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Central Intelligence Agency

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DIRECTORATE OF INTELLIGENCE

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India: Update on Advanced Weapons Programs [Redacted]

Summary

[Redacted] New Delhi could explode a nuclear device within a few weeks of a decision to do so and begin production quickly of deliverable nuclear weapons. India's civilian space launched vehicle programs have helped establish a domestic technical and scientific base that will aid in the production and deployment of indigenous short- and medium-range ballistic missiles. [Redacted] New Delhi is pursuing its indigenous nuclear-powered submarine program, but is also negotiating with the Soviets for further lease, or even purchase, of Charlie I- or Victor-class boats. [Redacted]

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Nuclear Weapons

India's test of a nuclear explosive device in 1974 clearly demonstrated that New Delhi had the capability to produce one. [Redacted]

[Redacted]

India has a complete plutonium-based nuclear fuel cycle that can supply plutonium for weapons:

--India probably has produced [Redacted] weapons-usable plutonium from the Cirus research reactor [Redacted]

--The new Dhruva research reactor will be able to produce [Redacted] of weapons-grade plutonium [Redacted]

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--India's three unsafeguarded power reactors are fueled with natural or low-enriched uranium and have the potential for producing weapons-usable plutonium [REDACTED] however we have seen no evidence of this to date.

--Its reprocessing facilities probably are capable of separating plutonium [REDACTED] nuclear bombs [REDACTED]

In addition to weapons-grade plutonium, India announced in 1986 that it had mastered the uranium enrichment process, which could eventually provide additional weapons-grade nuclear material. [REDACTED]

[REDACTED]

Senior Indian military officers probably support a nuclear weapons program and almost certainly have discussed the make-up and missions of prospective nuclear forces and their strategic implications. Former Army Chief of Staff Sundarji, who we believe is well grounded in the theoretical aspects of nuclear strategy and tactics, publicly declared in 1986 that New Delhi would not make the armed forces fight at a disadvantage against a nuclear-armed adversary. [REDACTED]

[REDACTED] only clear and overt evidence of a Pakistani nuclear weapons program--such as a public pronouncement from Islamabad or a test explosion--would cause the Indians to move their nuclear weapons efforts into the open. [REDACTED]

Ballistic Missiles

India continues to show progress in its civilian space launch vehicle and military ballistic missile programs. [REDACTED]

India's civilian space programs are linked to New Delhi's plans for telecommunications and weather satellite deployments, but also expands the country's technological expertise and industrial base in ways that could advance its military ballistic missile programs. India plans three follow-on launch vehicles based in part on technologies developed for the SLV-3, first successfully launched in 1979. The Augmented Space Launched Vehicle eventually will be capable of putting a 150kg payload into a low earth orbit of about

[REDACTED]

500km, although test launches in March 1987 and July 1988 were unsuccessful. The four-stage Polar Satellite Launch Vehicle will be able to deliver a 1,000kg payload into polar orbit and the Geostationary Satellite Launch Vehicle should be able to put a 2,500kg payload into geostationary orbit, with launches currently scheduled for late 1989 and for 1993, respectively. [REDACTED]

Prime Minister Gandhi announced the successful launch in late February 1988 of the Prithvi, India's first indigenously-produced ballistic missile. [REDACTED] the Prithvi is a liquid-propelled, short-range ballistic missile with inertial guidance. Open sources indicate the Prithvi, has a range of 250km with a payload of up to 1,000kg. This single-stage missile uses propulsion technology derived from the Soviet SA-2 surface-to-air missile, which the Indians tried to reverse engineer. Although the February test launch was a year behind its original schedule, Indian officials expect a successful test program and believe the Prithvi will be ready for production by 1991, with 40 to 50 missiles to be produced annually. India is also developing another short-range ballistic missile, the Agni, which will have a range of 600 to 1,000km and is scheduled to be test launched by the end of this year. [REDACTED]

We believe India will deploy short- and medium-range ballistic missiles within five years, but a decision on intercontinental-range missiles is at least a decade away. [REDACTED]

Nuclear-Powered Submarines

Since its transfer under lease to India in January 1988, the Soviet-built Charlie I-class nuclear-powered submarine INS Chakra appears to have been used [REDACTED] as a training platform for crews and technicians to gain experience in nuclear propulsion technology. [REDACTED]

The INS Chakra has deployed [REDACTED] from its home port of Vishakhapatnam on India's east coast in conjunction with fleet training exercises, [REDACTED]

[REDACTED]

The Indians appear to be pursuing an indigenous nuclear-powered submarine program. [REDACTED]

[REDACTED] the Indians' [REDACTED] they appear determined to continue in pursuit of their goal of indigenous technological development and greater self-reliance in defense production. [REDACTED]

Meanwhile, we believe negotiations are underway for another lease or even purchase of one or more Soviet nuclear-powered submarines. [REDACTED]

[REDACTED] India plans to lease another Charlie I-class submarine [REDACTED] we believe India will wait until the end of the current submarine's lease period in January 1991 to make a decision. [REDACTED] they may seek a lease of up to three Charlie Is for a stop-gap nuclear-powered submarine fleet, or negotiate in earnest for the purchase of more capable boats, possibly Victor-class. [REDACTED]