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PREFACE

This bibliography provides selective annotations of open-source material on two current issues:

--nuclear developments in South Asia, and

--tactics and organization of the Afghan resistance

The bibliography incorporates serials and monographs received in the previous month and is part of a continuing series on the above subjects.

Entries within each topic are arranged alphabetically by author or title. Call numbers for materials available in the Library of Congress are included to facilitate recovery of works cited.

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1. NUCLEAR DEVELOPMENTS IN SOUTH ASIA

GLOSSARY OF TERMS

- AEMC The Atomic Energy Minerals Center at Lahore is responsible for finding and recovering uranium ore, thereby filling a vital need stemming from boycotts of Pakistan by international nuclear fuel suppliers.
- BARC Bhabba Atomic Research Centre is located in north Bombay and is India's facility for research in and development of nuclear technology.
- CHASHNUPP Pakistan's Chashma Nuclear Power Plant, a projected 900-megawatt facility in Mianwali District, Punjab, was sanctioned in 1982 in order to create electrical power through light-water technology.
- Cirus A Candu-type Canadian-built plant located at BARC, Cirus was commissioned in 1960. India reprocessed spent fuel from Cirus to make the plutonium for its 1974 "peaceful nuclear explosion;" Cirus has a capacity of 40 megawatts.
- Dhruva One of the world's few high-flux reactors, Dhruva, which went critical in August 1985, is solely the product of Indian research and production, and therefore, falls completely outside IAEA safeguards. Dhruva shares facilities with Cirus, its neighbor in the BARC, has a 100-megawatt capacity, and can produce 30 kg of plutonium annually.
- IAEA International Atomic Energy Agency (United Nations)
- Kalpakkam This Tamil Nadu town is the site of the Indira Gandhi Atomic Research Center (formerly MAPP) and gives its name to a 40-megawatt fast-breeder reactor which went critical in August 1985 using plutonium-uranium carbide fuel.

- KANUPP Karachi Nuclear Power Plant, a 125-megawatt reactor, was supplied by Canada on a turnkey basis and became operational in 1972.
- MAPP-1 Madras Atomic Power Project's first Candu-type 235megawatt unit was commissioned in January 1984. The center is located at Kalpakkam, Tamil Nadu, and was produced completely by Indian research and technology; consequently, its units and the plutonium they produce fall outside IAEA inspection safeguards. MAPP units are intended to provide electricity for Madras. In October 1985, MAPP was renamed the Indira Gandhi Atomic Research Center, but new names for individual plants have not been made public.
- MAPP-2 The second unit at Madras Atomic Power Project is also a Candu-type 235-megawatt plutonium and heavy-water reactor. MAPP-2 went critical in August 1985 and was commissioned in October of the same year.
- NPT The Nuclear Nonproliferation Treaty was ratified by the UN General Assembly in 1968. India and Pakistan contend that the NPT discriminates against nonnuclear states, but Pakistan has repeatedly offered to sign if India will do so simultaneously. In the UNGA, Islamabad voted in favor of the NPT.
- PAEC Pakistan Atomic Energy Commission
- PINSTECH Pakistan Institute of Nuclear Science Technology, the site of a US-supplied 5-megawatt "swimming pool"-type reactor installed in the 1960s
- Tarapur The Tarapur nuclear power plant, located near Bombay, was built by the United States. It has a capacity of 600 megawatts and can annually produce 50 to 80 kg of plutonium. Tarapur and its products come under IAEA inspection safeguards.

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CITATIONS AND ABSTRACTS

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"Bangladesh Goes Nuclear." <u>Indian Express</u> (Bombay), 15 September 1986, p. 1.

> Bangladesh enters the nuclear age when a 3-megawatt reactor is commissioned. The Triga Pulsing Research Reactor is located in the capital city of Dhaka. The reactor will be used as a source of neutrons and gamma rays. Purchased from an American company, the reactor will be used for research and manpower training for future nuclear plants. Bangladesh hopes to build a 300-megawatt nuclear power plant in the future. For now, however, funds for the project are lacking.

"China, Pak Sign N-accord." <u>Indian Express</u> (Bombay), 16 September, 1986, p. 1.

> In Beijing, Pakistan and China sign a formal agreement which calls for extensive cooperation in the peaceful use of nuclear energy. Details of the agreement are not spelled out, though both sides abjure any interest in pursuing nuclear research that has military applications. Signing on behalf of Pakistan is Foreign Minister Yaqub Khan. The Chinese side is represented by Song Jian, Minister of the State Commission on Science and Technology.

"Graveyard for Nuclear Wastes." <u>Patriot</u> (New Delhi), 11 September 1986, p. 5.

> Press reports indicate that BARC is about to open up burial ground for nuclear wastes generated by the Aspara nuclear reactor. Named the Solid Storage Surveillance Facility (SSSF), the nuclear graveyard is an underground vault where rows of steel tubes will house waste cannisters dropped by overhead cranes. The SSSF is intended to serve as an interim storage facility, pending the construction of a permanent facility in an abandoned shaft in the Konar gold fields of Kerala. India currently has approximately 250,000 liters of radioactive wastes which are awaiting burial. More wastes are reported to be housed in temporary trenches built around nuclear facilities in Rajasthan, Tarapur, Trombay and Kalpakkam.

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"N-accelerator in Delhi Soon." <u>Indian Express</u> (Bombay), 13 September 1986, p. 5.

Newspaper article notes that an experimental nuclear facility for Indian universities will open in Delhi soon. The National Science Centre (NSC) will house a pelletron used in accelerating charged atomic particles. The accelerating potential of the device will be 15 million volts, making it the most powerful pelletron in the country. An identical device will also be installed at the Tata Institute of Fundamental Research in Bombay. This facility should be ready by mid-1987.

"No N-plant likely in Kerala." <u>Indian Express</u> (Bombay), 13 September 1986, p. 5.

Kerala Chief Minister K. Karunakaran annnounces that his state has been judged unsuitable for the siting of nuclear plants.

"Nuclear Power Fuel." <u>Patriot</u> (New Delhi), 1 August, 1986, p. 7.

Shivraj Patil, Minister of State for Atomic Energy, tells Parliament that India's supply of indigenous fuel is adequate to support a nuclear power program of 10,000 mw installed capacity through the year 2000. Total installed capacity of nuclear power is expected to increase from the present 1,230 mw to 1,700 mw by 1990. Patil also assures members that the nuclear industry incorporates stringent safety standards in all its operations.

"PAEC Chairman says Pakistan to Buy Power Plants." <u>Nucleonics</u> <u>Week</u> (Washington, D.C.), Vol. 27, No. 38, 18 September 1986, p. 13

Munir Ahmad Khan, chairman of the Pakistan Atomic Energy Commission, reports that the recent trips of Prime Minister Junejo to Western Europe and the United States have improved the chances that Pakistan will purchase a

nuclear power plant for Chasma. Khan insists that Pakistan will not be obliged to sign the NPT as a condition of the sale. In related developments, PAEC sources report that Pakistani scientists are now capable of modifying and updating computer control and instrumentation equipment at the Kanupp nuclear facility. Plans are underway to expand in-house capability in this regard, including the construction of two laboratories. One will house small-scale test rigs that will aid design of replacements for obsolete process instrumentation. The other will house up-to-date computers to develop new hardware and software systems for plant control and data acquisition systems.

Prabhu, Rajendra. "BARC Building Fusion Reactor." <u>Hindustan</u> <u>Times</u> (New Delhi), 2 September 1986, p. 3.

Indian journalist details ongoing research into fusion technologies undertaken by BARC. The author insists that the research is intended to develop lasers for medical and industrial uses. "The laser work at BARC," he writes, "has received much interest abroad and various wild allegations have been made against India. These include the charge that India was developing a hydrogen bomb." The author maintains that ongoing research efforts ensure that India will develop an independent capability in the field of fusion reaction.

"Ramanna regrets US Prof's 'Lies'." <u>Indian Express</u> (Bombay), ll September 1986, p. 9.

Raja Ramanna, Chairman of the AEC, vigorously denies a recent report which appeared in a US journal. The author alleged that China was secretly supplying India with heavy water. Ramanna observes: "We are all used to white people having a low opinion of us and I can see how jealous some of them become when we achieve total independence in our nuclear requirement." Ramanna calls the author of the report (Professor G. Milhollin of the University of Wisconsin) a "liar."

Sreedhar (Pseudonym?) <u>Pakistan's Bomb: A Documentary Study.</u> New Delhi; ABC Publishing House, 1986. Uncatalogued

Sreedhar assembles a broad selection of published and broadcast material assessing Pakistan's efforts to develop nuclear weapons. The documents include articles from newspapers and defense journals, published speeches, radio interviews, legal testimony and government documents. The author provides a minimum of interpretive material: his brief introduction to each document identifies the document's source and background, and occasionally provides a summary of the debate that preceded its publication. The documents are arranged in chronological order. Appended to the work is a brief bibliography on Pakistan's bomb, including books and articles published between 1979 and 1983.

2. TACTICS AND ORGANIZATION OF THE AFGHAN RESISTANCE

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GLOSSARY OF TERMS

- Commander A resistance fighter who is recognized as a military leader in local or regional areas of conflict; some commanders are respected outside their own regions, but there is not yet a coordinated, nationwide, insurgent command in Afghanistan. The title commander is the only honorific or rank recognized by the resistance movement.
- Dushmani (singular: <u>dushman</u>) Soviet pejorative term for Afghan insurgents; it means "bandit" and originated during the 1930s Central Asia resistance.
- DRA The Democratic Republic of Afghanistan was established as the result of a coup led by Mohammad Nur Taraki and Hafizullah Amin in April 1978. Deteriorating internal security led to military intervention by the Soviet Union in December 1979 and Amin was killed by the invading troops. The Soviet invasion transformed armed resistance toward the modernistic but arbitrary reforms of Taraki and Amin into a war of national liberation.
- KHAD DRA intelligence service whose operations are entirely directed by its many Soviet KGB advisors. The acronym stands for Khedmat-Etala'at-e-Daulati (State Information Service). KHAD received ministerial rank in January 1986.
- Mujahideen (singular: <u>mujahid</u>) This Islamic term means "holy warrior," but it is most often used as a name for Afghanistan's resistance fighters, who consider their campaign a <u>jihad</u> (holy war) to drive unbelievers from their country.
- Spetznaz Soviet special warfare troops under the GRU (Military Intelligence Directorate) of the Soviet Ministry of Defense. These highly mobile units are deployed throughout Afghanistan for operations which require more skill or loyalty than is commonly displayed by Soviet or DRA troops.

CITATIONS AND ABSTRACTS

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"Afghanistan's Indian Link." <u>Foreign Report</u> (London), 17 July 1986, p. 5-6.

In June, the visit of an Indian delegation to Kabul led by S.K. Lamba, Joint Secretary of the External Affairs Ministry, was widely hailed by the DRA regime as "decisive progress" in its quest for international legitimacy. The delegation was in Kabul to inspect a 300-bed hospital--part of India's limited aid program. The aid attracted extensive media coverage not because of its size but because of the implied propaganda message that the DRA is not totally dependent on Soviet Bloc nations. The aid program however, is a potential embarrassment for Rajiv Gandhi. Unlike his mother, Rajiv is more critical of the Soviet occupation in Afghanistan and does not want to be identified as a major supporter of the regime. Afghans of Indian extraction -- some 30,000 Hindus and Sikhs living in Kabul--are popularly thought to be traitors and informers by the resistance. This impression was underscored by the political elevation of a Hindu trader, Miherchand Varma, who is now the president of Kabul's Chamber of Commerce. Indians have recently been singled out for attack by partisans. Their shops have been looted and burned and many have fled to India.

Bodansky, Yossef. "Soviet Net Closes in on Afghan Resistance." Jane's Defence Weekly (London), Vol. 6, No. 4, 2 August 1986, pp. 173,175.

The author believes that the fall of the resistance complex at Zhawar in eastern Paktia Province last year was a significant success in the Soviet's aggressive strategy of sealing off the border. The fall of Zhawar presages the collapse of the essential mujahed organizational infrastructure in the vicinity of the Pakistani border. The author also cautions that Soviet-DRA use of suppression by massive fire and heavy employment of helicopter strikes and heliborne landings has enabled them to destroy pockets of mujahideen, piecemeal. The Soviets are also attempting to destroy the resistance from within. Co-opted militia forces in the border area infiltrate the resistance, spread rumors, stage ambushes, and above all, attempt to assassinate mujahideen leaders. The author asserts that Soviet strategy can best be understood by

studying the early 20th century doctrine the Russians followed in their subjugation of the Muslim population of Central Asia. The tenets of this doctrine are: neutralization of the leadership; erosion of popular support; and isolation of suppressed areas. The author is particularly concerned about this last point. The existence of the country-wide resistance is dependent on the ability of the Peshawar-based political leadership to disseminate weapons, information, and instructions to the interior. He believes that the few remaining functioning centers of logistics similar to Zhawar are essential to the survival of the mujahideen.

"Kabul Embassy Hit." Washington Post, 1 October 1986, p. A27.

Western diplomats report a mujahed attack on the Soviet Embassy in Kabul which killed 3 Soviets and came close to injuring First Deputy Premier Serafimovich Murakhovski. The attack, which was conducted either by rocket or by car bomb, was timed to coincide with a visit DRA leader Najibullah was making to the embassy to meet with a Soviet trade delegation.

"Karmal Comes Clean about the Failing Afghan Revolution." <u>Intelligence Digest</u> (London), 4 June 1986, pp. 6-7. JX1.I53

> Babrak Karmal gave an uncharacteristically candid interview with Soviet journalists in Moscow just prior to his return to Afghanistan and subsequent fall from power. He gave the DRA estimate that "counter-revolutionary forces" (mujahideen) are increasing annually by 40,000 to 50,000. The DRA, Karmal added, is spending about half of its revenue on military expenditures to defend the revolution. It also has problems in maintaining troop levels. About two-thirds of the PDPA party members are engaged in compulsory military service but few non-party members are volunteering for military duty. Asked about the prospects of a Soviet withdrawal, Karmal replied rather tellingly that without Soviet support, the revolution could not survive.

Rosenfeld, Stephen S. "Afghan Resistance: At the Mercy of a Superpower." <u>Washington Post</u>, 19 September 1986, p. A27.

The author contends that the United States should reconsider its policy of supporting the maximal goals of the Afghan resistance, i.e. to ensure both a Soviet withdrawal and the self-determination of the Afghan people. Instead, he argues, the United States should content itself with the removal of Soviet troops. The author believes Soviet leader Gorbachev's announcement of a unilateral withdrawal of 6 regiments should be taken in good faith. Should the Soviets leave, he speculates, an internal struggle between leftists and fundamentalists would eventually resolve itself and provide a viable pattern of self-rule. The author notes that the United States was not particularly perturbed by the 1978 Communist coup and really only became alarmed when the Soviets invaded 20 months later. The author believes that the United States obscures its objectives by promoting itself as the guardian of democracy and that it should restrict its goals to conform more with those of Pakistan--merely to get the Soviets out. At some point, he argues, exhaustion of the warring parties may calm the situation. When that point arrives, he says, the United States should reevaluate its policy toward the war.

Schultheis, Robert. "Barrage and Counterbarrage." <u>Time</u>, 6 October 1986, pp. 42-43.

A few months ago it was widely believed that aggressive Soviet military offenses had pushed the resistance to the brink of collapse. This eyewitness account of the mujahed seige on Barikot, a DRA garrison near the Pakistani border in Afghanistan's Kunar Province, reveals that the mujahideen are striking back with some of their most punishing assaults of the war so far. Last summer, Barikot was in danger of falling to the resistance, and the Soviets mounted a massive operation to save it. Over 10,000 troops supported by scores of Migs and Mi-24 helicopters managed with some initial success to relieve the mujahed siege. Barikot, however, is once again under vicious attack. Recent acquisitions such as the BM-13 long-range rocket launcher and the highly accurate Swiss

Oerlikon antiaircraft gun, have enabled the mujahideen to carry out punishing attacks on Barikot and its defenders.

"U.S. Will Help Train Afghan Journalists." <u>New York Times</u>, 18 August 1986, p. A27.

In 1985 Congress approved a resolution sponsored by Senator Gordon J. Humphrey (R-New Hampshire) which would correct to some degree the Soviet-imposed news deficit on Afghanistan. A media training program funded by Congress will be coordinated by USIA. Boston University will receive \$180,000 to train Afghan refugees as journalists and King Features Syndicate \$310,000 to create an Afghan news service. Early this year, representatives of the university and King Features were in Pakistan negotiating with the government for permission to conduct these programs. Meanwhile at B.U., a bitter debate ensued between those administrators who, because of anticipated logistic and operational problems, wanted the Afghan journalists trained at B.U. and those who supported USIA's insistence that the Afghans be trained in Pakistan due to cost considerations. The debate will likely subside due to the departure of the Dean of the College of Communications, whose resignation, insiders say, was forced by the University's president who sides with USIA on the matter.