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1. AGENCY USE ONLY (Leave Blank)	2. REPORT DATE OCTOBER 1987	3. REPORT TYPE AND DATES CO	
4. TITLE AND SUBTITLE A Selective, Annotated Biblic	graphy on Current South Asian Is:	sues	5. FUNDING NUMBERS
	Heitzman Robert Levy R a LePoer Douglas Makeig	ussell Ross	
7. PERFORMING ORGANIZATION NAI Federal Research Division Library of Congress Washington, DC 20540-4840			8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGEN	CY NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING AGENCY REPORT NUMBER
SUPPLEMENTARY NOTES Prepared under an Interagency 2a. DISTRIBUTION/AVAILABILITY STA			
Approved for public release; di			12b. DISTRIBUTION CODE
3. ABSTRACT ( <i>Maximum 200 words</i> ) This bibliography procides selec Asia, and tactics and organizatio arranged alphabetically by autho	I OI Alghan resistance groups - H	aterial on two current issues: nuc he monthly bibliography incorpora	lear developments in South tes serials and monographs
. SUBJECT TERMS South Asia	Insurgencies		15. NUMBER OF PAGES
Afghanistan Nuclear proliferation	-		16. PRICE CODE
SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	SAR
N 7540-01-280-5500	i		Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std 239-18 298-102

#### 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.

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- 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
- RAPP-I The first Rajasthan Atomic Power Project (Station), (RAPS-I) located at Rawatbhata, has a Candu (Canadian deuterium-uranium) reactor with 220 megawatt gross capacity. It began operating in 1973, but it has been plagued with repeated equipment problems, including turbine blade failure and leaks in its south end-shield. It has operated for only a few months since September 1981.

RAPP-II The design of the second unit at Rawatbhata is (RAPS-II) identical to RAPP-I, but after India exploded an atomic device in 1974 Canada refused to complete the project, and Indian engineers finished the plant.

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.

# CITATIONS AND ABSTRACTS

"A-Plants Can Run With Full Safety: Expert." <u>Patriot</u> (New Delhi), 6 September 1987, p. 5.

Dr. M. R. Srinivasan, chairman of the Indian Atomic Energy Commission, delivers the keynote address at a seminar on Nuclear Safety and Environment organized by the Maharashtra chapter of the Institution of Engineers in Bombay. He attempts to dispel fears of nuclear power associated with atomic weapons. He claims that India could safely operate its nuclear power plants to reach the goal of 10,000 megawatts of energy by the year 2,000. Using the example of the Tarapur reactor in Maharashtra, he says that it serves 15 percent of the state's electricity needs; had more such plants been set up, the cost of electricity in the state would be much lower. At Tarapur, procedures to survey radiation levels include continuous monitoring of background radiation and tests of samples of fish, vegetables, milk, and foodgrains within a radius of 40 to 50 kilometers.

"Commentary Criticizes Nonproliferation Treaty." <u>Foreign</u> <u>Broadcast Information Service--Near East and South Asia</u>, 6 October 1987, pp. 31-32.

Dr. M. R. Srinivasan, Chairman of the Indian Atomic Energy Commission, speaks at the 31st annual general conference of the International Atomic Energy Agency (IAEA) at Vienna. He reiterates India's refusal to sign the nuclear Non-Proliferation Treaty (NPT) because it allows five nations to expand their own arsenals without safeguards while imposing safeguards on all other nations. India rejects the treaty as a failure and favors a treaty that will truly bring about the destruction of all nuclear weapons. In this context he dismisses the new proposal of Pakistan urging both countries to sign the NPT as a ruse designed to distract attention away from Pakistan's nuclear-weapons program.

Ganesh, S. "Nuclear Power Plants: Safeguards Unsatisfactory." <u>Economic and Political Weekly</u> (Bombay), Vol. 22, Nos. 36 and 37 (5-12 September 1987), pp. 1531-32. HC431.E326.

This is a report on a two-day workshop on "Siting and Safety of Nuclear Power Plants" on 11-12 May 1987 in Secunderabad, organized by the Centre for Environment Concerns. Among the generally negative viewpoints are the following: (1) the choice of Narora for a nuclear power plant was made because of political pressures and disregards the site's geological instability; (2) the Nagarjunasagar nuclear power plant is located within 16 kilometers of Vijaypur town (population 50,000), in violation of conventions set down in 1963; (3) nuclear power still provides a relatively small percentage of energy utilized in India (17 percent), but provides it in a cost-ineffective manner that endangers workers and the environment as well; (4) agitations against the Kakrapur nuclear power plant were successful in mobilizing thousands of people by appealing to grass-roots emotions through song and dance dramas.

Government of India. <u>Department of Atomic Energy</u>. <u>Annual Report</u> <u>1986-87</u> Bombay: Department of Atomic Energy, Government of India, 1987.

This is the most comprehensive survey of the nuclear power and research program in India. Part One, "General Survey," describes the major projects and progress during the last year. Part Two, "Nuclear Power," presents detailed statistics on the generation of electricity at TAPS, RAPS, and MAPS; progress on the construction of new power plants; productivity of heavy water facilities and the Nuclear Fuel Complex at Hyderabad; and mining for atomic minerals. Part Three, "Research and Development," describes basic and applied research (including nuclear medicine) performed by six major centers throughout India. Section Five, "Public Sector Undertakings," deals with Indian Rare Earths, Electronics Corporation of India, and Uranium Corporation of India. Appendices at the end include an organizational chart, abbreviations, glossary, and map.

"Official on Plants' Nuclear Power Production." <u>Foreign</u> <u>Broadcast Information Service--Near East and South Asia</u>, 6 October 1987, p. 32.

During a conference with newsmen at Karwar in Karnataka, Mr. S. L. Kutty, Chairman of the Nuclear Power Board, says that the three nuclear power stations in Maharashtra, Tamil Nadu and Rajasthan have been generating over 1,200 megawatts of power daily. He predicts that nuclear energy will become cheaper than thermal energy by the year 1990.

"Regional Approach to Non-Proliferation." <u>New York Times</u>, 21 September 1987, p. B7.

The Government of Pakistan publishes this article as part of a full-page advertisement on the arrival of Prime Minister Mohammad Khan Junejo in New York City. The article contains an outline proposal for a nuclear weapon-free zone in South Asia. The proposal's points include the following:

(1) All nuclear materials in South Asia must be used for peaceful purposes.

(2) South Asian states must prevent acquisition of storage or testing of nuclear weapons in South Asia.

(3) South Asian states should set up a control system with features of either (a) a "permanent regional consultative mechanism" and "challenge verification regime with on-site inspection," (b) bilateral arrangements for inspection, or (c) acceptance of IAEA safeguards.

(4) The nuclear-free zones of Latin America or the South Pacific could serve as the model for a South Asian zone, or it could originate in unilateral declarations endorsed by the United Nations Security Council.

Sreedhar, ed. <u>Dr. A. O. Khan on Pakistan Bomb</u>. New Delhi: ABC Publishing House, 1987.

The book is a collection of letters, articles and interviews revolving around the personality of Abdul Qadeer Khan, who has been a major figure in Pakistan's nuclear research program during the late 1970s and the 1980s. The first quarter of the book presents a series of letters to and from Dr. Khan, introduced as evidence during a Canadian trial of three persons accused of trying to smuggle components to Pakistan for use in atomic energy research.

Most of the documents presented in the book are interviews with Dr. Khan published during the 1980s in a number of magazines. There are also several of Dr. Khan's writings and some official news briefs by the Government of Pakistan and Zia ul-Haq relating to Pakistan's nuclear research and Dr. Khan's part in it. The materials are heavily suffused with Indian and Pakistani hatred and distrust, but they are important sources for the study of the nuclear debate between the two enemies.

Vanaik, Achin. "Will Pakistan Have a Test?" Economic and Political Weekly (Bombay), Vol. 22, No. 39 (26 September 1987), pp. 1631-1632. HC431.E326

This article argues that Pakistan will not explode a nuclear device, even if it has the ability to do so, for three reasons: (1) Past experience of the Israelis and others indicates that possession of technical data alone is sufficient to determine if a bomb works. Pakistan, with access to its own and Chinese data, has all the information it needs to produce a successful weapon. (2) A test would precipitate a strong negative reaction in India and would lead India to deploy a nuclear arsenal against Pakistan. (3) Presently, whatever its real policies, Pakistan can appear to the vast majority of Americans and their Congressmen as a staunch ally and as a beleaguered "front-line" state. This image would disappear after a bomb test, and Pakistan's relationship with the United States would disintegrate. Under these circumstances, there is still room for India to discard its aggressive image and negotiate a nuclear non-proliferation treaty for South Asia.

Weisman, Steven. "India Rejects Idea for Nuclear Ban." <u>New York</u> <u>Times</u>, 11 October 1987, p. 15.

During a wide-ranging interview in New Delhi, Indian Prime Minister Rajiv Gandhi addresses the problem of nuclear non-proliferation in South Asia. He welcomes the recent decision by the US Congress to suspend aid to Pakistan because of concerns over that country's capabilities to

produce a nuclear weapon. The Government of Pakistan has endorsed a US proposal for a mutual inspection treaty to regulate nuclear research, but Mr. Gandhi rejects the proposal. He claims that inspections will not halt Pakistan's military-related nuclear program. 2. TACTICS AND ORGANIZATION OF THE AFGHAN RESISTANCE

#### 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

"Afghan Tells of Iran Seizing Nine Stingers." <u>Washington Post</u>, 19 October 1987, p. Al8.

Yunis Khalis, newly elected president of the seven-party alliance of Afghan mujahideen based in Peshawar, claims that Iranian border guards seized at least nine US-made Stinger antiaircraft missiles in a skirmish with Afghan guerillas in May. The Afghans lost the weapons and two trucks carrying other weapons and supplies when they were forced to enter Iran in order to avoid crossing a section of swollen river in western Pakistan. Khalis said when news of the incident reached Peshawar, the Iranian consulate falsely promised to return all equipment taken by the Iranians.

"Afghans Sell Stingers to Iran." <u>Times of India</u> (Bombay), 23 September 1987 p. 16.

Two commanders from the Hezbi-Islami Islamic Party, led by Younis Khalis, have sold Iran at least 16 Stinger anti-aircraft weapons. According to unconfirmed reports, some of these weapons may have been used to shoot down Iraqi aircraft in the Gulf war earlier this year. This article notes that the United States has denied these reports but is nonetheless concerned that Stingers will fall into terrorist hands.

Bertin, Giles. "Stingers Change the Face of War in Afghanistan." Jane's Defense Weekly (London), Vol. 8, No. 14, 10 October 1987, p. 785. UF530.J35

The author discusses what Olivier Roy, veteran observer of the Afghan war, had to say about his latest trek into Afghanistan. In a recent interview with Agence France-Press in Islamabad, Roy said the Afghan resistance now has enough and perhaps even a surplus of sophisticated weapons at its disposal. The US-made ground-to-air Stinger missile is the most efficient of these weapons and Roy claims that its use has "considerably" altered the war situation allowing the mujahideen for the first time to set up "real sanctuaries" against Soviet forces. In his

10-week trek across 1000 kilometers of Afghan territory, Roy noted the virtual disappearance of Soviet helicopters.

Giradet, Edward. "Two US Journalists Reported Killed in Afghanistan; Details Murky." <u>Christian Science Monitor</u> (Boston), 28 October 1987, p. 10.

Two Americans, filmmaker Lee Shapiro and his soundman Jim Lindalos, trekked clandestinely to northern Afghanistan in May to shoot a television documentary on the war but were killed October 11 as they made their way back to Pakistan. Although details are still unclear, it is thought that the two journalists may have been killed in an ambush in Paghman District, northwest of Kabul, while under the protection of guerrillas associated with the Hezbi Islami party of Gulbuddin Hekmatyar.

Isby, David C. "Red Threat--Afghan Withdrawal: Ruse or Real?" Soldier of Fortune (Boulder, Co.), Vol. 12, No. 10, October 1987, pp.69-71.

Isby makes the case that Western observers are too optimistic about the prospects of a Soviet troop withdrawal in the near future. He believes that the Soviets will leave only on their own terms. Soviet insistence on the survival of an Afghan government acceptable to Moscow explains why the decision was made to invade in the first place and why the war has continued for so long. Because the regime will never be accepted by the vast majority of Afghans, a continued Soviet troop presence in Afghanistan is required. The author concludes that the "withdrawal" of limited contingents of troops in 1986 was nothing more than a ruse cleverly engineered to blunt the Western diplomatic offensive against the Soviet occupation.

"Kabul Offers to Buy Arms from Guerrillas." <u>Washington Post</u>, 11 October 1987, p. A55.

The official Kabul radio announced a decree authorizing the armed forces, and ministries of defense, state security and interior to seek out and buy US Stinger and British Blowpipe antiaircraft missiles. The decree, issued by the presidium of the legislative Revolutionary Council, is part of the DRA's peace drive. No mention was made, however, as to how many, if any, Afghan guerrillas accepted the regime's offer.

"U.S. Mules for Mujahideen." <u>Muslim</u> (Islamabad), 12 October 1987, p. 8.

In an experimental gambit--part of USAID's humanitarian assistance to Afghanistan--a large number of American mules are being flown to Pakistan from Fort Knox, Tennessee. US sponsors of the mule airlift program contend that mules are especially well-suited to the tough terrain and harsh weather conditions of Afghanistan and may ease somewhat the supply operations of the mujahideen.