Pakistan welcomes the May 7th offer by the French Foreign Minister, Jean-Bernard Raimond, to negotiate the supply of a nuclear power plant to Pakistan following the out-of-court settlement of the two countries' dispute over France's non-delivery of a reprocessing plant. However, a settlement of the claim is still far away primarily due to the "rather wide gap," which exists on the issue of compensation.

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**7 May 1987**
Swiss authorities, aided by "friendly governments," reveal that components destined for Pakistan were designed to enrich uranium. Furthermore, the authorities believe that officials from the Federal Republic of Germany (FRG) firm, Leybold-Heraeus GmbH may have masterminded the attempted exportation of the components to Pakistan in 1986. It is also revealed that in 1979, Swiss firms sold equipment to Pakistan designed for use in a centrifuge enrichment plant.

**5 May 1987**
The prosecutor's office in Cologne, Germany begins its investigation of Leybold-Heraeus, a company that is suspected of illegally exporting plans that may have helped Pakistan build a uranium enrichment plant that could be used in making nuclear weapons.

**4 May 1987**
India rejects Pakistan's proposal for a bilateral agreement for an inspection of each other's nuclear program.

**4 April 1987**
Pakistani Prime Minister Mohammed Khan Junejo says that Pakistan has neither the capability nor the intention to make a nuclear bomb. He says that Pakistan will improve atomic technology in order to overcome energy problems and will enrich uranium only for peaceful purposes.

**1 April 1987**
Pakistan's foreign affairs minister Sahabzada Yakub Khan requests Canada's advice on the safety of its (Pakistan's) CANDU power plant, which Canada constructed in the late 1960's.

**9 March 1987**
Pakistan declares that it will continue its peaceful development of nuclear energy and will not bow to pressure from foreigners who fear that it may be building atomic bombs.

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6 March 1987
US Senator John Glenn asks President Reagan to suspend military aid to Pakistan until it (Pakistan) offers convincing proof that it is not seeking to develop nuclear weapons.

5 March 1987
Pakistani Minister for science and technology Wasim Sajjad, says that Pakistan does not possess an atom bomb nor the desire to have one. He reiterates that the program is solely for peaceful purposes and that negotiations with France to comply with a reprocessing plant agreement are ongoing.

1 March 1987
The Pakistan Atomic Energy Commission (PAEC) plans to develop the country’s nuclear capabilities which include the construction of a 600 MW reactor using enriched uranium and plutonium fuel. Also, negotiations are ongoing with a “European country,” to build a projected 900 MW reactor, which will have a major "local" contribution to its design, construction, and manufacture of components.

26 February 1987
I. H. Usmani, former Chairman of the Pakistan Atomic Energy Commission (PAEC) and former employee of the International Atomic Energy Agency (IAEA), endorses Pakistan’s nuclear option only after all other types of energy have been tapped. Usmani explains that "Pakistan’s centrifugal plants can only reach enrichment of 2.7%, far below the required standard for making a bomb." Furthermore, "if Pakistan achieved uranium enrichment capability, they must export the fuel as it is a landmark achievement to take credit for." Usmani points out that nuclear power is more costly than alternative energy sources and discounts reports that Pakistan has the capability to build an atomic bomb.

20 February 1987
Senior US officials express new concerns that Pakistan is moving toward the development of a nuclear bomb, despite pledges from the Pakistani government that it has no such intentions.

19 February 1987
The solid state Nuclear Track Detection Laboratory at the Pakistan Institute of Nuclear Science and Technology (PINSTECH) fabricates Chromium kF39, which is used in uranium exploration. This work has been done in

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collaboration with the International Atomic Energy Agency (IAEA).

11 February 1987
A Pakistani foreign office spokesman says that Pakistan's nuclear program "is of a peaceful nature, which has been proved during the last six or seven years. Pakistan has no intention of carrying out a nuclear explosion and is ready to accept the control and safeguards of the International Atomic Energy Agency (IAEA)." The spokesman also refutes reports that France is ready to fulfill its commitment to set up a reprocessing plant in Pakistan. The two countries have held a dialogue on French compensation payments to Pakistan for violating the agreement.

6 February 1987
Pakistani nuclear scientist A.Q. Khan comments about the recent developments in the country's nuclear program. Khan says that "Pakistan's success in uranium enrichment is of tremendous economic significance as well as being for defense purposes." He also comments that President Zia "repeatedly made it clear that achievements in the nuclear sphere were for peaceful purposes."

3 February 1987
Pakistan's Minister of State for Foreign Affairs Zain Noorani informs the Pakistani Senate that Pakistan is the leading country in the Third World in generating nuclear energy. Furthermore, Noorani explains that the Pakistan's Atomic Energy Commission (PAEC) "has achieved its objectives in nuclear technology for peaceful purposes." Moreover, despite a Canadian embargo on supply of parts, Pakistan has been able to operate a nuclear power facility for energy.

1 January 1987
Indian Foreign Secretary K.P.S. Menon says that India will sign an agreement with Pakistan not to attack each other's nuclear installations despite concerns that Pakistan is manufacturing a nuclear device. Pakistani Foreign

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Secretary Abdul Sattar states that the two sides are currently drafting the agreement. The agreement is scheduled to be signed during Rajiv Gandhi’s visit to Pakistan later during the year.


1986

28 December 1986
Senior Indian and Pakistani officials discuss plans for creating a treaty which would ban attacks by the two neighbors on each other’s nuclear plants.


December 1986
Pakistan’s Foreign Secretary Abdul Sattar, visits France to meet with the French foreign minister and to discuss the possible supply of a 900 MW French unit at the Chashma Nuclear Power Plant (CHASNUPP).


27 November 1986
Pakistan is cooperating with a number of Muslim countries in the peaceful use of nuclear energy and is willing to extend this cooperation with others. Pakistan has already concluded bilateral agreements with Niger and Malaysia.


8 November 1986
Pakistani President Zia ul-Haq, formally directs the Pakistan Atomic Energy Commission (PAEC) to begin work on the design and manufacture of an indigenous, inherently safe nuclear reactor to meet the country’s growing energy requirements. The President also says that "Pakistan would welcome cooperation from any country in its nuclear program." Any new contemplated reactor would be a heavy water reactor like the one supplied by Canada for the Karachi Nuclear Power Plant (KANUPP).


7 November 1986
The United States warns Pakistan that it will cut off aid if Islamabad continues its efforts to make a nuclear bomb. Nuclear experts believe that the People's Republic of China (PRC) had conducted a test for Pakistan in the Sinkiang desert. Also, The Washington Post reported that Pakistan had conducted heavy explosives tests in September, in order to develop an implosion trigger device.

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4 November 1986
The Reagan administration expresses "very serious concerns about Pakistan's unsafeguarded nuclear program," but the administration says that it has "no evidence that Islamabad had exploded a bomb."

November 1986
Officials from the Pakistan Atomic Energy Commission (PAEC) claim that they have commissioned a uranium mill at Dera Ghazi Khan entirely through indigenous efforts. This information was made public at the "Atom for Development Exhibition-1986," begin held in Lahore, Pakistan.
The PAEC's "Atoms for Development," exhibition highlights the commission's achievements in discovering uranium and refining it with indigenous efforts.

30 October 1986
The Pakistan Atomic Energy Commission (PAEC) are pleased with the recent performance of the Karachi Nuclear Power Plant (KANUPP). The Plant "has achieved near-record production during the first eight months of 1986." Furthermore, it has "generated 338,000 MW-hours, slightly over 42% nominal gross capacity, but PAEC sources said that plant availability has been at 84% and it has set a record of continuous operation of 104 days." The power plant runs on indigenously fabricated fuel and supplies the metropolitan city of Karachi.

16 October 1986
The Pakistan Atomic Energy Commission (PAEC) develops a noise analysis surveillance system for its nuclear reactors. "The surveillance system can detect malfunctioning of reactor components such as control rod, fuel element, or grid plate vibrations at a very early stage." The system was tested on the Karachi Nuclear Power Plant (KANUPP) and was found to be satisfactory.

4 October 1986
Munir Ahmed Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC), is elected President of the International Atomic Energy Agency's (IAEA's) Board of Governors (BOG). This comes as part of the IAEA's elections of its new BOG officers.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
26 September 1986
The Prime Minister of Pakistan reiterates that the agreement between Pakistan and China is exclusively for peaceful purposes. The agreement specifically says that "material supplied by China to Pakistan for the purposes of research and development would be governed by IAEA safeguards."

15 September 1986
An agreement for bilateral cooperation in peaceful uses of nuclear energy is concluded between Pakistan and the People's Republic of China (PRC). The agreement specifically mentions peaceful cooperation and puts all the materials and equipment under it to be covered by International Atomic Energy Agency (IAEA) safeguards. Both sides also agree not to transfer any material or equipment to any third country without prior consent.

8 September 1986
Mr. Munir Ahmed Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC), says that "while Pakistan currently relies on imported nuclear plants, it will gradually be able to make them locally." He also says that "Pakistan is planning to sign an agreement with a European country to obtain a reactor without signing the NPT." The reactor will be built at Chashma. Moreover, Pakistan says that it will not sign the NPT unless India does the same.

3 August 1986
The Soviet ambassador to Pakistan warns Islamabad against going nuclear. This is the first time that the USSR adopts a public position on nuclear proliferation in South Asia. The USSR along with India and Israel, opposes the nuclearization of Pakistan.

31 July 1986
Pakistani Prime Minister Mohammed Khan Junejo returns from visiting four countries including France and announces (from Islamabad) that he and French Prime Minister, Jacques Chirac, have decided "to put an end to the dispute revolving around a 1974 contract for France to supply Pakistan with a reprocessing plant and components." The two prime ministers agree to name "experts," to resolve the dispute "by this fall."
29 July 1986
Prime Minister Mohammed Khan Junejo visits Paris and meets with French Prime Minister Jacques Chirac and President Mitterrand to discuss the 1976 treaty whereby France would supply Pakistan with an atomic reprocessing plant.

16 July 1986
Pakistani Prime Minister Mohammed Khan Junejo assures the U.S. Senate Foreign Relations Committee that Pakistan has no plans to build a nuclear bomb and is abiding by President Reagan's guidelines that the enrichment plant at Kahuta be limited to no more than 5%, the highest enrichment necessary for civilian reactor fuel.

July 1986
U.S. Secretary of State George Shultz and Pakistan Foreign Minister Yaqub Khan sign an agreement to transfer advanced U.S. technology including mainframe computers and communications equipment with the condition that Pakistan cannot transfer the equipment to a third country and may not use it in any nuclear weapons program.

26 June 1986
Dr. AQ Khan announces that Pakistan has a program to manufacture an indigenous nuclear reactor. He also declares that Pakistan's nuclear program is not weapons-oriented since President Zia ul-Haq has given a commitment not to allow uranium enrichment of more than 5%. Pakistan's efforts to set up a 900 MW nuclear power plant at Chashma in Mianwali have not been very successful due to an embargo setup by the suppliers of nuclear technology on grounds that Pakistan has not signed the Non-Proliferation Treaty (NPT) or accepted full scope safeguards.

1 June 1986
The International Atomic Energy Agency (IAEA) agrees to provide the Pakistan Atomic Energy Agency (PAEC) with technical assistance worth $450,000. This decision is made at a meeting of the IAEA Board of Governors in Vienna, Austria. The PAEC also mentions that a new console has been installed and made operational on the Pakistan Atomic Research Reactor (PARR). This marks the first step in the overall renovation of the Reactor.

26 April 1986
Prime Minister Mohammed Junejo asks the United States and China to help Pakistan's peaceful nuclear program in

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order to tide over power shortages in the country. This is the first time that Pakistan publicly sought assistance from China on nuclear development. U.S. Ambassador Deane R. Hinton says the USA is willing to help Pakistan in nuclear technology, provided its peaceful uses are verified by international inspections.


18 April 1986
Pakistan Foreign Secretary Niaz A. Naik holds talks with his Indian counterpart, Mr. Venkateswaran, and makes it clear to India that his country has neither the intention nor capability for a nuclear weapon program. The foreign secretary also says that Pakistan "has made several proposals for a nuclear weapon-free zone in South Asia."


12 March 1986
Libyan leader, Muammar al-Qadhafi, pledges that Libya will never help Pakistan acquire a nuclear bomb. Al-Qadhafi states that he considers nuclear weapons production a "fatal mistake against humanity."

—"Al-Qadhafi Pledges Not to Produce Nuclear Bomb," Kuna (Kuwait), 12 March 1986; World Wide Report, 10 April 1986, Pg. 35; in NTI Nuclear and Missile Developments, 10 April 1986, www.nti.org.

2 March 1986
U.S. Ambassador to Pakistan Dean Hinton expresses doubts about Pakistan's nuclear program and asks the Pakistani leadership to sign the Non-Proliferation Treaty (NPT). The Ambassador says that "if Pakistan wanted to pursue its nuclear program for peaceful purposes, it can get more aid from the U.S. and other countries."


1 February 1986
The International Chamber of Commerce for Arbitration, based in Paris, rules that the French company, Societe Generale pour les Techniques Nouvelles (SGN), is guilty and should pay damages to the Pakistan Atomic Energy Commission (PAEC) for breaching a 1976 contract to supply a nuclear fuel reprocessing plant to Pakistan under the International Atomic Energy Agency's (IAEA) safeguards. However, the court finds that it was the French government that forced SGN to violate the contract.


17 January 1986
A high-ranking French delegation will arrive in Pakistan on February 11, 1986 under the leadership of the secretary general of the Ministry of Energy to discuss the sale of a nuclear reprocessing plant. The delegation will meet with Pakistani President Zia ul-Haq and Prime Minister Junejo.


Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
1985

18 December 1985
Indian Prime Minister Rajiv Gandhi and Pakistani President Mohammed Zia-ul-Haq pledge not to attack each other’s nuclear installations and to proceed with major new efforts to resolve several disagreements that have increased tensions between the two nations.

18 November 1985
The International Chamber of Commerce (ICC) announces that it has rendered its judgment on the French-Pakistani legal dispute over the breach of a contract by the French engineering company, Societe Generale pour les Techniques Nouvelles (SGN), to build a 50-100 metric ton reprocessing plant at the Chashma Nuclear Power Plant (CHASNUPP). The Committee rules in favor of the Pakistan Atomic Energy Commission (PAEC).

30 October 1985
The Telegraph Agency of the Soviet Union (TASS) claims that India’s *Tribune* newspaper reported that Pakistan has considerably sped up the preparation for nuclear tests in the past 10 months, putting two "enriched uranium production plants," into operation at the same time. The *Tribune* also allegedly reported that Pakistan is planning to test a nuclear explosive device in the Taklamakan Desert in the People’s Republic of China (PRC), which will have about the same yield as the device exploded by the PRC in 1964.

24 October 1985
China confirms that it is cooperating with Pakistan and other nations in the field of nuclear energy, but asserts that the program is for peaceful purposes only. "Our cooperation in the field of nuclear energy with other countries, such as France, Federal (West) Germany, the United States, Brazil, Pakistan, and Japan, whether ongoing or under discussion, serves and will serve only peaceful purposes instead of any non-peaceful purposes."

13 September 1985
The Reagan Administration expresses its concern about the "possible development of a nuclear weapon by Pakistan and about overall tensions in the region." Administration officials say that the "underlying concern," in the region is "the danger of Indian retaliation against any nuclear developments in Pakistan."

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Fall 1985
At the United Nations General Assembly meeting in New York, Pakistan's President Zia, calls for India and Pakistan simultaneously to sign the Non-Proliferation Treaty (NPT), accept mutual fullscope safeguards and inspections, and renounce the acquisition of nuclear weapons. This proposal is duly endorsed by U.S. President Reagan but not by Indian Prime Minister Gandhi.


15 August 1985
A United Kingdom engineering firm, Bankwood Engineering Ltd, wins a $270 million order from the Pakistan Atomic Energy Commission (PAEC) for supply of an automatic conveyer system to handle nuclear waste drums. The firm overcame stiff international competition in order to win the award from the PAEC.


20 June 1985
The International Atomic Energy Agency's (IAEA) Board of Governors approves the continuation of a program to help Pakistan modernize the control and instrumentation systems of its 137-MW Pressurized Heavy Water Reactor (PHWR) located at the Karachi Nuclear Power Plant (KANUPP). The modernization consists of constructing a laboratory for precision calibration and testing.


22 May 1985
Pakistani President Zia ul-Haq tells the monthly magazine, *Quami Digest*, that "the United States, the Soviet Union, India, and Israel are part of a worldwide campaign to prevent Pakistan from getting nuclear technology." Zia also tells the magazine that "Pakistan had resisted the pressure and is determined to develop nuclear technology for peaceful purposes."


2 May 1985
Indian Prime Minister Rajiv Gandhi criticizes the idea, authored by a prominent Pakistani journalist, that if "both India and Pakistan develop nuclear capability, it would stabilize their bilateral relations through a nuclear 'balance of terror.'" Gandhi says that "reports of the possible direction of Pakistan's nuclear programs were of serious concern to India and a nuclear arms race would only subject people of both countries to the worst possible fate on earth."

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2 May 1985
The U.S. Ambassador to Pakistan, Deane R. Hinton, categorically rules out the possibility of cooperation between the United States and Pakistan unless Pakistan signs the Nuclear Non-Proliferation Treaty (NPT) or accepts full-scope safeguards on all of its nuclear facilities. During a press conference in Islamabad, Hinton faces an overwhelming amount of questions in regards to the U.S. opposition to Pakistan's nuclear program. He declares that the United States would be willing to cooperate with Pakistan in the peaceful use of nuclear energy only if Pakistan agrees to the NPT or full-scope safeguards.

26 April 1985
Pakistan's Ambassador to India, Humayun Khan, quotes President Mohammed Zia ul-Haq as saying "we have succeeded in enriching uranium up to five per cent, but 90 per cent enrichment is needed to build nuclear weapons."

25 April 1985
French Ambassador Roger Duzer makes a short visit to Karachi. During the visit, the Ambassador says that France and Pakistan are still discussing the problem of France selling a reprocessing plant to Pakistan. The two governments have had on and off discussions in regards to this problem, which involves a breach of contract in 1977 for the supply of a reprocessing plant to the Pakistan Atomic Energy Commission (PAEC) by the French engineering firm Societe Generale pour les Techniques Nouvelles (SGN). Dozer mentions that many types of safeguards would be required for the transaction to occur.

Indian Prime Minister Rajiv Gandhi communicates his concerns about Pakistan's nuclear program directly to the Pakistanis themselves. In an interview with Mushahid Hussain, editor of the Muslim, he categorically rejects the notion that nuclear weapons would stabilize Indo-Pakistani relations by creating a deterring "balance of terror." "I have never subscribed to the view that 'terror,' balanced or otherwise, would stabilize anything." Furthermore, Gandhi also states that "a nuclear arms race in the subcontinent would only subject both our peoples to the worst possible fate on earth."

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28 March 1985
The Associated Press of Pakistan reports that scientists of the Pakistan Atomic Energy Commission (PAEC) are modernizing the instrumentation and controls of the 5-megawatt research reactor at the Pakistan Institute of Nuclear Science & Technology (PINSTECH), which is under international safeguards.

25 March 1985
The journal of the Pakistan Atomic Energy Commission (PAEC) claims that Pakistan has joined the small group of countries that explore and mine their own uranium, as well as refine and upgrade it to the required specifications, fabricate it as fuel, and finally burn it in a commercial power reactor to produce electricity. Pakistan's top nuclear scientist, Abdul Qadeer Khan, states that "Pakistan will supply its own fuel to its next nuclear power plant planned at Chashma." Furthermore, the journal of the PAEC states that "backed by extensive uranium exploration and mining, the fabrication of safe and satisfactory fuel bundles for the Karachi nuclear power plant has won for Pakistan, the distinction of mastering the technology of the front end of the nuclear fuel cycle."

14 March 1985
Pakistani nuclear scientist A.Q. Khan gives a provocative interview in a small-circulation Urdu weekly, *Hurmat*. In the interview, Khan insists that Pakistan's nuclear program is entirely for peaceful purposes, yet he hints that the nation could carry out "an atomic explosion in a very short time, if required, without conducting any test."

March 1985
U.S. Under Secretary of State for Political Affairs, Michael Armacost, travels to Islamabad in order to reaffirm Washington's determination to keep a lid on the Pakistani nuclear weapons program. More specifically, he seeks reassurances in Islamabad that Pakistan would refrain from enriching uranium above 5 percent — as requested in President Reagan's September 1984 letter to President Zia; and that it would not take other steps toward the manufacture of nuclear weapons.

26 February 1985
In response to news reports that Pakistan "tried to get timing devices whose main function is to trigger nuclear bombs," the U.S. State Department says that the Pakistani government has given assurances that its nuclear program is "peaceful in intent."

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
25 February 1985
Pakistan continues to maintain that it has no intention of developing a nuclear bomb and states that "all nuclear work has gone into research and development of technology for peaceful purposes."

14 February 1985
Peter Tempus, deputy director general, International Atomic Energy Agency (IAEA) Department of Safeguards, expresses satisfaction on the way in which the IAEA safeguards are implemented in Pakistan. Tempus states that "there are no problems for the IAEA in performing its safeguards inspections in Pakistan."

1984
6 December 1984
The Spanish architect-engineering firm Sener SA is expected to extend its contract with PAEC for another 2 years. The head of the firm's Power Department Mr. Francisco Albisu says that the firm is currently doing a "few tasks" in Pakistan, and Spanish engineers visit Chashma occasionally to brief local companies on the project. The firm recently prepared an environmental report for the project. Mr. Albisu states that all Sener engineers left Pakistan in later 1983 since no bids were submitted for the Chashma nuclear project. Sener was originally contracted to prepare specifications for the bidding procedure for the planned Chashma nuclear power plant.

The Spanish government denies reports that a Spanish firm is negotiating the sale of uranium hexa-fluoride (UF6) shipment casks to Pakistan. A spokesperson for the Department of Nuclear Energy at the Industry Ministry says that such a transfer would require an authorization permit from the government and no request has been made by any firm for such a permit.

30 November 1984
A report prepared for the Pentagon Nuclear Agency concludes that Pakistan could make at least 24 nuclear weapons by 1990. The report further states that Pakistan possesses 54 planes that can be configured for nuclear delivery. The report is prepared by Rodney W. Jones of Georgetown’s University's Center for Strategic and International Studies.

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29 November 1984
Four US Senators - Senator Sam Nunn (D-GA), Senator John Glenn (D-OH), Senator James Sasses (D-TN), and Senator J. Bennett (D-LO) - urge Pakistan to sign the NPT. Sen. Nunn also states that the United States will not provide any aid for the Chashma nuclear power plant project.

18 November 1984
The Soviet Ambassador to Pakistan Vitaly Simirnov announces that the Soviet Union will not participate in the Chashma nuclear power plant project. Mr. Simirnov does not specify the exact reasons for the rejection of nuclear assistance but alludes to Pakistan's alleged intervention in Afghanistan, anti-Soviet propaganda, and deteriorating relations between Pakistan and the Soviet Union.

16 November 1984
Pakistan's Foreign Minister Yaqub Ali Khan presents President Zia ul-Haq's reply to President Reagan during a meeting at the White House. President Reagan wrote a letter in September warning President Haq against continuing Pakistan's nuclear weapons program. President Haq, in his reply, provides assurances that Pakistan will not enrich uranium beyond 5% as requested by President Reagan.

8 November 1984
Pakistan's President Zia ul-Haq restates his proposal for mutual inspections of nuclear facilities between India and Pakistan. President Haq states that he had made the proposal 3 years ago and did not receive any response from India. President Haq states that "Pakistan and India should forget the rest of the world and appoint a joint commission to inspect each other's nuclear facilities." President Haq made the offer in New Delhi during his trip to attend the cremation ceremony of India's former Prime Minister Indira Gandhi.

November 1984
Nazir Ahmed Vaid, a Pakistani arrested while attempting to export krytrons to Pakistan, pleads guilty to charges of attempting to illegally export 50 high-speed switches (krytrons) to Pakistan. US intelligence sources indicate that Pakistan also attempted to acquire precision-based explosives that are part of the triggering mechanism in a nuclear weapon.

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**27-28 October 1984**

A Congressional Research Service (CRS) report states that several countries are acquiring capabilities that might be used to develop nuclear weapons. The CRS report examines 23 countries of which 5 are identified with posing the greatest "proliferation threat." The 5 countries are Pakistan, India, Israel, South Africa, and Argentina. The report titled "An Assessment of the Proliferation Threat Today and Tomorrow" is prepared by Warren Donnelly for Senator William Proxmire (D-Wisconsin).


**25 October 1984**

US State Department officials state that Pakistan is continuing its uranium enrichment effort and other efforts to purchase nuclear equipment despite recent warnings delivered by US Assistant Secretary of State Richard Murphy. Mr. Murphy is believed to have delivered the message that continuation of the nuclear program "in certain areas" will endanger the security relationship between Pakistan and the United States.


**23 October 1984**

US Assistant Secretary of State Richard Murphy says that the United States is convinced that India will not attack Pakistan's nuclear facilities. Mr. Murphy also denies that the United States offered to place Pakistan under its nuclear umbrella in return for Pakistan's renunciation of its nuclear weapons program.


**19 October 1984**

Retired Lt. Gen Faiz Ali Chishti claims that Pakistan possesses the capability to develop a nuclear weapon but lacks the technology to deliver the weapon. Lt. Gen Chishti states "what is required is ... a delivery system." The retired Pakistani Army General is believed to have assisted in obtaining nuclear techniques and security for Pakistan's nuclear facilities. Lt. Gen Chishti retired from the army in 1981.


**Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.**
17 October 1984
Pakistan's President Zia ul-Haq says that West Germany has provided training for Pakistan's nuclear reactor workers and has agreed to consider providing financial aid for the construction of the Chashma nuclear power plant. President Haq mentions that Pakistan sought West German assistance during Chancellor Kohl's visit to Pakistan. According to President Haq, Chancellor Kohl wanted certain clarifications on Pakistan's nuclear program and promised to consider Pakistan's request for further cooperation in the $1.6 billion Chashma nuclear power plant project. West Germany does not respond on Pakistan's claim that West Germany provided training to Pakistani nuclear reactor workers.

15 October 1984
West German Chancellor Helmut Kohl says that West Germany cannot help Pakistan to develop atomic energy as long as it remains outside the NPT. Chancellor Kohl says "We fully understand Pakistan's goals, but there are a lot of problems. We and our friends in the European Community and in America wish that as many countries as possible would accede to the Nonproliferation Treaty." Chancellor Kohl is on an overnight visit to Pakistan after a 6-day visit to China.

11 October 1984
Pakistan's Foreign Minister Sahabzada Yaqub-Khan, without revealing the specifics, states that Pakistan has undertaken "appropriate defensive measures" to protect its nuclear facilities from an Indian attack. Some US sources indicate that some Pakistani nuclear facilities have been moved under-ground as part of its defensive measures.

5 October 1984
A news report in the Pakistani daily Nawa-i-Waqt states that US President Ronald Reagan, in a letter to President Zia ul-Haq, offered to place Pakistan under the US nuclear umbrella if Pakistan renounces its nuclear weapons program.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
4 October 1984
PAEC Chairman Munir Ahmad Khan states that Pakistan’s graphite purification efforts are not related to its nuclear program. Mr. Khan insists that the work is done independently on an experimental level. Mr. Khan says that the graphite purification is not useful for Pakistan’s nuclear program since its existing reactor is a heavy-water moderated reactor and its future reactors will be light-water reactors (LWRs). Mr. Khan indicates that no plans are formulated to expand the scale of the graphite purification effort. Mr. Khan also reveals Pakistan’s decision to discontinue setting new dates for the submission of bids for the Chashma nuclear power plant project. Mr. Khan indicates that the current plan involves bilateral discussions with the suppliers. According to Dr. Khan, Framatome and Kraftweek Union are being considered for the project. In his address to the IAEA, Munir Ahmad Khan reports that the KANUPP reactor is operating satisfactorily despite the imposition of embargoes on the plant. According to Dr. Khan, Pakistan managed to manufacture the fuel and necessary spare parts for the power plant. Dr. Khan mentions that the KANUPP facility has achieved the designed maximum burn-up of 7,000-8,000 Mw-Days per metric ton after several days of irradiation.

25 September 1984
In a report to the 28th session of the IAEA, China promises to undertake sufficient measures to ensure that other nations do not use Chinese technology to develop nuclear weapons. The leader of the Chinese delegation Jiang Xinxiong informs the IAEA that 'China will, in exporting its nuclear materials and equipment, request the recipient countries to accept the safeguards in line with the principles established in the agency's statute.” China is suspected by the United States of assisting Pakistan’s nuclear weapons program.

20 September 1984
Pakistan’s President Zia ul-Haq says that Pakistan has taken steps to protect its nuclear facilities from an Indian attack. President Haq states that he is seeking further information on the reports, including the CIA briefing to the US Senate, stating the threat to Pakistan’s nuclear facilities. Pakistan’s President also rejects the reports as part of CIA’s efforts to force Pakistan to provide leasing bases within Pakistan to the United States.

15 September 1984
US officials term as alarmist the ABC news report which stated that India's Prime Minister is being urged by her military planners to launch a pre-emptive strike against Pakistan's nuclear facilities. Some officials say that the news report might be based on the CIA briefing provided to the Senate Select Committee on Intelligence on 13 September.
—Don Oberdorfer, "US Sees India-Pakistan Rifts Not as Signals of Imminent War," Washington Post, 15 September
13 September 1984
CIA officials brief members of the Senate Select Committee on Intelligence on the renewal of tensions between India and Pakistan. According to two members of the Committee, CIA officials informed the Committee that India’s Prime Minister Indira Gandhi was urged earlier this year by some senior aides to attack Pakistan’s Kahuta enrichment facility. The Committee’s Chairman Senator Barry M. Goldwater (R-AZ) and Vice-Chairman Senator Daniel Patrick Moynihan (D-NY) express concern over the possibility of an Indian air raid on Pakistan’s Kahuta enrichment facility.

12 September 1984
US President Ronald Reagan sends a personal letter to Pakistan’s President Zia ul-Haq warning that Pakistan might lose American military aid if it persists to pursue its nuclear weapons program. The letter warns President Haq not to enrich uranium beyond 5% at the Kahuta enrichment facility. Certain reactors require 5% enriched uranium for operation and nuclear weapons usually require uranium enriched to over 90%. The enrichment level restriction is believed to be a new “marker” for Pakistan to receive American aid. The other markers include: not testing a bomb, not reprocessing plutonium, not assembling a bomb, and not asking other country to test a device on Pakistan’s behalf.

9 August 1984
US State Department officials ask technical experts to examine the recent reports regarding Pakistan’s efforts to purify graphite for use in nuclear reactors. A Congressional source indicates that Pakistan’s ability to purify graphite will allow it to build a production reactor that can provide Pakistan with an un-safeguarded source of plutonium. The Congressional source also expresses doubts whether Pakistan possesses the technical expertise needed to operate a graphite-moderated nuclear reactor.

Senator Alan Cranston (D-CA) announces his intention to propose a legislation that will require a cut-off in the further sale of F-16 fighter planes to Pakistan unless Pakistan opens its nuclear facilities to IAEA inspections. Sen. Cranston also states that the proposed legislation will also require the US President to certify that Pakistan is not developing nuclear weapons. The Reagan administration indicates that it will oppose the proposed legislation, stating that such legislation will provoke Pakistan to proceed faster in its efforts to develop nuclear weapons.

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
2 August 1984
A statement by the Pakistani Embassy in the United States reports that Pakistan's laboratory-scale plutonium reprocessing facility possesses limited capacity and states that it will take several decades for Pakistan to develop even a single nuclear weapon. The statement further states that Pakistan does not possess a team for designing nuclear weapons.


2 August 1984
According a Pakistani news agency, Pakistan succeeds in enriching graphite to over 99%, enabling its use in a nuclear reactor. The graphite is mined in the Neelam valley in the Pakistani part of Kashmir. Pakistani officials also believe that a graphite processing plant might be built in Pakistan controlled part of Kashmir where 0.5 million tons of good quality graphite is available. The pre-investment study was conducted by Pakistan Council of Scientific & Industrial Research (PCSIR) and the pilot as well as laboratory studies for graphite purification have been successful completed. Graphite is used as a moderator in natural uranium fueled uranium reactors that can be used for producing plutonium. Pakistani officials did not provide information on the rationale for purifying graphite. Pakistan’s sole nuclear reactor is moderated by heavy-water.


20 July 1984
A Pakistani embassy spokesperson Iqbal Butt indicates that a request has been made to the US State Department to allow a Pakistani official to visit the three Pakistanis indicted in Houston. The spokesperson denies that Mr. Vaid is representing the Pakistani government and states that the Pakistani embassy learnt of the affair only through the newspapers. The spokesperson also states that Pakistan's nuclear program is only geared towards peaceful purposes.


20 July 1984
The Information Minister at Pakistan’s Embassy in London denies any Chinese assistance in Pakistan's nuclear program. The Minister reaffirms the peaceful nature of Pakistan's nuclear program and states that such allegations have been denied by both China and Pakistan. The Minister also deplores the criticism of Pakistan's nuclear program and points to the lack of such criticism for the nuclear weapons program of India, Israel, and South Africa.


19 July 1984
Canada convicts 2 Pakistanis of attempting to export US-made equipment to Pakistan without obtaining the required permits. The company Serabit Electronics Ltd. is also convicted. Canada arrested 3 men, Salam

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
Elmenyawi, Mohammad Ahmad, and Abdul Aziz Khan in August 1980 while attempting to illegally export electrical components to Pakistan. Salam Elmenyawi and Mohammad Ahmad are fined $3,000 each on a minor technical charge. The third man, Abdul Aziz Khan, believed to be the prime suspect is acquitted of charges. Abdul Aziz Khan is acquitted after he convinces the Canadian jury over the harmless nature of Dr. Abdul Qadeer Khan’s research work. The evidence produced by the Canadian prosecutors against Abdul Aziz Khan included letters written by Dr. A.Q. Khan inviting Abdul Aziz Khan to work on a project of "national importance", ambiguous letters explaining the progress of research, and letters explaining the problems faced by the research program. Abdul Aziz Khan also claimed ignorance of the article, explaining uranium enrichment, which was seized during his arrest. Abdul Aziz Khan also claimed during the trial that the inverters (confiscated during the time of his arrest) were intended for use in a textile plant and a food processing plant.


17 July 1984
Reagan administration officials state that China’s assistance to Pakistan’s nuclear weapons program is a major road-block in consummating the nuclear cooperation agreement signed between China and the United States during President Reagan’s China trip in April. US officials express serious concern over the presence of Chinese officials at the Kahuta enrichment facility and indicate that the situation is being closely observed. US officials believe that China and Pakistan are engaged in a mutual agreement wherein China will assist Pakistan in overcoming the technical hurdles for building uranium enrichment centrifuges and in return China might get access to the advanced centrifuge designs stolen by Pakistan. Other reports also suggest that China transferred a quantity of weapons grade highly enriched uranium (HEU) sufficient for a few nuclear devices. Some US officials, however, express doubts over the report.


16 July 1984
A federal grand jury indicts three Pakistani nationals Nazir Ahmed Vaid, Salim Ahmed Mohamedy, and Ilyas Ahmed Mohamedy on charges of providing false statements to US Customs officials, violating US export laws governing munitions, and conspiracy. Mr. Vaid is in custody with a bond amount of $200,000. The other two charged persons are arrested and the bond amount for bail is set at $100,000. US Assistant Attorney Sam Longoria and Defense Attorney William Burge refuse to comment on the case citing a gag order issued by the judge.

11 - 13 July 1984
11 Western suppliers of nuclear technology meet in Luxemburg to strengthen nuclear export control regulations. One of the important issues that forced the group to convene is Pakistan's efforts to acquire nuclear weapons. The Luxemburg meeting represents the first meeting, since 1977, for most of the members of the 15-member of the London Suppliers Club.

5 July 1984
Pakistan's allocates $35 million for PAEC projects, including $10 million for the Chashma nuclear power project, in its budget for the year 1984-85. Pakistan's Planning Minister Mahboob-ul-Haq indicates a lack of progress in the construction of the Chashma nuclear power plant since no major supplier has submitted bids for the project. Other budget allocations include $13 million for a classified re-processing plant, $4.5 million for a nuclear mineral survey, and $1.5 million for an on-going uranium exploration project in Dera Ghazi Khan.

29 June 1984
US Magistrate Calvin Botley orders Nazir Ahmed Vaid to remain in custody and sets a bond for $200,000 and refuses to lower the amount. Justice Botley says Mr. Vaid should pay the entire amount instead of the usual 10% in order to be released on bail. Mr. Vaid is charged with providing false customs declaration and conspiring to violate US Neutrality Act. US Attorney argues that Vaid is a Pakistani agent and says "we strongly suspect Mr. Vaid is acting at the instructions of the Pakistani government and that the purchase of the krytrons was for Pakistani use in obtaining a nuclear weapon." According to information provided by Customs agent Justice McCalley, Mr. Vaid first attempted to procure Krytrons directly from E.G. & G Electro-Optics, the only firm in the United States that manufactures krytrons. The firm refuses to sell the krytrons to Mr. Vaid when he indicates the final destination to be Pakistan. Mr. Vaid was asked to obtain US State Department authorization for the purchase. Later, the firm E.G. & G received an order for 50 krytrons from a electronics company in Houston and the firm informed the Customs agency regarding the new purchase order.

28 June 1984
US sources indicate that Pakistan and China might be cooperating in developing each other's nuclear weapons program. According to sources, China is assisting Pakistan in resolving engineering problems in building centrifuges for uranium enrichment. In return, Pakistan might be providing advanced centrifuge designs for uranium enrichment. China uses gaseous diffusion process for enriching uranium.

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22 June 1984
Salim Ahmed Mohamedy and another Pakistani Ilyas Ahmed Mohamedy contact a Houston freight forwarding agent AEI to pick up a package for export to Pakistan. The package is labeled as "printed materials and office supplies" and AEI delivers the package to Houston Intercontinental Airport. The package is seized by US Customs agents upon arrival at the airport. US Customs officers arrest Nazir Ahmed Vaid for attempting to export 50 krytrons out of the United States. Krytrons are high-speed switches that can be used as triggers for nuclear weapons and can also be used for other applications like lasers. Mr. Vaid paid $4,000 for the krytrons.

22 June 1984
China informs the United States that it will not provide additional assurances apart from those already provided. The Deputy Assistant Secretary of State for East Asian Affairs William A. Brown briefs legislative aides on the issue and tells that certain activities are continuing between Pakistan and China. According to Mr. Brown, both the nations are being questioned over the issue through diplomatic channels. According to sources, Mr. Brown indicates that information regarding the exact nature of Chinese assistance to Pakistan is not conclusive. Sources also indicate that in 1983 China transferred design for the fourth device detonated by China and not the design for the fourth nuclear device built by China.

21 June 1984
US Congressional sources and Reagan administration officials indicate that China might be continuing its assistance to Pakistan’s nuclear weapons program. Officials indicate that China might be assisting Pakistan in the development of centrifuges for enriching uranium. Many administration officials urge caution, suggesting that evidence of continuing Chinese assistance is far from conclusive. Some officials believe that China might gain from Pakistan’s nuclear program since Pakistan has been involved in pilfering advanced western nuclear technology for the past few years. The officials indicate that "some evidence" reveals that, in 1983, China provided Pakistan with a bomb design based on the fourth type of bomb tested by China. Certain other officials believe the evidence to be speculative, but, nevertheless concede that China assisted Pakistan’s nuclear weapons program until last year.

20 June 1984
Senator Alan Cranston (D-CA) announces that "Pakistan has now acquired all the capability necessary to produce nuclear weapons." Sen. Cranston plans to make the revelation on the Senate floor tomorrow. The Senator indicates that he received the information from a recently declassified study conducted by a team of more than 90 experts for the Defense Nuclear Agency. Sen. Cranston accuses the US State department and the Reagan

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administration of withholding information from the Congress over the issue. The State Department does not comment on Sen. Cranston's remarks. But, privately, officials indicate that China's past nuclear assistance to Pakistan was known for quite some time. US officials also reveal that the United States had conducted serious discussions with Pakistan not to detonate a nuclear device.


11-15 June 1984

The Congressional approval for the nuclear cooperation agreement between China and the United States is unlikely to be passed by the Congress. The current problem for the passage of the nuclear agreement is due to the additional assurances sought by US officials from China over its nuclear transfers. Chinese officials refuse to provide any additional assurances, arguing that the necessary assurances were provided during President Reagan's trip to China in April. The additional assurances are sought after US intelligence information indicates that China assisted Pakistan's nuclear weapons program. According to an official, China is believed to be supplying nuclear fuel and nuclear technology to Pakistan and other countries. The Chinese aid is believed to have continued even after Chinese Premier Zhao Ziyang promised in January not to assist other countries in developing nuclear weapons. It is not known whether the request for additional assurances is made following new intelligence information. Some sources indicate that the intelligence agencies possessed the information for quite some time, rather, the information is being scrutinized only now in preparation for the Congressional approval of the nuclear deal. The visiting Chinese Defense Minister Zhang Aiping is believed to have expressed extreme displeasure over the request for additional assurances. Mr. Aiping says that he will verify the reports upon his return and respond. A senior official, however, denies that the United States is seeking additional assurances from China. China and the United States signed a nuclear cooperation agreement on April 30 during President Reagan's trip to China.


Second Week of June 1984

The US Ambassador to China Arthur W. Hummel Jr. is asked to meet Chinese officials to seek clarifications regarding China's pledge to prevent the proliferation of nuclear weapons. Mr. Hummel is instructed to seek information and not to accuse China of proliferation.


4 May 1984

A Senate report submitted to the Senate Foreign Relations Committee recommends the Congress to require Pakistan to halt all efforts to acquire nuclear weapons as a pre-condition for sanctioning further US aid. The report is prepared by Peter W. Galbraith who is a member of the Committee's minority staff. The report concludes that

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US-Pakistan relations are "fragile" and relations between the two countries could be damaged, not necessarily by differences over nuclear policies. Mr. Galbraith, in his report, states that Pakistan might not respond negatively if further restrictions are added for the transfer of American aid. Mr. Galbraith recommends enacting legislation that would require Pakistan to cease its efforts to acquire nuclear weapons technology or open its nuclear facilities for IAEA inspections. Mr. Galbraith suggests that the United States should use the leverage, gained through the aid program, to promote non-proliferation, human rights, and narcotics control in Pakistan.


2 May 1984
US administration officials indicate that China is adopting a different strategy towards nuclear proliferation after the conclusion of a nuclear cooperation agreement with the United States. The nuclear cooperation agreement was reached during President Reagan's trip to China. US officials indicate that Chinese officials have pledged not to assist other countries in developing nuclear weapons.


12 April 1984
The US Senate Foreign Relations Committee reverses an amendment passed on 28 March that required a Presidential certification that Pakistan does not possess a nuclear device as a precondition for aid to Pakistan. By a vote of 9-8, the Committee reverses the earlier amendment that was passed by a voice vote. The amendment was sponsored by Senator Alan Cranston (D-CA) and co-sponsored by Senator John Glenn (D-OH). According to sources, the reversal occurred after the US administration convinced some senators that a cut-off of aid due to the amendment might cause Pakistan to develop nuclear weapons for its security.


11 April 1984
Pakistan's Production Minister Lt. Gen. Saeed Qadir indicates that the government is seeking Soviet assistance for the nuclear power plant project at Chashma. The move is made following the failure of Western suppliers to submit bids for the project.


5 April 1984
According to a source at the PAEC, Pakistan indefinitely postpones the submission date for bids for the Chashma nuclear power plant project. Discussions are expected to be held with the supplier countries and no new deadline is announced.


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5 April 1984
Malaysia’s Prime Minister Mahathir Mohammad announces that Pakistan and Malaysia have agreed to cooperate in the nuclear field for the peaceful use of nuclear energy. The Malaysian Prime Minister does not provide specific details of the proposed cooperation and states that Pakistan has agreed to train Malaysian scientists in Pakistan’s nuclear facilities. Pakistan is also expected to assist Malaysia in setting-up a nuclear research center. A joint-communiqué issued at the end of Prime Minister Mohammad’s visit to Pakistan does not include the agreement on nuclear cooperation. The communiqué mentions the two countries’ support for the establishment of a nuclear weapons-free zone in South Asia and Southeast Asia.

3 April 1984
The Reagan administration is considering dropping its efforts to pass the foreign aid bill. Administration sources indicate that the amendments proposed to the foreign aid bill restrict the utility of the bill. Regarding Pakistan, administration sources indicate that it might not be possible to certify that Pakistan is not developing a nuclear device because of reports over its attempts to attain such a capability. An amendment proposed by Sen. Cranston (D-CA) and Sen. Glenn (D-OH) requires the US President to certify that Pakistan does not possess a nuclear device as a condition for transferring aid to Pakistan.

30 March 1984
Niger’s Minister for Education and Scientific Research Ila Maikassoua announces that Niger will send its scientists to Pakistan for training to operate a radio-isotope center. A nuclear cooperation agreement was signed between Niger and Pakistan in March 1983 during the visit of Niger’s Prime Minister to Pakistan.

28 March 1984
The Senate Foreign Relations Committee adopts an amendment to the Foreign Aid Bill that requires a halt any assistance to Pakistan unless the US President certifies that Pakistan "does not possess a nuclear explosive device, and is not acquiring, overtly or covertly, technology, material, or equipment for the purpose of manufacturing or detonating a nuclear explosive device." The amendment is proposed by Senator Alan Cranston (D-CA) and co-sponsored by Senator John Glenn (D-OH). The amendment is adopted by a voice vote The Under Secretary of State for Security Assistance William Schneider says the amendment will undermine US efforts to convince Pakistan to accept nuclear non-proliferation agreements. Sen. Cranston and Sen. Glenn, however, argue that existing US efforts are inadequate to force Pakistan to accept non-proliferation standards.
27 March 1984
A Pakistani foreign ministry spokesperson refutes the statement made by the Indian Foreign Secretary alleging that Pakistan has conducted a nuclear test with Chinese assistance. The spokesperson also rejects that the Pakistan’s Foreign Minister visited China to attend a meeting of nuclear experts.

27 March 1984
India's Ministry of External Affairs rejects a news report quoting remarks by the Indian Foreign Secretary. A foreign ministry spokesperson Salman Haider states that "the Foreign Secretary categorically denies the remarks attributed to him."

26 March 1984
An Associated Press report quotes a statement by the Indian Foreign Secretary that "Pakistan has manufactured an atomic bomb and China may have helped it to explode its first underground nuclear device." The Foreign Secretary's statement also indicates that Pakistan's Foreign Minister attended a 2-day meeting with nuclear experts at the nuclear testing site in China.

26 March 1984
The Belgian firm Belgonucleaire waits approval from the Belgian government to resume operations on a fuel cycle laboratory project at the PINSTECH facility in Rawalpindi. The work is halted owing to pressure from the US government. Some sources are optimistic that the approval will be provided by the end of this year whereas other sources are skeptical that the United States will provide its consent for the project during its election year. The resumption of nuclear cooperation is linked to Pakistan's acceptance of full-scope safeguards on all its nuclear facilities. Recent Pakistani press reports indicate that Belgonucleaire has sold a laboratory-scale reprocessing unit to PAEC. The reprocessing unit, according to the press reports, has not made any "hot runs." Sources, however, indicate that Belgonucleaire is not involved in the reprocessing unit and that the firm's contract involves only the supply of other parts of the nuclear fuel-cycle such as the fuel-cutting station, and plutonium and uranium preparation stations. Earlier in 1972, Belgonucleaire won the contract for the supply for a complete fuel-cycle reprocessing laboratory. However, the contract for the reprocessing unit was given to the French firm SGN as a condition for the supply of an industrial-scale reprocessing unit at Chashma. The French firm, later, withdrew from the contract in 1977. According to a source, Belgonucleaire maintains that its contract is still valid and is awaiting permission from the Belgian government to proceed with the partially-completed second phase of the project. The firm has already completed the first part of the contract that involved a detailed study of the fuel cycle complex. The firm has also completed the evaluation of bids received for equipment and services, which constitutes a portion of the second part of the contract. The third phase involves assistance in the construction of the laboratory. The PAEC has earlier attempted to complete the fuel cycle laboratory indigenously without success. A

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Belgionucleaire technical taskforce concluded in early 1983 that the facility cannot be completed by Pakistan since Pakistan does not have the necessary equipment like specialized electric cabling and also does not possess the necessary organizational workforce. Further, according to sources, PAEC Chairman Munir Ahmad Khan has declared that the laboratory will not be operated until all safety concerns are met. According to a source, Pakistan would need 3 or 4 experts from Belgionucleaire to ensure complete safety of the laboratory. The source denies any knowledge over the operational capability of the reprocessing unit that was contracted to SGN. SGN is believed to have supplied the necessary blueprints for the reprocessing unit.


23 March 1983
Salim Ahmed Mohamedy, a Pakistani and an accomplice of Nazir Ahmed Vaid, issues a check to Electrotex to settle the balance amount for the 50 KN-22 krytrons ordered by Mr. Vaid.


7 March 1984
At a civic reception held in Lahore, the Chinese President Li Xiannian states that China endorses the proposal for the creation of an Indian Ocean peace zone and for the creation of a nuclear weapons-free zone in South Asia.


3 March 1984
The Director General of the IAEA, Hans Blix, states that Pakistan possesses the necessary organizational capacity and technical knowledge to manage large projects on the peaceful uses of nuclear energy. Dr. Blix indicates that Pakistan possesses the necessary manpower and safeguards mechanisms to undertake projects to explore the peaceful uses of nuclear energy.


27 February - 3 March 1984
At a dinner for the visiting Director General of the IAEA, Hans Blix, PAEC Chairman Munir Ahmad Khan says that Pakistan cannot afford to be involved in a nuclear weapons race. Dr. Khan also states that nonproliferation policies must be fair to both developed and developing countries. Dr. Blix also meets with President Zia ul-Haq and Foreign Minister Sahabzada Yaqub and discusses about future nuclear power projects in Pakistan.


28 February 1984
The US Senate passes an amendment to the foreign aid bill to block the sale of nuclear components, materials or technology to countries that have not implemented full-scope safeguards stipulated under the NPT. The

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amendment is proposed by Senator Gordon J. Humphrey (R-NM) and Senator William V. Roth Jr. (R-DE). The amendment is passed by voice vote. The countries affected by the amendment are Pakistan, India, Israel, Argentina, Brazil, and South Africa.


**14 February 1984**

Pakistan's official news agency APP reports that the statement by Dr. A.Q. Khan suggesting Pakistan's ability to enrich uranium and also produce an atomic bomb has been deliberately misinterpreted. According to APP, Dr. Khan later issued a statement indicating that Pakistan possesses "a very limited research and development program solely for peaceful uses."


**13 February 1984**

Pakistan's President Zia ul-Haq states that Pakistan does not have a plan to build an atomic device and indicates that Pakistan will not build a bomb in the future. President Haq's statement, however, does not contradict a statement by Dr. A.Q. Khan that Pakistan can build a bomb if needed.


**10 February 1984**

In an interview with a newspaper, *Jang*, Dr. A.Q. Khan suggests that if all tests for the components of a nuclear device are conducted, then, a nuclear test is not necessary to attain nuclear capability.


**9 February 1984**

Dr. Abdul Qadeer Khan, in an interview with a Pakistani newspaper *Nawa-i-Waqt*, states that Pakistan has attained the capacity to enrich uranium. Dr. Khan states that "Pakistan has broken the Western countries' monopoly on the enrichment of uranium ... Pakistan is now among the few countries in the world that can efficiently enrich uranium." Insisting the peaceful nature of Pakistan's nuclear program, Dr. Khan also states that Pakistani scientists "would not disappoint the nation" if they are given an "important mission." Dr. Khan also indicates that Pakistan has gained a lead over India in uranium enrichment technology. Dr. Khan also mentions that uranium reserves in Pakistan are sufficient to meet the requirements for the Kahuta facility. Dr. Khan indicates that the Kahuta facility operates independently and thanks Pakistan's President Zia ul-Haq and Finance Minister Ghulam Ishaq Khan for their support for the program.

—"Pakistani Cites Nuclear Advance," *New York Times*, 10 February 1984, Section A, Pg. 4, Col. 3, Foreign Desk; in

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16 January 1984
Pakistan renames the Kahuta nuclear facility as Abdul Qadeer Khan Research Laboratory in recognition of Dr. A.Q. Khan’s contribution to Pakistan’s nuclear program. Dr. Khan, in an interview with the magazine Qaumi Digest, states that he has achieved for Pakistan within 7 with minimum expenditure what countries like West Germany, Britain, and Holland took 20 years to complete at a cost of almost $2 billion. According to the magazine, Dr. Khan is allowed to recruit personnel to work at the Kahuta project. The magazine also states that two Major-Generals Akbar Khan and Anis Nawab are working for Dr. Khan.

10 January 1984
Chinese Premier Zhao Ziyang assures that China will not assist other nations in developing nuclear weapons. During a White House banquet, Premier Ziyang, assures that "We [China] do not advocate or encourage nuclear proliferation, nor will we ourselves practice nuclear proliferation or help other countries to develop nuclear arms."

5 January 1984
The Pakistan Atomic Energy Commission (PAEC) postpones the deadline, for the fifth time, to submit bids for the Chashma nuclear power plant project. The previous deadline of December 31st is extended till March 31st. Industry sources however, indicate that it is less likely for Western nuclear suppliers will submit bids owing to Pakistan’s refusal to implement full-scope safeguards on its nuclear facilities.

1983
22 December 1983
Pakistan’s Finance Minister Ghulam Ishaq Khan announces that Pakistan has requested Soviet assistance for the construction of the Chashma nuclear power plant. Mr. Khan states that the Soviet Union will examine the project and provide a response. Mr. Khan also states that Pakistan has approached the Soviet Union for the first time regarding the Chashma project.

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20 December 1983
The Soviet Union indicates that it will consider participating in the $1.7 billion nuclear power plant project at Chashma. The Soviet Union also indicates its willingness to participate in a thermal power project and the construction of a multi-purpose dam project. The new initiatives are announced by the Soviet Union as part of a program to expand trade and economic ties between the two nations.

16 December 1983
The United Nations General Assembly adopts Pakistan's resolution for the establishment of a nuclear weapons-free zone in South Asia. India opposes the resolution citing that such a measure will not provide security to India.

Third Week of December 1983
Pakistan's Finance Minister Ghulam Ishaq Khan signs an agreement with the Soviet Union for the supply of a conventional power plant. Mr. Khan also requests Soviet assistance in the construction of the 937 Mw Chashma nuclear power plant.

10 December 1983
According to Pakistan's Foreign Minister Sahabzada Yaqub Khan, the Islamic Foreign Ministers' Conference accepts a resolution proposed by Pakistan to create a nuclear-free zone in Africa, the Middle East, and South Asia.

1 December 1983
7 developed nations including Japan, Canada, West Germany, France, Italy, Britain, and the United States meet in Rome to conclude a new agreement to prohibit products related to nuclear weapons to specific countries. The countries likely to be included in the list are Pakistan, India, Brazil, Argentina, Iran, Iraq, Syria, and Libya. The prohibited products long-range bombers and rockets, and possibly computers and other high-technology equipment.

29 November 1983
According to a Pakistani newspaper report, Pakistan’s Ministry of Law is working on a draft to appeal against the

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ruling of the Dutch court convicting Abdul Qadeer Khan of stealing secret blueprints relating to the uranium enrichment process. The Dutch court sentenced Dr. Khan in absentia to a 4 year prison sentence.


24 November 1983

West Germany's ambassador to Pakistan Klaus Terfloth states that West Germany will supply nuclear power plants to Pakistan on the condition that Pakistan provides assurances over their peaceful application. West German officials in Bonn also confirm the statement as the official position. According to sources, Pakistan will also send a purchasing delegation to Western Europe in the next few days. Originally, the delegation was expected to visit only France.


14 November 1983

A Dutch court in Amsterdam sentences Dr. Abdul Qadeer Khan in absentia for stealing nuclear secrets during his period of employment the URENCO facility in The Netherlands. Dr. Khan earlier ignored the legal summons issued for him to return to the Netherlands and stand trial. The summons was issued through the Dutch Ambassador in Pakistan.


10 November 1983

Pakistan postpones the submission date for the Chashma nuclear power project bids to December 31st. Pakistani officials do not provide any reasons for the delay, but informed sources indicate that the delay is caused by financial difficulties.


3 November 1983

Pakistan's Planning Minister Mahboob ul-Haq informs the Pakistani parliament that electricity from nuclear energy can be produced at half the cost of electricity produced from other sources. The Planning Minister declares that Pakistan will complete the Chashma nuclear project and will never submit to "nuclear colonization." The Planning Minister recently received a Cost and Economic study of the Chashma nuclear plant conducted by the Geneva-based International Energy Development Corp.


31 October 1984

Nazir Ahmed Vaid visits a Houston electronics company Electrotex and places an order for 50 KN-22 krytrons and
places a deposit of $1,000 for the order.

20 October 1983
Nazir Ahmed Vaid calls EG&G and sets up a meeting with John McClafferty. During the meeting Mr. Vaid offers to pay amounts higher than the market price for the krytrons. Mr. Vaid’s request is rejected owing to lack of documents necessary for export of sensitive technology. The firm EG&G also informs the Federal Bureau of Investigation (FBI) and the US Customs Service Agents in Boston over Mr. Vaid’s request. But Mr. Vaid leaves Boston before any action could be taken against him.

18 October 1983
A Pakistani named Nazir Ahmed Vaid contacts EG&G Electro-Optics of Salem, Massachusetts to buy 50 krytrons. EG&G Electro-Optics is a subsidiary of EG&G Inc, a large high-technology company based in Wellesley, Massachusetts. Mr. Vaid indicates his interest in the KN-22 model krytrons, costing $80 each, and can be used in nuclear weapons triggers. Mr. Vaid is asked to call again and speak to EG&G’s customer manager John McClafferty.

4 August 1983
Pakistan delays the submission date of bids for the Chashma plant from 31st July to 30th September. Earlier Pakistan had postponed the submission date from 30th April to 31st July. Pakistan is facing financial difficulties in funding the project. Also, France and Germany have not given the political green signal to the French and German firms to proceed with the project.

8 July 1983
Speaking at a news conference in Islamabad, Canada’s Deputy Prime Minister and Secretary of State for External Affairs Allan MacEachan says that Canada and Pakistan discussed the issue of bilateral nuclear cooperation but were not able to reach a conclusion. Mr. MacEachan states that Canada will not resume nuclear cooperation with Pakistan until Pakistan signs the NPT or accepts full-scope safeguards.

5 July 1983
Pakistan's President Zia ul-Haq rejects news reports about Pakistan's testing of a nuclear device as a total lie and states that Pakistan will not conduct such a test, even for peaceful purposes.
3 July 1983
Pakistan’s President Zia ul-Haq states that Pakistan has taken necessary measures to protect its nuclear installations after receiving information of a planned attack on the installations. President Haq indicates that his government seriously considered the January report in the British newspaper The Observer that mentioned a planned attack on Pakistan’s nuclear installations by India and Israel. President Haq indicates that the safety measures were initiated based on other sources apart from the report in the British newspaper. President Haq says "There has been categorical information there were countries who were suspicious, very apprehensive of Pakistan’s nuclear program and has thought of taking an action similar to one Israel took in Iraq." President Haq adds that India is not involved.


30 June 1983
Pakistan Atomic Energy Commission (PAEC) sources indicate that Pakistan is planning to raise money for the Chashma nuclear power plant by selling special "light up Pakistan" bonds to overseas Pakistanis in the Middle East. According to PAEC sources, the bonds might be used to finance the foreign exchange components for the project. Over 2 million overseas Pakistanis are believed to remit $3 billion to Pakistan every year.


25 June 1983
India investigates whether the source for the seismic activity recorded on June 13 at the Bhabha Atomic Research Center is in fact a secret underground nuclear blast. The Indian government states that the epicenter of the seismic event was south of Quetta in the Ras Koh Mountain range. An Indian foreign ministry spokesperson, Mani Shankar Aiyer, comments "it could be or may not be" an atomic test. The spokesperson adds that the issue is being discussed with Pakistan. The report about the nuclear explosion was carried in a news report in a pro-Soviet newspaper, The Patriot, which reported that "Pakistan has exploded a nuclear device in the range of 20 to 50 kilotons on June 13 in the mountain ranges near Quetta." A Pakistani foreign ministry spokesperson terms the news report as "totally false and baseless." New Delhi’s Meteorological Office Seismology Director S.K. Nag confirms the observation of a seismic event but indicates that available data does not provide sufficient information to point to a nuclear explosion. Mr. Nag indicates that the event is recorded as a natural earthquake. Western diplomatic sources indicate that they have no indication of a nuclear explosion in Pakistan and point out that The Patriot has previously engaged in spreading disinformation on several occasions.


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16 June 1983
Pakistan's budget for 1983-84 allocates $30 million for the Chashma nuclear power project. The project is estimated to cost $1.3 billion and the deadline for the bids is the end of July. The nuclear plant is expected to be commissioned in 1990. The budget document, for the first time, does not provide information on allocations for the Pakistan Atomic Energy Commission (PAEC) projects, even though $28 million is believed to have been spent on a reprocessing plant during 1982-83.

13 June 1983
A seismic monitoring station at the Bhabha Atomic Research Center near Bangalore records a seismic event at 8 am IST in Southwestern Pakistan. The seismic event is believed to be an earthquake.

9 June 1983
A new export control list for centrifuge enrichment equipment is under review by members of the 21 nation Zangger Committee and the list is expected to come into effect this fall. The new list is more comprehensive than the existing list and contains detailed descriptions of items used in centrifuge plants and includes specifications and threshold performance standards set from a nonproliferation standpoint. The current list contains only 7 items involved in various enrichment processes. The new list contains information on the materials needed to manufacture gas centrifuge assemblies. The new list also contains describes items like feed autoclaves and desublimers that are respectively used in feeding and extracting Uranium-hexafluoride (UF6) gas in and out of the centrifuges. Information on pressure and throughput specifications is also included in the new list. The original list did not contain detailed descriptions of items and materials used in a centrifuge system due to proliferation concerns. Officials indicate that Pakistan's acquisition of nuclear technology from Switzerland in 1979 led to the efforts to strengthen existing current export control lists. The items that were exported from Switzerland were not prohibited under existing export control regulations and the Swiss government called for an expanded list of export control items to prevent future nuclear commerce in sensitive items. A smaller list of export control items for reprocessing plants is expected to be completed by the end of this year. Other ideas in the pipeline are to create working groups for heavy water production and other advanced fuel cycle technologies.

27 May 1983
In a joint communiqué issued by King Birendra of Nepal and Pakistan's President Zia ul-Haq on the conclusion of a 4-day state visit by President Haq, the two leaders pledge their support to the declaration of Indian Ocean as a zone of peace and creating a nuclear weapons-free zone in South Asia and other regions.

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7 April 1983
US officials are reported to be privately angry with the French Foreign Minister's statement regarding the supply of a nuclear reactor to Pakistan. US officials indicate that Mr. Cheysson's statement will be a setback for UN nonproliferation efforts and US-French relations. US officials also add that the French position over the project is objectionable owing to the doubts regarding the finances and for the project and its implementation. The officials also point out that, for the same doubtful financial reasons, Mr. Cheysson might have made the statement believing that the project is unlikely to succeed and hence France will not have aided proliferation, while at the same time signaling its commitment to provide nuclear technology to other countries.


29 March 1983
The French Foreign Minister Claude Cheysson indicates that France is discussing the possibility of supplying a $1 billion 900 Mw pressurized water reactor of Westinghouse design for the Chashma nuclear power plant. Pakistan is currently conducting negotiations with the IAEA over the plant's safeguards. Mr. Cheysson indicates that France will not supply a reactor to a country that does not implement safeguards on the supplied reactor. Mr. Cheysson, however, indicates that France will not require the same level of stringent full-scope safeguards as demanded by the United States and states that France's position on the issue of safeguards differs from the position adopted by the United States. The United States is demanding the implementation of full-scope safeguards on all Pakistani nuclear facilities as a condition for the supply of a nuclear reactor. Mr. Cheysson indicates that every country possesses equal rights to access technology and says that France will not deny nuclear technology aimed for peaceful purposes. Mr. Cheysson states that France's position regarding safeguards is in conformance with the Nuclear Supplier Group's agreements which do not require full-scope IAEA safeguards for the supply of reactors. Mr. Cheysson also discusses possible compensation for the French cancellation of a contract to build a reprocessing plant. Pakistan has large debts and is expected to face difficulties in financing the Chashma project.


9 March 1983
The head of the Libyan delegation to the Non-Aligned summit in New Delhi, Abd as-Salam Jallud, denies that Libya is assisting Pakistan's efforts to produce an Islamic bomb. Mr. Jallud terms news reports describing such assistance

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as false propaganda against Libya.


6 March 1983

Pakistan and Niger sign a bilateral agreement for creating a joint ministerial commission for trade promotion. The two sides decide to increase nuclear cooperation in the future. Pointing out Pakistan's extensive research program in nuclear medicine, agriculture and generation of electricity, Niger's President Seyni Kountche informs the newsmen that Niger is interested in training its personnel in the nuclear industry in Pakistan so that Niger can emulate Pakistan in using its own resources. The impact of the new agreements on the uranium trade between Pakistan and Niger is not clear. A Pakistani official, while pointing out that in the past Niger has provided uranium to Pakistan with IAEA's knowledge, refuses to clarify on the present status of the uranium trade between the two nations. The Pakistani official further points out that in the event of cooperation between the two countries in the field of uranium mining technology, Pakistan, with its experience in the field, will be able to assist Niger. Pakistan has recently begun to exploit its uranium reserves in Dera Ghazi Khan in Punjab. Pakistan has recently begun to exploit its uranium reserves in Dera Ghazi Khan in Punjab. Pakistani engineers began work at Dera Ghazi Khan in December and Pakistani officials refuse reveal the mine's production capacity. The Pakistani government also denies the involvement of any American company in uranium exploration activities in Pakistan.


First Week of March 1983

The head of the Power Department in the Spanish architect-engineering firm Sener, Francisco Albisu, says that the evaluation procedures for bids on the Chashma nuclear power plant is in the closing stages of completion. Mr. Albisu claims that, following the discussions with the Pakistan Atomic Energy Commission (PAEC), the bids will be finalized to meet the May 1 deadline for the submission of bids. Mr. Albisu states that the initial 600 Mw capacity for the power plant was revised to 900 Mw and claims that the bid also includes a provision to build a second 900 Mw plant that will be decided 12 months after the completion of the first unit. The first unit is expected to cost $1.5 billion. Mr. Albisu states that Sener began work for the second part of its contract following the completion of a feasibility study in June 1981. The second part involves exchange visits by technical personnel from Sener, PAEC, and Nespak, a Pakistani civil engineering firm. According to Sener, about 100 Pakistani engineers are involved in the Chashma project. According to Mr. Albisu, 12 to 25 Pakistani engineers were trained in Bilbao, Spain during the first half of 1981. Following the completion of the training, 10 Sener personnel moved to Pakistan and remained in Islamabad and 2 Sener personnel commuted between Pakistan and Spain during this period. Mr. Albisu indicates that a complimentary Sener team will join the existing team in Pakistan to assist the bid evaluation process.

Nuclear industry sources indicate that Pakistan might extend the deadline for the bids in order to accommodate the resolution of political problems in major nuclear supplier countries. The PAEC had requested three options for the Chashma nuclear power plant: a turnkey contract for the entire plant; a multi-component contract, with separate bids for nuclear steam supply system, turbine-generator, and other major components; a two-part

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contract, with separate bids on the nuclear island and the conventional island. Any supplier submitting a turnkey bid is also expected to submit components bids. France’s Framatome and Alstom-Atlantiaque are preparing turnkey bids. Sources also indicate that the companies bidding for the architecture-engineering component of the nuclear plant are atomic-energy firms in Switzerland, Belgium, and Spain. The Swiss firm is identified as Motor-Columbus.


2 March 1983
In response to India’s Prime Minister Indira Gandhi’s comments about Pakistan’s nuclear program, the Information Minister from Pakistan’s Embassy in London issues a statement that "Any suggestion from any quarter that Pakistan has plans to make nuclear weapons, overtly or covertly, is baseless."


25 February 1983
India’s Prime Minister Indira Gandhi claims that Pakistan’s nuclear program is not intended for peaceful purposes. Indicating that India does not fear Pakistan’s peaceful nuclear program, Prime Minister Gandhi says that "I don’t think they are going to use it for peaceful purposes." Prime Minister Gandhi will be meeting Pakistan’s President Zia ul-Haq in 2 weeks.


25 February 1983
US sources indicate that Pakistan is encountering problems in its nuclear weapons program. Sources reveal that recently 5,000 "cascades" bought by Pakistan were impounded by the Swiss authorities in Zurich. Cascades are barrel-like containers that are used to enrich U-235 by separating U-238 and the fissionable U-235.


Fourth Week of February 1983
The Director General of the IAEA Hans Blix reports to the IAEA Board of Governors that the Agency can properly safeguard the KANUPP reactor. IAEA sources indicate that the placement of a conditional seal over an emergency airlock provides the IAEA a "high level of confidence" to verify the IAEA safeguards. The Safeguards Implementation Report (SIR) for 1982 is expected to emphasize the new development. An IAEA source points out that certain electronic equipment do not possess a backup, but indicates that existing measures are sufficient under normal circumstances. Earlier, Bundle counters were installed between the reactor and the spent fuel holding pool. An IAEA source indicates that the Agency still cannot verify the number of fuel bundles entering the reactor, since Pakistan can insert fuel from its un-safeguarded fuel fabrication plant, but indicates that the bundle counters can ensure tracking of the number of bundles leaving the reactor. The issue over the re-distribution of

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closed-circuit TV cameras was also resolved recently.

Second Week of February 1983
The IAEA places a conditional seal over the opening of an emergency airlock that leads out of the containment. The airlock opening provided a possibility for diverting fuel bundles from the reactor.

February 1983
A US official informs a Congressional Committee that the CIA has definite proof that Pakistan and China had discussions on developing nuclear weapons.

30 January 1983
China denies a news report that it provided information and blueprints for a nuclear weapon to Pakistan.

28 January 1983
US intelligence officials indicate that China has provided sensitive nuclear weapons design information to Pakistan. The Chinese assistance removes the need for Pakistan to conduct an early nuclear test. A nuclear test by Pakistan will lead to a cut-off in American military aid. Unlike Israel, Pakistan is not believed to possess the technical sophistication to build a nuclear arsenal without testing a nuclear device. The US Secretary of State George P. Shultz is expected to raise this issue with the Chinese during his trip to China next week. Mr. Shultz is expected to indicate that any bilateral nuclear cooperation between China and the United States will be possible only if China provides assurances not to assist other nations’ nuclear weapons programs. Reports of Chinese assistance to Pakistan emerged from the British authorities several months ago. Initially, the reports were not considered seriously by the analysts. Recently, however, a consensus has emerged over the issue. Recently US State Department officials have backed away from claims that Pakistan will be testing a nuclear device in the near future, pointing it as evidence that the US aid is working as a deterrent. Other sources point out that Pakistan’s decision not to conduct a test might arise from the assistance provided by China that removes the necessity to conduct a test.

25-28 January 1983
Pakistan agrees to prepare a bundle counter for tests and operation, install a second camera system, and put IAEA

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seals on an emergency airlock. Pakistan indicates these measures to a visiting IAEA team.

3 January 1983
Diplomatic sources indicate that the United States and the major nuclear supplier countries are developing new trigger lists of high technology equipment and materials that would produce a strong, common nonproliferation policy among nuclear supplier nations. An initial list of 26 items needed for building an ultracentrifuge plant is created and includes items like electrical inverters, scoops, and rotors. The United States is pushing to control the export of materials like ultra-high-strength aluminum and maraging steels, nickel-iron alloys of extremely high strength. The new list is under consideration by the Nuclear Nonproliferation Treaty Exporters Committee and a final decision is expected to be reached by late spring this year. Upon successful implementation of the list, the participant countries are expected to devise similar lists for reprocessing plants and other sensitive nuclear facilities. The new list is expected to provide a consensus on export controls and prevent nations from claiming that they did not know about the utility of their exports in assisting nuclear weapons programs. The Reagan administration has been working on this effort for about two years.

Early 1983
Pakistan Atomic Energy Agency (PAEC) invited bids for the architect-engineering component of the Chashma Nuclear Power Plant (CHASHNUPP). The deadline for the bids is April 1.

Early 1983
Pakistan conducts a uranium survey of over 60,000 km and discovers significant quantities of uranium ore in the Tharparkar desert in the Sind province and between Mansehra and Thakot in the North-West Frontier Province (NWFP). The sampling of the uranium ore in the NWFP indicates ore with 0.2% uranium. Exploration in Sonmiani indicates the presence of 4 Mt of heavy minerals including uranium. Uranium bearing regions are discovered in the Eastern Potwar region, on both sides of the Indus River. The places include Isa Khel, Mir Ali Thal, Khisor Ranges, Shanwah, Karak, Taman, Mindi Shariqi, Larimar, Kakihad, Pir Fatehal, Tabbiser, Massan and Soan river area as well as the Hazara district and Rajanpur.

Back to Top

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1982


December 1982

According to U.S. intelligence sources, Indian military planners have prepared a plan to conduct pre-emptive strikes on Pakistani nuclear installations. U.S. sources indicate that the plan was presented to India's Prime Minister Indira Gandhi, who decided not to pursue the option for concerns over a retaliatory strike by Pakistan on India's nuclear facilities. According to U.S. sources, the completion of the New Labs reprocessing facility raised India's concerns over Pakistan's nuclear program. The military plan called for strikes on Pakistan's enrichment facility at Kahuta and the small New Labs reprocessing plant at Pakistan Institute of Nuclear Science and Technology (PINSTECH). India's Ambassador to the United States K.R. Narayanan rejects the report as a "figment of the imagination." The report is also rejected by a spokesperson for India's foreign ministry Mani Shankar Aiyer. Bilateral talks between India and Pakistan are proceeding and certain U.S. sources believe that India will not launch a pre-emptive during the talks.


23 December 1982

According to a well-informed source, the French government decides to allow Framatome to bid for the supply of the 900 MW Chashma nuclear reactor. The French government authorizes Framatome to accept the invitation to participate in the bidding process. The deadline for the submission of the bid was December 15. The initial French proposal is expected to only cover the reactor without any financial attachments. The French bidding consortium will be headed by Framatome and will consist of Alsthom-Atlantique and Spie-Batignolles. Certain French officials believe that the current reactor bid will serve to resolve the dispute over the reprocessing plant that France cancelled in 1978. It is not clear whether France will insist on full-scope safeguards for Pakistan as requested by the United States as a condition for the supply of a new reactor. A senior French administration official says that the denial of a nuclear reactor by the nuclear suppliers might force Pakistan to turn to Brazil or South Korea. The French official calls this situation a "worst thing." The French official also professes surprise that the United States is denying peaceful nuclear technology to Pakistan while supplying it with advanced F-16 fighter planes.


19 December 1982

In a news conference, Pakistan's President Zia ul-Haq states that he did not ask Canada for the supply of nuclear fuel.

**18 December 1982**
Director-General of the IAEA Hans Blix states that the existing safeguards at the Karachi Nuclear Power Plant (KANUPP) reactor are not sufficient to ensure that diversions are not taking place at the facility. Dr. Blix says "we are not satisfied with the arrangements and we cannot ensure that the diversion is not taking place... At the same time we cannot also say for certain that they were diverting material for manufacturing weapons." The IAEA has been requesting to place an inspection seal on an access hatch that would prevent Pakistan from secretly opening the hatch and diverting nuclear material from the reactor. Pakistan has so far refused to accept the measure.

**17 December 1982**
During his meeting with the Canadian Prime Minister Pierre Trudeau, Pakistan's President Zia ul-Haq raises the issue of nuclear cooperation but does not seek any assurances on the resumption of nuclear cooperation between Canada and Pakistan.

**10 December 1982**
Pakistan's President Zia ul-Haq is expected to seek resumption of Canada's nuclear fuel shipments for the Karachi Nuclear Power Plant (KANUPP) reactor. President Haq will begin his Canadian visit on December 14. Canadian officials indicate that talks between President Haq and the Canadian Prime Minister Pierre Trudeau will include a request from the Pakistani president for nuclear fuel. Canadian officials, however, indicate that Canada is unlikely to accept Pakistan's request due to proliferation concerns. Canada insists on implementing full-scope safeguards as a condition for the renewal of nuclear cooperation and Canadian officials indicate that Canada is unlikely to change its nuclear policy, for the fear of nuclear proliferation, even if Pakistan accepts full-scope safeguards.

**Second Week of December 1982**
In an interview, Pakistan's President Zia ul-Haq denies the existence of the New Labs reprocessing plant and insists that "we have no reprocessing facility whatsoever. Pakistani scientists are experimenting with how to reprocess one ounce of plutonium as scientists." U.S. analysts, however, believe that the New Labs reprocessing facility is not currently reprocessing plutonium but believe the facility to possess greater capacity. U.S. analysts note that Chairman of the Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan has indicated to European scientists that the New Labs facility can reprocess about 6kg of plutonium. President Haq also says that the enrichment facility in Kahuta is "a humble, modest program." U.S. sources, however, insist that the Kahuta facility is built to house 10,000 ultracentrifuges. U.S. intelligence sources also point out that the reprocessing and enrichment facilities are handled by the PAEC and the procurement of equipment and construction of nuclear
plants is supervised by the Pakistani military.

7 December 1982
According to a senior U.S. administration official, Pakistan's President Zia ul-Haq meets U.S. President Ronald Reagan and provides assurances that Pakistan is not interested in developing nuclear weapons.

6 December 1982
In a briefing to the Senate Foreign Relations Committee, Reagan administration officials indicate that Pakistan is continuing its nuclear weapons program. Administration officials inform the Foreign Relations Committee that China is assisting Pakistan to build a nuclear bomb and estimate that Pakistan is about a year away from producing fissile material that could be used to make a bomb.

4 December 1982
The Chairman of Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan announces the government's decision to proceed with the 900 MW nuclear power plant project at Chashma. Khan announces that the bidders are welcome to collect the necessary documents before December 15 and says that the project will begin in about 12 months and take six years to complete. According to Khan, the civil work and infrastructure facilities at the Chashma project site have been completed. The project is estimated to cost about 17,000 million Pakistani rupees. He indicates that the final cost of the project will be based on the submitted tenders and that the Chashma nuclear plant, upon completion, will contribute to 10% of the total capacity of Pakistan's power grid which he estimates to be 11,000 MW. Khan also indicates that IAEA safeguards will be implemented at the facility. He further asserts that the location of the nuclear power plant was evaluated using stringent safety standards and states that risk of pollution is non-existent. The rationale for choosing a light water reactor (LWR) was that the technology is available from six to eight sources and hence there are less chances of an embargo like the one imposed by Canada in 1976. Furthermore, Pakistan will insist on certain conditions in the Chashma contract like manufacturing spare parts in Pakistan, mandatory supply of nuclear fuel for five years followed by a 15-year agreement for enrichment supply. Khan expresses confidence that Pakistan will be able to supply its own fuel for the Chashma plant using the fuel fabrication plant. A study by a Swedish company, Asea-Atom, concludes that Pakistan's domestic industry can contribute to the construction of the Chashma nuclear plant. Khan indicates that Pakistan will need between five to eight nuclear power stations before 2000.

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3 December 1982
The U.S. and Pakistani officials differ over the nature of Pakistan’s nuclear program. A senior Pakistani official claims that "The United States and others think we are developing nuclear weapons. We say we are not and we say your evidence is wrong." The Pakistani official says that the pattern of Pakistan's nuclear program and a threat of massive Indian nuclear retaliation make it illogical for Pakistan to pursue nuclear weapons. A U.S. official, however, states that the absence of safeguards at certain facilities raises suspicions over Pakistan’s nuclear program.

1 December 1982
Pakistan begins to solicit bids for a new reactor for its proposed nuclear power plant at Chashma. The reactor's capacity is mentioned as 900 MW and companies also can bid for a second reactor to be constructed later. The formal invitation to participate in the project is also sent to U.S. companies Westinghouse Electric Co. and General Electric. Spokespersons from both firms, however, state that the firms will not be participating since the U.S. government will not provide the necessary approval. The United States has appealed to European countries to prevent the sale of the nuclear reactor until Pakistan accepts international safeguards for all of its nuclear facilities. Britain, the Netherlands, and other countries that normally require monitoring of nuclear facilities express agreement with the U.S. request. France, West Germany, and Italy do not agree with the U.S. request.

1-10 December 1982
Major reactor suppliers obtain the technical specifications for the Chashma nuclear power plant project. The suppliers include Kraftwerk Union, Framatome, Westinghouse, and General Electric. The firms that picked up the specifications for the conventional part of the plant are Ansaldo, Hitachi, Toshiba, and Alsthom-Atlantique.

1-9 December 1982
Pakistan invites bids for the proposed 900-1,000 MW nuclear power plant and issues tenders to "over a dozen qualified suppliers." The bidders were selected based on their interest in the project which is estimated to cost about $1.5 billion. The bids have to be submitted in five months and the project is expected to begin in December 1983.

First Week of December 1982
U.S. and Pakistani officials settle a dispute over the equipment to be included in the F-16 fighter aircraft to be supplied to Pakistan. The U.S. State Department agrees to upgrade the avionics package in the fighter aircraft.

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November 1982
The Nuclear Suppliers Group (NSG), comprising the United States and other nuclear exporting countries, secretly submits a new enhanced export control list to the Nuclear Nonproliferation Treaty Exporters Committee, also known as the Zangger Committee. The participating countries also decide to hold another Zangger committee meeting in late January 1984 to resolve the legal and technical issues regarding the new list. France and China are not part of the Zangger committee since both the nations are not signatories to the NPT. France, however, is holding bilateral meetings with the United States over the new list and promises to adhere to any new guidelines adopted in the new list. France is part of the Nuclear Suppliers Group.

30 November 1982
In an interview, Pakistan President Zia ul-Haq states that Pakistan's uranium enrichment effort is a "modest, humble program" aimed at using the technology for its nuclear power reactors. President Haq states that Pakistan is forced to acquire nuclear technology since Pakistan has exhausted all other available means of generating energy. President Haq further states that Pakistan does not need to import yellowcake from Niger since it possesses uranium. President Haq firmly also rejects allegations that Pakistan is developing a nuclear weapon capability. He discloses that that the uranium enrichment program is being managed by the military and claims that the enrichment project is "part and parcel of Pakistan's Atomic Energy Commission." President Haq further states that Pakistan has not accepted international safeguards owing to their discriminatory nature; and that the Kahuta facility will not be placed under safeguards since it was built through "beg, borrow, and steal" and is not "intended to be covered by international safeguards." President Haq states that Pakistan will sign the NPT provided India signs it.

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**19 November 1982**

Pakistan President Zia ul-Haq states that Pakistan will be willing to accept tougher nuclear inspections if the United States requests such inspections on all countries. President Haq says "but if the pressure is only on Pakistan, then we will resist." President Haq is visiting Canada and the United States in December.


**16 November 1982**

Pakistan agrees to implement most of the additional monitoring mechanisms requested by the IAEA. IAEA Director-General Hans Blix states that Pakistan has already agreed to readjust the cameras that were installed by the agency two months ago and has agreed to install a new "bundle counter" next month to facilitate better monitoring of the insertion and extraction of fuel bundles. Dr. Blix also states that Pakistan has agreed to double the frequency of inspections and let inspectors visit the facility once a month to "service our surveillance equipment, develop the films [and] determine the movements [of equipment]." Blix however indicates that the IAEA has to finalize at least one more issue with Pakistan before the IAEA could give assurances that Pakistan is not diverting plutonium for its weapons program. According to U.S. sources, one issue that the IAEA is discussing with Pakistan is the placement of an inspection seal on an access hatch that could be used to covertly remove material from the containment around the reactor. Currently the "port" is not sealed since it was not part of the original plant design. Dr. Blix indicates that the resolution of the remaining issue will allow him to state in the February IAEA board meeting that "we will soon be in a position to give assurance" over the non-diversion of nuclear material in the Karachi Nuclear Power Plant (KANUPP) reactor. U.S. sources indicate that by February, Pakistan would have obtained enough fissile material for one or two nuclear bombs because Pakistan has been operating the KANUPP reactor at a reduced power level, which according to these sources, is ideal for producing weapons-grade plutonium. U.S. sources estimate that Pakistan would be able to produce 10 to 20 kg of plutonium by February 1983.


**Third Week of November 1982**

More than 10 nations from the Eastern and Western bloc meet in Vienna to strengthen the export control list relating to gas centrifuge enrichment equipment and materials. The list of items in the expanded list includes centrifuge parts like rotors and scoops, spin-forming, flow-forming, and balancing machines. The list is also expected to include specific materials like ultra-high strength aluminum, maraging steel, and some kinds of carbon fiber. The objective of the current effort is to close the existing loopholes in the Zangger List of 1974 and the London Suppliers Group list of 1978. The gaps in the existing trigger lists were revealed by Pakistan's purchase of centrifuge components in Europe. Sources indicate that Pakistan is still attempting to procure trigger list items

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almost every week.

14 November 1982
U.S. military analysts, quoting a recent U.S. intelligence report, state that 31 nations will be able to produce nuclear weapons by 2000. The report, Defense Guidance, includes Pakistan as one of the countries capable of producing nuclear weapons within 20 years.

10 November 1982
A joint-communiqué issued at the end of Pakistani President Zia ul-Haq's visit to Malaysia reaffirms Malaysia's support for Pakistan's proposal to create a nuclear weapons-free zone in South Asia.

19 October 1982
Speaking at a press conference in Beijing, Pakistan's President Zia ul-Haq states that China is not involved in Pakistan's peaceful nuclear energy program. President Haq reiterates that Pakistan's nuclear program is completely indigenous and peaceful in nature.

10 October 1982
Pakistan's President Zia ul-Haq says that he will attempt to revive Canada's nuclear cooperation with Pakistan during his trip to Canada in December. President Haq says that he "would not make an issue" of the supply of nuclear fuel for the KANUPP reactor and indicates that "if they agree to help us in our peaceful power program, it would be welcome." Canada suspended its nuclear cooperation with Pakistan in 1976 following Pakistan's refusal to abandon its efforts to obtain a nuclear reprocessing plant from France. Canada insists that it will renew its nuclear cooperation with Pakistan only after Pakistan signs the Nuclear Nonproliferation Treaty. A Canadian delegation of investors and businessmen are visiting Pakistan and the team does not include any member from the nuclear industry.

September 1982
U.S. Secretary of State George P. Shultz makes a private request to Western European allies to deny permission for the sale of a new reactor to Pakistan until Pakistan accepts international safeguards on all its nuclear facilities. Shultz's request follows private attempts by Pakistan to invite bids for the new nuclear power project at Chashma.
20 September 1982
The United States bans U.S. companies from selling reactor equipment to Pakistan. However, Westinghouse Electric Co., a U.S. company, plans to build a light water reactor (LWR) for the proposed Chashma nuclear project in Pakistan through its Belgian licensee. A U.S. State Department official indicates that the government will make efforts to block such a sale. Westinghouse Electric Co. is expected to accept the government's demands.


18 September 1982
According to a restricted staff report submitted to the IAEA Board of Governors, the IAEA inspections at the Karachi Nuclear Power Plant (KANUPP) reactor suffer from two deficiencies. The first is the lack of surveillance equipment at an emergency hatch leading out of the containment and the second is the absence of backup monitors attached to the cameras covering various critical areas of the reactor. The existing surveillance cameras monitor the core exit, the canal between the reactor and the fuel storage pond, and the fuel storage pond. The monitors manage the surveillance cameras' operation and record the images. The IAEA wants to have backup monitors in the plant control room since the existing monitors are susceptible to malfunction. The IAEA wants to have an extra camera at the emergency hatch even though it is difficult to remove the fuel rods using this outlet.

Pakistan refuses to accept the demand for the backup monitors as well as an extra surveillance camera. However, the IAEA is not extremely worried about the KANUPP reactor since talks are continuing at a slow pace, if not at a rapid and smooth pace, and importantly, assessment by knowledgeable sources indicate that Pakistan is a long way from diverting enough plutonium for a nuclear bomb. Pakistan's indigenous fuel production capacity is believed to be limited and the sporadic operation of the KANUPP reactor will make it difficult for Pakistan to extract sufficient plutonium for a nuclear bomb.


18 September 1982
The United States places a hold on bilateral nuclear cooperation with China because of intelligence reports suggesting that China helped Pakistan in its efforts to produce weapons-grade uranium. China is also believed to have provided nuclear aid to South Africa, Argentina, and possibly India. Some U.S. officials believe that China provided assistance to Pakistan in its efforts to enrich uranium.


Third Week of September 1982
The Chairman of the Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan expects that many nuclear reactors manufacturers will participate in the Chashma nuclear power plant project owing to the depressing state of the current nuclear market. Khan states that "there is considerable interest in the Chashma project," and that

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the United States will find it difficult to prevent firms from participating in the project. One U.S. firm Westinghouse Electric Co. informs Pakistan of its decision to bid for the project, even though doubts exist over the firm’s participation since U.S. laws preclude direct participation. In a conference paper delivered at the IAEA, Khan indicates that Pakistan’s energy needs necessitate the development of nuclear energy. He also states that Pakistan’s nuclear projects need foreign financing and enhanced personnel development. Khan mentions that the outward flow of skilled personnel from Pakistan to wealthier Middle Eastern nations has adversely affected Pakistan’s nuclear power program and outlines a training program developed by the PAEC to build a skilled workforce in all fields of nuclear construction operation and maintenance.


12 September 1982
A Pakistani foreign ministry spokesperson refutes the claims by the Greek prime minister that Turkey and Pakistan are cooperating to produce a nuclear bomb. The spokesperson states that Pakistan’s nuclear program is only intended for peaceful purposes and reiterates that Pakistan does not intend to produce nuclear weapons.


10 September 1982
A Turkish foreign ministry spokesperson Nazmi Akiman indicates that Turkey does not wish to build nuclear weapons and rules out any cooperation between Pakistan and Turkey over this issue.


8 September 1982
The Greek Prime Minister Andreas Papandreou charges that Turkey is building a nuclear bomb in cooperation with Pakistan.


8 September 1982
U.S. Deputy Energy Secretary W. Kenneth Davis informs a House Foreign Affairs Subcommittee that the Reagan administration plans to create a new list of 63 countries that would need specific U.S. approval to receive any American technology for their nuclear program. U.S. administration officials decline to name the countries in the list until the list is finalized, but sources indicate the list to include Pakistan, India, Brazil, South Africa, Israel, Argentina, Iran, Iraq, Libya, Algeria, and Syria. Davis indicates that the criteria for approving the sale has not been changed, a stand that is criticized by Rep. Jonathan B. Bingham (D-NY) as a shortcoming in the new policy. The new measures are announced by the Reagan administration as efforts to strengthen the 1978 Nuclear Nonproliferation Act. The Assistant Secretary of State James B. Devine indicates at another Subcommittee hearing that a Spanish

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licensee of Westinghouse Electric Co. would have to obtain a special approval from the Department of Energy to export a reactor to Pakistan. Devine notes that the Spanish firm can provide Pakistan with a Westinghouse Electric Co. reactor without special approval under existing regulations. Some Congressmen expressed concern earlier this year over the sale of a Westinghouse Electric Co. reactor to Pakistan by a Spanish licensee of the U.S. Company.


19 August 1982

The U.S. Assistant Secretary of State for Oceans and International Environmental & Scientific Affairs James Malone indicates that one of the factors obstructing the completion of a bilateral nuclear accord between China and the United States is China’s relationship with Pakistan regarding nuclear issues. Malone indicates that China supplied Pakistan with material other than fuel-related items. However, he declines to mention the items specifically. Malone also indicates that the United States is making progress in restricting the supply of nuclear components to Pakistan’s nuclear facilities.


19 August 1982

The Pakistan Atomic Energy Commission (PAEC) sets September 15 as the deadline for reactor manufacturers to indicate their willingness to submit bids for a 900 MW LWR nuclear power plant at Chashma. A communiqué from PAEC informs the manufacturers that bid documents must be obtained from Islamabad. The timetable presented in the communiqué sets four months for preparing the bid, five months for bid evaluation, and six years for completing the contract from the date of signature of the letter of intent. Bidders are also allowed to propose a second unit that must be completed within 36 months after the completion of the first unit. The communiqué welcomes a number of options for the bidding including a total turnkey package, or nuclear island, or a nuclear steam supply system. All the cases are expected to include fuel supply. The United States is initiating efforts to prevent the reactor manufacturers in other countries to bid for the contract unless Pakistan accepts full-scope safeguards and abandons its efforts to produce nuclear weapons.


16 August 1982

In an interview, the Director of the Pakistan Atomic Energy Commission (PAEC) Shamim Ahmed Chaudhri hopes that Pakistan will be able to indigenously produce enriched uranium fuel for the proposed 900 MW Chashma nuclear light water reactor (LWR). Chaudhri indicates that it would require Pakistan 20 years to reach that capability. Currently Pakistan is producing nuclear fuel using uranium mined in Bagalchore. Pakistan’s actions were necessitated when Canada, the supplier of nuclear fuel for the Karachi Nuclear Power Plant (KANUPP), suspended its nuclear cooperation with Pakistan in December 1976. He also says that the fuel is produced at the Kundian plant located at the Chashma site; but that Pakistan’s indigenously produced fuel is going through a testing process and the PAEC is "quite happy" with the results. Pakistan’s Water & Power Development Authority develops a plan

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to build two more 900 MW nuclear power plants and hopes to operate them by 1994 and 1997. Pakistan’s President Zia ul-Haq emphasizes that the Chashma nuclear plant will be placed under stringent international safeguards. Reiterating that Pakistan possesses the right to acquire the latest nuclear technology, President Haq states that "If the advanced countries are a bit stingy then we will acquire it ourselves ... even if we have to beg, borrow or steal ... And stealing is something we have already been labeled with." Some European countries express interest in the Chashma contract. A Western diplomat in Islamabad says that he would make a strong plea for his government’s participation in the project based on Pakistan’s energy needs."


2 July 1982

The Departments of State and Energy propose to expand the list of nations that would need specific authorization from the Department of Energy and other specific agencies in order to import sensitive technology from U.S. companies. Countries that might be added to the list include Pakistan, India, Brazil, South Africa, Israel, and Argentina.


1 July 1982

The United States is conducting a review of its export control regulations and revising those export control rules. As part of the efforts, a new list is being prepared by the U.S. special trade representative and the Department of Energy that lists five countries that are ineligible to receive nuclear materials and technology for financial and safeguards reasons. The five countries in the list are Pakistan, India, Israel, Argentina, and Kuwait. The Nuclear Regulatory Commission (NRC) is also updating its nuclear export regulations and is expanding its list of nations that are not allowed to receive non-sensitive equipment and nuclear material under a general license. Pakistan, India, Argentina, Israel, and Kuwait are included in the revised NRC list.


24 June 1982

The U.S. Deputy Assistant Secretary of Energy for Security Affairs James W. Culpepper informs the House Foreign Affairs Subcommittee that U.S. export control regulations will be tightened following an extensive review of current controls followed by the Departments of State and Energy. The tightening of U.S. export controls follows complaints by Rep. Jonathan B. Bingham (D-NY) that U.S. nuclear exports undermined the U.S. nonproliferation policy. The Deputy Assistant Secretary of Commerce for Export Administration Bo Denysyk agrees that the U.S. Commerce Department has allowed the sale of nuclear technology to countries like Pakistan, South Africa, Brazil, Argentina, and other countries that are suspected of developing nuclear weapons.


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24 June 1982
Pakistan allocates $72 million for the Pakistan Atomic Energy Agency (PAEC) in its national budget for the year 1982-83. A major portion of the allocated amount is for the proposed 850-900 MW light water reactor (LWR) at Chashma in Mianwali district in Punjab. According to the budget document, for the fiscal year’81 ending on June 30, $47 million was spent on a reprocessing plant and on civil work for the Chashma nuclear power plant. Other completed activities included radioactive minerals survey, uranium exploration in Dera Ghazi Khan, and a nuclear power generation training project.


17 June 1982
The United States attempts to convince the major suppliers of nuclear power plant technology not to supply such technology to Pakistan until Pakistan accepts full-scope IAEA safeguards on its nuclear facilities. Pakistan has decided to build a 850-900 MW nuclear power plant at Chashma and is expected to issue tenders for the plant’s construction in a few weeks. Sources indicate that the United States has somewhat succeeded in convincing the major suppliers of nuclear technology to accept its nonproliferation policy but doubts exist whether small licensees will comply with U.S. requests. The United States indicates to major suppliers that supply of nuclear equipment or material to Pakistan will result in a suspension of U.S. nuclear aid.


14 June 1982
The IAEA’s annual Safeguards Implementation Report for 1981 states that the agency cannot adequately determine whether there was any diversion of nuclear material for military purposes in two countries. The report does not state the two countries, but U.S. nuclear policy officials identify the two nations to be India and Pakistan. The agency report also states that the nuclear material regulated by the agency was not diverted for military use. The IAEA states that negotiations to improve monitoring measures are proceeding well in one case, which is identified as India by U.S. officials. The IAEA does not provide any comment on the status of negotiations with the other country, i.e., Pakistan. The report mentions that four countries with unsafeguarded nuclear facilities possess the capability to produce weapons grade fissile material. The report does not mention the names of the countries, but they are believed to be India, Pakistan, Israel, and South Africa.


Second Week of June 1982
Addressing a press conference after a meeting of the IAEA Board of Governors, Director General of the IAEA Hans Blix says that "talks" with Pakistan will continue over the issue of increasing the safeguards measures at the Karachi Nuclear Power Plant (KANUPP) facility. Blix hopes that all the required measures will be agreed to by Pakistan by the time he makes his report to the Board of Governors again in September. He also states that the

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IAEA and Pakistan differed on the "technical arrangements" for the enhanced safeguards at the KANUPP facility. The IAEA inspections at the KANUPP facility are not part of the NPT, which Pakistan has not signed. The inspections are part of the original sales agreement between Canada and Pakistan for the Canadian supply of a CANDU-type reactor.


10 June 1982
In his address to the UN Disarmament Conference, Pakistan's Foreign Minister Sahabzada Yaqub Khan states that "Pakistan will not develop or acquire nuclear weapons." Yaqub-Khan also states that Pakistan is committed to the creation of a nuclear weapons-free zone in South Asia.


13 April 1982
The Executive Committee of the National Economic Council of Pakistan approves the construction of a 937 MW nuclear power plant at Chashma. The project is expected to be completed in mid-1988 and is believed to cost $1.5 billion. The allocation for the project is expected to be made in the next fiscal year that begins in July. The Spanish firm Sener completed a feasibility study for the plant last year and estimated the cost to be $988 million. The estimate was revised this year and the current estimate is not available.


11 April 1982
Pakistan's Finance Minister Ghulam Ishaq Khan says that the construction of the basic services for a second nuclear power plant has been completed at Chashma. Ishaq Khan does not provide information whether the Pakistani government is already conducting negotiations with various firms for the construction of the plant or whether it plans to invite tender bids for the plant. Khan states that Pakistan needs a number of nuclear power plants to address its energy requirements and mentions that the government is currently formulating a comprehensive strategy to construct the needed plants. He discloses that the Karachi Nuclear Power Plant (KANUPP) operated at 61% of its capacity using locally produced parts and fuel. The Finance Minister states that "As the position of local fuel, critical materials and spares continues to improve, the plant will operate at a higher capacity." According to calculations by the magazine *Nucleonics Week*, the KANUPP facility operated at 19.2% of its original capacity.


March-December 1982
The United States believes that Pakistan is attempting to acquire components that could be used to produce several nuclear bombs. The components sought by Pakistan are identified as finely machined hollow steel spheres.

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measuring approximately 13 inches in diameter, and concave metal plates. Pakistan is believed to have sought these metal spheres from Britain and Argentina. The spheres are important components of an implosion type nuclear device in which uniformly placed explosives compress a sphere of highly-enriched uranium or plutonium to produce a fission reaction. The concave metal plates, known as "driver plates" are attached to the explosive and are used to produce a powerful blast. The shipments of these spheres are stopped using U.S. diplomatic interventions. Pakistan's pursuit of these components forces the U.S. President to send a special envoy, General Vernon Walters, to Pakistan on two occasions. During General Walter's visit to Pakistan in October, Pakistan's President Zia ul-Haq rejects the report that Pakistan is pursuing the nuclear weapons option.


**Late March-Early April**

The Spanish firm Sener completes its study on the financial and technical aspects for a 900 MW nuclear power plant at Chashma and submits a report to the Pakistani government. Sener suggests building 6 units of approximately 1,000 MW each for the project.


**March 1982**

Speaking at an Arab conference, Munir Ahmad Khan Chairman of the Pakistan Atomic Energy Commission (PAEC), says that oil-producing nations should acquire nuclear technology to conserve petroleum reserves. Mr. Khan says that some industrialized nations are unwilling to share nuclear technology citing the potential proliferation dangers associated with such transfers. Khan says that implementing international safeguards will contain the dangers associated with such technology transfers. Mr. Khan says that tight controls on the sharing of nuclear technologies and reluctance to provide long-term commitment to supply nuclear fuel and equipment will lead to a further increase in the world's energy problems.


**12 March 1982**

In replying to a question regarding Libya's financing of Pakistan's nuclear bomb, Libya's ruler Colonel Qadhafi says "No, it is not true at all, I heard about this propaganda, one of the bad propaganda to defame us." The Libyan ruler was speaking at an interview broadcast by Vienna television.


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2 March 1982
U.S. officials welcome the report by the IAEA Director General as a welcome sign. Archelaus R. Turrentine, acting assistant director for nuclear and weapons control at the Arms Control and Disarmament Agency, describes the report as a "positive development." Senator Alan Cranston (D-CA) expresses skepticism and says that "Pakistan remains on the brink of a nuclear test." Rep. Jonathan B. Bingham (D-NY) calls for the safeguards measures to encompass Pakistan's entire nuclear activities.

26 February 1982
Hans Blix, the Director General of the IAEA, issues a report indicating that the IAEA had "productive discussions" with Pakistani officials on February 18th and 19th over the issue of implementing increasing surveillance measures at the KANUPP reactor in Karachi. Blix says "Some of these proposals for improvements have already been implemented and I hope that the present discussions will lead to the implementation of the remaining proposals."

18-19 February 1982
IAEA and Pakistani officials hold discussions on increasing the IAEA's monitoring capability at the Karachi Nuclear Power Plant (KANUPP) reactor. The IAEA has been requesting such increased surveillance measures since summer'81.

18 February 1982
Hans Blix, the Director General of the IAEA, says that the agency has not made any progress in its six-month efforts to implement increased surveillance at Pakistan's Karachi Nuclear Power Plant (KANUPP) reactor. The IAEA made the request to increase surveillance measures after it detected anomalies and irregularities at the reactor. Blix, however, says that there is no evidence that Pakistan is diverting spent fuel from the reactor. Blix also says that the agency has presented two reports to its Board of Governors indicating that existing surveillance measures are not adequate to provide reliable assurances that Pakistan is not diverting spent fuel from the reactor. IAEA officials privately confirm that Blix will provide a similarly worded report to the Board of Governors during the February 23rd meeting. The Director General also praises the efforts of the Reagan administration to renew economic and military aid to Pakistan.

30 January 1982
India's Prime Minister Indira Gandhi says that India is willing to sign a friendship treaty with Pakistan and also indicates that India will not object to Pakistan's development of a peaceful nuclear program. Gandhi adds that India is willing to accept Pakistan's promises that its nuclear program will be intended only for peaceful purposes.

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Commenting on the non-aggression pact put forward by Pakistan, Prime Minister Gandhi states that "pact or no pact, we will never attack Pakistan." Pakistan's Foreign Minister Agha Shahi is in New Delhi to discuss a non-aggression pact with India's Foreign Minister Narasimha Rao. An Indian foreign ministry spokesperson states that "some progress" was made in the first rounds of talks.


26 January 1982
Speaking at a news conference after his luncheon meeting with the French President Francois Mitterrand, Pakistan's President Zia ul-Haq reiterates that Pakistan does not possess the capacity or the intention to produce nuclear weapons. President Haq also states that his discussions with the French president did not include any references to nuclear issues. President Haq also indicates that he did not attempt to renew the French contract for the supply of a nuclear fuel reprocessing plant to Pakistan.


23 January 1982
The CIA publishes its report 'Special National Intelligence Estimate 31-81" which mentions that Pakistan will be able to explode a nuclear device within the next three years.


19 January 1982
Pakistan's President Zia ul-Haq denies that his trip to France will include discussions for the French supply of a nuclear fuel reprocessing plant. General Haq further states that Pakistan does not have the intention nor possess the ability to explode a nuclear device. President Haq also states that Pakistan would be "two steps ahead" in implementing international safeguards in its reprocessing plants if other nations also implement the same safeguards mechanisms.


18 January 1982
Pakistan's President Zia ul-Haq includes a trip to France as part of his European tour. The trip to France is only announced on the eve of his departure. The Pakistani President provides a non-committal answer in response to a question whether Pakistan will discuss the supply of a nuclear fuel reprocessing plant with France. A deal between Pakistan and France for the supply of a nuclear fuel reprocessing plant was cancelled owing to France's decision to back out of the deal in the late 1970s.

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14 January 1982
Pakistan's Foreign Minister Agha Shahi says that Pakistan did not provide any assurance to the United States over its nuclear program in return for the $3.2 billion military and economic aid. Shahi says that Pakistan is aware of the U.S. law that will result in a cut-off of aid to any country that explodes a nuclear device. However, he also states that the Reagan administration might not adopt such a hardline even if Pakistan conducts a nuclear explosion since Pakistan is crucial to U.S. strategic plans in the region. Shahi also elaborates, "we [Pakistan] make a distinction between an explosion and weapons. We do not rule out the possibility of a detonation if it is necessary for our programme."


First Two Weeks of January 1982
Owing to acute power shortages, Pakistan is likely to invite bids for the construction of a 600 MW nuclear power plant in the next fiscal year that begins in July. Apart from contacting Muslim countries, Pakistan is also requesting the World Bank to finance the nuclear power plant. The Pakistani government is expected to discuss the issue with the new World Bank President A.W. Clausen when he visits Pakistan for a week-long visit beginning on January 15. Western sources indicate that World Bank's involvement in Pakistan's nuclear program will help in strengthening the implementation of stringent safeguards, especially at the Karachi Nuclear Power Plant (KANUPP). The World Bank usually does not finance nuclear power projects.


1981
December 1981
The Central Intelligence Agency (CIA) prepares an analysis titled "Special National Intelligence Estimate 31-81" and concludes that Pakistan will possess the ability to test a nuclear device within the next three years. The analysis describes that Pakistan is partly deterred from conducting a nuclear test by President Reagan's military and economic package which will be withdrawn once Pakistan tests a nuclear device. The analysis predicts that Pakistan will not stop its efforts to develop and stockpile fissile material for a nuclear device. Such efforts by Pakistan, according to the report, will increase the risk of a pre-emptive strike by India against Pakistan's nuclear installations.


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December 1981

Western sources believe that Pakistan is using the Fauji chain of nonprofit import enterprises to clandestinely buy sensitive nuclear equipment from foreign countries.


December 1981

Pakistan concedes to certain demands made by the International Atomic Energy Agency (IAEA) regarding surveillance at the Karachi Nuclear Power Plant (KANUPP). Pakistan agrees to the application of silica gel treatment on the surveillance cameras in order to enable them to withstand the high heat and humidity at Paradise Point (the location of the KANUPP facility). Pakistan also agrees to install extra dosimeters that are used to measure gamma radiation and installs a closed-circuit video camera system surrounding the spent-fuel bay. In addition, it also agrees to allow more number of inspections. Pakistan, however, has only agreed to talk regarding IAEA's other key demands, namely, installing extra 8mm cameras, relocating cameras to different positions, installing bundle counters, and increased number of inspections. Pakistan still insists that developed film from the surveillance cameras will not be allowed to be taken out of the country for fear of revealing industrial secrets. Pakistan also indicates that spent fuel rods will not be arranged according to the IAEA's demands. Pakistan says that the issue of bundle counters will be analyzed "in the light of our agreements with the agency [IAEA]."


December 1981 - January 1982

Pakistan agrees to implement certain additional surveillance measures requested by the International Atomic Energy Agency (IAEA) at its Karachi Nuclear Power Plant (KANUPP) reactor. Pakistan agrees to the relocation of some cameras at the facility. However, Pakistan refuses to install additional equipment at the facility, especially bundle counters. The bundle counters can be used to track the flow of fuel bundles in and out of the reactor. Recently, the IAEA has indicated its inability to verify the number of bundles at the plant.


27 December 1981 - 2 January 1982

Saudi Arabia’s Minister of petroleum & Mineral Wealth Ahmad Zaki Yamani visits Pakistan. During the visit, Pakistan discusses the financing of a 600 MW nuclear power plant with Mr. Yamani. A two-day hunting trip by Yamani to Kalabagh, close to the proposed site for the nuclear power plant raises doubts that he visited the nuclear power plant now under construction. At the conclusion of the trip, Yamani promises that Saudi Arabia will finance any energy related projects in Pakistan.


17 December 1981

Speaking at his first press conference, the new Director-General of the International Atomic Energy Agency (IAEA)
Hans Blix says that some positive developments can be expected with regard to negotiations for increasing the safeguards mechanisms at the Karachi Nuclear Power Plant (KANUPP) in Pakistan. Director-General Blix says that "The negotiations with Pakistan are continuing, but it is just one of several countries we would like to see improvements in."


14 December 1981
The House-Senate conference approves the $11.4 billion foreign aid bill. The bill includes $100 million in economic assistance to Pakistan. The aid is permissible after a waiver of the required Presidential assurance that Pakistan is not participating in the transfer or receipt of a nuclear device, or a detonation of a nuclear device. The Presidential waiver expires after 30 days, after which the Congressional action is needed to extend it further. A second waiver allowing the President to declare that Pakistan is not involved in the receipt or transfer of equipment for uranium enrichment is subject to Congressional veto by both Houses.


8 December 1981
The House Foreign Affairs Committee votes to provide Congress with greater powers to reject aid to countries believed to be developing nuclear weapons. An amendment to the foreign aid authorization bill, sponsored by Rep. Stephen J. Solarz (D-NY) would allow the Congress to override a Presidential waiver to the Symington amendment by a concurrent resolution that only requires simple majorities. The proposed amendment cannot be cancelled by a presidential veto.


8 December 1981
According to latest Western intelligence estimates, Pakistan can conduct a nuclear explosion by the end of next year. Earlier reports that Pakistan will conduct a nuclear test in fall 1981 are now considered premature. Pakistan is considered to be two years from conducting a nuclear test and report suggest that the nuclear program has run into unexpected technical problems.


1 December 1981
Israeli sources indicate that the Kahuta enrichment plant in Pakistan is operating with 1,000 spinning metal "cascades" or cylinders. The United States and other sources, however, believe that Pakistan's enrichment effort to be less advanced and point out to the long periods of time needed by West Germany, the Netherlands, and Britain to master the enrichment technology. A well-placed Indian diplomat reveals that "we have evidence of short burns at KANUPP now." Ever since Pakistan announced in September 1980 that it could produce nuclear fuel indigenously, arms control officials have feared that Pakistan can use its own fuel, irradiate it for a short period of

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time in the Canadian supplied Karachi Nuclear Power Plant (KANUPP) reactor, withdraw it, and reprocess the spent fuel rods to extract plutonium. Dr Munir Ahmad Khan of the Pakistan Atomic Energy Commission (PAEC) however, denies any such short irradiation of fuel rods.


November 1980

The Commissioner of Customs William von Raab announces the start of Operation Exodus. The operation is designed to control the flow of illegal technology from the United States. Raab says that teams of customs agents, inspectors, and patrol officers are being trained on the mission’s objective.


November 1981

US officials investigate the seizure of a shipment of zirconium metal at Kennedy Airport. The exporter of the shipment is Albert A. Goldberg of the Manhattan-based National Tronics Company. The shipment is bought by Dr. Sarfaz Mir, a retired Pakistani Army officer who owns a firm S.J. Enterprises in Pakistan. The zirconium metal is manufactured by Oregon-based Teledyne Wah Chang. The Commerce Department, the Customs Services, and the office of Edward R. Korman, US Attorney for the Eastern District of New York are investigating the specific roles of Mr. Goldberg and Dr. Mir. Mir is believed to have left the United States after US Customs officials failed to find him on the Pakistan Airlines flight when the shipment was captured. Mr. Goldberg did not apply for an export license for the shipment and states that he is not aware of such a procedure for shipping the metal. Mr. Goldberg says that the shipment was ordered by the Government of Pakistan through Dr. Mir. Mr. Goldberg says that he has previously shipped electrical capacitors to the Pakistani government after acquiring the necessary export clearances. Sharon R. Connelly, head of the compliance division of the Commerce Department's Office of Export Administration, comments that a license to export zirconium to Pakistan would have been rejected since Pakistan is not qualified to obtain such material. US authorities are deciding on presenting the issue to a Federal grand jury or to deal with the issue within the Commerce Department which might lead to the imposition of civil sanctions including fines and withdrawal of exporting rights. Mr. Goldberg has been penalized twice before for irregularities in exporting controlled items and had his export right revoked for three years in 1976. The Nuclear Regulatory Commission states that 50,000 lbs of zirconium is needed for a reactor and states that the 5,000 lbs of zirconium is not sufficient for a reactor. Dr. Charles Till, Associate Director for reactor research and development at the Argonne National Laboratory, says that zirconium is used to make tubes for holding uranium fuel. James Barrett, spokesperson for Teledyne Wah Chang, indicates that zirconium is used in several applications including aircraft and submarines. James Benham, a lawyer for Teledyne Wah Chang, refuses to comment on reports that Teledyne Wah Chang had alerted the Commerce Department about the zirconium shipment.


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25 November 1981
A Pakistani official statement issued in Islamabad states that President Zia ul-Haq’s answer to a question on the Islamic bomb has been misinterpreted by several foreign media organizations. The statement clarifies that the President’s statement that Pakistan has the right to acquire nuclear technology has been misinterpreted as indicating that Pakistan intends to make an atomic bomb. The statement says that the President was responding to a question on published reports about the Islamic bomb; and had categorized such reports as propaganda spread by hostile powers.


24 November 1981
Pakistan's President Zia ul-Haq, when asked to comment on reports on Pakistan's efforts to build an Islamic bomb, says that "we are proud to say that Pakistan can make the bomb ... they think that if we lay our hands on this toy we might use it irresponsibly." President Haq comments that developing countries need to possess nuclear technology and he says that Pakistan is determined to acquire nuclear technology.


21 November 1981
The Commerce Department rules that the Manhattan-based exporter Albert A. Goldberg and the Pakistani company S.J. Enterprises cannot export goods until the charges against them involving the shipment of zirconium are resolved. Mr. Goldberg and several of his companies are charged with violating export regulations by attempting to export zirconium to Pakistan. The Pakistani company S.J. Enterprises is penalized for attempting to procure zirconium in the United States and export the metal to Pakistan. The shipment of zirconium was seized by US officials at the Kennedy Airport on October 31.


19 November 1981
The House Foreign Affairs Committee rejects a resolution opposing the sale of 40 F-16 aircraft to Pakistan. The voting session resulted in a 13-13 tie, which is considered a defeat under Congressional rules.


17 November 1981
The Senate Foreign Relations Committee votes 10-7 to approve the sale of F-16 warplanes to Pakistan. Similarly, two House Foreign Subcommittees voted 10-5 to approve the sale. Under-Secretary of State James L. Buckley, in his testimony, says that the cancellation of the sale of F-16s to Pakistan will severely affect improvement of relations between Pakistan and the United States. Under-Secretary Buckley also says that the United States will

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continue its efforts to halt Pakistan’s nuclear program by stopping the sale of nuclear equipment and technology by nuclear-supplier countries. Under-Secretary Buckley opposed the Senate amendment that called for suspension of aid to Pakistan if it exploded a nuclear device. Under-Secretary Buckley said that “It is difficult to see how the United States could go forward with an assistance program for Pakistan under such circumstances.” A senior State Department official says that Pakistan needs more than a year to acquire the nuclear materials to conduct a nuclear test.


10 November 1981
Pakistan’s Ambassador to the United Nations Niaz A. Naik says that operations at the Karachi Nuclear Power Plant’s (KANUPP) maintenance area for the fueling machine cannot be upset by having extra surveillance. The Ambassador, however, objects to the installation of an extra camera at the spent fuel bay.


31 October 1981
A 5,000 lb shipment of zirconium metal worth $153,000 is seized at the Kennedy International Airport prior to its loading onto a passenger plane. Zirconium is used in construction of nuclear reactors and its export requires an export license. The zirconium shipment is labeled as mountain-climbing equipment and the passenger accompanying the shipment is Dr. Sarfaz Mir, a retired Pakistani Army officer, and is believed to be a close friend of Pakistan’s President Zia ul-Haq. After the seizure of the shipment, US Customs officials search the Pakistan Airlines flight to locate Dr. Mir but are unable to locate him. The Assistant General Manager of Pakistan Airlines says that he will investigate the issue. Agents from the compliance division of the Commerce Department’s Office of Export Administration, headed by Sharon R. Connelly, had tracked the shipment from its production plant in Oregon to the Kennedy Airport. Pakistan Airlines officials are questioned about the shipment since it was too heavy to be classified as check-in baggage.


22 October 1981
The Senate adopts the 1982 Foreign Assistance Bill by a 40-33 vote. The $5.7 billion package includes a $3.2 billion aid package to Pakistan. The aid to Pakistan is provided by waiving the Symington Amendment to the 1961 Foreign Assistance Act that requires a presidential certification that a nation with nuclear facilities is not producing nuclear weapons. The Reagan administration requested the Senate to waive the Symington amendment for Pakistan since President Reagan was not able to provide the necessary certification.


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21 October 1981
The Senate approves an amendment introduced by Senator John Glenn (D-OH) by a vote of 51-45. The Glenn amendment requires suspension of foreign aid to Pakistan or India if they conduct a nuclear test. Later, Senator Jesse Helms (R-NC) introduces an amendment that requires the US government to cut off aid to any non-nuclear country that conducts a nuclear test and Sen. Helms' amendment is passed by a voice vote. The Helms amendment affects US allies like Israel, Taiwan, and South Africa.

20 October 1981
The Senate adopts by voice votes two amendments to the Foreign Aid Bill. Both the amendments are introduced by Senator John Glenn (D-OH). The first amendment requires an annual report from the president on Pakistan’s nuclear activity as a condition for the renewal of the aid program. The second amendment places a limit on any waiver extended to Pakistan to a period of six years. A third amendment to be introduced by Senator Glenn tomorrow requires an immediate termination of aid to Pakistan if it conducts a nuclear test.

19 October 1981
Contrary to the statements issued by the Reagan administration officials, Western diplomats and other informed sources indicate that Pakistan is moving forward with its nuclear program and is likely to explode a nuclear device in the near future. A Western diplomatic source indicated that Pakistan currently does not possess the capability to explode a nuclear device but could manage to acquire such a capability in two years.

12 - 13 October 1981
International Atomic Energy Agency (IAEA) inspectors visit the Karachi Nuclear Power Plant (KANUPP) and request to move the two surveillance cameras. The inspectors also request Pakistan to install "bundle counters" to ensure better surveillance of the facility. Pakistan refuses to comply with the demands.

8 October 1981
A well-informed source reveals that Pakistan will accept bids for a 600-900 MW nuclear power plant at the Chashma site in the first half of 1982. Sener, a Spanish firm based in Bilbao, Spain is currently conducting a study of

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the existing light water reactors (LWRs) for the Pakistan Atomic Energy Agency (PAEC). The Spanish firm Sener is either preparing report for a 600 or a 900 MW reactor and for whether a turnkey or NSSS-only solicitation of bids. According to sources, Sener will probably manage the procurement of a nuclear unit for Pakistan even though the firm will not purchase components for the nuclear unit in foreign countries and re-route them to Pakistan. A source indicates that relations between Sener and the Pakistanis is "clean" and indicates that the firm is very much aware of Pakistan's controversial nuclear program.


September 1981
The three Canadian men, caught while exporting electronic equipment to Pakistan, face charges in a Quebec criminal court. After two weeks of closed hearings, the case is adjourned till January 18 1982. Eleven of those charges are for exporting goods without a license and 14 of the charges are for exporting goods from the United States without adding value. Canadian sources indicate that the case took a long time to reach this stage since the documents found in the Serabit offices were in Punjabi and had to be translated into English. The firm Serabit is owned by Salam Elmenyawi, one of the three Canadians caught last year.


September 1981
US government's arms control and intelligence officials along with International Atomic Energy Agency (IAEA) inspectors are closely examining Pakistan's Karachi Nuclear Power Reactor (KANUPP) reactor to comprehend "suspicious" activities at the reactor facility. Over the past several months, a series of "anomalies" and "irregularities" at the facility, including a high rate of failure of the surveillance equipment and problems in the accounting procedures for the spent fuel, has led to calls from the IAEA to improve the safeguards at the facility. According to Congressional and US arms control officials, the IAEA's concerns arise from the fact that Pakistan can produce its own nuclear fuel for the KANUPP reactor. The design of the Canadian supplied Canadian Deuterium Uranium (CANDU) reactor facilitates loading and unloading of the fuel rods without shutting down the entire reactor. As a result, Pakistan can easily divert the fuel from the reactor in the absence of stringent inspections. IAEA officials, after monitoring the installation of 75 bundles of domestically produced fuel bundles, became convinced that additional surveillance is needed to ensure that fuel is not diverted from the reactor or the cooling ponds. The KANUPP reactor can hold about 2,000 fuel rods. IAEA Director-General Sigvard Eklund urged Pakistan to install surveillance equipment at two additional locations. Pakistan, however, has refused to negotiate any improved safeguards for the KANUPP facility indicating that such a measure would amount to a virtual renegotiation of the original contract with Canada. Even though Pakistan is not a signatory to the NPT, Canada insisted on implementing safeguards for the supply of the KANUPP reactor. The irregularities at the KANUPP facility lead to speculation among US and IAEA officials that Pakistan is diverting fuel for non-peaceful purposes. US officials, however, point to a lack of definite proof of such diversion. The IAEA's doubts over the facility have led US officials to increase their efforts to gather information on the facility through intelligence channels.

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25 September 1981

Senator Alan Cranston (D-Ca) charges that the Reagan administration withheld information on Pakistan’s progress towards developing nuclear weapons. Cranston says that Pakistan has started to use domestically produced fuel for its Karachi Nuclear Power Plant (KANUPP) reactor and states that Pakistan can now produce weapons-grade plutonium without being detected by international monitors. According to Cranston, Pakistan’s fuel fabrication plant is not under international safeguards. According to Sigvard Eklund, Director General of the IAEA, Pakistan’s use of indigenous nuclear fuel will make effective surveillance “impossible” to achieve. Cranston indicates that his information has been verified with three executive branch entities. US Senate aides also suggest that Pakistan only needs to develop a warhead capability. The director of the US State Department’s Intelligence and Research Bureau confirms that Pakistan is manufacturing nuclear fuel at the Canadian-supplied Karachi reactor, but indicates that he does not know why Congress was not informed by the Reagan administration. Spiers adds that the IAEA did not find any safeguards violations in Pakistan and that all nuclear materials have been accounted for by the IAEA. Senator Charles H. Percy (R-Ii) indicates that he was informed recently by the Administration about Pakistan’s ability to produce its own fuel. Senator John Glenn (D-Oh) states that he will introduce three amendments to strengthen US nonproliferation laws. According to Sen. Glenn, one of the amendments would require a cut-off of aid, without a presidential waiver, to India and Pakistan in case either of the countries detonates a nuclear device.


24 September 1981

A western nuclear source reveals that 12 Spanish engineers are under a one-year contract to design a 900 MW nuclear power plant at Chashma in the Mianwali district of Punjab. International tenders were invited for the contract but US firms were not allowed to participate since they were considered unreliable. According to a Spanish source, quoted by a western source, Saudi Arabia is believed to be financing the nuclear plant, which is expected to cost about $1.1 billion. The plant will be constructed and financed over an eight-year period.


Fourth Week of September

US Administration officials inform the Nuclear Regulatory Commission and the Chairman of the Foreign Relations Committee, Senator Charles H. Percy (R-Ii) about Pakistan’s development of indigenous nuclear fuel and IAEA’s reservations about the adequacy of the existing safeguards mechanisms.


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21 September 1981
Pakistan's President Zia ul-Haq reiterates that Pakistan will not produce or acquire a nuclear bomb. However, he states that Pakistan will not surrender its right to possess nuclear technology.

17 September 1981
The Director General of the International Atomic Energy Agency (IAEA) Sigvard Eklund, in a private meeting with the 34 member IAEA Board of Governors, indicates that existing safeguards mechanisms at the KANUPP facility are not adequate to ensure effective surveillance of the facility. Eklund informs the board that the existing IAEA inspections cannot certify that diversions have not occurred at the KANUPP facility due to Pakistan's ability to produce its own nuclear fuel. Currently, IAEA inspectors visit the facility once every month. Eklund promises a report on the issue in two months.

16 September 1981
US Under-Secretary of State James Buckley, in his testimony to the three panels of the House Foreign Affairs Committee, urges the Congress to remove a ban on aid to Pakistan in order to proceed with the six-year $3.2 billion aid package. Buckley says that Pakistan's President Zia ul-Haq has categorically assured the United States that Pakistan does not intend to acquire nuclear weapons. Buckley, however, states that "I do believe that they have the present intention of moving forward with their nuclear development program. It could very well lead to the development of the so-called nuclear option." Nonetheless, Pakistani leaders are aware that conducting any nuclear test will lead to the cancellation of the aid package. Buckley refuses to clearly state that the United States will cut off aid if Pakistan explodes a nuclear device. The Director of the Defense Security Assistance Agency Erich F. von Marbod says that the nuclear capabilities of the F-16s will be removed before their shipment to Pakistan. Marbod says that "All wiring to the pylons, all computer software programs that manage the hardware stores and all cockpit controls that are nuclear related" will be removed from the aircraft prior to the delivery. Marbod further states that the defense department can furnish written assurances that the equipment to provide nuclear capability will not be provided to Pakistan in the future.

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15 September 1981
The government of Pakistan formally accepts a six-year $3.2 billion military and economic assistance package offered by the United States. Pakistan accepts the offer after the United States proposes a plan for the speedy delivery of the F-16 fighter aircraft. The F-16 fighter aircraft offer is not part of the $3.2 billion economic and military assistance package. Pakistan agrees to pay $1.1 billion in cash for the 40 F-16 fighter aircraft. Saudi Arabia promises to assist Pakistan in paying for the planes.

6 September 1981
Western sources indicate that Pakistan's uranium enrichment plant, located 30 miles southeast of Islamabad at Kahuta, is expected to start operating by the end of this year. The plant uses gas centrifuge technology allegedly stolen from the Netherlands.

10 August 1981
A radio report from Qatar reporting a meeting between Libya's Foreign Liaison Secretary Turayki and the Qatar Finance and Oil Minister announces that Dr. Turayki has denied calling for the production of an Islamic bomb. According to the report, Dr. Turayki also insists on the peaceful nature of Libya's nuclear energy program.

9 August 1981
Libya's Secretary for Foreign Affairs Dr Ali Abd as-Salam ai-Turayki calls for assisting Pakistan's nuclear program or the nuclear program of any other Arab or Islamic country since it will benefit the common cause of Islamic nations. Mr. Turayki, in a statement to the paper Al-Khalij, states that assisting the efforts of Pakistan or any other Islamic nation in producing an atomic bomb will aid the Palestinian cause.

20 July 1981
The German engineering firm Ces Kalthof is facing charges of violating West German Foreign Trade Act by shipping a plant capable of producing uranium-hexafluoride to Pakistan. In responding to a Parliamentary question, the German government says that the delivery of the plant required an export license which would not have been granted by the government. The question regarding the deal is raised in the parliament after a German magazine Der Stern announces that it possesses contracts and other documents regarding the deals between the German firm and a Pakistani textile company. A spokesperson for the German Economics Ministry says that German authorities have collected enough evidence to charge the German firm with violating the German Foreign Trade

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Act. The spokesperson says that investigations were being carried out since early 1981 long before the firm’s activities were published in the German magazine Der Stern. The outcome of the investigation will determine if the firm will be tried in a court or be handled by tax authorities.


9 July 1981

The Chairman of the Pakistan Atomic Energy Commission (PAEC), Munir Ahmad Khan, says that nations should develop breeder reactors to avoid future shortage of uranium and future escalation in uranium prices. Mr. Khan tells the participants of a conference organized under the PAEC that "if we go on building light water reactors, we will soon feel the pinch, because uranium would not be available at cheap prices after a decade." According to Mr. Khan, a feasibility study for a 600-MW nuclear power plant at Chashma has been completed and the plant is expected to be commissioned by 1988. Mr. Khan also informs that eight other plants will be built at the site in Chashma. Mr. Khan says that development of nuclear power will help Pakistan to reduce the huge costs associated with importing oil for its energy needs. Mr. Khan warns that transfer of technology is becoming a political issue and says that developing nations will not find it way to obtain technology from other developed countries.


2 July 1981

Pakistan's President Zia ul-Haq orders tight security measures to guard Pakistan's nuclear installations following Israel's air-strikes against Iraq's nuclear reactor. The Chairman of the Pakistan Atomic Energy Commission (PAEC), Munir Ahmad Khan, says that the steps are taken to guard against possible subversive activities and sabotage attempts on Pakistani nuclear projects. Mr. Khan also states that any outside attacks on Pakistan's nuclear installations will be successfully thwarted. Mr. Khan does not provide information on the security measures that have been initiated.


2 July 1981

A Pakistani foreign ministry spokesperson denies that Pakistan has received any electronic equipment from Turkey. The spokesperson points out that US news reports indicating Pakistan's development of nuclear weapons are unfounded and insists that Pakistan's nuclear program is aimed for peaceful purposes. The spokesperson also points out that the Turkish government has denied the news reports.


2 July 1981

Pakistan is planning to spend $56 million on a number of projects for the Pakistan Atomic Energy Commission (PAEC) for the current fiscal year that began on July 1. According to the Public Sector Development Plan, the funds are allocated mainly for a reprocessing plant, a nuclear power plant, detailed exploration for uranium and for
phase two of a radioactive minerals survey. The plan allocates $40 million for the reprocessing plant and $10 million for the second nuclear power plant. The budget document indicates that last year’s funds for the reprocessing plant are lying unused. The work on the second nuclear power plant is 3% complete and is expected to gather momentum during this year. The budget plan indicates that $59 million will be allotted for the nuclear power plant for the next fiscal year. The total cost of the nuclear power plant is now revised to $910 million, from the original estimate of $527 million. According to a plan approved by the government in 1976, the first nuclear power plant was planned to be commissioned by 1982. The first nuclear power plant could not be commissioned owing to financial constraints.


1 July 1981
A West German engineering firm, Ces Kalthof, says that it sold Pakistan equipment for making uranium-hexafluoride, a material that could be used to make nuclear fuel. Albrecht Migule, the firm’s Director, denies a news report in the German magazine Stern that the laboratory equipment could be used to make nuclear weapons.


28 June 1981
The Turkish government asserts that it does not intend to develop nuclear weapons nor assist other countries in developing such weapons. In a statement issued by the Turkish embassy in the United States, the Turkish government indicates that it will look into the allegations of Turkish firms' involvement in sending electric equipment to Pakistan and undertake necessary action as per the obligations of the nuclear nonproliferation treaty. The statement indicates that the involvement of Turkish firms in sending sensitive nuclear equipment to Pakistan has been brought to the attention of the Turkish government for the first time.


24 June 1981
The US Under-Secretary of State James L. Buckley, in a testimony before the Senate Government Affairs Committee, announces that Pakistan’s President and Ministers have provided "absolute assurances" that Pakistan does not intend to develop nuclear weapons. Buckley also states that Pakistan has not provided assurances not to seek a weapons-making ability or peaceful nuclear explosions like the one exploded by India in 1974. In responding to Senator Charles H. Percy’s (R-IL) statement that aid to Pakistan will be cut-off if it explodes any kind of nuclear device, Buckley indicates that he has not stated such a clause during his talks with the Pakistanis, but indicates that "They [Pakistanis] are familiar with our laws."


Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
20-21 June 1981

The US State Department, in a secret cable sent to US Embassy in Ankara, asks the Turkish government to end its secret shipments of sensitive equipment to Pakistan that could be used to develop nuclear weapons. According to the cable, Turkish companies are re-routing American-made electric equipment, known as inverters, from Europe to Pakistan. Inverters transform electrical current to charge batteries and operate instruments and are used in nuclear plants. The cable terms the operation as a "covert purchasing network" and claims that Turkish companies have circumvented US and European export controls while conducting these transshipments. The cable also suggests that Pakistan's ruler General Haq might have offered nuclear technology to Turkey in exchange for these transshipments. The cable informs the US embassy in Turkey to inform the Turkish government that continuation of these transshipments will jeopardize Turkey's own aid program. Apart from the secret purchasing network, the cable also warns that Pakistan is seeking technology and material to produce fuel for explosive devices. The cable says that "we [United States] also have information that Pakistan is conducting a program for the design and development of the triggering package for nuclear explosive devices." The cable also warns that a nuclear test by Pakistan will lead to the cancellation of the proposed military and economic aid to Pakistan.


17 June 1981

In response to a question over the proposed aid to Pakistan and whether Pakistan has provided assurances not to develop nuclear weapons, US president Reagan refuses to answer whether Pakistan has provided assurances not to test nuclear weapons and indicates that it is important for the United States to assist Pakistan owing to Pakistan's strategic location.


15 June 1981

The United States and Pakistan agree on a $3 billion military and economic aid deal to strengthen Pakistan's military in the face of the Soviet threat in Afghanistan. A US State Department spokesperson, David Passage, announces that "This Administration believes that by addressing those security concerns which have motivated Pakistan's nuclear program and reestablishing a relationship of confidence with it offer the best opportunity in the long run for effectively dealing with its nuclear program." The announcement of the deal is made in a joint-statement issued in Islamabad and Washington D.C. following a trip to Pakistan by the Under-Secretary of State for Security Assistance James L. Buckley. The announcement does not include any reference to nuclear weapons. The five-year aid program involves $400 million in loans every year for military purchases as well as $100 million economic assistance annually. The Senate Foreign Relations Committee has already approved a Presidential waiver of the restrictions imposed in 1975 regarding Pakistan's unsafeguarded reprocessing and enrichment facilities. The House Foreign Affairs Committee, however, has not approved such a measure. Therefore, Pakistan's arms program can be vetoed if it fails to win the majorities in both houses of Congress.


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12 June 1981
The United States decides to offer 15 and possibly more F-16 fighter planes to Pakistan. The planes are to be offered as part of the planned five-year economic and military aid package. The cost of each F-16 fighter plane, including spare parts and other support equipment, is $14.5 million. A State Department official believes that Saudi Arabia might finance the procurement of these planes. The offer is approved at a National Security Council meeting last week despite the objections raised by the Office of Management and Budget (OMB) and the US Air Force (USAF). The OMB insists that the F-5 fighters are cheaper and better suited for Pakistan’s requirements. The USAF objected that changes in the production schedules will adversely affect US requirements. Officials from the Pentagon and the State department approve the sale as a symbolic gesture that will indicate the Administration's emphasis on building a strengthened relationship with Pakistan.


22 May 1981
Turkey rejects press reports indicating that Pakistan and Turkey are jointly planning to conduct a nuclear test. The information department of the Turkish Foreign Ministry indicates that Turkey will not allow nuclear testing on its territory and reiterates Turkey's commitment to pursue peaceful uses of nuclear energy.


16 May 1981
Senator Alan Cranston (D-Ca) alleges that Pakistan's nuclear weapons could end up in the hands of the Palestine Liberation Organization (PLO) either through Libya which, according to Sen. Cranston, is involved in Pakistan's nuclear program or directly from Pakistan since Pakistan's ruler General Haq is the chairman of the Muslim Conference.


14 May 1981
The Senate Foreign Relations Committee votes to lift aid restrictions on Pakistan and authorizes $100.6 million in economic and military assistance. The measure is passed by the Foreign Relations Committee and exempts Pakistan from the Symington amendment that prohibits aid to countries that are pursuing uranium enrichment technology and also refuse to provide assurances that they are not developing nuclear weapons. Out of the $100.6 million, $100 million is to be used for security-related economic aid and $600,000 for military training assistance. The measure requires the US president to inform the Senate about the details of the aid program and the Administration’s policy to prevent the spread of nuclear weapons.


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Second Week of May 1981
The Soviet Ambassador to Pakistan Vitaly Smirov indicates that the Soviet Union is willing to assist Pakistan in the nuclear power field. According to the Pakistan Press International news agency, the Soviet Ambassador also offers to provide effective assistance in the field of thermal plants and other ways to overcome Pakistan's energy crisis. Mr. Smirov offers 4 nuclear power units to Pakistan.


5 May 1981
Pakistani officials reject a report by an Indian news agency that Pakistan is preparing to test a nuclear device in the jungles of Sind province.


April 1981
The IAEA informs Pakistan that the safeguards at the Karachi Nuclear Power Plant (KANUPP) reactor would have to be upgraded since Pakistan has started to produce its own fuel for the reactor. The IAEA and Pakistan begin talks over increasing the safeguards mechanism at the reactor.


27 April 1981
Senator Alan Cranston (D-Ca) announces that India and Pakistan are preparing test sites for conducting nuclear tests. According to Sen. Cranston, Pakistan is building a horizontal tunnel in a hillside in the Baluchistan Mountains, about 40 miles from the Afghanistan border. Even though Sen. Cranston did not specify the sources for the information, senior Reagan administration officials confirm the information presented by the Senator. Recently, the intelligence community is believed to have provided administration officials with similar information. In a separate incident, two witnesses from the State Department indicate that Pakistan has not provided guarantees that it would not test a nuclear device. The witnesses also indicate that the United States has not requested such a guarantee. During a hearing at the House Foreign Affairs Subcommittee on Asian and Pacific Affairs, Leslie H. Brown, Deputy Director of the Bureau of Politico-Military Affairs says that "we haven't sought such assurances, but we don't believe that they could be obtained." Jane A. Coon, Deputy Assistant Secretary of State for Near East and South Asian Affairs indicates that Pakistan and United States are just beginning to rebuild their relationships and suggests that more time is needed before such assurances can be obtained.


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21 April 1981
US Secretary of State Alexander M. Haig and the Pakistani Foreign Minister Agha Shahi conclude one and half days of talks over the proposed US aid package to Pakistan. The new relationship will likely be finalized in the coming months. Shahi announces that the United States has presented a five-year aid proposal. US sources indicate that Pakistan’s nuclear weapons program did not come up for major discussion during the talks. The Reagan administration did not seek any new assurances from Pakistan over its nuclear weapons program.

16 April 1981
The Pakistan Atomic Energy Commission (PAEC) awards a contract to Sener, a Spanish firm, for the supply of atomic energy services for the Chashma nuclear power plant. Spanish sources indicate the plant’s reactor to be a 600-900 MW light water reactor (LWR). Even though Pakistan has not indicted a specific startup date for the plant, it is expected to begin operations by the end of the decade.

March 1981
World Bank President Robert McNamara visits Pakistan and the Pakistani government discusses a possible World Bank financing for its 600 Mw second nuclear power plant at Chashma.

25 March 1981
The US State Department indicates that the proposed aid to Pakistan will be provided only if Pakistan refrains from testing a nuclear device. The Reagan administration is proposing a change in the existing non-proliferation laws to allow military and other aid to Pakistan as long as it does not explode a nuclear device.

23 March 1981
US administration officials indicate that the Reagan administration has tentatively decided to offer $500 million in aid to Pakistan. Congressional sources and Administration officials are not sure whether Pakistan will accept the aid offer since it does not wish to be seen as a close associate of the United States. Sources in the Congress and the Reagan Administration indicate that the Reagan administration has tentatively decided to offer $400 million in military credits, $100 million in economic support, and $600,000 in military training. Even though existing laws prohibit any aid to Pakistan, Reagan administration officials have urged Congress in recent days to amend the existing laws reasoning that Pakistan might be deterred from producing nuclear weapons if its security needs are addressed. Some US officials express concern that Pakistan will persist in its attempts to produce nuclear weapons.

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irrespective of the amount of aid given by the United States. Some officials believe that Pakistan can be persuaded from developing nuclear weapons if the United States offers to rewrite the 1959 security pledge pledging to assist Pakistan in case of an attack by India. The 1959 pledge offers assistance only in the case of an attack by a Communist state.


20 March 1981
A spokesperson for the Swiss firm CORA Engineering announces at Chur, Switzerland that the firm is halting all deliveries of equipment for a nuclear facility in Pakistan. According to the spokesperson, a bomb attack on the company and threats against its company executives forced the company to reach the decision to halt the deliveries.


19 March 1981
US Under-Secretary of State James L. Buckley, in his testimony before the House Foreign Affairs Subcommittee, urges the repeal of the Symington amendment that prohibits aid to countries that have detonated or are seeking to acquire nuclear weapons. Rep. Jonathan B. Bingham (D-NY) challenges Buckley's request stating that such repeal will encourage Pakistan to pursue its program to develop nuclear weapons.


19 March 1981
US Secretary of State Alexander Haig Jr., testifying before the Senate Foreign Relations Committee, urges Congress to modify existing law in order to "re-establish a dialogue of trust and confidence" with Pakistan. Mr. Haig testifies that he hopes to bring a number of countries into a strategic consensus in order to counter Soviet Union's expansion in the region. Secretary Haig states that Pakistan is not eligible to receive aid under existing laws and indicates that "it is my belief that you get more by removing the insecurities that foster the nuclear thirst" among nations like Pakistan.


19 March 1981
The Swiss government concludes that exports of nuclear equipment to Pakistan by Swiss firms did not violate any national or international controls. Swiss officials indicate that Swiss firms abided by the trigger list produced by the London Suppliers Club. Swiss officials also express willingness to expand their control list based on a multilateral agreement that is binding on all nuclear supplier countries.
17 March 1981
US Senator Alan Cranston (D-Ca) alleges that Pakistan is continuing to purchase dual-use nuclear technology from Europe and states that "It [Pakistan] will most likely have the capacity and the materials for fabricating a number of nuclear weapons by the end of 1982." Senator Cranston discloses that he has verified the accuracy of the information with officials in the Reagan administration. Senator Cranston also urges the Reagan administration to threaten to cut-off the supply of nuclear fuel to France, Italy, and other countries if they continue their nuclear cooperation with Pakistan. Certain sources in the Congress and the Reagan administration, pointing to intelligence information, indicate that Pakistan has already designed an atomic bomb. The same sources also reveal that despite the assurances given by the Swiss authorities to stem the export of sensitive nuclear material to Pakistan, such exports are still continuing.

16 March 1981
Top officials within the US State Department express concern that Pakistan's testing of a nuclear weapon might force India to launch a strike against Pakistan's nuclear installations.

3 March 1981
Rep. Jonathan B. Bingham (D-Bronx), Chairman of the House Foreign Affairs Subcommittee on International Economic Policy and Trade, writes a letter to US Secretary of State Alexander Haig Jr., asking him to consider the termination of US nuclear supply to France and Italy. The letter states that the assistance provided by France, Italy, and Switzerland to Pakistan's nuclear program presents a "clear and present danger to the United States and indeed, Western security interests in the Persian Gulf and South Asia."

February 1981
Pakistan begins to load its Karachi Nuclear Power Plant (KANUPP) reactor with indigenously produced fuel bundles.

27 February 1981
The International Atomic Energy Agency (IAEA) Director's report announces the outcome of its October 1980
inspections of the Karachi Nuclear Power Plant (KANUPP) reactor as "satisfactory." IAEA officials indicate that the inventory guaranteed that Pakistan is not diverting materials from the nuclear facility for military purposes. IAEA officials also indicate that Pakistan is building an unsafeguarded uranium enrichment facility and a reprocessing facility to produce plutonium from the spent fuel produced in the reactor. The report also informs the IAEA Board of Governors that the source for Pakistan's spent fuel for its reprocessing activities will originate from the KANUPP reactor rather than an existing research reactor.


11 February 1981
Netherlands' Justice Minister Job De Ruiter, in a letter to a parliamentary commission, says that Abdul Qadeer Khan would be investigated under the terms of a law on the unlawful acquisition of state secrets. Mr. Ruiter says that the trial will be held in absentia since A.Q. Khan cannot be extradited to Netherlands to face charges. The Justice Minister also informs that legal proceedings are being taken against two Dutch engineering companies that are believed to have supplied sensitive equipment to Pakistan's uranium enrichment effort. Dutch sources indicate that one of the companies exported at least nine shipments of sensitive equipment that could be used in the construction of the enrichment plant. The sources indicate that at least one of shipments was made without a required export license.


8 February 1981
Pakistan denies recent Canadian television network and a Canadian weekly report that it is involved in clandestine efforts to procure electronic parts in Canada for its nuclear weapons program. Pakistan's embassy in Ottawa restates the peaceful nature of Pakistan's nuclear program.


2 February 1981
Congressional sources suggest that US nonproliferation laws might be amended to provide assistance to Pakistan. Congressional sources indicate that such measures are prompted by fears that Pakistan might come under Russia's influence. Sources indicate that aid to Pakistan might be included as part of a broader "Persian Gulf Package." Resumption of aid to Pakistan will require a modification of the Symington Amendment to the Foreign Assistance Act and the Glenn Amendment to the Foreign Assistance Act. The Symington amendment prohibits assistance to countries receiving or sending enrichment equipment, material or technology not under international safeguards. The Glenn amendment prohibits assistance to countries involved in unsafeguarded reprocessing deals.


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**22 January 1981**

A Pakistani foreign ministry spokesperson denies the *Sunday Times* report that mentioned the signing of a pact between Saudi Arabia and Pakistan, with the former offering $800 million to finance Pakistan's nuclear program. The spokesperson reiterates that Pakistan's nuclear research and development efforts are totally indigenous. The Pakistani spokesperson also mentions that Saudi Arabia's government has rejected the news report.


**19 January 1981**

According to *Sunday Times* (London), Saudi Arabia will sign an agreement with Pakistan to finance Pakistan's attempts to build an atomic bomb. Saudi Arabia reportedly made the offer several weeks ago at a secret meeting in Europe in order to keep Iraq or Libya from financing Pakistan's nuclear program.


**8 January 1981**

According to an assessment by Ishrat Usmani, former chief of the Pakistan Atomic Energy Commission (PAEC), Pakistan needs to overcome extreme technological challenges in acquiring sufficient fissile material, either through reprocessing or the enrichment process. In the case of the enrichment process, Usmani predicts that Pakistan will face severe challenges in maintaining the ultra-high speeds for the period necessary for producing weapons-grade uranium. Pakistan, according to Mr. Usmani, will also face problems in acquiring the highly corrosive hydrofluoric acid and handling it. In the case of reprocessing, Usmani states that Pakistan will face difficulties in obtaining spent fuel since the only existing source of spent fuel, the KANUPP reactor, is under IAEA safeguards. Usmani expresses doubts about Pakistan's ability to reprocess sufficient quantities of plutonium necessary for a nuclear device. He concludes that Pakistan might be able to produce only a crude nuclear device even if it manages to produce the necessary fissile material.


**Early 1981**

Twenty-three Pakistani engineers and officials visit Spain and are taken to various industrial installations and the Junta de Energia Nuclear.


**1981**

The Pakistan Atomic Energy Commission (PAEC) continues uranium exploration activities. PAEC is conducting geological mapping, radiometric measurements, drilling and subsurface excavations in the Potwar region. The exploration reveals the existence of uranium ores at Isa Khel and Thatti Nasratti. According to investigations, Isa Khel possesses three zones of uranium ore below the surface. Another zone at Thatti Nasratti is investigated to determine its nature.

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1980

The United States informs Turkey about Turkish firms' assistance to Pakistan's nuclear explosives program by supplying inverters. The United States requests the Turkish government to halt the transfer of such electric equipment. The Turkish government does not act on US requests and insists that the inverters, which cost $100,000 a piece, are not covered under existing export control regulations.


30 December 1980

The Swiss government promises to closely review and possibly ban future exports of nuclear technology to Pakistan that could be used to manufacture nuclear weapons. In return, the United States agrees to resume nuclear cooperation with Switzerland. The Swiss government agrees to specially scrutinize a particular evaporation and condensation technology currently used by Pakistan. According to Claude Zangger, Swiss nuclear energy chief, Pakistan used the evaporation and condensation technology supplied by the Swiss firm CORA to build a pilot enrichment plant. According to Zangger, any future efforts by Pakistan to acquire such equipment for building an industrial scale enrichment facility will be closely reviewed by the Swiss government. Zangger indicates that Switzerland might ban the sale or request implementation of IAEA safeguards as a precondition for a sale. Zangger, however, mentions that the Swiss government has not finalized its policy on such exports and is merely promising to rigorously review any future exports. According to Zangger, an examination of the problems facing such exports is currently underway and the Swiss firms are waiting for the completion of the examination. Zangger reiterates that Switzerland will not unilaterally expand its export control list.


8 December 1980

Pakistan's Foreign Minister Agha Shahi rejects reports about the manufacture of an "Islamic Bomb" and the testing of Pakistan's nuclear bomb on Chinese territory as false allegations.
First Week of December 1980

Canada charges three men with violating export control laws by attempting to export certain electronic components. The shipment of electronic components is valued at $42,500 and the shipment was seized at Montreal's Mirabel airport. The three men are charged with exporting US goods from Canada without a permit. The three men are Salam Elmenyawi (31), Mohammed Ahmad (44), and Abdul Aziz Khan (40). All the three charged men are Canadian citizens. Khan is an engineer from Pakistan, Elmenyawi is a businessman originally from Egypt, and Ahmad is a mechanical specialist from India. Royal Canadian Mounted Police (RCMP) officials indicate that they possess evidence of at least five other shipments of similar electronic parts that were exported earlier this year. It is not known whether the same three charged men are involved in sending the previous shipments. The charges about the previous shipments have not been made public. Officially, the seized equipment is stated as "condensers and resistors" but Canadian experts indicate that the seized electronic parts are components of an inverter. Inverters are used in processes to enrich uranium or to provide electricity needed for the manufacture of nuclear weapon parts. Officials mention that it is legal to possess such equipment within Canada but insist that exporting such equipment is against strict export control laws. A report in a current affairs program of the Canadian Broadcasting Group reveals that two Pakistan Atomic Energy Commission (PAEC) officials obtained visas earlier this year to work in the Pakistani consulate in Montreal. According to the report, however, the two officials did not visit the Montreal Pakistani consulate during their stay in Montreal from July 7-21. The news report alleges that the PAEC officials were involved in procuring electronic parts for Pakistan's nuclear program.


24 November 1980

Pakistan's government dismisses recent reports that Chinese nuclear rockets have been cited in Pakistan. The government also terms as baseless certain reports mentioning that Chinese armed forces have conducted joint military exercises with Pakistani forces.


10 November 1980

According to Hong Kong's Asia Week, Pakistan has spent $2 billion on its nuclear program.


October 1980

The International Atomic Energy Agency (IAEA) carries out a "full inventory verification" of the KANUPP reactor. An inventory of all dangerous materials is prepared during the inspection. Even though Pakistan is not a signatory to
the NPT, the inspections are required under the original sales agreement for the CANDU-type reactor supplied by Canada. The full inspection is conducted after concerns are raised over a power outage that interrupts the functioning of the camera that monitors the transfer of fuel to the fuel storage pond. An IAEA source reveals that the camera was out of commission for about 3 months. The IAEA inspectors perform a manual count of the spent fuel since the monitoring camera is believed to have stopped working since the last inspections in August.


**September 1980-1981**

Following Pakistan’s declaration of its ability to manufacture its own nuclear fuel, the International Atomic Energy Agency (IAEA) requests Pakistan to allow the IAEA to increase its surveillance capability at the KANUPP facility. Currently the surveillance equipment includes specially adapted Minolta 8mm movie cameras, mounted in pairs and firing every eight or 10 minutes. The cameras are placed in sealed glass fronted boxes and are aligned to produce a wide angle and a telephoto view of the targets. Currently, the cameras target the storage pond, where the spent fuel rods are dumped, and a decontamination bay. The inspection process involves checking the seals for the cameras, unloading the camera films, developing the films, reloading the cameras, and resealing the camera boxes. The IAEA request to increase its surveillance capability includes relocation of the cameras at the spent-fuel bay and installing an extra camera, and relocating the camera at the decontamination bay. The IAEA wants two sets of cameras to cover the maintenance area for the fueling machine, a possible location for diverting plutonium. The IAEA wants the spend fuel rods to be arranged in a different manner in the storage pond. The IAEA also wants to take the camera films to be taken to its headquarters in Vienna for cross-examination. Most importantly, the IAEA wants to install “bundle counters” that will record the number of times fuel rods are inserted and withdrawn. Pakistan refuses to agree to the requests and points to the fact that the IAEA has not asked India to adopt such increased surveillance methods. The IAEA also requests an increase in the frequency of inspections at the KANUPP facility.


**September 1980**

Canadian police seize a shipment of electronic equipment at Montreal's Dorval Airport. The shipment is worth US $47,000. Canadian sources indicate that at least 10 other shipments had previously left Canada through the Dorval Airport. The combined worth of the previous shipments is believed to be Canadian $560,000.


**September 1980**

Pakistani scientists are reportedly working on a clandestine plutonium reprocessing facility near Rawalpindi. The completion of the reprocessing facility will advance Pakistan’s ability to test a nuclear device by about two years. According to intelligence experts, the plutonium reprocessing facility will supply Pakistan with sufficient fissile

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material to conduct a test in the fall of 1981.

September 1980
The Pakistan Atomic Energy Commission (PAEC) informs Nucleonics Week that it will invite international bids for the Chashma nuclear power plant as soon as the finances for the project become available.

23 September 1980
The Swiss Foreign Ministry announces its investigation into the sale of nuclear technology to Pakistan after the United States expressed concern over the sale. The Secretary of State at the Foreign Ministry, Raymond Probst, informs the press conference that the investigation is being conducted even though the Swiss government has provided assurances that the items are not included in any of the existing export control lists. Meanwhile, a Swiss Foreign Ministry spokesperson announces that Switzerland will continue to export equipment and provide technical assistance to Pakistan. According to the spokesperson, the items exported to Pakistan are not banned under any international embargo list.

22 September 1980
The Swiss government rejects accusations that it has failed to abide by its nuclear export control commitments by permitting Swiss companies to export nuclear technology to Pakistan. Erwin Bischoff, a Foreign Ministry spokesperson, indicates that none of the exported items are prohibited under international export guidelines. Bischoff also states that the Swiss government has monitored all the exports to Pakistan to ensure their compliance with existing international exports guidelines. The spokesperson further adds that Switzerland is willing to negotiate an extension of existing guidelines, provided such extensions are binding on all countries.

22 September 1980
The Carter administration interrupts nuclear cooperation with Switzerland in retaliation for the Swiss export of nuclear technology to Pakistan. The US State Department delays the grant of license needed by the Swiss government to reprocess its spent fuel in France. The US government also blocks a previously undisclosed Swiss request to export plutonium to Italy. The State Department informs the Swiss government that the licenses will be withheld until the Swiss authorities satisfy the concerns of the United States government regarding the sale of nuclear technology to Pakistan. The US officials warn the Swiss government that the US Congress might be forced

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to cut off nuclear cooperation under the Nuclear Nonproliferation Act.

21 September 1980
US experts pointing to intelligence reports, photographs of construction of the uranium enrichment plant at Kahuta, and statements by the former Prime Minister Zulfikar Ali Bhutto believe that Pakistan would need several years to finish the enrichment plant and produce weapons grade uranium for nuclear bombs. The US experts, however, believe that Pakistan's enrichment effort is now irreversible. According to US experts, Pakistan is buying components from Switzerland, the United States, Britain, West Germany, and other countries.

Summer-September 1980
The US State Department informs the Swiss government that five Swiss firms are still providing equipment and technical assistance to Pakistan's uranium enrichment process. The formal complaint is given to the outgoing Swiss Ambassador Raymond Probst by the Assistant Secretary of State Thomas Pickering. Two of the firms included in the list, CORA and VAT, have already been mentioned to Swiss authorities last year. The complaint mentions that personnel from CORA are in Kahuta assisting the Pakistanis in building an enrichment plant. According to Claude Zangger, scientist in charge of nuclear technology export policy and controls for the Swiss Federal Office of Energy, CORA might be performing after-delivery service in Pakistan. The inclusion of VAT in the list of complaints surprises Zangger because according to him, VAT officials had informed him that they would not supply anything to Pakistan owing to bad publicity. The formal complaint lists three other firms that are exporting a ventilation system, aluminum tubing, and machine tools to Pakistan. Zangger indicates that the issue will be discussed with the concerned firms. According to Zangger, the Swiss firm queried the government whether the special ventilation system is categorized under the restricted list of items. The government replied that the item is not included in the list and hence no export license is necessary.

Swiss officials insist that the items exported to Pakistan are not banned under existing export control regulations owing to their use in multiple purposes. Swiss officials indicate that they are aware of the exports of some of the companies listed in the formal complaint by the United States but insist that the Swiss government did not act because the exports did not violate Swiss or international laws. According to Swiss officials, the export control guidelines and lists cover only specific processes for producing weapons grade materials but not the individual components of such processes. Swiss officials also reveal that some of the components exported by Swiss firms can be used in building a reprocessing plant that will separate plutonium from spent nuclear fuel. According to Swiss authorities, even these materials are not included in any international export guidelines. Some US officials contend that Switzerland is violating the spirit of the Nuclear Nonproliferation Treaty (NPT) and a supplementary agreement reached by 15 countries that provide nuclear technology. Switzerland has reportedly refused repeated US requests to either expand its export control lists or restrict any items exported by Switzerland that could possibly be used by Pakistan to develop nuclear weapons. Switzerland's Deputy Foreign Minister Raymond Probst
says that such stringent measures will not be beneficial to Switzerland’s nuclear technology industry. Probst says however that Switzerland is willing to discuss the implementation of new controls, provided all the other countries exporting nuclear technology agree to implement the same control mechanisms. Probst also indicates that Switzerland has not made a judgment on Pakistan’s development of nuclear weapons and says that the official view of the Swiss government is that Pakistan is not developing nuclear weapons.


31 August 1980

The Chairman of the Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan announces that Pakistan has achieved self-reliance in the manufacture of nuclear fuel from uranium. At a news conference, Munir Ahmad Khan announces that a nuclear fuel manufacturing plant has been built at Chashma by Pakistani scientists. According to him, fuel from the plant has been used in a nuclear power plant during the past month to produce electricity for Karachi. According to Mr. Khan, the setting-up of the indigenous nuclear fuel production plant will save about $40 million in foreign exchange every year since Pakistan earlier had to depend on foreign suppliers for nuclear fuel. Mr. Khan also indicates that PAEC is involved in preparatory work for the construction of a second nuclear power station at Chashma. Mr. Khan states that talks are proceeding to meet the foreign exchange requirements for the project, which is expected to cost $800 million. A plant has also been setup to produce radioactive iodine-131. The plant has been setup at the Pakistan Institute of Nuclear Science and Technology (PINSTECH) by a PAEC scientist. The indigenous production of the isotope is believed to save considerable foreign exchange for Pakistan. PINSTECH also produces 16 other radioactive compounds.


30 August 1980

Canadian police release Abdul Aziz Khan and follow him to a railroad station where he retrieves a suitcase and several documents. Abdul Aziz Khan then shreds the documents, drops them in a trash can, and proceeds to the airport to catch a flight to Pakistan. Abdul Aziz Khan is then rearrested at the airport. The documents, retrieved and pieced together by the Canadian police, include a paper by an American scientist on using high-speed gas centrifuges for uranium enrichment.


29 August 1980
Canadian Police, acting on a tip from British Customs Service, seize 19 boxes of equipment at the Montreal Mirabel Airport. The boxes were being shipped to Pakistan. The police arrest Abdul Aziz Khan (a Canadian electrical engineer), Salam Elmenyawi (owner of an electrical-equipment store in Montreal), and Mohammad Ahmad (a mechanical engineer working in Quebec). Seized records indicate that 10 other shipments of inverters were sent to Pakistan.

5 August 1980
India rejects Pakistan's proposal to create a nuclear weapons-free zone in South Asia. According to a foreign ministry spokesperson, a nuclear weapons-free zone cannot be created without consulting all the countries in the region and also that any such zone must include China.

3 August 1980
A Pakistani foreign ministry spokesperson states that Pakistan's nuclear research program is aimed towards peaceful uses of nuclear energy and says that Pakistan does not wish to develop nuclear energy for military use. The spokesperson's comments came in response to the comments expressed by India's Minister of External Affairs. The spokesperson also lists the three proposals made by Pakistan as proof of Pakistan's peaceful intentions. The three proposals are: First, India should agree to the establishment of a nuclear weapons-free zone in South Asia. Second, both India and Pakistan should accept international inspections of all nuclear facilities or, if this is not acceptable, India and Pakistan should accept, on a mutual basis, the inspection of each other's nuclear facilities. Third, India and Pakistan should sign the nuclear nonproliferation treaty. Fourth, in the interim, India and Pakistan should join other countries of South Asia in declaring their renunciation of the manufacture or acquisition of nuclear weapons.

1 August 1980
India’s Minister of External Affairs Narasimha Rao indicates that Pakistan’s acquisition of nuclear weapons will

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increase tensions in the region.

**July - August 1980**

Pakistan buys parts for high speed inverters from American firms like General Electric Co., Westinghouse Electric Corp., RCA Corp. and Motorola Inc. The purchases are made by two small electrical-equipment stores in Montreal. The parts are repackaged and shipped to the Middle East and eventually to Pakistan. The operation is assisted by several highly educated Pakistani expatriates in Canada and the United States. Some of the expatriates are recruited through newspaper advertisements and later persuaded to work for sometime in Pakistan with Dr. Abdul Qadeer Khan. Dr. Khan is in charge of the uranium enrichment program.

**July 1980**

Two Pakistan Atomic Energy Commission (PAEC) scientists Anwar Ali and I.A. Batty arrive in Montreal with a list of items needed for a high-speed inverter. Export of inverters is prohibited by the United States and other countries since it is used for spinning gases in a centrifuge for enriching uranium.

**2 July 1980**

The economic coordination committee of Pakistan's Cabinet decides to increase the nuclear power generation capacity to 600 MW by 1988 in order to meet the growing demand for energy. The Committee reviews other available sources of energy and concludes that nuclear energy provides the best alternative for Pakistan. A project study, already underway, to increase nuclear power generation is expected to be finished by the end of this year and tenders for the new project are expected to be issued during the next year.

**16 June 1980**

In its weekly show *Panorama*, the British Broadcasting Corporation (BBC) reveals that Pakistan is developing a nuclear bomb with financial assistance from Libya. The report mentions that Libya's ruler Colonel Qadhafi made a pact with Pakistani Prime Minister Zulfikar Ali Bhutto in 1974 to finance Pakistan's nuclear weapons program. Anonymous Pakistani sources indicate the aid amount to total about $4 billion. According to the evidence

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presented in the show titled "Project 706: The Islamic Bomb", Libya's envoys visited Pakistan with suitcases filled with millions of dollars to fund Pakistan's purchase of equipment and components from European companies. According to the show, Libya has spent $500 million on Pakistan's nuclear program since 1975. According to the BBC, Pakistan will test a nuclear device in 18 months. The show reports that former Pakistani Prime Minister Zulfikar Ali Bhutto finalized a nuclear cooperation agreement with Libya's Colonel Qadhafi during the early 1970s. Khalid Hasan, a former aide to Bhutto, reveals on the show that during a meeting in 1972, Bhutto revealed to the scientists present that Pakistan is going to build a nuclear bomb.


6-18 May 1980
Following Pakistani President Zia ul-Haq's conclusion of his visit to China, reports suggest that the Chinese leaders have promised to permit the testing of Pakistan's nuclear devices on Chinese territory. According to these reports, the tests will be supervised by Chinese and Pakistani scientists.


4 May 1980
Pakistani official sources denounce recent reports from Kabul and Moscow that President Zia ul-Haq will discuss the question of testing Pakistan's nuclear weapons in China with the Chinese leaders. The sources indicate that Pakistan's nuclear program is geared towards peaceful purposes and also mention that Pakistan has no intention to produce nuclear weapons.


April 1980
The West German firm Ces Kalthof hands over the plans for producing UF6 and UF4 to Pakistan. Pakistan fails to pay the final payments for the plants.


10 March 1980
Inaugurating the 23rd annual convention of the Institution of Engineers of Pakistan, President Zia ul-Haq reaffirms that his government will continue Pakistan's nuclear program for peaceful purposes.


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8 March 1980
The proposed US aid program to Pakistan is reported to be "dead" after statements from both sides reveal differences over the issue. The US State Department spokesperson Hodding Carter says that "The Pakistani government has indicated that it is not interested in the assistance we proposed." Pakistani sources, on the other hand, indicate that the aid amount is very little and too conspicuous. Pakistan fears being seen as a proxy of the United States fighting against the Soviet Union and India.

2 March 1980
The Chairman of the Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan rejects the US position that reprocessing of spent fuel, enrichment of uranium, and fast breeder reactor technology should be limited to the five nuclear weapons states, namely, the United States, the USSR, France, China, and the United Kingdom.

29 February 1980
The Secretary of State to the French Ministry of Foreign Affairs Olivier Stirn indicates that the French government did not categorically refuse to supply Pakistan with equipment that could be used to build a nuclear fuel facility. According to Stirn, France is also willing to provide Pakistan with 50 instead of the ordered 32 Mirage fighter aircraft. In addition, France is also willing to increase military and economic aid by 150 million francs in addition to the 250 million francs allocated for 1980.

29 February 1980
The Dutch government indicates that a security lapse at a uranium enrichment plant in the Netherlands in 1974 might have provided important information to Dr. Abdul Qadeer Khan, a Pakistani metallurgist, who might have used it in Pakistan's own uranium enrichment efforts. A report compiled by an interdepartmental commission of inquiry states that Dr. Khan tried to obtain classified information during his 16-day stay at the enrichment plant. The inquiry commission is not certain whether Dr. Khan was successful in his attempts to obtain information but the report states that it is possible for Pakistan to have speeded up its enrichment process based on the information obtained by Dr. Khan. The commission report states that "It can be assumed that Pakistan, through Khan, has been able to procure sensitive knowledge in the field of enrichment technology. In this way, the country has been able to achieve a considerable time-saving in the setting up of a pilot installation for the enrichment of uranium." The report indicates that lapses in the screening processes and other security procedures enabled Dr. Khan to work in the enrichment facility briefly during 1974. Dr. Khan worked for a URENCO subcontractor between 1972 and 1975. URENCO is a British-Dutch-West German Consortium for enriching uranium. The enrichment plant is operated by URENCO. The Dutch government had previously denied any leak of classified data. The report also states that Dr. Khan is now playing an important role in Pakistan's nuclear program. The inquiry report further

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states that certain Dutch companies are involved in exporting components that could enable Pakistan to build a centrifuge system.


28 February 1980
US State Department officials state that, despite US reservations, Pakistan is continuing to build its uranium enrichment facility. The US government has warned that continuation of the plant's construction will halt further US military support. Pakistan's President Zia ul-Haq states that Pakistan does not wish to develop nuclear weapons but does not foreclose the possibility of developing a peaceful nuclear device. According to US intelligence estimates, Pakistan will not be able to produce sufficient quantities of enriched uranium for a bomb at least until late 1981.


12 February 1980
Reports indicate that Chinese nuclear experts are assisting Pakistan in its efforts to enrich uranium.


5 February 1980
A full-fledged computer division is established at the Pakistan Institute of Nuclear Science & Technology (PINSTECH). The facilities offered at the computer center are unique and the center is maintained by Pakistani engineers.


5 February 1980
Former Japanese foreign minister Sunao Sonoda will try to persuade Pakistan not to conduct a nuclear test. Pakistan is expected to conduct a nuclear test in April. Sonoda will visit Pakistan during the middle of February as the special envoy of Prime Minister Masayoshi Ohira.


4 February 1980
The Carter administration appears to back away from its earlier declarations that its $400 million aid offer to Pakistan is non-negotiable. Although Dr. Brzezinski states that "we are concerned, have been concerned, and will be concerned about the proliferation of nuclear weapons," a US official, in response to a specific question over the

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softening of US stance over Pakistan's nuclear program, states that "we will have to harmonize our goal of non-proliferation of nuclear weapons with the changes in the strategic situation in the area."

3 February 1980
US National Security Adviser Zbigniew Brzezinski announces that the US administration has postponed sending its $400 million aid request to the Congress until the contributions by other nations are finalized. During talks with the Pakistani delegation in Islamabad, the two sides further define the 1959 defense agreement between the two countries. Under the newly agreed rules, the United States will provide aid to Pakistan in the event of a Soviet attack with more than platoon-strength troops. The United States is still concerned over Pakistan's nuclear weapons program, but the American delegation believes that the new agreements will enable both sides to address the issues in a better manner.

2-3 February 1980
US National Security Adviser Zbigniew Brzezinski fails to elicit a definite promise from Pakistan's President Zia ul-Haq to cancel a planned nuclear test in April.

1 February 1980
In response to a question whether the United States should accept Pakistan's nuclear weapons program in return for Pakistan's acceptance of US military aid, US Presidential candidate Ronald Reagan says that he believes that the United States should not stand in the way of foreign countries developing their own nuclear weapons. Reagan says, "I just don't think it's any of our business." Later at a press conference, Reagan says that he supports US nonproliferation efforts but he also indicates his skepticism that the United States can do much to prevent the development of nuclear technology by other countries.

1 February 1980
The Carter administration informs Congressional leaders of its plan to enter into a long-term military relationship with Pakistan. According to sources, the Carter administration is seeking to repeal the ban on aid to Pakistan imposed in April 1978. US administration officials also insist that efforts are continuing to prevent Pakistan from detonating a nuclear explosion.
25 January 1980
The president's request for resumption of economic and military assistance to Pakistan is expected to pass through the Congress without major problems. Serious concerns over Soviet policies in Afghanistan replace previous fears over Pakistan's nuclear weapons program.

19 January 1980
US Congressman Wolff indicates that he has warned China of the dangers posed by Pakistan's acquisition of nuclear weapons. According to Rep. Wolff, the Congressional delegation to China also informed the Chinese that the United States is concerned over the long-term implications of the issue, especially India's reaction to Pakistan's acquisition of nuclear weapons.

17 January 1980
In an interview, Pakistan's President Zia ul-Haq asks the United States to convert the 1959 defense agreement between the United States and Pakistan into a "friendship treaty" to protect Pakistan's freedom and integrity. General Haq also terms the US offer of $400 million as "peanuts." In requesting greater assistance from the United States and the Western world, General Haq indicates that Pakistan's nuclear program and the issue of holding elections in the near future will not be discussed.

15 January 1980
Pakistan's President Zia ul-Haq indicates that the United States has not attached any pre-conditions for the aid offer. General Haq claims that the United States did not seek an end to Pakistan's alleged clandestine nuclear weapons program or an end to the Army's rule in Pakistan.

12 January 1980
The United States offers $400 million over the next two years in economic and military assistance to Pakistan in response to the threat posed by Soviet aggression in Afghanistan. The offer for the aid package is communicated to Agha Shahi, Pakistan's foreign affairs adviser. A special Congressional act, however, is required to proceed with the aid package since existing nonproliferation laws do not allow such assistance to Pakistan. During the discussions, the Pakistani delegation does not reveal any change in the policy over its uranium enrichment plant. Intelligence reports indicate that the pace of construction has slowed down owing to technical difficulties.

3 January 1980
Michel Pecquer, Director of the French Atomic Commission, denies France’s involvement in the sale of Niger-mined uranium to Pakistan and Libya. Pecquer also denies reports that uranium shipments from the mines in Niger were stolen. He clarifies that the sale of uranium to Libya and Pakistan was made by the government of Niger and involved only those portions of the mines that were controlled by the Niger government. Pecquer adds that the sale of 258 tons of uranium yellow cake to Libya and 110 tons to Pakistan was in conformance with IAEA regulations. The sale of uranium to Libya and Pakistan is confirmed by a Niger government spokesperson. The two uranium mines in question are owned by the Niger government, COGEMA - a French company owned by the French Atomic Commission, and a number of other French and foreign enterprises. Pecquer indicates that each shareholder controls only a portion of the mine and has no control over the production activities of other parts of the mine controlled by other participants.

1979-1978

1979
Pakistani reportedly purchases 110 tons of uranium ore (yellowcake) from Niger. Libya is also believed to be diverting uranium ore purchased from Niger to Pakistan.

1979
Pakistan’s chief nuclear procurement official in France, S. A. Butt, continues to approach French nuclear suppliers for potential sales of nuclear reprocessing and related equipment to Pakistan, even after France formally suspends the reprocessing plant contract with the Pakistani government. Despite the suspension, French engineers remain in Pakistan through the year to help finish with the construction of the reprocessing plant.

Late 1979
Documentary evidence surfaces that the French company BSL has entered into a secret and illegal contract to supply Pakistan with nuclear-sensitive equipment required for the Chashma reprocessing plant. The equipment includes specially designed dissolvers, evaporators, annular vessels, and mixer-settlers. The contract specifies that BSL will train four to six Pakistani engineers at its own workshops and also help organize a special school for welders in Pakistan. The secret agreement was signed two months after the French industry ministry issued formal
instructions (in February 1979) to French companies not to supply anything further for the Chashma facility. The contract also creates the fiction that equipment sold to Pakistan will be used for purposes of building a nitrating plant; it also disguises BSL’s role in the transfers. All transfers are to be made to 'Asiatic Chemicals Industries' Limited in the Pakistani city of Faisalabad. Pakistan insists that all equipment must be either shipped on Pakistani freighters or on ships that skirt South Africa, Israel, and India.

11 December 1979
The UN General Assembly passes by a vote of 96 - 2 Pakistan's proposal to create a nuclear weapons-free zone in South Asia. India and Bhutan vote against the resolution. During the UN General Assembly meeting, Pakistan's Ambassador Niaz A. Naik rejects a claim by the Israeli Ambassador Yehuda Z. Blum that Pakistan, Iraq, and Libya are seeking to create a nuclear axis.

8 December 1979
Pakistan's president, while inaugurating an International Symposium in Biology and Genetics and an International Congress on the History and Philosophy of Science, states that "our [Pakistan's] stand is that we want to acquire nuclear energy for peaceful purpose and this is a right of which no power can deprive us."

26 November 1979
The British newspaper Sunday Times reports that Pakistan has acquired the technical knowledge to produce a hydrogen bomb and mentions that Pakistan might test its first thermonuclear device in April. The report mentions that the desert hijacking of uranium ore in Africa and Pakistan's acquisition of nuclear components in Europe have enabled it to advance its nuclear weapons program faster than the estimates made by the United States and other countries. The new report identifies two sites that could be used for testing. One of the sites is in the Sind desert and the other testing site is in South Balochistan. According to the report, Pakistan's three nuclear facilities are working continuously under heavy guard. The report quotes a military official saying that "Only God, an accident or another coup can stop it."

21 November 1979
The UN First Committee adopts a resolution on creating a nuclear weapons-free zone in South Asia. The resolution is sponsored by Pakistan. The resolution calls upon all states in South Asia and other non-nuclear weapon neighboring states in the region to make efforts to create a nuclear-weapons free zone in South Asia. The resolution also urges the nations to eschew activities that go against the resolution.

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Fall 1979

Efforts are made to mine low-grade uranium ore in the Baghalchur mining area near Dera Ghazi Khan Province, west of Multan. Tenders are being accepted for the construction of roads in the region. The ore is refined at the Atomic Energy Mineral Centre in Lahore built with French assistance. New equipment is also being installed at the Chashma barrage site on the Indus River. The installed equipment can be used to produce nuclear fuel rods.


28 October 1979

Pakistan's President Zia ul-Haq states that Pakistan is committed to pursuing nuclear research for peaceful purposes and does not preclude the possibility of conducting a nuclear test. Responding to a question whether Pakistan would set off a nuclear explosion, President Zia ul-Haq states that "... we said our program is entirely directed toward nuclear sources of energy and not toward the making of any nuclear bombs. If in the process steps have to be taken, we will take them."


27 October 1979

Pakistan plans to build a new nuclear power plant in the Punjab province. The plant's capacity will be 600,000 kilowatts and the plant will use an enriched uranium fueled light-water reactor.


18-20 October 1979

Following the conclusion of two day of talks between Pakistan and the United States, U.S. officials are less confident about persuading Pakistan to abandon its nuclear weapons program. The talks also reduce the certainty of U.S. estimates that Pakistan is at least two years from conducting a nuclear test. Pakistan's Foreign Affairs Adviser Agha Shahi informs members of the U.S. Congress that Pakistan is willing to provide a "no explosion" pledge for the duration of the current Pakistani government. Shahi indicates that Pakistani President Zia ul-Haq cannot make promises that could extend beyond the current administration and bind subsequent Pakistani administrations. He also suggests that Pakistan is willing to bring all nuclear facilities under international safeguards and inspections provided India also implements such measures. A recent U.S. intelligence estimate quotes a Pakistani official mentioning that Pakistan possesses the necessary material to build a bomb.


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16-17 October 1979
During the talks between the United States and Pakistan, little information is provided by Pakistan regarding the planning of the uranium enrichment facility.

17 October 1979
The United States and Pakistan hold a final round of talks in the afternoon and the United States indicates that no decision has been taken. Agha Shahi, Pakistan’s Foreign Affairs Adviser states that differences continue to exist between Pakistan and the United States over the nuclear issue. Both sides agree to continue high-level discussions in the future. The economic and military cut-off, imposed by President Carter in April under U.S. law, can be lifted only after President Carter certifies that Pakistan will not develop or acquire nuclear weapons or assist other nations in acquiring such weapons. Despite the assurances provided by Mr. Shahi, the United States is not willing to accept such promises. Mr. Shahi also refuses to confirm or deny the recent news report that Pakistan had halted work on the construction of its uranium enrichment plant owing to a shortage of parts from Europe. U.S. officials also refuse to confirm the report indicting a lack of sufficient information. The talks also discussed improving the security situation in Pakistan by upgrading the armed forces. Some members of U.S. Congress and Carter administration officials have recently proposed that the United States supply Pakistan with advanced conventional arms in return for Pakistan’s commitment to abandon its nuclear program. It is not sure if the United States made such a proposal during the talks.

16 October 1979
The United States and Pakistan begin two days of talks over Pakistan’s efforts to produce weapons-grade highly enriched uranium. The talks are held between U.S. Secretary of State Cyrus R. Vance and Pakistan’s Foreign Affairs Adviser Agha Shahi and several other high-level officials.

12 October 1979
Pakistan is reported to have halted the construction of the uranium enrichment plant at Kahuta. The shortage in the supply of parts from Europe is believed to have resulted in the halt.

23 September 1979
In an interview, Pakistan’s president Zia ul-Haq rejects the claim that Pakistan is making a nuclear bomb and requests U.S. President Jimmy Carter to reconsider the decision to cut off military and economic aid to Pakistan. President Zia ul-Haq acknowledges that Pakistan is building a facility for enriching uranium but indicates that it will only be used to produce energy. The Pakistani president reiterates that no Pakistani government can compromise

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on the nuclear issue under U.S. pressure and denies reports that Pakistan is collaborating with Libya to develop nuclear weapons for the Palestine Liberation Organization (PLO). The Pakistani President expresses confidence that France will provide the nuclear fuel-reprocessing plant and indicates his willingness to implement all safeguards including allowing the posting of French officials at the facilities.

20 September 1979
Addressing a group of prominent citizens at the Governor House in Karachi, Pakistan’s President Zia ul-Haq states that Pakistan must acquire nuclear energy to meet its increasing energy requirements. President Zia ul-Haq underscores the importance of nuclear energy in Pakistan’s development. The president also criticizes reports about the 'Islamic Bomb' and says that such stories are falsely spread by 'Zionist' circles.

15 September 1979
According to official figures, Pakistan is spending $40 million for its nuclear energy program.

5 September 1979
The Chairman of the Pakistan Atomic Energy Commission (PAEC), Munir Ahmed Khan, states that foreign powers cannot dissuade Pakistan to abandon its nuclear development program since Pakistan’s economic progress is dependent on Pakistan’s acquisition of nuclear technology. The PAEC Chairman states that Pakistan’s energy requirement at the end of the century would be 27,000 MW of electricity out of which 16,000 MW can be generated through atomic energy. According to Munir Ahmed Khan, Pakistan needs to set up its own fuel reprocessing to maximize its energy utilization. According to the PAEC chairman, the reprocessing plant would enable Pakistan to re-use 79% of the spent fuel and produce plutonium that could be used in the future breeder reactors.

4 September 1979
An official Indian spokesperson states that the Indian government is examining the letter sent by the Pakistani President.
—"South Asia; Pakistan-India Talks in Havana: Nuclear Issues," BBC Summary of World Broadcasts, 10 September

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
3 September 1979
Pakistan's President Zia ul-Haq meets with India's External Affairs Minister S.N. Mishra and informs him that he had made a unilateral statement renouncing nuclear weapons during his radio address to the nation. The Pakistani President made a radio broadcast on 30 August before leaving to attend the NAM summit in Havana. The Pakistani president informs India's External Affairs minister that his unilateral statement was based on a suggestion by India's Prime Minister Morarji Desai who himself had made such a statement renouncing nuclear weapons. The Pakistani President also informs that Pakistan does not possess the capacity to produce a nuclear bomb and also expresses that Pakistan is not interested in making nuclear weapons.

3-7 September 1979
Agha Shahi, Pakistan's Foreign Affairs adviser provides the first official pronouncement that Pakistan is developing a uranium enrichment capability.

1 September 1979
Pakistan's Foreign Affairs Adviser Agha Shahi meets India's External Affairs Minister S.N. Mishra. During the meeting, Shahi says that Pakistan does not wish to produce a nuclear bomb and informs Mishra that Pakistan is proceeding with a uranium enrichment plant based on a light-water reactor purely for economic reasons and for conducting research and development activities.

August 1975-August 1979
According to a U.S. estimate, Pakistan spends $100 million for its uranium enrichment program annually. However, the total cost is likely to be several hundred million dollars. A major concern is that Pakistan might export highly enriched uranium to reclaim some of the costs.

August 1979
According to U.S. officials, photographs of the heavily guarded and elaborate Kahuta plant being constructed indicate that the objective of the facility is to produce enriched uranium. According to U.S. officials, Pakistan's...
civilian nuclear program does not need such large quantities of enriched uranium. U.S. officials estimate that Pakistan will be able to produce weapons grade uranium after three to five years of construction and operation of the enrichment plant. Pakistan, however, needs natural uranium to fuel the plant and officials believe that Pakistan will be able to procure sufficient quantities of natural uranium. Differing estimates are given regarding the time period needed for Pakistan to produce a bomb. Some U.S. officials estimate that Pakistan can produce a bomb in as quickly as two years whereas others predict that problems in construction and operation might delay the production of enriched uranium or even stop the enrichment effort. Pakistan also continues to work on the plutonium route. Pakistan is continuing work on the partially built French reprocessing plant even after France withdrew assistance for construction of the plant. According to informed estimates, Pakistan is expected to produce weapons grade plutonium in six to 10 years. Pakistan also possesses a pilot “hot cell” reprocessing capability at the Pakistan Institute of Nuclear Science and Technology (PINSTECH). The pilot reprocessing facility can quickly produce small amount of bomb material if the right elements are present.


August 1979

Pakistani officials reveal that Libya's Colonel Muammar Qaddafi offered to finance Pakistan's acquisition of the nuclear fuel reprocessing plant in return for the plutonium produced by the plant. According to Pakistani officials, the offer was rejected by Pakistan and Qaddafi cancelled a plan to finance a French-Pakistani contract to build a submarine. U.S. officials indicate that they cannot ascertain the existence of a deal between Tripoli and Islamabad over Pakistan's nuclear plans but they also do not rule out the presence of such an arrangement.


August 1979

U.S. intelligence agencies estimate that Pakistan can explode a nuclear bomb by the end of this year. Previous intelligence estimates predicted that Pakistan would need four years to develop nuclear weapons.


August 1979

A truck carrying uranium from a mining plant in Niger is found overturned and empty. The uranium is believed to have been diverted to Libya, which is believed to support Pakistan's nuclear program.


30 August 1979

In his radio address to the nation, Pakistan's President General Zia ul-Haq declares that Pakistan must acquire nuclear energy to meet its power requirements. Haq declares that Pakistan's nuclear program is only intended for

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peaceful purposes. The Pakistani president asks France to honor its commitment to supply a nuclear fuel reprocessing plant and states that Pakistan will acquire a reprocessing plant under any circumstances. Haq deplores the propaganda spread in Western media against Pakistan’s nuclear program and states that Pakistan will not give up its claim to acquire nuclear technology. The Pakistani president further reaffirms Pakistan’s commitment to create nuclear weapons-free zones in the Indian Ocean and the South Asian regions.


29 August 1979
Pakistan’s President General Zia ul-Haq states that Pakistan will acquire nuclear energy for peaceful purposes despite the challenges in acquiring such a capacity.

27 August 1979
South Asian sources suggest that Pakistan might detonate a nuclear bomb at an underground testing site before the country’s general elections are held in November. Pakistani President General Zia ul-Haq hopes to win popular support by exploding a nuclear bomb. However, certain U.S. State Department officials express doubts over Pakistan’s ability to conduct a nuclear test for at least several years.

Late August 1979
Pakistani President Zia ul-Haq writes a letter to India’s Prime Minister reaffirming that Pakistan’s nuclear program is only intended for peaceful purposes.

17 August 1979
According to U.S. officials, unconfirmed reports suggest that Pakistan is preparing an underground site for testing a nuclear device.

15 August 1979
U.S. State Department spokesperson Thomas Reston states that the United States policy towards Pakistan is "under constant review" and denies reports of covert operations to sabotage nuclear facilities in Pakistan.

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14 August 1979

A senior State Department official states that a covert operation to sabotage Pakistan's uranium enrichment plant is "not an option that we seriously or systematically considered." The official states that the United States wants to pursue good relations with Pakistan despite its objections to Pakistan's plans to develop nuclear weapons. According to a U.S. sources, the United States is also discouraging India from pursuing any paramilitary action to disable Pakistan's uranium enrichment facility being constructed. Pakistani officials are not content with the assurances provided by the State department and insist that the reassurances "did not rule out the option of action by paramilitary forces ... which will amount to outright aggression."


14 August 1979

Pakistan's Foreign Ministry summons the U.S. Ambassador to Pakistan Arthur Hummel and expresses serious concern over the efforts by the U.S. government to threaten and intimidate Pakistan's government over its peaceful nuclear program. The Foreign Ministry informs the Ambassador that such actions by the United States will harm peace and stability in the region. The Foreign Ministry also informs the ambassador that Pakistan might lodge a protest in an "international forum" if the United States persists in its efforts to threaten Pakistan's nuclear program. The Foreign Office also terms the recent statement by U.S. Senator Charles Percy regarding Pakistan's nuclear program as an "incitement" for India.


14 August 1979

Pakistan's politicians and government officials react strongly against a news report suggesting that the United States is considering a commando raid against Pakistan's nuclear facilities. Pakistan's Defense Minister Ali Ahmed Talpur says that Pakistan will not compromise on its nuclear program. A news report in the Karachi newspaper, The Star, says that anti-aircraft guns are being positioned around nuclear installations to deter any attack against them. According to the report, a task force has been formed to prevent any hostile acts against Pakistan's nuclear facilities.


14 August 1979

The U.S. State Department refutes reports that the United States is planning a sabotage action to disrupt Pakistan's efforts to acquire nuclear weapons. The report citing such a plan appeared in the New York Times.

—"Other Reports; Pakistan Reaction to Alleged US Threat to Nuclear Plants," BBC Summary of World Broadcasts,

Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
13 August 1979
U.S. State Department spokesperson, Thomas Reston, says that covert action is not under consideration as an option to prevent Pakistan from acquiring nuclear weapons capability.

12 August 1979
The Carter administration is considering several initiatives to prevent Pakistan from acquiring nuclear weapons. The efforts range from imposing stringent economic sanctions to supplying advanced conventional arms. One of the options being considered includes undertaking covert operations using paramilitary forces to sabotage Pakistan's uranium enrichment plant. The other two options are imposing harsh economic sanctions or providing Pakistan with advanced conventional weapons like the F-16 fighter planes.

10 August 1979
A U.S. Senator, Charles Percy (R-Ill), states in Calcutta that Pakistan intends to produce nuclear weapons that can hit New Delhi, Bombay, and Calcutta.

1-4 August 1979
Senior Democratic and Republican members of the House Foreign Affairs Committee write a letter to the Secretary of State Cyrus R. Vance outlining a proposal to provide new "security support" to Pakistan in order to halt Pakistan's efforts to build a nuclear bomb. The proposal included providing Pakistan with conventional arms to meet its security needs. The letter urges the Carter administration to "understand and more effectively treat Pakistan's underlying security concerns." Rep. Clement J. Zablocki (D-Wis), chairman of the House Foreign Affairs Committee and a signer of the letter, suggests that arms sales on credit might be undertaken by presidential waiver of the sanctions or some other legal procedure. Rep. Paul Findley (R-Ill), another signer of the letter, indicates that Congress might have to amend the anti-proliferation act that led to the aid cutoff. The United States


28 July 1979
Pakistan’s President Zia ul-Haq declares that he would not compromise on Pakistan’s sovereignty regarding its peaceful nuclear program. Addressing the nation, the President says that Pakistan requires nuclear energy to meet its growing energy requirements. The President states that economic aid to Pakistan has been cut off despite the peaceful nature of the nuclear program. General Haq claims that Pakistanis have supported the government in absorbing the impact of the aid cut-off and declares that “we shall eat crumbs but will not allow our national interest to be compromised in any manner whatsoever.”


6 July 1979
The Pakistani government charges the British journalist Chris Sherwell with committing acts that are prejudicial to Pakistan’s security. Sherwell is accused of “snooping and trespassing” security areas with the objective of obtaining information on Pakistan’s nuclear research program. The government denies any responsibility over the assault on Mr. Sherwell.


5 July 1979
A Pakistani official spokesperson, referring to the recent incident involving the British journalist Chris Sherwell, claims that Sherwell took advantage of the government’s cooperation and liberal attitude and acted in a manner that was harmful to Pakistan's security interests. The spokesperson alleges that Sherwell illegally attempted to obtain information on Pakistan's nuclear research program even though sufficient information was provided by the Foreign Office, the Atomic Energy Commission, and the Information Ministry. According to the spokesperson, Sherwell entered a restricted area and tried to contact officials who were not qualified to provide interviews. Referring to the incident that resulted in the beating up of the journalist, the spokesperson says that Pakistan’s law prohibited the scientist from granting interviews and Sherwell should not have attempted to visit the official. The spokesperson says that the government is preparing a report about the incident and based on the final results, the government will decide if the journalist will be allowed to stay in the country.


4 July 1979
Sources indicate that Pakistan can possess the ability to explode a nuclear device before the beginning of autumn.
The location of the testing site is highly classified and believed to be located near Multan in Punjab province. Another possible location for the site is the Chitral region in the northwestern border region. According to sources, two Pakistani scientists employed in Holland have returned to Pakistan and are believed to be working on the nuclear weapons program. The Pakistani government has allocated generous funds for the completion of the project. Sources believe that Pakistan possesses sufficient plutonium to conduct one nuclear explosion.


Late June-August 1979

The interagency group tasked with framing policy options for dealing with Pakistan’s attempts to build nuclear weapons believes that it is difficult to stop Pakistan’s nuclear weapons program. The group cites the following reasons for its observations. First, according to U.S. technical experts, Pakistan has acquired most of the technology needed for the uranium enrichment plant. According to these officials, technology denial by Western industrial countries will not stop Pakistan’s construction of the enrichment facility. Second, Pakistan’s military government strongly supports the development of nuclear weapons. Third, Pakistan’s development of nuclear weapons is inter-linked with other complex global issues.


June-July 1979

Sources indicate that Pakistan is attempting to explode a nuclear bomb in October. Pakistan's security forces are reported to be working around Hoshab, a small desert town located 60 miles inland from the Makran coast in southwestern Pakistan. The region is inhospitable and a few nomads living there are reported to have been relocated to different areas. Reliable reports suggest the presence of military construction activity in the area. Experts indicate that Pakistan might test a nuclear bomb in 1979 only if it receives sufficient weapons-grade material from another source, since its reprocessing plant and its uranium enrichment plant are still far from operating at full capacity. Experts suspect that source to be China.


June 1979

U.S. President Jimmy Carter and the Soviet President Leonid Brezhnev inconclusively discuss Pakistan's nuclear weapons program during their summit meeting. U.S. President Carter also corresponds secretly with leaders in France, West Germany, Japan, Britain, and other nations. The United States is also engaging China in its efforts to deal with Pakistan.


Related content is available on the website for the Nuclear Threat Initiative, www.nti.org.
30 June 1979
Pakistan’s advisor on Foreign Affairs Agha Shahi rejects reports in the Western press that Pakistan’s nuclear research program is intended for building a nuclear bomb. Mr. Shahi denies that Pakistan is receiving financial assistance from Libya or any other Arab country for building an Islamic bomb. Mr. Shahi also denies allegations that Pakistan is manufacturing a hydrogen bomb and says that the hydrogen bomb is beyond the reach of a developing country like Pakistan. Mr. Shahi condemns the demands to open Pakistan’s nuclear facilities for inspections and questions why such demands are not placed on Israel and South Africa.

30 June 1979
Chris Sherwell, a British journalist and a correspondent for the Financial Times and the British Broadcasting Corporation (BBC) is beaten up outside the house of Dr Abdul Qadeer Khan in Islamabad. The journalist is investigating allegations regarding Pakistan’s nuclear weapons program. The Pakistani government denies any responsibility over the event.

29 June 1979
According to the Reuters news agency, Dutch authorities are investigating reports that Pakistan obtained information on uranium enrichment from that country. Also sources in UN circles believe that Pakistan is making attempts to explode a nuclear device in the near future.

28 June 1979
Pakistan denies report that it is planning to conduct a nuclear test in October. Pakistan indicates that it will lodge a formal protest with the United Arab Emirates (UAE) government over a report in the magazine Eight Days that reported that Pakistan is planning to conduct a nuclear test in October. The magazine is owned by Sayid Muhammad Mahdi at-Tajir, the UAE’s Ambassador to Britain. A Pakistani Foreign Ministry official terms the report as "highly damaging and irresponsible" and claims that Pakistan did not procure any restricted equipment. The Pakistani official offers to open the Kahuta facility to international inspections and says that Pakistan will honor international safeguards. Kahuta is the location for the uranium enrichment facility being built by Pakistan.
28 June 1979
Pakistan allocates $48,000,000 for its nuclear program for the year 1979-80 in its annual budget. The funds will be utilized for various activities like buying equipment for laboratories and a nuclear research centre, uranium exploration, building a fuel reprocessing plant, and other administrative activities.

Late June 1979
The French Ambassador to Pakistan and his senior colleague are beaten outside the Kahuta nuclear research facility, 25 miles south of Islamabad. The French Ambassador and his colleague were apparently on a sightseeing tour.

Third Week of June 1979
The U.S. government forms an interagency taskforce comprising of officials from the State Department, Energy Department, Intelligence agencies, and military officials to frame policy options to deal with Pakistan's attempts to develop nuclear weapons. The interagency group, called the "Gerry Smith South Asian Study Group," is headed by Gerald C. Smith, the U.S. Ambassador-at-large for nonproliferation. The study group is expected to produce a report in September.

16 June 1979
A spokesperson for Pakistan's embassy in Washington DC states that Pakistan did not request or receive any financial assistance from Libya for its peaceful nuclear program. The spokesperson indicates that Pakistan understands the concern over the spread of nuclear weapons, but cautions that discriminatory or selective policies will not decrease the threat. The spokesperson adds that Pakistan is willing to support any regional or collective efforts to tackle the threat of nuclear proliferation.

31 May 1979
Georges Besse writes to SGN President F. X. Poincet inquiring whether SGN is continuing nuclear-related transfers to Pakistan. In his reply, Poincet denies that SGN is selling any contraband materials to Pakistan. He admits however that SGN is continuing with limited involvement in relation to "preparation of orders" for some Pakistanis

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who are still "resident" at SGN. However Poincet hints that Pakistan may have gone behind their backs to procure equipment specified in documents supplied by SGN earlier. The nuclear industry's trade journal *Nucleonics Week* alleges that Pakitsan has access to 95 percent of the design plans for the plutonium reprocessing facility and these will likely enable Pakistan to finish the plant despite the termination of French assistance.


27 May 1979
The Carter administration proposes the creation of a nuclear weapons-free zone in South Asia in order to prevent an arms race between India and Pakistan. The proposal requires India and Pakistan to abandon the pursuit of nuclear weapons and allow international inspection of nuclear facilities. According to U.S. officials, the proposal will be backed with security guarantees by the United States, USSR, and China. The guarantor countries are also expected not to threaten either India or Pakistan with nuclear weapons.


21 May 1979
Pakistan and Maldives issue a Joint Statement reaffirming their support for the creation of a nuclear weapons-free zone in South Asia.


3 May 1979
The Swiss government announces that it is investigating the sale of equipment to Pakistan that could be used to make enriched uranium for nuclear weapons. A Swiss government spokesperson indicates that the investigating authorities intend to find out the nature of deliveries made to Pakistan by the Swiss companies. The investigation will also verify if the exported equipment needed authorization for delivery. The spokesperson indicates that the United States prompted the Swiss government to investigate the matter.


2 May 1979
Pakistan's Ambassador to the United Nations Niaz A. Naik rejects an American press report stating that Pakistan is planning to build a nuclear bomb. Naik states that non-peaceful uses of nuclear energy are not helpful for Pakistan's objectives. He also denies any funding of Pakistan's nuclear program by either Libya or other Arab countries. Naik blames the United States for not acting when 200 kg of material that can be used to make about 10 nuclear weapons had disappeared from the United States and was found in other countries. On the other hand, he points out that the United States is accusing Pakistan of making a nuclear bomb even if Pakistan is buying a simple steel pipe for its textile industry.

—"Other Reports: Pakistan Denies US Report on Nuclear Bomb Manufacture," BBC Summary of World Broadcasts,

2 May 1979
U.S. officials confirm that Pakistan has started to build a plutonium plant that will provide an alternative to using weapons grade uranium for its nuclear weapons.

1 May 1979
The U.S. State Department states that several European countries have pledged support in preventing Pakistan from further buying any equipment for its uranium enrichment program. The Swiss government also announces an investigation to probe the sales made by several Swiss companies to Pakistan. U.S. officials indicate that they are soliciting cooperation from Britain, France, West Germany, and Japan.

Spring 1979
The U.S. government queries its Swiss counterpart on the sales of high-vacuum valves and the gasification and solidification unit that the Swiss companies VAT and CORA Engineering have sold to Pakistan. The United States also complains that another Swiss company Sulzer Brothers is likely helping Pakistan with plutonium reprocessing technology. On investigating the sales, the Swiss government concludes that the companies have acted legally as the aforementioned items are not on Switzerland’s export control list.

Spring 1979
Pakistan shuts down the reactor at the Karachi Nuclear Power Plant (KANUPP).

1 May 1979
In a testimony to the Senate Governmental Affairs Subcommittee on Nuclear Proliferation, U.S. Assistant Secretary of State Thomas R. Pickering testifies that the United States has acted too late to keep Pakistan from acquiring the capacity to make nuclear weapons. Pickering states that Pakistan succeeded in obtaining sufficient special equipment for producing weapons grade uranium before its efforts were discovered. He further elaborates that Pakistan achieved its equipment requirements by conducting "end runs" around international export controls.
Pickering adds, "We believe we have the capacity to slow down that kind of activity. But no one is willing to say ... we have the ability to stop it." Pakistan will be able to produce sufficient weapons grade uranium to make nuclear weapons in two to five years. Pickering also informs the Senate Subcommittee that diplomatic efforts to persuade

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Pakistan to abandon its military nuclear program have not produced positive results. India's nuclear explosion in 1974 as well as the general instability in the region contributed to Pakistan's decision to acquire nuclear weapons. Pickering denies that the United States is offering fighter planes and assistance to Pakistan's nuclear power program. He explains that the United States is "... concerned that Pakistan's program is not peaceful but related to an effort to develop a nuclear explosive capacity." However, Pickering refuses to discuss Libya's role in financing the program during the open session. Both he and U.S. Senator John Glenn (D-Ohio) agree that Pakistan worked around the export controls by procuring bits and pieces of equipment around the world by misstating that the components will be used for peaceful purposes like textile industry.


17 April 1979

The United States plans to sell up to 50 Northrop F-5E Tiger fighter planes to Pakistan and provide assistance on its nuclear power, provided Pakistan agrees to restrict the production of nuclear weapons. The U.S. government also plans to provide diplomatic support "in principle" for Pakistan's initiative to create a nuclear-free zone in South Asia. Several U.S. officials, however, insist that the United States lost its leverage on Pakistan's nuclear program when it imposed a cutoff in military and economic aid on Pakistan. U.S. administration officials also indicate that efforts to persuade Pakistan to abandon its uranium enrichment plant have met with limited or no success. Pakistan insists that any application of safeguards on Pakistani nuclear facilities must be reciprocated by India and India's Prime Minister Morarji Desai refuses to consider any inspection mechanism for India's nuclear facilities. U.S. officials estimate that negotiations with India over the issue of safeguards might last at least until 1980. However, U.S. officials believe that the Pakistani issue needs to be handled in an urgent manner and cannot wait until Indo-U.S. negotiations are completed.


9 April 1979

Pakistan denies attempts to produce nuclear weapons and links the imposition of aid cutoff to the influence of "Zionist circles" that fear that Pakistan's bomb will be used by the Muslim world to intimidate Israel. Certain reports suggest the involvement of Libya and Saudi Arabia in Pakistan's nuclear weapons program. According to these reports, Libya and Saudi Arabia are financing Pakistan's program in return for access to the nuclear devices.


8 April 1979

A spokesperson of Pakistan's Ministry of Foreign Affairs issues a statement denying that Pakistan intends to develop nuclear weapons under the guise of a peaceful nuclear program. The spokesperson terms the aid cutoff as an "act of discrimination against Pakistan." The spokesperson says, "Pakistan which has subjected its nuclear facilities to international inspection has been deprived of its economic aid. Such a policy cannot be termed fair." The spokesperson adds that Pakistan is willing to accept all safeguards arrangements for its peaceful nuclear research if such safeguards are applied in a non-discriminatory manner. The spokesperson explains that Pakistan is

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willing to have safeguards imposed on its facilities if the United States insists on similar safeguards on the nuclear programs of other countries that have acquired nuclear weapons capability or on the threshold of acquiring nuclear weapons capability. The spokesperson states that Pakistan could not unilaterally allow inspections on its nuclear facilities unless countries with more advanced nuclear programs allow such inspections. The spokesperson also denies that Pakistan is receiving assistance from Libya and other countries for its nuclear program. The spokesperson also indicates that Pakistan had proposed a reciprocal inspection process between India and Pakistan of their nuclear facilities. The proposal, according to the spokesperson, was rejected by India.


6 April 1979
The United States informs Pakistan of its decision to cut off economic and military aid as a result of Pakistan's efforts to secretly build a uranium enrichment facility that can produce weapons grade uranium. A U.S. State Department spokesperson also says that the U.S. Ambassador to Pakistan has been recalled for "consultations." Pakistani embassy minister Hayat Mehdi is informed that the United States is "winding down in an orderly manner our aid" as required by an amendment to the Nuclear Nonproliferation Act. Pakistan's Washington embassy spokesperson Khalid Ali calls the aid cutoff as "unfair and discriminatory" and insists that Pakistan is not pursuing atomic weapons. Ali points out that no aid cutoff was imposed on India despite its nuclear test and the absence of international inspections in its facilities. The aid cutoff is imposed after the Central Intelligence Agency (CIA) confirms reports from European intelligence services that Pakistan is acquiring the ability to make nuclear weapons. Diplomatic efforts failed to persuade Pakistan to place the enrichment facility under international inspection and safeguards. According to U.S. officials, the execution of former Prime Minister Zulfikar Ali Bhutto did not have any bearing on the decision to cancel the aid. The cancelled amount involves $40 million that was approved for fiscal '79 and the entire $45 million that was approved for fiscal '80. An amount of $40 million for food aid is not cancelled. A small military training program grant of $600,000 is also cancelled under the cutoff. However, Pakistan is permitted to purchase equipment from the United States. According to U.S. officials, Pakistan is in the beginning stages of the construction of a uranium enrichment facility based on the URENCO enrichment process. According to U.S. officials, Pakistan will require many years to produce a nuclear bomb. Pakistan, however, is believed to have acquired most of the equipment needed to operate the plant. The United States also believes that Pakistan's ability to procure the equipment from European companies reinforces the inadequacy of existing export control mechanisms regarding sensitive technology. U.S. State department officials insist that the construction of the facility has been continuing for quite some time and reveal that high-level talks have been held between the United States and Pakistan on the issue.


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March-Early April 1979
According to U.S. officials, Pakistan is informed in an informal way regarding an impending cutoff in economic and military aid.

March 1979
The United States approaches Pakistan to allow international inspections of its nuclear research facilities. Pakistan rejects the request calling it discriminatory since other nations possessing nuclear research programs have not been asked to open their facilities for inspections.

23 March 1979
The U.S. government tightens its export control laws to include inverters and other components that could be used to build a uranium enrichment plant.

1-2 March 1979
U.S. Deputy Secretary of State Warren Christopher visits Pakistan. Among the list of high priority items for discussion is Pakistan's construction of a uranium enrichment facility. During the talks, Christopher fails to persuade the Pakistani leader General Zia ul-Haq to abandon the construction of the uranium enrichment plant.

February 1979
The French government retains an ambiguous attitude toward French companies that have contracts for the delivery of mechanical and nuclear-sensitive parts for the plutonium reprocessing plant that was to be built with French assistance in Pakistan. At the urging of Foreign Minister Jean Francois-Poncet, Industry Minister Andre Giraud issues a formal notice to French companies not to supply any further equipment for the Chashma nuclear reprocessing plant.

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**Mid-February 1979**
India's Prime Minister Morarji Desai writes a letter to Pakistani President General Zia ul-Haq expressing concern over Pakistan's nuclear weapons program. Indian scientists are reported to have learned from European commercial sources about Pakistan's recent acquisition of large quantities of 'maraging steel,' an extremely hard variety of steel used to make critical components of a gas centrifuge uranium enrichment system. President Zia ul-Haq, in his reply, denies any nuclear weapons program and proposes a joint Indo-Pakistani declaration renouncing nuclear weapons and placing all nuclear facilities in both countries under international inspections.

**January 1979**
The United States initiates a diplomatic dialog with the Pakistani government after the U.S. government acquires concrete evidence of Pakistan's uranium enrichment program.

**21 January 1979**
At a banquet in honor of visiting Chinese Vice-Premier Li Xiannian, Pakistan's ruler General Zia ul-Haq expresses hope for the creation of a nuclear-free zone in South Asia. In his speech, the Chinese vice-premier expresses support for such a zone.

**Early 1979**
U.S. officials consider the option of sabotaging the uranium enrichment facility being constructed in Pakistan. The option is rejected owing to its dangerous nature and political infeasibility.

**1978**
Libya's Colonel Qadhafi allegedly sends planes carrying millions of dollars in untraceable Libyan cash to finance Pakistan's nuclear weapons program.

**1978**
Pakistan's jailed former Prime Minister Zulfikar Ali Bhutto writes, "My single most important achievement, which, I
1978
Middle Eastern publications report remarks by Libya's Prime Minister offering financial support for Pakistan's nuclear energy projects.

Late December 1978
Despite the decision by France to terminate the contract for the supply of the reprocessing plant, French technicians continue to work at the plant's construction site in Chashma.

8 December 1978
Top U.S. officials in the Carter administration consider Pakistan to be the biggest proliferation threat. U.S. officials point to the document written by deposed Pakistani Prime Minister Zulfikar Ali Bhutto as evidence of Pakistan's intentions to develop a nuclear weapons program. U.S. officials believe that despite France's withdrawal from the nuclear fuel-reprocessing contract, Pakistan possesses the complete blueprints for the reprocessing facility since France provided Pakistan with those blueprints in 1976. A top US official says "The French have nipped in the bud the short route to proliferation, but the Pakistanis will probably explore a variety of other avenues."

3 November 1978
Pakistan and France agree to resume negotiations over the nuclear fuel reprocessing plant under construction in Pakistan. An envoy of General Zia ul-Haq meets the French President Valery d'Estaing and hands over a letter from General Haq regarding the resumption of talks.

November 1978
The United States offers to supply Pakistan with F5 fighter planes. The offer is formally made by the U.S. Undersecretary of State Lucy W. Benson.

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Fall 1978
A California based firm exports about half-dozen inverters to Pakistan.

24 October 1978
The United States announces the resumption of economic assistance to Pakistan. In 1977, the United States imposed an aid embargo against Pakistan over its efforts to acquire a nuclear fuel reprocessing facility from France. The resumption of aid will provide Pakistan with $122.4 million during the fiscal year 1979. The amount allotted for food aid is $53 million.

October 1978
The British government imposes tighter export control laws after a Labor Party member of parliament Frank Allaun reveals that Pakistan had placed orders with a British company for inverters that could be used in a uranium fuel enrichment plant. The British company, Emerson Electric Industrial Controls, is working on 100 more inverters to be supplied to Pakistan when the government imposes further restrictions to stop the export of such components.

October 1978
Pakistan's imprisoned former Prime Minister Zulfikar Ali Bhutto claims that Pakistan was near to attaining "full nuclear capability" prior to his overthrow in 1977. Bhutto claims that "All we [Pakistanis] needed was the nuclear reprocessing plant." In a 319-page document smuggled out of his prison cell, Mr. Bhutto takes credit for developing Pakistan's nuclear energy program and indicates that Pakistan only needs a reprocessing facility to attain nuclear capability.

19 September 1978
Pakistan Atomic Energy Commission sources indicate that Pakistan has attained the ability to produce radioisotopes that meet more than one-third of Pakistan's requirements. Radioisotopes are used in medicine, agriculture, and industry and scientific research.

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24 August 1978
French spokespersons confirm President Giscard d’Estaing’s offer to reopen talks with Pakistan on supplying a modified nuclear reprocessing plant.

24 August 1978
The U.S. State Department announces that the United States might sign a new aid agreement with Pakistan following France’s decision to cancel the contract to supply a nuclear fuel reprocessing plant to Islamabad. The United States had earlier cut-off food aid in the fall of 1977 as a measure to pressurize Pakistan to cancel the deal. The U.S. State Department spokesperson Ken Brown states ‘We do indeed hope that we can sign a new aid program with Pakistan in the near future.’ The Carter administration has already asked the U.S. Congress to approve $69 million in development aid for the 1979 fiscal year. The development aid request is distinguished from the $53.4 million request for food aid.

23 August 1978
Pakistan’s ruler General Zia ul-Haq announces France’s decision to back out of the contract to supply a nuclear fuel reprocessing plant. Releasing the details of the letter at a press conference in Rawalpindi, General Zia ul-Haq says "although it [letter] was full of sentiment, it was a lemon." Pakistan’s ruler General Zia ul-Haq states that Pakistan is not interested in nuclear proliferation but says that Pakistan cannot lag behind other nations in technology. General Zia ul-Haq suggests that Pakistan would acquire such technology from other means if conventional methods are not available. General ul-Haq also denies that China has agreed to provide Pakistan with the reprocessing facility.

23 August 1978
The French President Valery d’Estaing informs Pakistan’s ruler General Zia ul-Haq of France’s decision to cancel the contract for the supply of a nuclear fuel reprocessing facility. In a letter written to the Pakistani ruler, the French president indicates that the cancellation is based on fears that Pakistan might use the plutonium from the reprocessing facility to build nuclear weapons. In the letter, the French president offers to provide a nuclear co-processing plant that produces a mix of uranium and plutonium that cannot be used to make nuclear weapons. President d’Estaing’s decision represents a significant shift from the policy of former Prime Minister Jacques Chirac who was a strong advocate for proceeding with the nuclear deal. Following Chirac’s departure, French officials indicate that France has become more concerned with stopping the spread of nuclear technology and President d’Estaing has been attempting to terminate the Pakistani contract for quite sometime. The United States and Canada also pressurized Pakistan to force it to cancel the reprocessing plant deal. As a result of Canada’s decision
to withhold the supply of uranium, Pakistan’s KANUPP reactor has been operating at less than 70% of its capacity.

**9 August 1978**

Pakistan's ruler General Zia ul-Haq receives a letter from the French president requesting modification in the nuclear fuel reprocessing plant. The modification would produce a mix of uranium and plutonium that cannot be used to make nuclear weapons. Pakistan objects to the proposed modification indicating that any such attempt will involve radical changes to the facility's design. The Pakistanis also indicate that a significant portion of the partially constructed plant would have to be brought down to incorporate the proposed modification. The Pakistanis further point out that the technique is relatively new and indicate that experiments in the United States reveal that the technique cannot be used on a commercial basis.


**Summer 1978**

The Swiss firm CORA Engineering completes fabrication of a uranium gasification and solidification unit for the Kahuta gas centrifuge uranium enrichment facility. The entire plant is airlifted to Pakistan using chartered C-130 Hercules transport aircraft. CORA Engineering also provides engineers and other technical personnel to help with the post-sales servicing. This is the first of the two gasification and solidification units at Kahuta.


**July-September 1978**

The British firm, Emerson Electric Industrial Controls, exports 31 complete inverter systems to Pakistan. The inverter systems can be used to regulate a large number of centrifuge machines in a uranium enrichment plant. The inverters are routed through Weargate Ltd. operated by Abdus Salam and Peter Griffin.


**July 1978**

Frank Allaun, a British Labor Party MP, raises a question in the House of Commons indicating that certain components being exported by a British company would enable Pakistan to build nuclear weapons. Allaun claims that the high-frequency electric equipment exactly matches the components used by British Nuclear Fuels Ltd. The British company named is Emerson Electric Industrial Controls, a British subsidiary of the U.S. firm Emerson

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Electric. Allaun says he received information about the order from "a friend who had a friend." The British government reports back that the items specified in the Allaun's question are not included in the British export control list. The order is placed by a firm called Weargate based in Swansea, Wales. The firm is operated by two Pakistanis.


16 June 1978
Speaking at a banquet in honor of the visiting Chinese Vice-Premier Keng Piao, Pakistan's Chief Martial Law Administrator General Zia ul-Haq lists Pakistan's efforts at the UN to create a nuclear weapons free zone in South Asia and thanks China for its support towards the issue. The Chinese Vice-Premier Keng Piao indicates that the Chinese government will support Pakistan's efforts to create a nuclear-free zone in South Asia.


22 May 1978
Pakistan and Turkey sign a Trade Protocol at the second meeting of the Turkish-Pakistani Joint Committee for Economic and Technical Cooperation. Among other issues, the Joint Committee decides to cooperate in the field of nuclear energy and medicine.


20 May 1978
The U.S. State Department withholds nuclear licenses for 12 countries including Pakistan. According to the State Department, the license is being withheld because of Pakistan's attempts to acquire nuclear fuel reprocessing capacity. The amount of plutonium withheld is less than one pound. The plutonium is intended for a research reactor in which the plutonium is irradiated with alpha particles.


6 May 1978
Malaysian Foreign Minister Ahmad Rithaudean Bin Tengku Ismail concludes his visit to Pakistan and leaves for Malaysia. During the visit, both Malaysia and Pakistan express support for each other's initiatives to create nuclear

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weapons free zones in Southeast Asia and South Asia respectively.

Late March 1978
A British embassy official passes information to the U.S. State Department that Pakistan has placed orders with a British firm for inverters. Inverters are sophisticated voltage control mechanisms that could have applications in a conventional industry or in a nuclear fuel enrichment plant. The British official also discusses U.S. plans to increase attention on the uranium enrichment route to acquire weapons grade fissile material.

14 January 1978
At a banquet for the visiting British Prime Minister Callaghan, Pakistan's Chief Martial law Administrator, General Zia ul-Haq, proposes the creation of a nuclear weapons free zone in South Asia.

11 January 1978
The U.S. State Department announces that a group of 15 nations have agreed on a 16-provision code to prevent the spread of nuclear weapons. The agreement requires the participating nations to abide by the stipulated provisions in selling nuclear technology. The 16-provision code is being submitted to the International Atomic Energy Agency (IAEA). According to U.S. State Department officials, one of the provisions bans the sale of reprocessing equipment. The provisions, however, are not retroactive and hence do not apply to the French contract to supply Pakistan with a nuclear fuel reprocessing facility.

11 January 1978
Pakistan's government demands that France deliver the nuclear fuel reprocessing plant according to the original contract "without any modifications." Pakistan's Foreign Ministry spokesperson says that "All international safeguards to prevent the misuse of plutonium as prescribed by the International Atomic Energy Agency have been written into the existing agreement."

9 January 1978
The French government announces that it is attempting to alter the contract to sell a nuclear fuel reprocessing plant to Pakistan. The original contract was signed in 1976. The French government is attempting to alter the contract by selling a fuel reprocessing facility that will not produce plutonium. Pakistan's military government is
reportedly unwilling to accept the new terms of the contract. France's announcement does not provide any information on steps to be taken if Pakistan refuses to accept the proposal.


7 January 1978
Pakistan declares that it is unwilling to accept modifications to the existing contract to build a nuclear fuel reprocessing facility.


6 January 1978
The French President Valery Giscard d'Estaing refuses to comment on the report that appeared in the French newspaper Le Monde that France is renegotiating a nuclear contract with Pakistan.


5 January 1978
The French newspaper Le Monde publishes a report stating that France is renegotiating a nuclear contract with Pakistan to decrease the danger of plutonium production.


1977-1975
1976
Pakistan attempts to purchase 10-15 tons of uranium hexafluoride gas from the West German company Rohstoff-Einfuhr; but the attempt is unsuccessful.


1976
Pakistan begins a major purchasing drive in Western Europe for its uranium enrichment project. During 1976, government agents place orders with Swiss and Dutch firms. Specific purchases include highly specialized valves for centrifuges (VAT-Switzerland), a gasification and solidification unit to feed uranium hexafluoride gas into centrifuges (CORA Engineering, Switzerland), and hardened steel tubes (Van Doorne — Netherlands). Exports of these items are not covered under the London Group’s ‘Nuclear Suppliers List’ and the Pakistani government is able to obtain them legally. Although the Swiss and Dutch governments learn that the purchases are related to Pakistan’s planned centrifuge facility, they stick with a narrow interpretation of nuclear export control regulations and do little to interfere the sales.


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23 December 1976
Canada suspends its nuclear cooperation agreement with Pakistan and indicates that it will not supply uranium for the reactor at the Karachi Nuclear Power Plant (KANUPP).

16 December 1976
The French Nuclear Export Council, chaired by President Giscard d’Estaing, states that France will not supply any fuel reprocessing plants in the future. The decision is taken to prevent the proliferation of nuclear weapons. According to the French Nuclear Export Council, the sale of the reprocessing plant to Pakistan will be completed as planned. French officials, however, indicate their willingness to cancel the deal, but refrain from doing so owing to domestic political pressure. French officials indicate that France would be happy if Pakistan decides to cancel the contract. The French President Valery Giscard d’Estaing is hopeful that Pakistan will cancel the agreement.

17 November 1976
The US Defense Department agrees to the sale of 110 A7 attack planes to Pakistan. The deal is worth $700 million and includes training for Pakistani pilots and supply of spare parts. The deal must be approved by Congress and the State Department. The State Department’s approval is contingent on Pakistan’s abandonment of its plans to acquire a nuclear-fuel reprocessing plant from France.

November 1976
Albrecht Migule, owner of the West German firm Ces Kalthof, signs a $2 million deal with a Pakistani textile firm to supply a fluoride plant.

November 1976
France is unlikely to proceed with the supply of the nuclear reprocessing plant to Pakistan. The change in position is caused by US opposition to the deal and the recent announcement by the Canadian Secretary Donald C. Jamieson that Canada will not supply Pakistan with fuel for its power reactor if France supplies Pakistan with the reprocessing plant. Pakistan’s Foreign Minister Aziz Ahmed and the French Foreign Minister Louis de Guiringauld meet in Paris to discuss the issue. France also sends an envoy to Pakistan to discuss the sale of the reprocessing plant.

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13 October 1976
France reaffirms its decision to supply Pakistan with the nuclear reprocessing plant despite its recent assertions to prevent the spread of nuclear weapons.

26 August 1976
The French cabinet indicates its intention to proceed with the sale of the nuclear reprocessing plant to Pakistan despite objections raised by the United States.

12 August 1976
French Prime Minister Jacques Chirac rejects proposals for talks between France, Pakistan, and the United States over the sale of the French fuel reprocessing plant to Pakistan. Mr. Chirac states that only France and Pakistan must be involved in the issue. US Secretary of State Henry Kissinger states that the United States is only interested in preventing the proliferation of nuclear weapons.

11 August 1976
In an interview with Radio Luxemburg, Pakistan’s Prime Minister Zulfikar Ali Bhutto says that Pakistan will proceed with the purchase of the French nuclear equipment despite objections from the United States.

US Charge d’Affaires in Paris Sam Gammon meets US Secretary of State Henry Kissinger. After the meeting, Mr. Gammon informs the French Foreign Office Secretary General Francois de Laboulaye that the United States wishes to work out a safeguards agreement for the reprocessing plant that France is planning to supply to Pakistan.

9 August 1976
Addressing a news conference in Lahore, US Secretary of State Henry Kissinger announces a compromise formula that seeks to avoid confrontation between the United States and Pakistan over Pakistan’s attempts to obtain a nuclear fuel reprocessing plant from France. According to the compromise formula, Pakistan would not be able to divert nuclear material for building nuclear weapons. Mr. Kissinger suggests that an agreement between France and Pakistan that would give France power to veto any plans by Pakistan to divert the nuclear fuel for atomic

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explosives. Mr. Kissinger also says that the United States will block the sale of 100 A-7 Corsair jet-fighter bombers until Pakistan reaches an agreement with France over the fuel reprocessing plant.


9 August 1976

The French foreign minister informs US charge d’affaires Sam Gammon of France’s displeasure over US efforts to hinder the sale of a fuel reprocessing plant to Pakistan. The French foreign minister also indicates that France will proceed with the sale of the reprocessing plant. French foreign ministry officials reveal that the sale of the reprocessing plant was approved on 18 March under an agreement reached between France, Pakistan, and the International Atomic Energy Agency (IAEA). The French government releases a statement indicating that it is in compliance with all international agreements regarding the sale, including an agreement with the IAEA to ensure that the plant is only used for peaceful activities.


8-9 August 1976

The United States offers to sell 110 Vought A-7 attack aircraft to Pakistan if it agrees to abandon its efforts to purchase a nuclear reactor from France. The first batch of the attack aircraft is expected to be delivered in 1978-1979.


17 July 1976

Dr. A.Q. Khan takes formal charge from Dr. Bashiruddin Mahmood of the Engineering Research Laboratory (ERL), the entity instituted to develop centrifuge technology for enriching uranium. ERL is instituted as an independent organization with a three member board comprising of A.G.N. Kazi, Ghulam Ishaq, and Agha Shahi.


March 1976

Pakistan signs a contract with France for the sale of a nuclear fuel-reprocessing plant.


2 March 1976

Canada’s External Affairs Minister Allan Maceachen announces the suspension of weeklong talks with Pakistan on the supply of fuel for the Canadian supplied power reactor in Karachi. The talks were initiated during the visit to

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Canada by Pakistani Prime Minister Zulfikar Ali Bhutto.

April 1976
During a private meeting with Prime Minister Bhutto, Dr. A.Q. Khan threatens to quit if he is not given formal charge of the uranium enrichment project. In response, Bhutto appoints a committee comprising of A.G.N. Kazi (Deputy Chairman, Planning Commission), Ghulam Ishaq (Defense Secretary), and Agha Shahi (Foreign Secretary) to resolve the matter. The committee rules in favor of giving Dr. A.Q. Khan formal charge of the uranium enrichment project. However, the Pakistan Atomic Energy Commission (PAEC) is allowed to continue with the plutonium fuel project independently.

19 April 1976
Dr. A.Q. Khan addresses a letter to the Chairman of the Pakistan Atomic Energy Commission (PAEC) Dr. Munir Ahmad Khan expressing his impatience with the slow pace of the centrifuge-based uranium enrichment project. A few days letter he writes a similar letter to Prime Minister Bhutto threatening to resign his position.

27 February 1976
Canadian officials state that Pakistan has promised not to divert spent fuel from the Canadian supplied power reactor in Karachi. The officials also indicate that either side can withdraw from the agreement on six months notice. Canadian officials have expressed skepticism over Pakistan’s desire to purchase a spent fuel reprocessing plant from France and suspect that Pakistan will attempt to divert spent fuel from the Canadian supplied power reactor at Karachi.

26 February 1976
Pakistan’s Prime Minister Zulfikar Ali Bhutto meets with Canadian Prime Minister Pierre Trudeau and refuses to accept Canada’s directions on the use of the nuclear fuel reprocessing plant that Pakistan is planning to buy from France. Canada insists on implementing stringent safeguards on the Karachi power reactor, but Bhutto refuses to accept Canada’s proposals. Canadian officials are concerned that the spent nuclear fuel from the Canadian built nuclear reactor in Karachi will be used to run the reprocessing plant and produce Plutonium for nuclear weapons. Bhutto contends that Pakistan is not interested in acquiring nuclear explosives. Bhutto further contends that the deal between France and Pakistan to buy a reprocessing plant has been approved by the International Atomic Energy Agency (IAEA).

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23 February 1976
In a testimony before the Senate Foreign Relations Committee, US Arms Control and Disarmament Agency Director Fred C. Ikle reveals that the United States and six major industrialized nations have agreed to develop new safeguards and place restrictions on the export of nuclear facilities. Ikle does not provide the names of the countries that have agreed to such controls; but the countries are believed to be the Soviet Union, Great Britain, France, Canada, West Germany, and Japan. He also mentions that the United States is making efforts to persuade Pakistan to abandon its efforts to purchase a nuclear fuel reprocessing plant from France. According to Ikle, Pakistan’s intentions for purchasing the reprocessing plant is to produce nuclear weapons.

1976
The Pakistani government approves a plan to build a reprocessing plant and eight nuclear power plants at the Chashma site on the Indus River in Mianwali district. According to plan projections the first nuclear power plant will be commissioned by 1982.

Late 1975
Pakistan secretly launches Project 706 (according to another source — Project 726) to produce enriched uranium using the centrifuge enrichment process. The project involves the construction of a pilot facility at Sihala, to be followed by the construction of an industrial-scale plant housing 10,000 centrifuges at the village of Kahuta. Dr. A.Q. Khan takes charge of the new Engineering Research Laboratory (ERL), which is tasked with designing the centrifuges for the proposed facilities. The Pakistan Atomic Energy Commission (PAEC) led by Dr. Munir Ahmed Khan is given overall charge of the project, while the military’s Special Works Commission is asked to help with purchases from abroad and construction of the top-secret facilities.

15 December 1975
Dr. A.Q. Khan returns to Pakistan with his wife Henny and their two daughters. He subsequently informs FDO of his intention to stay on in Pakistan and resigns his position at FDO. The resignation takes effect on 1 March 1976.

Fall 1975
Dr. A. Q. Khan uses S. A. Butt at the Pakistani embassy in Netherlands as a conduit for supplying centrifuge-related
technical literature, blueprints, plans for plant design, and lists of equipment and material suppliers to the Pakistan Atomic Energy Commission (PAEC).

Fall 1975
Dr. A. Q. Khan is tasked to translate sensitive documents concerning a German technical breakthrough in the ultracentrifuge uranium enrichment process from German into Dutch. For this purpose Khan spends 16 days at URENCO’s facility in the town of Almelo. Security arrangements at the facility are lax and a colleague later reports as having seen Khan making notes at his desk in a foreign script. Khan also uses the opportunity to repeatedly tour the Almelo plant.

October 1975
Dr. A.Q. Khan asks one of his colleagues at FDO to photograph drawings of ultracentrifuges that he had at home. The suspicious colleague declines and reports the incident. In response, the Dutch Ministry of Economic Affairs asks FDO to shift Khan to a less sensitive position where he would not have access to documents related to the ultracentrifuge project.

August 1975
Pakistan begins exploring the uranium enrichment route through the centrifuge process in its pursuit of fissile material. One early indication of this comes when the Pakistani embassy in Brussels queries a Dutch company about the possible purchase of high-frequency transformers or inverters.

July 1975
Pakistani nuclear scientist S.A. Butt is appointed to the Pakistani embassy in the Netherlands. Later Butt is shifted to Paris where he becomes the Pakistani government’s chief purchasing agent in Europe for uranium and plutonium enrichment technologies. Butt was one of the scientists who attended the January 1972 meeting that Prime Minister Zulfikar Ali Bhutto called to discuss the possibility of Pakistan developing a nuclear bomb.

9 April 1975
The Director of the US Arms Control and Disarmament Agency (ACDA), Fred C. Ikle, warns that several countries are pursuing efforts to acquire nuclear weapons. Ikle warns that such countries are acquiring the means to produce nuclear weapons under the guise of obtaining nuclear technology for peaceful purposes. Although Ikle

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 does not reveal the names of countries believed to be pursuing nuclear weapons, the New York Times claims that it has has learned from "authoritative" sources that the list includes Pakistan, Argentina, Brazil, Libya, Israel, Taiwan, and South Korea.


15 February 1975
Dr. Munir Ahmed Khan, Chairman of the Pakistan Atomic Energy Commission (PAEC) has a meeting with Prime Minister Zulfikar Ali Bhutto. Khan seeks the government’s approval for a $450 million nuclear weapons program that involves (a) the building of a centrifuge plant for the enrichment of uranium; (b) the development of a uranium mine at Baghalchor in Dera Ghazi Khan (BC-1); and (c) the inception of a nuclear weapons design program led by Dr. Riazuddin of the PAEC. Khan obtains the government’s approval and the uranium enrichment program is formally launched under the name ‘Directorate of Industrial Liaison’ in a barrack at Chaklala airport under the leadership of Dr. Bashiruddin Mahmood.


6 February 1975
US President Ford indicates to Pakistani Prime Minister Zulfikar Ali Bhutto that his administration will give ‘active consideration’ to the lifting of the 10-year arms embargo against Pakistan. In response, Prime Minister Bhutto states that he will place Pakistan’s nuclear reactors under international safeguards if the United States provides sufficient conventional arms that meet Pakistan’s requirements.


1974-1970
1974
Pakistan and Libya sign a 10-year cooperation agreement.


November 1974
After studying the various technical approaches to enriching uranium, Bashiruddin Mahmood recommends that Pakistan build a uranium enrichment facility based on centrifuge technology. Mahmood’s report envisages the completion of the facility by 1979.


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Late 1974

Dr. A. Q. Khan begins working with the Pakistani government to help develop plans for setting up an ultracentrifuge uranium enrichment plant. In the fall of 1974, Khan translates secret German documents on a technical breakthrough concerning the ultracentrifuge uranium enrichment process for the FDO.

1. It is suspected that Khan shared this classified information with the Pakistani government.


21 November 1974

The UN General Assembly approves a Pakistani proposal to create a nuclear weapons free zone in South Asia. The proposal passes by a vote of 82-2. India and Bhutan vote against the proposal.


October 1974

The Chairman of the Pakistan Atomic Energy Commission (PAEC) Dr. Munir Ahmad Khan directs Bashiruddin Mahmood to prepare a feasibility report on the proposed uranium enrichment program.


14 October 1974

Pakistan's Prime Minister Zulfikar Ali Bhutto says that restarting U.S. arms shipments will decrease Pakistan's propensity to develop nuclear weapons. Bhutto further states that Pakistan does not want to spend its limited resources on developing nuclear weapons.


18 September 1974

In an address at an International Atomic Energy Agency (IAEA) conference in Vienna, the head of Pakistan Atomic Energy Commission (PAEC), Dr Munir Ahmad Khan says that Pakistan will ask the United Nations General Assembly (UNGA) to declare the South Asian subcontinent to be a nuclear-weapons free zone.


17 September 1974

Abdul Qadeer Khan writes a letter to Prime Minister Zulfikar Ali Bhutto through the Pakistani ambassador in Belgium explaining his expertise in centrifuge-based uranium enrichment technologies at URENCO in Belgium. Khan offers help and urges the prime minister to take the uranium route to a nuclear weapons program. Bhutto responds favorably to Khan's suggestion and directs the Chairman of the Pakistan Atomic Energy Commission (PAEC) Dr. Munir Ahmad Khan to meet A.Q. Khan.

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4 September 1974
In a secret memorandum titled "Prospects of Further Proliferation of Nuclear Weapons," the Central Intelligence Agency (CIA) predicts that Pakistan will require at least 10 years to carry out a nuclear weapons development program.

5 July 1974
U.S. Arms Control and Disarmament Agency (ACDA) officials predict that about two dozen nations could acquire nuclear weapons over the next decade. According to ACDA officials, countries within immediate reach of acquiring nuclear weapons capability are Pakistan, Japan, West Germany, Argentina, Brazil, and South Korea. Other potential proliferant states include South Africa and Italy.

7 June 1974
Pakistani Prime Minister Zulfikar Ali Bhutto says that India's nuclear program is designed to intimidate Pakistan and establish "hegemony in the subcontinent"; and Pakistan will develop a nuclear program in response to India's nuclear testing of an atomic device. However, Bhutto insists that Pakistan’s program will be limited to peaceful purposes.

19 May 1974
In a news conference, Pakistani Prime Minister Zulfikar Ali Bhutto indicates that Pakistan will not be threatened by India's "nuclear blackmail." Bhutto also indicates that Pakistan will not alter its current policies.

18 May 1974
India conducts a Peaceful Nuclear Explosion (PNE). Following India's test, Pakistani Prime Minister Zulfikar Ali Bhutto meets with senior Pakistani officials to discuss the implications of India's nuclear tests. A statement by the Pakistani foreign ministry, released after the meeting, states that India's pronouncements of peaceful intentions do not satisfy Pakistan's security concerns. The statement also notes that nuclear programs often incorporate both peaceful and military ends.

April 1974
Pakistan signs a contract with France for the supply of a nuclear fuel reprocessing plant. The plant is to be

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constructed at Chashma on the banks of Indus River.

**March 1974**
Chairman of Pakistan Atomic Energy Commission (PAEC) Dr. Munir Ahmed Khan constitutes a small team of scientists, physicists, and engineers to begin work on a nuclear explosive device. The team's office is located at Wah near Rawalpindi; and because of its location comes to be referred to as the "Wah Group." The Wah Group begins research on conventional explosives used to trigger a nuclear fission device.

1. Original team members included Hafeez Qureshi, head of Radiation and Isotope Applications Division, Pakistan Institute of Science & Technology (PINSTECH) and Dr. Zaman Sheikh, Defense Science & Technology Organization (DESTO). The group was later expanded to include chemical, mechanical, explosive, and precision engineers.


**25 March 1974**
Senior Pakistani nuclear scientists Dr. Salam, Munir Ahmad Khan, Dr. Riazuddin, and Hafeez Qureshi convene a meeting with the head of the Pakistan Ordnance Factory at Wah cantonment, Lt. General Qamar Ali Mirza, to set up a plant to manufacture His Majesty's Explosive (HMX) for use in the explosive lenses of the proposed implosion-design fission device. The project is codenamed "Research."


**18 January 1974**
Canada provides line of credit to Pakistan for flood relief activities as well for the maintenance of the Karachi Nuclear Power Plant (KANUPP).


**1973**
Dr. Riazuddin travels to the International Center for Theoretical Physics (ICTP), Italy, after which he proceeds to the United States to obtain open-source information on the 'Manhattan Project' from the Library of Congress and the National Information Center, Maryland. After his return from the United States, Riazuddin is inducted into the Pakistan Atomic Energy Commission (PAEC) as member (technical).

[1] Dr. Riazuddin later discloses that he worked as part of the team that worked on designs for Pakistan's nuclear explosive device. As he explained, "we were the designers of the bomb, like the tailor who tells you how much of the material is required to stitch a suit. We had to identify the fissile material, whether to use plutonium or...enriched uranium, which method of detonation, which explosive, which type of tampers and lenses to use, how material will be compressed, how shock waves will be created, what would be the yield." Riazuddin also discloses that since Pakistan found it difficult to manufacture beryllium reflectors, the first nuclear explosive device designed by the 'Theoretical Group' used Uranium-238 as a reflector.

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**December 1973**
Pakistani scientists elect to develop an 'implosion' over the 'gun' type of nuclear fission device citing economy in the use of fissile material. Subsequently Dr. Zaman Shaikh, an explosives expert at the Defense Science Laboratories, is tasked with developing explosive lenses for the proposed device.

**27 December 1973**
Dr Munir Ahmad Khan, head of the Pakistan Atomic Energy Commission (PAEC), announces that large uranium deposits have been discovered in southern Punjab province.
He also announces an ambitious plan to construct 15 new nuclear reactors in the next 25 years to meet two-thirds of Pakistan's power requirements.

**March 1973**
A team of three Pakistani nuclear scientists and engineers comprising of Khalil Qureshi, Zafarullah, and Abdul Majid is sent to the headquarters of the Belgonucleaire at Mol to participate in the designing of a pilot nuclear fuel reprocessing facility as well as gain training in reprocessing spent fuel. Chairman of Pakistan Atomic Energy Commission (PAEC) Dr. Munir Ahmad Khan favors the Belgian pilot reprocessing plant over the British facility on grounds that it would be difficult for Pakistan to upgrade the downgraded reprocessing plant on offer from the United Kingdom Atomic Energy Agency (UKAEA).

**1972**
The Pakistan Atomic Energy Commission (PAEC) abandons plans to obtain a downgraded nuclear reprocessing facility from Britain and opens negotiations with Belgian and French nuclear companies for assistance in setting up nuclear fuel reprocessing facilities, with the objective of pursuing the plutonium route for a nuclear weapons program.

**1972**
Pakistan begins operation of the 137,000-kilowatt Karachi Nuclear Power Plant (KANUPP). The plant is expected to supply 25 percent of Karachi's power requirements.

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October 1972
Two Pakistani nuclear scientists, Dr. Riazuddin and Dr. Masud temporarily working at the International Center for Theoretical Physics (ICTP), Italy, return to Pakistan to begin theoretical work on a fission explosive device. The duo are posted at Quaid-e-Azam University and the Pakistan Institute for Nuclear Science & Technology (PINSTECH) respectively. In the absence of the availability of computers, they use the mainframe computers at Quaid-e-Azam University for work related to the theoretical physics of a nuclear explosive device.

8-9 May 1972
Khan visits the FDO plant a week after he starts work to begin familiarizing himself with work and security procedures at URENCO, the consortium working on the ultracentrifuge process.

Late April-Early May 1972
Pakistani metallurgist Dr. A. Q. Khan takes up a job with the specialized Dutch engineering company - Physical Dynamics Laboratory or FDO at its metallurgical section in the Dutch town of Almelo. FDO is a subsidiary of the major Dutch company Verenigde Machine-Fabrieken and is a consultant and subcontractor for the ultracentrifuge process being developed by Britain, West Germany, and Netherlands to enrich uranium. The Dutch secret service - BVD - runs a cursory background check on Khan and grants him a security clearance, "secret inclusive."

20 January 1972
Zulfikar Ali Bhutto holds a meeting with senior Pakistani nuclear scientists to discuss the possibility of embarking on a nuclear weapons program. The meeting is held at the residence of the Punjab Chief Minister Nawab Sadiq Qureshi in Multan. Key invitees include scientists from the Pakistan Institute for Nuclear Science & Technology (PINSTECH), the Pakistan Atomic Energy Commission (PAEC), Quaid-e-Azam University, Islamabad, Government College, Lahore, and the Defense Science & Technology Organization (DESTO). Nobel laureate and former scientific advisor to the Pakistani government Dr. Abdus Salam also attends the meeting. During the meeting, several scientists enthusiastically support the idea of a nuclear weapons program. Bhutto endorses the idea and promises that his government will spare "no facilities and finances" for a weapons program. He also demands that the scientists produce a fission device within three years. Toward the end of the meeting, Bhutto announces that Munir Ahmad Khan will replace Dr. Usmani as Chairman of the PAEC.

20 December 1971
Zulfikar Ali Bhutto assumes power in Pakistan. As a first step in the direction of institution of a nuclear weapons program, Bhutto tasks Munir Ahmad Khan, currently on a stint at the International Atomic Energy Agency (IAEA), Vienna, to prepare a report on Pakistan’s nuclear infrastructure.

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**1970**

Pakistan builds a pilot-scale plant at Dera Ghazi Khan for the concentration of uranium ores. The plant has a capacity of 10,000 pounds a day.


**6 March 1970**

The Nuclear Nonproliferation Treaty (NPT) comes into effect as the United States, USSR, and the Great Britain deposit the instruments of ratification. Pakistan does not sign the NPT.


**1969-1953**

**1964-70**

Citing Indian advances in nuclear fuel reprocessing and Pakistan’s defeat in the 1965 India-Pakistan war, the Pakistan foreign office and foreign minister Zulfikar Ali Bhutto lobby for a nuclear weapons option. However, Bhutto and the foreign office are successfully opposed by a counter coalition comprising of PAEC, the Ministry of Finance, and President Ayub Khan. PAEC makes no attempt to acquire facilities for a nuclear fuel cycle that can provide the technical basis for a nuclear weapons program.


**1969**

The United Kingdom Atomic Energy Agency (UKAEA) agrees to supply a downscaled version of a nuclear fuel reprocessing plant in operation at Windscale in Britain to Pakistan. The proposed plant has the capacity for extracting 360g of weapons-grade plutonium annually. Subsequently, five Pakistani nuclear scientists: Dr. S.M. Bhutta, M.T. Ahmad, Abdul Majid, Dr. Mohammad Afzal, and Dr. Ehsan Mubarak are sent to Britain for training. The Pakistani scientists recommend to PAEC that instead of obtaining the entire plant from Britain on a turnkey basis, Pakistan should purchase key parts and manufacture other parts indigenously. The scientists also believe that it would be possible to upgrade the plant indigenously to produce weapons-grade plutonium.


**Late 1960s**

The French nuclear engineering firm Société Générale pour les Techniques Nouvelles (SGN) offers to supply a 100-
ton nuclear fuel reprocessing plant to PAEC. However, the proposal is met with disfavor within the Pakistani government and not pursued.


1960s
Pakistani nuclear scientists Dr. Usmani and Dr. Salam urge the government to acquire a nuclear fuel reprocessing facility after India’s example. However, their request is denied by finance minister Mohammad Shoba.


1960s
Some foreign ministry officials propose that Pakistan request the purchase of a nuclear fuel processing facility from France. However, suggestions for a processing facility are overruled by foreign secretary Mohammad Yusuf.


1960-1967
Pakistan sends 600 scientists and engineers abroad for training in the field of nuclear sciences; of these, 106 return with doctorates.


1967
Pakistan produces the first batch of radioisotopes at the Pakistan Institute of Nuclear Science and Technology (PINSTECH).


May 1965
The Canadian General Electric Company (CGE) signs a contract with the Pakistani government to build a 137MW heavy water nuclear power reactor on a turnkey basis at Karachi. The Canadian government offers Pakistan a soft loan of $33 million and a supplier credit of $24 million to finance the project.


January 1964-May 1965
Negotiations over the sale of the nuclear power plant from Canada stall over the question of inspections. Canada insists that the 137MW power plant be subject to inspections. However, the Pakistani foreign office insists the plant not be subject to inspections; and that Canada supply the plant on terms similar to those India obtained from
Canada. However, Canadian negotiators insist that Pakistan must accept safeguards so long as it obtains the reactors as part of a Canadian government aid package. However, the inspections clause could be dropped if Pakistan paid for the reactors out of its own resources. The Pakistani foreign office ultimately accepts the Canadian argument. During negotiations for the reactor sale, PAEC also makes proposals for the setting up of a nuclear fuel fabrication facility, a heavy water plant, and a reprocessing facility. However, PAEC's proposals do not meet favor within the Pakistani government and are shelved.


5 January 1964

Pakistan's Executive Committee of the National Economic Council (ECNEC) approves a project to build a 137MW nuclear power plant at Karachi with Canadian assistance.


1963

Pakistan begins operation of the 5MW research nuclear reactor at the Pakistan Institute of Nuclear Science and Research (PINSTECH). The research reactor facilitates research in the fields of agriculture, industry, medicine, and science and technology.


1959

Dr. I.H. Usmani succeeds Dr. Nazir Ahmed as chairman of Pakistan Atomic Energy Commission (PAEC). Under Usmani's tenure, the PAEC focused attention on: training and research infrastructure; acquisition of a research reactor; developing a nuclear power program; gaining international recognition for Pakistan's nuclear establishment; and seeking international cooperation for training and nuclear technology supplies.


March 1959

The PAEC accepts the government's decision to install a pool-type reactor with regret.


1958

PAEC Chairman Dr. Nazir Ahmad complains that the acquisition of the proposed research reactor has been delayed because "considerations of a non-technical nature were allowed to creep in..." Ahmad also makes a pointed critique of the problem of "red tape" in Pakistan and demands that the PAEC be granted administrative and financial powers to be able to carry out its objectives.

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March 1958
PAEC Chairman Dr. Nazir Ahmad makes a proposal to the chairman of Pakistan Industrial Development Corporation (PIDC) for setting up a heavy water plant with a production capacity of 50kg of heavy water per day at Multan, in conjunction with a planned fertilizer factory. However, the PIDC does not act on the PAEC’s proposal.

1955-1959
The Pakistan Atomic Energy Commission (PAEC) keeps the supply of the U.S. pool-type reactor pending until 1958. During the intervening years, the PAEC board lobbies the finance ministry to allocate resources for the import of a research reactor of the CP-5 type in operation at the Argonne National Laboratory in Chicago; or of the NRX type from Canada. However, the finance ministry rejects PAEC’s requests on fiscal grounds.

1957
The Pakistan Atomic Energy Commission (PAEC) completes a technical evaluation report and drafts proposals for the acquisition of the U.S. CP-5-type research reactor from the United States. However, the PAEC’s proposal is vetoed by the departments of finance and industry.
[1. The United States was unwilling to supply Pakistan with a CP5-type of research reactor, which ran on heavy water and offered a light water reactor instead]

1956
The Pakistan Atomic Energy Commission (PAEC) plans, "peaceful uses of atomic energy with special reference to survey, procurement, and disposal of radioactive materials; planning and establishment of atomic energy and nuclear research institute, installation of research and power reactors, negotiation with international atomic energy bodies, selection and training of personnel, application of radio-isotopes to agriculture, health, industry etc."

March 1956
Pakistan announces the formation of an Atomic Energy Commission (AEC). The commission has two parts: the Atomic Energy Council comprising of two ministers and two secretaries from the federal government and the chairman of the AEC; and the commission itself comprising of the chairman of the AEC and six other scientists.

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11 August 1955
Pakistan and the United States sign an agreement on cooperation concerning the peaceful uses of nuclear energy. Under the agreement, the United States offers Pakistan $350,000 in aid to procure a pool type reactor.

8-20 August 1955
Pakistani government representatives at the first International Conference on the Peaceful Uses of Atomic Energy in Geneva discuss Pakistan's requirements for nuclear sources of energy.

January 1955
The Pakistani government forms a 12-member Atomic Energy Committee chaired by Dr. Nazir Ahmed. The committee is asked to: formulate an atomic energy program; identify personnel requirements; and plan a survey of radioactive materials relevant to atomic energy research in Pakistan; and advise the government on any other matter pertaining to the peaceful uses of atomic energy.

1954
The Government College at Lahore establishes the High Tension & Nuclear Research Laboratory to provide research facilities in nuclear physics for graduate and post-graduate students.

October 1954
Pakistan announces plans for the establishment of an atomic research body as part of a new organization for scientific and industrial research in Pakistan.

8 December 1953
U.S. President Eisenhower announces the 'Atoms for Peace' proposal to the United Nations in which he declares U.S. willingness to expedite sharing of peaceful uses of nuclear power with other countries. The Pakistani press welcomes the proposed peaceful use of atomic energy and foreign minister Zarullah Khan states that Pakistan does not have a policy towards the atom bomb.
—"Atoms for Peace: Eisenhower UN Speech," The Eisenhower Institute, 8 December 1953,

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