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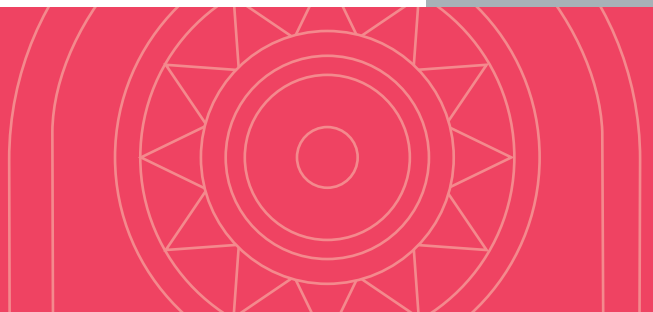
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Nuclear Proliferation International History Project

The Imagined Arsenal

India's Nuclear Decision-Making, 1973–76

By Yogesh Joshi
NPIHP Working Paper #6
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Christian F. Ostermann, Leopoldo Nuti and Evan Pikulski, Series Editors

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The Imagined Arsenal
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Executive summary

The relationship between the May 1974 “peaceful nuclear explosion” (PNE) and India’s later development of a nuclear weapons arsenal and delivery systems has been a subject of much debate. The spectrum of discussion ranges from scholars attributing a strategic vision to the entire early Indian atomic program, to those who argue that the test was inspired primarily by domestic and foreign policy considerations. Yet all discussion has been hampered by a lack of archival evidence.

Through extensive use of newly available materials from the Nehru Memorial Museum and Library, this working paper helps demystify India’s nuclear decision-making between 1973 and 1976. Major findings include:

1. In the period between 1973 and 1974, Indian decision-makers did not consider a Chinese invasion of India as a real possibility, nor did they see the notion of Beijing using nuclear weapons against India as credible.
2. The two most important agencies in the Government—the Ministry of Defense (MoD) and the Ministry of Finance (MoF)—came to markedly different understandings on the implications of India’s PNE. Ironically, the MoF advocated for considering the PNE as a nuclear deterrent, while the MoD argued against it, on account of the absence of a weaponization program.
3. No simultaneous development of a nuclear delivery system—either strategic bombers or a ballistic missile program—appears to have accompanied the PNE. This suggests that the test had very little short to mid-term military applicability.
4. The intended purpose of India’s nuclear submarine program was highly ambiguous during its early years. This contradicts the general impressions prevalent in the strategic community that India began its nuclear submarine program in the early 1970s with a desire to develop a nuclear triad.

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Dedication

This research is dedicated to the Women and Men of the Indian Navy.

The Imagined Arsenal India's Nuclear Decision-Making, 1973–76

By Yogesh Joshi¹

India's nuclear history has captivated both policy analysts and historians alike. The 1970s were a critical decade in India's nuclear journey, not only for its decision to test a "peaceful nuclear device" in May 1974, but also for the initial history of India's missile and nuclear submarine program. As such, scholars have reflected upon this period at length.² However, restricted access to archival sources has made informed analysis of India's nuclear program an intractable problem.³ Crucial questions about the decision-making behind India's nuclear weapons and submarine programs remain unanswered: how important was the atomic threat from China in India's decision to conduct the Peaceful Nuclear Explosion (PNE) in May 1974? What were the military implications of the 1974 tests, and was the PNE intended to provide India with a nuclear deterrent? Was New Delhi developing a viable delivery system—ballistic missiles and

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² For a detailed analysis of India's nuclear program see, George Perkovich, *India's Nuclear Bomb: The Impact on Global Nuclear Nonproliferation*, University of California Press: Los Angeles, 2002. For an analysis on nuclear decision making leading up to the PNE see, Ashok Kapur, *India's Nuclear Option: Atomic Diplomacy and Decision Making*, New York: Praeger, 1976. For a highly read but mostly journalistic account of India's nuclear program see, Raj Chengappa, *Weapons of Peace: The Secret Story of India's Quest to be a Nuclear Power*, HarperCollins: New Delhi, 2002. A more analytical account is offered in Bharat Karnad, *Nuclear Weapons and Indian Security: The Realist Foundations of Strategy*, New Delhi: MacMillan, 2002. For a post-colonial treatment of India's nuclear program till 1974 see, Itty Abraham, *The Making of Indian Atomic Bomb: Science, Secrecy and the Postcolonial State*, Zed Books: London, 1998. For a theoretical treatment of proliferation in general with a case study of India's decision to conduct PNE in 1974 see, Scott Sagan, "Why do states Build Nuclear Weapons: Three Models in search of the Bomb," *International Security*, Vol. 21, No. 3 (Winter 1996/97), pp. 54-86.

³ Notable exceptions are George Perkovich, *India's Nuclear Bomb: The Impact on Global Nuclear Nonproliferation*, University of California Press: Los Angeles, 2002; Andrew B. Kennedy, "India's Nuclear Odyssey: Implicit Umbrellas, Diplomatic Disappointments, and the Bomb," *International Security*, Vol. 36, No. 2 (Fall 2011), pp. 120-153; Balazs Szalontai, "The Elephant in the Room: The Soviet Union and India's Nuclear Program, 1967-1989," *Nuclear Proliferation International History Project (NPIHP) Working Paper No.1*, Washington, D.C.: Woodrow Wilson International Center for Scholars, November 2011; Sussana Schrafstetter, "Preventing the 'Smiling Buddha': British-Indian nuclear relations and the Commonwealth Nuclear Force, 1964-68," *Journal of Strategic Studies*, Vol 25, No. 3 (2002), pp. 87-109; Jayita Sarkar, "From the Peaceful Atom to the Peaceful Explosion: Indo-French nuclear relations during the Cold War, 1950-1974," *Nuclear Proliferation International History Project Working Paper No. 3*, Washington, D.C.: Woodrow Wilson International Center for Scholars, Sep. 2013.

bombers—simultaneously with its preparations to conduct a nuclear explosion? When and how did India begin its nuclear submarine program?

The continuing mystery surrounding these issues can be partly explained by the concentration of nuclear decision-making power in the Prime Minister’s Office (PMO).⁴ Moreover, even the Ministry of Atomic Energy—the most important stake-holder in the PNE and nuclear issues in general—was directly subordinate to the Prime Minister during the period preceding the peaceful nuclear explosion. “In Indian nuclear policy,” to use Perkovich’s words, “before or after 1974, the prime minister has been sovereign.”⁵ Presently, no documentation of the Prime Minister’s thinking on the PNE is available. Lack of records from the PMO notwithstanding, new archival evidence now available in Indian archives and used in this working paper may help answer some of these questions and enrich our understanding of the period between 1973 and 1976. These archival papers belong to some of the most trusted advisors of the Indian Prime Minister, D.P. Dhar and P.N. Haksar, who headed some of the most important defense committees during this period. Moreover, a number of important military documents have been retrieved from the archives to explain certain aspects of India’s nuclear decision-making.

Three major insights can be gleaned from these materials. First, in the period between 1973 and 1974, Indian decision-makers did not consider a Chinese invasion of India as a real possibility, nor did they see the notion of Beijing using nuclear weapons against India as credible. Second, the two most important agencies in the Government—the Ministry of Defense (MoD) and the Ministry of Finance (MoF)—came to markedly different understandings on the

⁴ For a detailed analysis of various actors involved in India’s nuclear decision-making in the decade of the 60s and 70s see, Ashok Kapur, *India’s Nuclear Option* pp. 145-167. George Perkovich also comes to similar conclusions regarding the overarching role which the PMO played in the 1974 tests. See, Perkovich, *India’s Nuclear Bomb*, pp. 170-178. f

⁵ Perkovich, *India’s Nuclear Bomb*, p. 175.

implications of India's PNE. Ironically, whereas the MoF advocated for considering the PNE a nuclear deterrent, the MoD was against it mainly on account of the absence of a weaponization program. This conflict of interpretation between the MoF and the MoD not only demonstrates that both these ministries received very little direction from the PMO, but also indicates a point of larger significance: that the PNE may have lacked any immediate military applicability. To explain and account for this conclusion, fresh evidence is presented on the non-nuclear nature of what could be construed as possible nuclear delivery capabilities in the mid-1970s: India's missile and bomber capabilities.

Lastly, in the common strategic discourse, India's nuclear submarine program is often associated with a desire to develop a nuclear triad. Newly available documents indicate that the entire focus of the nuclear submarine program was initially set on producing a viable "compact nuclear reactor," rather than designing the submarine in which it would be ultimately installed. This point is of utmost importance as depending upon the design, a nuclear submarine can perform the functions of an attack submarine intended for conventional operations (SSN) or a ballistic missile submarine (SSBN) as a nuclear weapons delivery platform. When set against the absence of nuclear weaponization work leading up to the PNE, this body of new historical evidence challenges perceptions prevalent in some quarters of India's strategic community that, as early as early as the 1970s, the India's submarine program was initiated with the objective of developing a triad of nuclear delivery systems.⁶

⁶ In India's mainstream strategic discourse, the logic of the development of nuclear submarines is often attributed to the necessities of nuclear deterrence. Contemporary commentaries notwithstanding, popular narratives also attest to this deterrence driven nature of *Arihant's* development. As Raj Chengappa suggests, "Indira Gandhi had initiated the (nuclear submarine) programme to give India an almost invincible capability for carrying out nuclear strikes." See, Raj Chengappa, *Weapons of Peace*, p. 228. In a similar vein, Bharat Karnad argues that the much before the draft nuclear doctrine was released in 1999, India had embarked on a "triadic deterrent structure planned 20-30 years earlier." See, Bharat Karnad, *Nuclear Weapons and Indian Security*, p. 305. The idea has been so internalized that even scientists working on the nuclear submarine program now assume that they were always a part of India's

Overall, the evidence cited here suggests that India's PNE may not have had any short to mid-term military applicability. The lack of hostile nuclear threat and the absence of a parallel program to develop nuclear delivery systems clearly points in this direction. Moreover, there appears to be no direct linkage between India's PNE and the concurrent development and procurement programs for missiles, fighter bombers, and nuclear submarines.

China and the PNE, 1973–74

This section investigates the role of Chinese nuclear weapons in India's decision to conduct its PNE. Archival evidence cited here points towards a perception among Indian decision-makers that China was neither interested in waging a conventional war, nor was it inclined to use its nuclear arsenal against India. This section first discusses the findings of a high-level defense committee formed in early 1973 under the then Chairman of the Planning Commission to formulate a five year defense plan for the period 1974–1979, also known as the Apex Group I report. It then relates the threat appreciation forwarded by the 1973 Apex Group I to the memos sent by L.K. Jha (Principal Secretary) to the Prime Minister in May 1967. Interestingly, this research indicates that as far as Chinese nuclear threat (or the lack of it) was concerned, not much changed between 1967 and 1973, even when India's threat environment drastically altered in light of the 1971 Bangladesh Liberation war. In fact, even in May–June 1974, India's top defense experts showed little appreciation of a Chinese conventional and nuclear threat. A revised threat assessment by the Chiefs of Staff Committee (COSC) in May–June 1974 is therefore discussed at length in the third part of this section. Lastly, based on archival and secondary sources, the final section offers some possible explanations for both the absence of Chinese nuclear threat and India's decision to conduct the PNE.

ambitions to have a credible 'second strike' capability. See, Sujit Sanyal, *The Second Strike: The Personal and Professional Life of Nuclear Scientist Anil Anand*, The Book Co.; New Delhi, 2014 (Kindle Edition).

The 1973 Apex Group I Report

In early 1973, the Government of India (GOI) created a high level panel under the chairmanship of the then head of the Planning Commission—D.P. Dhar—to provide a detailed roadmap for defense expenditures to be incurred under the Five Year Defense Plan 1974–79 (**Document No. 1**). Defense Secretary K.B. Lall, Gen. G.G. Bewoor (Chairman, Chiefs of Staff Committee), Cabinet Secretary B.D. Pande, Finance Secretary M.R. Yardi, and the Foreign Secretary Kewal Singh were some of the other members. Clearly, all important stakeholders in India’s defense policy were a part of these deliberations. Known as the Apex Group I, the report of this committee was submitted to the Indian government in May 1973 and was approved by the Cabinet Committee on Political Affairs (CCPA)—India’s highest decision-making body—the same month. The report, spanning hundreds of pages, deliberated on India’s military needs for the next five year plan starting in 1974. It also contained a thorough threat assessment of India’s strategic environment.

The memories of 1971, especially the collusion of interests between Pakistan, China, and the US, shaped the threat perception of Apex Group I.⁷ In its very first page, the report alluded to this strategic triangle claiming that even though the “main threat to India’s security” would emanate from Pakistan with China providing “collusive support” to Islamabad under “tacit approval” from the US.⁸ The report also looked into the specific nature of threats emanating from

⁷ For a comprehensive account of the 1971 war see, Srinath Raghavan, *1971: A Global History of the Creation of Bangladesh*, Permanent Black: Ranikhet, 2013.

⁸ The perception of a US tilt towards Pakistan and the strategic triangle between the US, China and Pakistan was reinforced with Richard Nixon’s reelection in December 1972 and the US decision to lift the arms embargo against Pakistan in March 1973. In a note prepared by P.N. Haksar for Prime Minister Indira Gandhi on the Nixon’s reelection, Haksar argued that India is a blind spot in Nixon’s vision of the world. The main ideological and political justification for US aid to India previously was to build up democratic India as a counter-balance against China. With Sino-US rapprochement, this justification was no longer there. See, Note from P. N. Haksar to the Prime Minister, “Four More Years of President Nixon: The Prospect,” 3 December 1972. Nehru Memorial Museum and Library (New Delhi) P.N. Haksar Papers, IIIrd Installment, Subject File No. 265, 1970-72 (As Principal Secretary to the Prime Minister, 1967-73), pp. 3-9.

India's hostile neighbors. While the report considered a surprise attack from Pakistan an imminent possibility, any full scale land invasion of India from China was ruled out. The Chinese threat was defined more in terms of material and political support to insurgencies in India's North East, military aid to Pakistan, and making military threats in case of hostilities with Islamabad with the objective of diverting India's military resources.

Conventional threats notwithstanding, Apex Group I considered the use of atomic weapons by China as highly unlikely. In its submission to the CCPA, the report argued that "use of atomic weapons by China can be ruled out." Moreover, Pakistan's nuclear weapons program finds no mention in the report—suggesting that Apex Group I received no specific inputs from India's intelligence agencies on Islamabad's nuclear ambitions.⁹ This lack of concern regarding the possible use of atomic weapons by China has an uncanny resemblance with an earlier appreciation of the Chinese nuclear threat made by L.K. Jha (Indira Gandhi's Principal Secretary) in May 1967.¹⁰

An Uncanny Similarity: L.K. Jha's Appraisal in May 1967

After China's first nuclear test in 1964, the Indian government sought nuclear guarantees from other nuclear powers, especially the US and the USSR, as a counter-measure to the Chinese threat. Jha was entrusted with the responsibility to work out the modalities of such a nuclear umbrella without committing India to any military alliances. In the wake of his discussions with authorities in the US and the USSR, Jha submitted several memos to apprise the Prime Minister

⁹ Perkovich, *India's Nuclear Bomb*, p. 165. Also see, Feroz Hassan Khan, *Eating Grass: The Making of the Pakistani Bomb*, Cambridge University Press: New Delhi, 2013, pp. 106-107.

¹⁰ These documents were first cited by Andrew B. Kennedy in his 2011 article in *International Security*. See, Andrew Kennedy, *India's Nuclear Odyssey*, pp. 131-135. For an alternative reading of Jha's memos see, Gaurav Kampani, "Correspondence: Debating India's Pathway to Nuclearisation," *International Security*, Vol. 37, No. 2, Fall 2012, pp. 183-185.

of the issue of nuclear guarantees and on India's foreseeable nuclear policy.¹¹ In a document titled "Nuclear Policy," Jha argued that the time had now arrived for India to consider the question of going nuclear in earnest (**Document No. 2**). In the memo, Jha appeared to argue against any immediate development of nuclear weapons for two reasons. First was the enormous cost associated with developing a nuclear deterrent.¹² Second, even when the "main argument in favor of India going nuclear is the Chinese threat," Jha did not foresee China either involving itself in a full scale war with India or using nuclear weapons in such a case: "even if there was a full-scale war with China, I doubt if the Chinese would use nuclear weapons."

Jha's appraisal of the Chinese nuclear threat appears inspired by the post-World War II logic of non-use of nuclear weapons and a dose of Cold War realism: "In case (of China attacking India), USA and USSR could not stand by and watch. The danger to both these powers from a nuclear China which has subjugated India could be tremendous for them to face," Jha suggested. Moreover, Jha argued that development of nuclear weapons by India would "greatly reduce the restraint on China using nuclear weapons against us" and would also negatively impact the commitment of both the US and the USSR to come to India's aid. However, this did not translate into a long term aversion against India's development of nuclear weapons. In fact,

¹¹ Prime Minister's Secretariat, "Nuclear Security," 2 May 1967. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 111, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), pp. 1-7. Prime Minister's Secretariat, "Nuclear Policy," 3 May 1967. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 111, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), pp. 8-15.

¹² Even though Indian Scientists like Homi Bhabha had argued that a stockpile of 50 weapons would only cost \$ 50 million to the Indian exchequer, it appears that decision-makers were influenced by economic analysis offered to them by countries such as Britain on developing a nuclear deterrent. In December 1964, Indian Prime Minister Lal Bahadur Shastri had requested the Wilson government to offer an analysis of the cost of the bomb in case India decides to develop it. This resulted in a report prepared by British Ministry of Defense and titled *Indication of the Cost of an Indian Defense Capability in the Light of British Experience*. The report suggested that financial implications of the bomb and acquisition of a bomber force to deliver it would be exorbitant: something to the tune of \$350 million with a running cost of \$ 50 million per annum. However, as Susanna Schrafstetter has argued, these figures were highly inflated. In a confidential report which was not shared with the Indian government, the actual costs were assumed to be significantly less. See Susanna Schrafstetter, "Preventing the 'Smiling Buddha': British-Indian nuclear relations and the Commonwealth Nuclear Force, 1964-68," *Journal of Strategic Studies*, Vol 25, No. 3 (2002), pp. 93-94.

even when Jha advised the Prime Minister not to “abandon our policy of not developing nuclear weapons for the present” and to continue striving for a “suitable political guarantee against nuclear attack and nuclear blackmail,” he also alluded to a possible change in geostrategic conditions where India may have to undertake a different course. Therefore, in the final analysis, he advised that India should not “tie its hands in perpetuity against making of nuclear weapons” and should also concentrate on developing missile capabilities.

Clearly, with regard to the atomic threat from China, not much had changed between Jha’s evaluation in May 1967 and the submission of Apex Group I’s report in May 1973. This is perplexing as the strategic environment had altered substantially post-1971. The US tilt towards Pakistan was unequivocal, as was the growing strategic understanding between Washington DC and Beijing. At least one of the two superpowers which Jha had predicted to come to India’s aid had clearly turned hostile, as proven by the events of December 1971.

Revised Threat Assessment of the Chiefs of Staff Committee (COSC) of May-June 1974

In May–June 1974, the Chiefs of Staff Committee (COSC) conducted a fresh threat assessment of India’s strategic environment in consultations with the Ministry of External Affairs **(Document No. 3)**. The MoD argued that the new threat assessment was driven primarily by the “current threat (from Pakistan) and the recent developments arising due to [the] West Asia War and the Oil Embargo.” For the MoD, Pakistan had by now made “good its losses and built up its strengths far in excess of the 1971 levels” largely on account of military assistance received from “China, Iran, CENTO, France and other West Asian countries.” On the other hand, the Yom-Kippur war proved that aggressors could achieve “complete surprise by a good deception plan” and also “may hold on to its territorial gains in defiance of the UN, provided he [the hostile power] has support of a superpower.” These lessons were important for the MoD, as Pakistan

was seen both preparing for a surprise attack to grab Indian territory and was also perceived to be supported by the US. The MoD also appears to have learnt some technological lessons from the war in West Asia, especially on the importance of missile warfare: “Missiles are likely to dominate the future battlefield,” the MoD argued. However, the revised threat assessment was most motivated by the acute financial situation the MoD found itself in within a year of defense allocation made by the Apex Group I. In 1973 the Apex Group I had allocated a sum of Rs. 98000 million (\$ 12.5 billion) for the Defense Plan 1974–79.¹³ But between 1973 and 1974, India faced one of the biggest inflationary crises in its history: inflation rose from twenty two percent in 1973 to almost thirty percent in 1974. Escalation in prices combined with the government’s approval for increase in salaries translated into massive reduction of resources for military modernization per the allocations made in 1973. Finding its position untenable, the MoD prepared a revised plan in June 1974 and forwarded it for consultations to the MoF. Surprisingly, even when the threat assessment was made in May–June 1974 and the report was submitted to the MoF on 28 June 1974, India’s 11 May PNE detonation found no mention in the COSC’s fresh threat assessment. It also curiously avoids a discussion on China except mention of the possible military collaboration between Beijing and Islamabad.

Instead, the COSC appeared mainly concerned by the rearmament of Pakistan’s military by the US, Arab nations, and its other Central Treaty Organization (CENTO) allies, by the war in West Asia, and by the oil embargo by Arab countries.¹⁴ It requested from the government that “a proper judgment be made of Pakistan’s intentions of launching a surprise attack” and even

¹³ Conversion based on Reserve Bank of India average rate of 7.7925 Rs per Dollar for 1973-74. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen. <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>

¹⁴ Concerns over Middle Eastern countries rearming Pakistan with American weapons were a constant source of friction between India and US. See, Record of the Meeting between Indian Ambassador to the US T.N. Kaul and Secretary of State Henry Kissinger, 14 July 1973. Nehru memorial Museum and Library (New Delhi): T.N. Kaul Papers, Subject File No. 1, 1973-75 (As Ambassador to the US, 1973-76), p. 103.

postulated that “judging from the relative build-up of Pak forces,” the period from “May 1974 to November 1975” would be of critical importance for India’s defense. China was conspicuously absent from the COSC’s threat assessment.

Lack of Chinese Nuclear Threat and the Puzzle of PNE: Some Explanations

These documents suggest that Indian decision-makers in the period immediately before the nuclear tests in 1974 did not consider Chinese nuclear weapons a major threat.¹⁵ Two developments may have ameliorated India’s strategic environment vis-à-vis China: the confidence which India gained from a thumping military victory over Pakistan in the Bangladesh war¹⁶ and the treaty of friendship with the USSR signed in 1971. In fact, on the eve of Brezhnev’s visit to New Delhi in November 1973, D.P. Dhar, in a note prepared for the Prime Minister, painted a very bleak picture of Sino-Soviet relations.¹⁷ He argued that the “USSR-China equation will not resolve in near future” mostly on account of the internal turmoil in China and also because of Beijing’s recalcitrance in settling the boundary dispute with Moscow.¹⁸ Recent events on the other hand had left the “Russians convinced that the US and China have

¹⁵ Such an appreciation of Chinese nuclear threat was prevalent among Indian decision-makers even before China went nuclear in 1964. In fact in December 1963, Prime Minister Nehru had categorically told a visiting US defense delegation that the impact of China going nuclear would largely be “psychological” in nature. In the fall of 1963, the Ministry of Defense had started preparing a five year plan for defense modernization in consultation with the US. In December 1963, a high level defense delegation from the US under General Maxwell Taylor visited India. Gen. Taylor met almost all in the rank and file of Prime Minister Nehru’s cabinet including the Prime Minister himself. During his meeting with the Prime Minister on 17 December 1963, one of the issues which came up for discussion was the concern of China going nuclear or as Gen. Taylor put it: “they (the US) had to think more and more about China which may one day be a nuclear power.”¹⁵ However, in General Taylor’s appreciation, China’s nuclear and missile capabilities “for quite some time would really only have a symbolic effect.” Chester Bowles—US Ambassador to India—on the other hand was more categorical of China’s capabilities; he rightly predicted the China might explode the bomb in 1964. For Nehru, China’s going nuclear would have had a “psychological impact” on India. See, Summary of Records of Prime Minister’s Discussion with General Maxwell Taylor, 17 December 1963. Nehru Memorial Museum and Library (New Delhi): B.K. Nehru Papers: 1961-63, Subject File No. 17, (As Ambassador to the US, 1961-66), p. 144.

¹⁶ Bhabani Sen Gupta, *Nuclear Weapons: Policy Options for India*, Sage: New Delhi, 1983, p. 4

¹⁷ D. P. Dhar’s Note to the Prime Minister on Brezhnev’s Visit to India, 3 November 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 284, 1970-98 (India’s Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), pp. 1–23.

¹⁸ Ibid, pp. 4–5.

some understanding on USSR.” Dhar was quite upbeat on the prospects for India's role in the Soviet worldview: “India’s moral and political influence in the third world is of great value to them [USSR],” argued Dhar.¹⁹ On the Indo-Soviet security partnership, Dhar observed that “from a position of neutrality in the India-China conflict, the Soviet Union has now come much closer to supporting India and its dispute with China. India, more than ever, appears as the pivot of security and stability in Asia.”²⁰ The security guarantees provided by the Soviet Union made New Delhi feel much more comfortable than would have been the case otherwise. The strategic environment of the early 1970s, at least for Indian decision-makers, also ensured continued support from the Soviet Union.

However, if that was the case, why would India test a nuclear device in 1974?²¹ This question becomes more pertinent given that Jha had argued against the development of nuclear weapons in 1967, as such a course of action would have diluted the implicit security guarantees offered by the great powers. Moreover, the 1971 treaty did not refer to any explicit nuclear guarantees by the Soviet Union. The dominant trend to explain this anomaly among political scientists and historians is to link India’s decision to conduct a PNE with its desire to achieve strategic autonomy in its foreign policy behavior, to reduce its dependence on the Soviet Union, and achieve a major power status.²² However, if the treaty with the Soviet Union reassured India against atomic coercion from China, why would India seemingly act against its own interests, considering that such an action would have invited condemnation from the Soviet Union and dilution of Soviet commitment to India’s defense? Jha consciously argued against this in his

¹⁹ Ibid, p. 3.

²⁰ Ibid, pp. 5–6.

²¹ This point was raised by Gaurav Kampani in his correspondence with Andrew Kennedy in the journal of *International Security*. See, Gaurav Kampani, “Correspondence: Debating India’s Pathway to Nuclearisation,” pp. 184.

²² Sen Gupta, *Nuclear Weapons*, p. 4. See Perkovich, *India’s Nuclear Bomb*, 167–168. Balazs Szalontai, in his extensive study of Hungarian National Archives, also comes to similar conclusions. See, Szalontai, *The Elephant in the Room*, pp. 6–7.

1967 memo. Three additional considerations must be recognized in order to understand India's nuclear decision-making.

First, both Apex Group I under D.P. Dhar and the COSC's threat assessment in May–June 1974 catered only to short and mid-term threat scenarios. Therefore, notwithstanding the fact that both these credible archival sources point towards an absence of a Chinese nuclear threat in 1973 and 1974, the PNE choice could still have been influenced by a long term threat assessment of Chinese nuclear weapons and the insecurity it generated in the minds of Indian decision-makers. However, the concentration of nuclear decision-making in the PMO's office obscures any definitive findings at this time.²³

Second, by 1974, the Soviet Union's principal reservations against India's nuclear weapons program had been settled. In the late 1960s, the Kremlin's concerns over India's nuclear weapons program emanated out of a number of factors. First, if India "decided to manufacture a nuclear bomb," India's foreign policy "might take a more aggressive and possibly pro-American turn."²⁴ The US tilt towards China, the Indo-USSR treaty of friendship, and New Delhi's experiences of the 1971 war had clearly mitigated that possibility. Second, Moscow was also worried that India's nuclear weapons program and its resistance to the NPT could perhaps motivate West Germany to follow suit.²⁵ In fact, according to the memo on "Nuclear Security" written by Jha in May 1967, the Soviet Union had insisted on India's signing the NPT as a condition for nuclear guarantees and it was "doubtful if the Soviets will pursue their present positive approach if they felt that we (India) would not sign the NPT."²⁶

²³ This point was brought to the author's notice by Andrew Kennedy and Gaurav Kampani and the author would like to thank both of them for their sincere advice.

²⁴ Szalontai, *The Elephant in the Room*, pp. 3–4.

²⁵ Szalontai, *The Elephant in the Room*, pp.3–4.

²⁶ Prime Minister's Secretariat, "Nuclear Security," 2 May 1967. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 111, 1975–76 (Ministry of Defense and Related Files 1971–76, 79), p. 7.

In contrast, as Jha had observed, “neither in America nor in Britain and certainly not in France was there any kind of pressure in regard to the non-proliferation treaty.”²⁷ With the conclusion of the NPT in 1968 and the signing of the treaty by West Germany in November 1969, even these concerns were mitigated.²⁸ Therefore, all factors which could elicit a negative response by the Soviet Union on India’s decision to test were settled by 1974. In fact, the fallout from the PNE on the Indo-Soviet relationship was minimal. The Soviet Union resisted any criticism of India’s decision to test the PNE.²⁹ Only three months after the tests, the Soviet Union offered to cooperate with India in the field of atomic energy. In a meeting on 19 September 1974, Chairman Kosygin relayed to D.P. Dhar the “great possibility of cooperation between the two countries” in the field of atomic energy and emphasized the fact that such cooperation would have “inter-connected economic, political and prestige aspects” (**Document No. 4**).³⁰ Rather than following the Western lead on sanctioning India, the Soviet Union was willing to increase and expand its cooperation with New Delhi.

The third consideration is the difference between a nuclear device, a nuclear weapon, the process of weaponization, and operationalization of the weapon.³¹ India did conduct a nuclear test in 1974 but at that point it only possessed a nuclear explosive device: an “apparatus that presents proof of scientific principle that explosion will occur.”³² Technically speaking, conducting a successful test of a nuclear device does not immediately translate into nuclear

²⁷ Ibid, p. 6.

²⁸ Szalontai, *The Elephant in the Room*, pp.5–6.

²⁹ Szalontai, *The Elephant in the Room*, p. 8.

³⁰ Documents from the Hungarian archives also confirm Soviet willingness to cooperate with India in the field of Atomic Energy immediately after the 1974 PNE. See, Balazs Szalontai, *The Elephant in the Room*, p. 9.

³¹ Gaurav Kampani, “New Delhi’s Long Nuclear Journey: How Secrecy and Institutional Roadblocks delayed India’s Weaponization,” *International Security*, Vol. 38, No.4, Spring 2014, pp. 71–114.

³² According to Kampani, a ‘nuclear weapon’ on the other hand represents a “rugged and miniaturized version of the device”. ‘Process of weaponization’ entails the “process of integrating the nuclear weapon with delivery systems.” Lastly, ‘operationalization’ entails “development of soft institutional and organizational routines.” Going by these distinctions, the PNE only suggested India’s possession of a nuclear device. Kampani, *New Delhi’s Long Nuclear Journey*, pp. 80–81.

weapons capability—the weaponization process is long and complex. At this stage, India had neither the capacity to weaponize its nuclear device, nor had reliable and safe means to deliver it. Given these realities, the PNE could not have reduced India’s security dependence on the Soviet Union. The following section of this paper examines the state of India’s nuclear readiness both before and in the immediate aftermath of the PNE.

The PNE and its Implications, 1974–75

This section focuses on the debate between India’s Ministry of Finance (MoF) and Ministry of Defense (MoD) on the implications of India’s PNE. Whereas the MoF advocated to consider the PNE a nuclear deterrent, the MoD argued against such an interpretation largely on account of the absence of an accompanying weaponization program. This section first underlines the arguments presented by the MoF on India’s defense needs in December 1974 and subsequently discusses the MoD’s January 1975 reply to the MoF. The final part of this section focuses on the deliberations of Apex Group II and examines India’s missile and bomber capabilities in the first half of the 1970s. These findings indicate that a parallel development program for nuclear-capable delivery vehicles was missing both before and immediately after the PNE.

The PNE as Deterrent: the MoF argues to the MOD

On 26 December 1974, the MoF finally replied to the MoD’s request for additional funds under the five year defense plan 1974–79 (**Document No. 5**). For precisely the same reasons which had forced the MoD to seek revisions in the defense plan—rising inflation, devaluation of the rupee, and increasing fiscal constraint on the economy due to the oil crisis—the MoF rejected the MoD’s request for additional funds. Given the financial constraints on the economy, the MoF also challenged the “conceptual basis” of the revised defense plans as submitted by the MoD.

The MoF found the COSC’s May–June 1974 threat assessment to be highly exaggerated, and the Ministry instead proposed a thorough, alternate assessment with input from the Joint Intelligence Committee (JIC). Though the revised threat assessment submitted by the COSC had not touched upon the threat from China, the MoF’s version paid detailed attention to India’s defense needs vis-à-vis its northern neighbor. With respect to the threat emanating from Beijing, the document repeated almost verbatim points made by the Apex Group I in May 1973. Again, in

the MoF's view, the threat from China was largely political rather than military and their assessment therefore questioned the Army's logic of maintaining a force of 8 mountain divisions along the Himalayan frontier. The MoF was clearly in favor of cutting down on the force structure so as to achieve some economy in defense expenditures. The MoF was equally dismissive of the COSC's assessment of the military danger represented by Pakistan—it simply rejected the MoD's contention of a massive rearmament effort by Pakistan military. According to the MoF, the estimates offered by the JIC on military hardware received by Pakistan post-1971 neither supported the theory of rapid build-up of Pakistani forces nor the idea that Pakistan was preparing to launch a surprise attack against India.

However, the MoF's threat assessment was not restricted to the level of conventional forces; it also brought in the issue of India's PNE and its likely deterrent value in support of its arguments. According to the MoF, the COSC and the MoD had discounted the deterrent effect of the PNE as "India, not Pakistan, who detonated a nuclear device." Advocating a case for an existential nuclear deterrent, the MoF further argued that in case of any future hostilities, Pakistan will have to consider the fact that "India would be in a position (using a conventional delivery system) to unload a relatively small yield nuclear weapon on a Pakistani target."

Invoking Nuclear Deterrent "Just Unfortunate": the MoD hits back, January 1975

Sensing clear reservations from the MoF on any upward revision of the defense budget, the MoD sent a detailed rebuttal to the MoF in January 1975 (**Document No. 6**). It squarely rejected the MoF's accusation that the COSC had over-exaggerated threats emanating from China and Pakistan but reserved special criticism for the suggestion on nuclear deterrent. The MoF's reference to nuclear deterrence had the most shocking effect on the MoD for three principal reasons. First, India's stated policy was to use nuclear technology only for peaceful purposes.

Second, there was no demonstrated capability in nuclear warheads or delivery vehicles: “we cannot take into account the impact of our nuclear explosion on the threat from Pakistan in the absence of tactical nuclear weapon and a delivery system for it,” argued the MoD. Lastly, the MoD was also concerned with the fact that “the sanction of world opinion against such use renders even a limited use of a tactical nuclear weapons” highly questionable, even if India would have such a capability and was willing to use it. This initial exchange between the two ministries reveals not only their divergent views on India’s defense preparedness, threat assessment, and defense expenditures, but also their perceptions of India’s nuclear capability in the light of the PNE.

Apex Group II under P.N. Haksar

In its submission to the Cabinet Committee on Political Affairs (CCPA)— India’s highest decision-making body—on this bitter exchange of words with the MoF in January 1975, the MoD said that it was “unfortunate” for the MoF to have “made a mention of the nuclear blast” in its threat analysis (**Document No. 7**). The “nuclear blast,” as it was put in the MoD’s reply, “plays no part whatsoever in our defense preparedness which is based entirely on conventional weapons” (**Document No. 7**). To resolve the logjam between the two ministries, a second Apex Group under the Chairmanship of P.N. Haksar was formed in April 1975 (**Document No. 8**). The objectives of this committee were: first, to examine the June 1974 revised estimates of the MoD and the subsequent correspondence with the MoF including the January 1975 rejoinder by the MoD; second, to take into account new threat assessments offered by the MoD in the light of the developments taking place since 1971 war and the current economic situation of the country; and lastly, to offer recommendations for defense preparedness, including force strengths and actions to be pursued during the current plan period.

In his submission to the Apex Group II, the Finance Secretary also made the argument for nuclear deterrence against China (**Document No. 9**). A better rate of savings, as his letter argued, would allow India to develop a robust nuclear deterrence against its northern neighbor. There appears to be a subtle difference in arguments regarding nuclear weapons between the MoF's reply to the MoD in December 1974 and its submission to the Apex Group II in April 1975. In its reply to the MoD, the MoF seems to argue for inclusion of the effect of the PNE in India's strategic calculus (and therefore the defense budgets) as if India had already developed a nuclear deterrent. On the other hand, in the later correspondence with the Apex Group II, the MoF appears to suggest the sequestration of conventional defense expenditures for the development of a robust nuclear deterrence capability.

Resolving the Conflict of Interpretations: Assessing India's Nuclear Delivery Capabilities

Disentangling the conversation between the MoD and the MoF on whether the PNE provided India a nuclear deterrent is a knotty problem, for two main reasons.³³ First, both ministries were competing in a very tight fiscal situation. The MoF had an inherent interest in depicting nuclear deterrence as a means to cut down on conventional defense expenditures. The MoD, on the other hand, could have seen this as a mischievous tactic and therefore may have emphasized a purely conventional strategy. The fact that the final report of the Apex Group II is not available in the archives adds additional complexity to the problem. However, the letter written by P.N. Haksar to the Defense Minister on the eve of the submission of the report in July 1975 is available (**Document No. 10**). The implications of the PNE find no mention in the letter. An assessment of India's nuclear capabilities at this stage is therefore important, as the existence or absence of programs for developing delivery systems would settle the conflict of interpretations between the

³³ This issue was brought to the author's notice by Dr. Balazs Szalontai. The author is grateful for his astute observation and also for providing methodological advice in resolving it.

ministries. If the PNE was indeed conducted with an intention to nuclearize immediately, then some delivery capabilities ought to have been in simultaneous development. These could have been either ballistic missiles or aircraft. However, available evidence suggest otherwise

The Missile Program in the Early 1970s

In his July 1975 letter to the Defense Minister, Haksar expressed his concerns on the dismal state of indigenous capability in the field of missiles and aeronautics. Writing to the Defense Minister, Haksar stated “I shall be failing in my duty if I did not record my sense of horror at the way we have been handling the entire field of aeronautics and missiles.” Clearly, even when Jha had advised for development of missile capabilities in 1967, not much appears to have transpired on the ground. This was not the first instance where Haksar had expressed such concerns. In the late 1960s, the Government of India established an Aeronautics Committee under C. Subramanian in order to indigenously develop fighter aircraft and guided missiles. In April 1970, Haksar wrote to the Prime Minister, notifying her of the apparent absence of any significant progress.³⁴ By 1973, the Defense Research and Development Organization, (DRDO), had proposed a number of new schemes for missile development. These included: 80km Surface-to-Surface Missile, Air-To-Air Missiles, Improved Medium Range Surface-to-Air Missiles, Ship-to-Ship Missiles, Short Range Surface-to-Surface, and Single Stage Surface-to-Surface missiles.³⁵ According to available documents, as of May 1975, total financial allocations of Rs.431.50million (\$49.6 million) had been made for: “short range rocket and missiles development” (Rs. 81.4 million, \$93.7 million),

³⁴ P.N. Haksar’s Note on Aeronautics Committee, 13.4. 1970. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 151, April 1970, Part I (Prime Minister’s Secretariat Files: Guard file maintained as Secretary/ Principal Secretary to Prime Minister, 1967–73), 86-89

³⁵ Appendix “L” of the 1973 Defense Plan suggests that these projects were initiated under the category of “New Schemes” for Defense Research and Development. See, The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), Defense Research and Development, “New Schemes,” Appendix L, May 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 299, 1975-76 (Ministry of Defense and Related Files 1971–76, 79), p. 105.

the “80 kilometer surface-to-surface missile” (Rs.25 million, \$2.8 million), “development of guidance systems” (Rs.50 million, \$5.7 million), “Inertial Navigation Systems” (Rs.62.1 million, \$7.2 million) and “LP (Liquid Propulsion) Engine Facility” (Rs.255.7 million, \$29.4 million).³⁶ Even these investments, as the Defense Secretary argued to the Apex Group II, would at least take 3 to 10 years to develop and a few years afterwards to be fully adapted to Indian operational conditions.³⁷

Two important points merit mention at this stage. First, from the details in these documents, it appears that ballistic missiles did not figure in India’s missile program until 1975. Second, even within the existing program, dissatisfaction with the progress of these projects was widespread both in the defense services and the bureaucracy. Expressing his concerns on the state of missile and aeronautics research and development to Apex Group II, the Chief of Air Staff observed: “To put it mildly, this valuable report [Aeronautics Committee Report] has not been implemented as yet.”³⁸ He even argued that “it is my firm conviction that under the present set up no progress of consequence is possible and that a central agency on the lines of the space, atomic energy and or Electronic Commission has to be set up to provide the necessary policy direction, guidance and leadership.”³⁹ Similar concerns were raised by the Finance Secretary in May 1975: “It is submitted that final decisions in this matter [development of missiles] should not be left only with the Ministry of Defense. Scientists from the Electronics, Atomic Energy and

³⁶ Note from Finance Secretary H.N. Ray to P.N. Haksar, 11 May 1975, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971–76, 79), p. 227. Conversion based on Reserve Bank of India average rate of Rs. 8.6825 per Dollar for 1975–76. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen. <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>.

³⁷ Budget for Defense R&D Plan, 1974-79, May 1975, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), pp. 62-65.

³⁸ Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), p. 151.

³⁹ Ibid, p. 152.

Space Organizations . . . having the requisite knowledge should be asked to advise.”⁴⁰ By 1975, therefore, a completely new approach to Missile development had become a critical necessity. As the Defense Secretary argued to the Apex Group II, “missiles are causing grave concerns . . . an aeronautics and missile policy needs to be worked out on an urgent basis.”⁴¹ These concerns, it appears, did not go unheeded.

Interestingly, on 17 March 1976, a meeting of the Aeronautics Group was convened.⁴² Judging from the note prepared by S.R. Valluri (Director of National Aeronautics Laboratory), addressed to the Scientific Advisor to the Prime Minister—Prof. M.G.K Menon—it was agreed in the meeting that an Aeronautics and Missile Development Research Board (AMDRB) was to be established directly under the Chairmanship of the Prime Minister. Additionally, an Aeronautics and Missile Committee was set up to liaison with the defense forces, project their needs to AMDRB, and review the overall missile policy. The idea was to establish an integrated approach to missile development. Interestingly, as some new research on the subject suggests, the MoD established a Missile Policy Committee in the mid-1970s whose deliberations resulted in a document titled “A Missile Plan for 1980s.”⁴³ If the March 1976 meeting led to the formation of the Missile Policy Committee, then available documents confirm that these deliberations had not taken a final shape until at least May 1976.⁴⁴ Irrespective of the date on

⁴⁰ Note from Finance Secretary H.N. Ray to P.N. Haksar, 11 May 1975.

⁴¹ Budget for Defense R&D Plan, 1974-79, May 1975, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), p. 62-65.

⁴² S.R. Valluri to Prof. M.G.K Menon, 5 April 1976, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Correspondence: Defense Ministry, Scientific Advisor To, pp. 1-8.

⁴³ Rajaram Nagappa and Arun Vishwanathan, “Evolution of Missile Technologies in India,” Draft Paper presented at author’s workshop for Indian Council for Social Science Research Project on “Nuclearisation of South Asia,” 27 March 2014, p. 6. Also see, Ramdas P. Shenoy, *Defense Research & Development Organisation (1958-1982)*, DESIDOC, New Delhi, 2006, pp.133-134.

⁴⁴ On 12 May 1976, Secretary (Expenditures), Finance Ministry wrote to P.N. Haksar on the issue of procurement of Deep Penetration Strike Aircraft (DPSAs). A note was attached with the letter which dealt with issues enveloping the DPSA procurements as viewed by the MoF. It seems the Air Force had argued that missiles, at this stage of their development, could not perform the functions envisaged for the DPSA’s “except at a much higher cost because of

which the missile plans were finally promulgated, new research by Nagappa and Vishwanathan suggests that the final plan envisaged five systems with at least one dedicated to development of a ballistic missile.⁴⁵ This eventually laid the foundations of the Integrated Guided Missile Development Plan (IGDMP) in the 1980s. Notwithstanding these later developments, it appears that until May 1976, Indian missile development plans lacked a ballistic missile component suitable for use as a nuclear delivery system.

Strategic Air Arm

In the case of bombers, India had two options for nuclear delivery: to adopt already-operational Canberra bombers or, at a later date, to use the Deep Penetration Strike Aircrafts (DPSA) which the Air Force had been interested in procuring since the late 1960s. With regards to the DPSA, the Apex Group I recommended that the issue receive proper attention. Documents indicate that by 1973, negotiations to identify and purchase suitable aircrafts were already taking place with the Soviet Union, France and UK.⁴⁶ Initial negotiations with the Soviet Union for the DPSA program did not progress, as the Mig-23B aircraft offered by Moscow did not satisfy the IAF's operational requirements. By 1974, Air Headquarters had indicated that a choice had to be made between French Mirage F-1 or Anglo-French Jaguars and that it preferred the later over the

the lesser precision of missiles in relation to small targets." The Secretary (Expenditures) however argued that within the life cycle of these aircraft (that is 15-20 years), India could develop sufficient capability in missiles rendering the investment on DPSA's redundant. As he observed, "The programme for indigenous development of missile technology, and for procurement of missile systems, is separately under examination by an expert group." This suggests that the missile policy had not taken its final shape yet. In his final conclusion over the debate on DPSAs versus Missiles, the Secretary (Expenditures) argued that given these developments (on missiles), there was a "grave risk of obsolescence (of DPSAs) and the possibility of an alternative delivery system on missiles" within the life-cycle of such aircraft. See, Letter from Ajit Mazumdar, Secretary (Expenditures), Ministry of Finance to P.N. Haksar, 12 May 1976. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 298, (Ministry of Defense and Related Files 1971-76, 79), pp. 193-199.

⁴⁵ Nagappa and Vishwanathan, "Evolution of Missile Technologies in India, p. 7.

⁴⁶The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), "Air Force," May 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 299, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), p. 29.

former.⁴⁷ By 1975, Air headquarters appeared desperate to have a minimum number of these aircraft in its order of battle. The presentation made by the Air Chief in 1975 to Apex Group II stressed upon the need to equip the force with “two squadrons of a suitable strike aircraft (which should have a penetrative capability, the ability to carry a weapon load which will make a dent, be fitted with accurate navigation and attack systems.”⁴⁸ The possible justification and future role of DPSAs were explained in length in an additional paper titled, “Justification for Acquisition of DPSA.”⁴⁹ The aircraft’s operational requirements appear to be for conventional operations: a range of 300–350 nautical miles, good navigation systems to avoid enemy air defense, twin engine configuration, and small size for maximum survivability. These features would allow the aircraft to deliver weapons such as “cluster bombs for area targets, penetration bombs for runways and stand-off weapons against targets which do not permit any other mode of attack.”⁵⁰

For its DPSA requirements, India eventually bought the Anglo-French Jaguars in 1978. While all modern strike aircraft have some latent potential to carry nuclear weapons, contemporary analysis indicates that these aircraft were not suitable for nuclear missions in the configuration they were shipped in. New research on the issue suggests that the DRDO did conduct trials on the Jaguars as potential nuclear delivery vehicles in the early 1980s, but found them unsuitable primarily due to the “low ground clearance between the aircraft and the nuclear

⁴⁷Ministry of Defence, Defence Plan 1974-75, 8 June 1974. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1975-76 (Ministry of Defence and Related Files 1971-76, 79): 28.

⁴⁸ Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), p. 156.

⁴⁹ Air/ HQ/TS/96091/2/1/ASR, Supplementary Paper No. 2, “Justification For acquisition of DPSA,” Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), pp. 192- 198.

⁵⁰ Other necessary technical stipulations were: aircraft had to fly at low heights and speeds in the range of 550 NM in approaching mode and 600-650 nautical miles in withdrawal mode; passive warning devices against interceptors and electronic countermeasures against SAMs etc. See, Air/ HQ/TS/96091/2/1/ASR, Supplementary paper No. 2, “Justification For acquisition of DPSA, 1970s Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79), pp. 196-197.

weapon container.”⁵¹ In hindsight, this evidence indicates that during the acquisition process for the DPSAs in the mid-1970s, nuclear delivery missions were not seriously considered. As Gaurav Kampani argues in his research on weaponization process of India’s nuclear option: “The air force purchased combat aircrafts without thinking through the challenges of (nuclear) weaponization.”⁵² This absence of nuclear delivery missions in the air force’s strategic thinking is also evident in its approach to high altitude bombers.

The Indian Air Force had been operating the Canberra Class of bombers since the early 1960s. By 1973, however, the Canberras seem to have lost favor within the Air Force. In fact, the Apex Group I had recommended to the Indian government that with the “induction of DPSA, Canberra is to be relegated to the tactical strike interdiction role progressively.”⁵³ The future force projection charts of the Air Force, as produced in the 1973 report, indicate that Canberras were due for retirement by the early 1980s.⁵⁴ The Apex Group report had, however, said that for the IAF, a long range bomber should be “considered at length.”⁵⁵ Notwithstanding such

⁵¹ Kampani, *India’s long Nuclear Journey*, p. 94.

⁵² Gaurav Kampani makes this argument based upon his research on the difficulties with which the Mirage aircraft were converted for nuclear missions by the DRDO. Mirage aircraft were brought from the French in the mid-1980s. In the late 1980s, the DRDO started converting these aircraft for possible nuclear missions. Though theoretically capable of nuclear delivery, the conversion process took considerable time to complete. As Kampani argues, “India acquired nuclear weapons in 1989-90, but it lacked the capacity to deliver them reliably and safely until 1994-95 or possibly 1996 (page 81).” See, Kampani, *India’s Long Nuclear Journey*, p. 88.

⁵³ The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), “Draft Long Term Re-Equipment Plan for the Strike Element,” Appendix C1, May 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 299, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), 77.

⁵⁴ *Ibid.*

⁵⁵ This recommendation was inspired by two factors. First, the DPSA’s under consideration were limited to a range of 400 nautical miles. Second, the Apex Group appeared to be perturbed by Pakistan’s acquisition of TU-16 Bombers by Pakistan. The Apex Group report noted in its findings that the “DPSA sought by the IAF will have no utility for playing any significant role beyond 400 nautical miles in the event of a confrontation in the North. In this connection, the usefulness for the air force in having a good long range bomber needs to be considered in length. The question as to why Pakistan is acquiring obsolete TU-16 bombers from China has to be asked. It had also to be mentioned, particularly in the context of several contingencies that may arise in the future, that TU-16 has been the only aircraft which China has used for carrying out atomic tests and which it can use for delivering atomic bombs.” The contingencies mentioned here could have been ‘nuclear contingencies’ but no specific input was given on the kind of bombers and time-period for their acquisition. See, The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), “Air Force,” May 1973. Nehru Memorial Museum and Library (New

recommendations, subsequent documents such as D.P. Dhar's negotiations with the Soviet Union on defense acquisitions for the air force in September 1974 and the presentation of the Chief of Air Staff to the Apex Group II in 1975 on the Air Force's requirements did suggest that the service was not very inclined to have a bomber force.⁵⁶ In his submission to the Apex Group II in 1975, the Air Chief portrayed a very disappointing picture of Canberra's capabilities: "No qualitative and quantitative changes in the Canberra force (since 1971). In view of the altered air defense environment in Pakistan, its speed is its greatest handicap. It will be utilized for night operations against Line of Control and relatively undefined targets."⁵⁷ Clearly, the objectives of the Canberra force appear quite limited, and given the view of the Chief, it is highly doubtful that it could have been given a nuclear delivery role.

Any discussion on the strategic air arm in the early 1970s would be incomplete without addressing the subject of TU-22 bombers. According to Bharat Karnad, the Soviet Union had agreed to offer TU-22s to India in early 1971, but the offer was rejected by the Indian Air Force (IAF), as there was a "glaring absence of a long range bomber in the IAF's order of battle."⁵⁸ A

Delhi): List of the P.N. Haksar Papers, IIIrd Installment, Subject File no. 299, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), pp. 29-30

⁵⁶D.P. Dhar's Note to the Prime Minister on Defense Matters discussed During Visit to Moscow, 9 October 1974, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 284, 1970-98 (India's Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), pp. 46- 48. Immediate force requirements as suggested by the CAS in his presentation were: Acquisition of 90 MIG-21 MF aircraft; Early induction of IL-38 MR/ASW aircraft; Two squadrons of a suitable strike aircraft (DPSA); Two squadron of medium tactical transport aircraft; acquisition of certain special weapons and missiles and lastly, induction of suitable ECM (Electronic Counter-Measures)/ ECCM (Electronic Counter Counter-Measures) equipment. No request for bombers appear to have been made by the CAS even when the Apex Group I had suggested acquisition of a suitable long range bomber. See, Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79): 152-153. To look at urgent requirements for the IAF under the fifth defense plan (1974-79) see, Statement No. IC, Statement Showing Hard Core Schemes and Measures During 1974-79 (Air Force), (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971-76, 79): 148-150.

⁵⁷ Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79): 145.

⁵⁸ Karnad, *Nuclear Weapons and Indian Security*, p. 660.

number of factors influenced the IAF's decision. First, the IAF found that the TU-22 did not fit its operational requirements for conventional bombing, especially against Pakistan. Second, given the fact that these "aircraft were optimized for nuclear bomb delivery, and because India at the time lacked nuclear bombs, the service thought it felt justified in asking for aircraft with more immediate utility."⁵⁹ Lastly, Karnad argues that, operational roles notwithstanding, the IAF also lacked a strategic vision. On one hand, it was obsessed with achieving air superiority against Pakistan and on the other, it suffered from "China-blindedness," in so far as it never considered bombers an option for air strikes against Beijing. The bombers, as Karnad argues, would have been an "ideal weapons against Mainland China," even when used for conventional bombing.⁶⁰

These observations, based largely on oral history accounts, have now been confirmed by documental evidence. After his visit to Moscow in September 1974, D.P. Dhar sent a memo to the Prime Minister providing details of his interactions with Soviet authorities on military matters.⁶¹ Writing on the need for maritime reconnaissance aircraft, Dhar observed that various types of aircraft are available through the Soviet Union and "they would like us to choose which would be most suitable to our needs." For Dhar, this had to be the TU-22. However, Dhar also observed that acquisition of TU-22 had been considered before and was rejected at the behest of the defense authorities (presumably the air force): "PM would recall that this is the bomber which we had once sought from the Soviets as replacement of Canberras. In fact, it was a result of her intervention at the highest levels that I was able to persuade the Soviet authorities to give us this aircraft. At that time, in spite of Soviet agreement, the defense authorities rejected it at the

⁵⁹ Ibid, p. 662.

⁶⁰ Ibid, 660.

⁶¹ D.P. Dhar's Note to the Prime Minister on Defense Matters discussed During Visit to Moscow, 9 October 1974, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 284, 1970-98 (India's Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), pp. 46- 48.

last moment.”⁶² Clearly, as Karnad had argued, the IAF appeared to have little interest in TU-22 bombers. This disinterest in bombers, however, continued even after the 1974 PNE. Available documents such as the Chief of Air Staff’s presentation to the Haksar committee⁶³ and statements on immediate requirements of the IAF⁶⁴—indicate that the service was mostly interested in acquiring the DPSA’s for punitive retaliation against Pakistan. The bombers were neither involved in the IAF’s possible missions nor did they figure in its force requirements.⁶⁵ Notwithstanding the IAF’s reluctance towards bombers in general and the TU-22 in particular, the requirement for maritime reconnaissance aircraft for the IAF had rekindled Dhar’s hope for acquiring the TU-22s. As he explained in his memo, “My own view is that in case this special equipment (maritime reconnaissance) can be fitted to this aircraft, we should go in for a squadron of TU-22s. In that case it could be used as a high altitude bomber as well as a maritime

⁶² Ibid, p. 47.

⁶³See, Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971-76, 79): 140-141.

⁶⁴Statement No. IC, Statement Showing Hard Core Schemes and Measures During 1974-79 (Air Force), (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971-76, 79), pp. 148-150.

⁶⁵In his presentation, the Air Chief underlined following as the main tasks for the IAF: Air defense of the mainland; Attack selected V.A.’s and V.P.’s with a view to neutralize/interfere with the war potential and to force the Pakistan Air Force (PAF) on the defensive; Provide close air support to the Army on required basis; Undertake maritime operations in support of the Navy’s operational plans on a required basis; Photo intelligence; Transport Support to Para Forces; Air Maintenance of the Army outposts in inaccessible areas and in counter-insurgency operations; To undertake harassing raids over Pakistan by night so that Mirage can be forced into doing night interception and lastly, interdiction of the Lines of Communication both by day and night to isolate the battlefield. Interestingly, bombing China did not figure as a core task of the IAF in CAS’s presentation. See, Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and Library (New Delhi): P NP.N. Haksar Papers, IIIrd Installment Subject File no. 297, 1975 Part I (Ministry of Defence and Related Files 1971-76, 79): 140-141. Also see, Statement No. IC, Statement Showing Hard Core Schemes and Measures During 1974-79 (Air Force), (No Date), Nehru Memorial Museum and Library (New Delhi): P NP.N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defence and Related Files 1971-76, 79), pp. 148-150.

reconnaissance aircraft.”⁶⁶ However, by 1975, the IAF had finally requested IL-38 MR/ASW aircraft for its maritime missions.⁶⁷

Through the mid-1970s, India lacked a strategic air arm capable of delivering nuclear weapons. It appears that at this stage, the IAF neither envisaged such strategic roles for itself, nor was it preparing to develop one. This however must be seen in the light of the fact that even the MoD was unsure of the strategic implications of the PNE. In the absence of proper direction from the PMO on the need for a nuclear deterrent, the IAF cannot be accused of strategic shortsightedness.

The Absence of Weaponization and the Lack of Direction from the PMO

The discussion on missiles and bombers suggests that a parallel program for the development of nuclear delivery mechanisms did not exist until 1976. Therefore, the MoD’s concerns on the non-weaponization of nuclear options and non-availability of delivery mechanisms appears credible. It is also important to take note of the fact that under recommendations of the Apex Group II, a sum of Rs. 1,225,00 million (\$ 14.1 billion) was allocated for the five year Defense Plan 1974–79 (**Document No. 11**).⁶⁸ The MoD had initially asked for only Rs. 1,120,00million (\$14 billion) in its revised estimate of June 1974.⁶⁹ This suggests that the Apex Group II sided with the MoD’s

⁶⁶ D.P. Dhar’s Note to the Prime Minister on Defense Matters discussed During Visit to Moscow, 9 October 1974, Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 284, 1970-98 (India’s Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), p. 47.

⁶⁷ Statement No. IC, Statement Showing Hard Core Schemes and Measures During 1974-79 (Air Force), (No Date), Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971-76, 79), p. 148.

⁶⁸ Conversion based on Reserve Bank of India average rate of Rs. 8.6825 per Dollar for 1975-76. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen., <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>.

⁶⁹ Conversion based on Reserve Bank of India average rate of Rs. 7.9408 per Dollar for 1974-75. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen., <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>.

conventional threat assessment and force requirements in the absence of further documentary evidence.

Three main conclusions can be drawn from these materials: First, in the absence of any official estimates of the costs involved in conducting the PNE, the Finance Ministry would have been influenced by the figures provided by the scientists. After the explosion, Homi Sethna had argued that the PNE's cost to the Indian exchequer was a mere Rs. 3.2 million (\$ 402,980 approx.).⁷⁰ At such a low cost, a small nuclear deterrent force would not have burnt a big hole in the Finance Ministry's coffers, especially when compared to the June 1974 revised estimates forwarded by the Defense Ministry. In some sense therefore, the Finance Ministry was only advocating for an economic dividend out of the PNE. Moreover, the MoF was itself unsure about the implications of the PNE: whether it signaled New Delhi's capability to project nuclear deterrence or a possibility that India could develop nuclear weapons in the future.

Second, the MoD's reaction to the Finance Ministry's suggestion indicates its cluelessness regarding weaponization of India's nuclear option. In fact, the conversation between the MoD and the MoF attests to the observations made by Perkovich on the very limited role of the military in the decision to conduct the 1974 tests: "The military services were not consulted about how nuclear weapons capability would affect their strategic planning, doctrine, or long term budget. There was no attempt to incorporate the soon-to-be demonstrated nuclear capability into military or national security policy."⁷¹ In hindsight, the MoD's reservations on India's operational nuclear capability, as the discussion around missiles and bombers suggests, appears valid. Not without reason, the MoD therefore remained unconvinced of India's nuclear weapons

⁷⁰ Quoted in George Perkovich, *India's Nuclear Bomb*, p. 181. Conversion based on Reserve Bank of India average rate of Rs. 7.9408 per Dollar for 1974-75. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen., <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>.

⁷¹ Perkovich, *India's Nuclear Bomb*, p. 177.

capability, even when the MoF implored it to include the geopolitical dividends of the test in its strategic thinking. This also explains why the military would have been averse to the MoF's suggestion on the use of existential deterrence against Pakistan.

Lastly, this curious exchange between the two ministries reveals the level of secrecy involved in India's nuclear weapons program—both of these important state institutions were ignorant of the government's nuclear policy, if there was one. This phenomenon points to a clear lack of direction from the PMO on India's nuclear policy.

India's Nuclear Submarine Program, 1975–76

This section investigates the early history of India's nuclear submarine program. First, it briefly discusses the impact of the USS Enterprise incident on India's strategic thinking and, using new archival evidence, it illuminates the process through which the nuclear submarine program was initiated. Lastly, it proposes some important conclusions that can be drawn from the historical evidence on India's nuclear submarine program.

The USS Enterprise, Soviet Nuclear Submarines, and Strategic Impressions of the 1971 War

Biographical accounts of key personalities involved in the project suggest that the first design studies on reactor technology for nuclear propulsion were conducted sometime in the late 1960s.⁷² Most commentators, however, argue that work on the nuclear submarine picked up pace after the Bangladesh war in December 1971.⁷³ In an apparent attempt to twist India's arm against its intervention in Bangladesh, US President Nixon ordered the US Navy's Seventh Fleet to move into the Bay of Bengal. To use the words of then-Indian Ambassador to the US, L.K. Jha, it was a "deliberate plan" to "intimidate" India.⁷⁴ The deployment of the US Seventh Fleet towards the end of the war had left a distinct impression of vulnerability on the Indian psyche: the "appearance of the 7th fleet," as the 1972–73 Annual Defense Report argued, had "inevitably given rise to some misgivings."⁷⁵ This shocking exercise of gun-boat diplomacy and the future threat of extra-regional intervention was the major motivation behind India's quest for a nuclear

⁷² A.K. Anand, "Evolution of Submarine Propulsion," Founders Day Address, Bhabha Atomic Research Center, 30 October 2009 reproduced in Sujit Sanyal, *The Second Strike: The Personal and Professional Life of Nuclear Scientist Anil Anand*, The Book Co.; New Delhi, 2014 (Kindle Edition), p. 2673. Vice Admiral Mihir Kumar Roy, *War in the Indian Ocean*, New Delhi: Lancer, 1995, p. 114. Also see, Admiral Vishnu Bhagwat, "The Third Indian Chief at the Helm," in Purobi Mukharji, Probhati Mukherjee and Arun Pratap Goyala (eds.) *The Admiral Who Shed His Vice: An Anecdotal Biography of Admiral AK Chatterji*, (New Delhi: Pentagon Press, 2014), page 72.

⁷³ Karnad, *Nuclear Weapons and Indian Security*, pp. 646-659. Chengappa, *Weapons of Peace*, pp. 128-130.

⁷⁴ To P.N. Haksar from L. K. Jha (Indian Ambassador to the US), 11 September 1972. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 277, 1970-72 (As Principal Secretary to the Prime Minister, 1967-73), pp. 162-165.

⁷⁵ Government of India, Ministry of Defense, Annual Report 1972-73, p. 8.

submarine. This was also in no less measure influenced by what Soviets told their Indian counterparts after the war was over. In fact, two months after the USS Enterprise's foray in the Bay of Bengal, Marshall Grechko told the Indian Army Chief of Staff, General Sam Manekshaw, and the Indian Ambassador to the Soviet Union, D.P. Dhar, that Soviet nuclear submarines had stalked the US Seventh Fleet since its passage through the Straits of Malacca (**Document No. 12**).

The deterrent value of Soviet submarines during the 1971 war left a forceful impression not only on the Indo-Soviet strategic relationship but also on India's policy in the Indian Ocean. On the eve of Brezhnev's visit to New Delhi in November 1973, Dhar argued to the Prime Minister that, as far as superpower presence in the Indian Ocean was concerned, India should not treat the USSR and the US on a similar plane. India had to be concerned over those "quarters from which a threat is posed to our territorial integrity" and the Soviet Union posed no such threat. Dhar then went on to narrate the crucial role which the Soviet Navy had played in the 1971 war: "it is a matter of history that in 1971, when the Seventh Fleet moved into the Bay of Bengal from its Pacific base, it was the Soviet Union which helped us. Marshall Grechko told me that the Soviet Navy was tailing the Seventh Fleet, and that a Soviet submarine had twice got below the aircraft carrier without Americans getting to know anything about it."⁷⁶ For Dhar, "the lesson of the recent history" had to be considered carefully before formulating India's policy on the issue of superpower presence in the Indian Ocean. Moreover, not only the US's, but even China's submarine capabilities were a cause of concern for the Indian authorities. The Apex Group I report of May 1973 had observed that the "only arm of China's Navy that can be used" against India was its "submarine arm," which could be used both against Indian merchant

⁷⁶ D.P. Dhar's Note to the Prime Minister on Brezhnev's Visit to India, 3 November 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, Subject File no. 284, IIIrd Installment, 1970-98 (India's Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), pp. 21-22.

shipping and in mining India's Eastern coast.⁷⁷ External analysis of Chinese submarine capabilities also attest to this growing threat. By 1973, the Director of Naval Intelligence of the US Navy had estimated that China's nuclear submarine program was underway and that it may be deployed by the end of the 1970s.⁷⁸

The Indigenous Nuclear Submarine Program, 1975–76

The existing literature on India's nuclear submarine program therefore lays a great deal of emphasis on the events which transpired in the Indian Ocean in December 1971.⁷⁹ It is reported that a few years after the Bangladesh war, the Bhabha Atomic Research Center (BARC) and the Indian Navy prepared a joint report on naval nuclear propulsion titled "Project Report on Nuclear Propulsion for Marine Applications."⁸⁰ Dr. Raja Ramanna was then the Director of BARC. New literature on the subject suggests that the development of a naval nuclear reactor was codenamed 'Plutonium Recycle Project' (PRP).⁸¹ Ramanna's brainchild, it was conceived on a theoretical premise that recycled plutonium could be used as fuel, eliminating the need for highly enriched uranium and leading to the code name PRP.⁸²

Newly available meeting minutes confirm that by 1975 a "Marine Reactor Division" existed in the Indian Navy (**Document No. 13**). The Committee of Secretaries had given the approval for the nuclear submarine reactor project, mentioned in the document under the pseudonym of "compact nuclear reactor" in April 1975. However, the Planning Commission did

⁷⁷ The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), May 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File No. 299, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), p. 5.

⁷⁸ FRUS, 969-76, "National Intelligence Estimate: China's Strategic Attack Programs," Volume XXXV, National Security Policy, 1973-76, Document 137, 7 June 1973.

⁷⁹ Roy, War in the Indian Ocean, p. 114-117. Karnad, *Nuclear Weapons and Indian Security*, p. 646-659. Chengappa, *Weapons of Peace*, p. 128-131.

⁸⁰ T.S. Gopi Rethninaraj, "ATV: all at sea before it hits the water," *Jane's Intelligence Review*, Vol 10, No. 6 (June 1998): 32.

⁸¹ Sujit Sanyal, *The Second Strike (Kindle Edition)*, pp. 2673-2697.

⁸² Ibid.

not give the approval for allocation of funds due to severe economic difficulties faced by the exchequer in 1975. But by early 1976, measures taken during the emergency period had shored up financial positions enough to make funds available. Thus a meeting was convened to give the final go-ahead for the project on 22 January 1976.⁸³

The minutes of this meeting are extremely revealing: the marine reactor to be developed was primarily targeted at nuclear propulsion for defense applications for the Navy, and especially for submarines. The Director of Bhabha Atomic Research Center (BARC)—Dr. Raja Ramanna—also gave equal emphasis to its civilian spin-offs, especially in nuclear propulsion for merchant shipping and power production in India’s peripheral regions. However, the Deputy Chairman of the Planning Commission—P.N. Haksar—did not find the rationale provided by the team completely convincing and directed Dr. Raja Ramanna to prepare a top secret note elaborating on the defense applications for the CCPA: India’s Cabinet Committee for Political Affairs. There were also differences between the Ministry of Defense and the Department of Atomic Energy (DAE) over the funding for the project and therefore the Planning Commission decided to provide “separate and specific budgets” to the tune of Rs. 300 million (\$33.4 million) for the project.⁸⁴ This difference in economic channeling of funds for the project was also necessary to keep the project an absolute secret and to avoid any ‘international repercussions’ which would have occurred from any revelations regarding the program. This, to a large extent, also explains the dearth of subsequent information on India’s nuclear submarine program.

⁸³ This meeting was chaired by P. N. Haksar, then the Deputy Chairman of the Planning Commission. Others who attended this meeting were Prof. M.G.K. Menon (Scientific Advisor to the Defense Minister), Vice Admiral R. Tandon (Chief of Material, Indian Navy), Dr. Raja Ramanna (Director, Bhabha Atomic Research Center), V.C. Rajadhyaksha (Chief Consultant, Planning Commission), C.P. Ramachandran (Joint Secretary (Navy) and Coordinator (Marine Reactor Project), Cdr. P.N. Agarwal (Deputy Director of Marine Engineering and Project officer, Marine Reactor Project, Indian Navy).

⁸⁴ Conversion based on Reserve Bank of India average rate of Rs.8.9775 per Dollar for 1976-77. See, Exchange Rate of the Indian Rupee vis-à-vis the SDR, US Dollar, Pound Sterling, D.M. / Euro and Japanese Yen. <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/56465.pdf>.

However, the document also reveals that at this stage no thought had gone into the design of the submarine in which the reactor would be ultimately placed. In fact, the rationale was to achieve the reactor capability first. As Admiral Tandon argued, “work on the nuclear part will have to commence about four years ahead of the ship/submarine in which it will be installed.” Part of the reason behind this choice was the Soviet willingness to collaborate on a naval design bureau with the Indian Navy. Both Prof. Menon and Admiral Tandon were confident that it would also lead to collaboration on nuclear submarines.⁸⁵ Documents now available confirm that the issue of cooperation on a naval design bureau was discussed by the visiting Indian Defense delegation to Soviet Union, first in February 1976 and then again in May 1976 (**Documents No. 14, 15, and 16**). However, as far as the compact nuclear reactor was concerned, the DAE was against any foreign assistance. As Raja Ramanna argued, “no help of any kind can be expected from any foreign government on the design and development of the Package Power Reactor.” International sanctions had indeed kicked in after the 1974 PNE. This, however, was not entirely true in the case of the Soviet Union. Just three months after the PNE was conducted, the Soviet Union had offered India cooperation in atomic energy at the highest levels.⁸⁶

Three important facts emerge from this new evidence. First, even when the nuclear propulsion program was initiated with the objective of a nuclear submarine force, neither the MoD nor the DAE was willing to invest in the project through their respective budgets. Second,

⁸⁵ A precedent for the naval design bureau was already available as by 1974, India and the USSR had reached an agreement on aircraft design bureau intended to develop advanced fighter aircraft. By mid-1974, the CCPA had approved establishment of such a bureau in India with Soviet collaboration. See, Ministry of Defense, Defense Plan 1974-75, 8 June 1974. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1975-76 (Ministry of Defense and Related Files 1971-76, 79), p. 33.

⁸⁶ D. P. Dhar’s Note to the Prime Minister on his visit to the Soviet Union, Hungary and German Democratic Federal Republic, 8 October 1974. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 284, 1970-98 (India’s Relations/Economic Cooperation with USSR, other countries and United Nations, 1970-98), pp. 69-89. Documents from the Hungarian archives also confirm Soviet willingness to cooperate with India in the field of Atomic Energy immediately after the 1974 PNE. See, Balazs Szalontai, *The Elephant in the Room: The Soviet Union and India’s Nuclear Program, 1967-1989*, NPIHP Working Paper No. 1, November 2011, p. 9. <http://www.wilsoncenter.org/publication/npihp-working-paper-1-the-elephant-the-room>

there appears to have been some friction between the MoD and DAE in terms of soliciting help in submarine designs from the USSR. Whereas the Navy appeared inclined to accept Soviet assistance in a naval design bureau, the DAE wanted the project to be wholly indigenous. Lastly, these newly available documents also indicate that the entire focus of the nuclear submarine program was initially set on producing a viable “compact nuclear reactor” rather than on the design of the submarine in which it would be ultimately installed. Clearly, whether the nuclear submarine force would ultimately acquire the role of a nuclear triad was far from certain at that point in time.⁸⁷

⁸⁷In fact, it has now been confirmed that India’s nuclear submarine project was originally targeted at producing an attack nuclear submarine (SSN) rather than a ballistic missile nuclear submarine (SSBN). See, Admiral Vijay Shankar, “Seminar: Challenges to India’s Nuclear Doctrine,” *Center for Global Security Research*, Lawrence Livermore National Laboratory, 6 October 2014, <https://www.youtube.com/watch?v=OZpIrZvP0Co>.

Conclusion

The document summaries provided in the attached appendix help to explain some important questions in India's nuclear decision-making between 1973 and 1976. The extent of the evidence provided by these records is limited because of the narrow time-period to which they belong, but also because of the non-availability of some key documents. These include the report of the Apex Group II submitted in June 1976, and the subsequent paper prepared by BARC Director—Dr. Raja Ramanna—on the defense applications of the “compact nuclear reactor” project for the CCPA's consideration. Notwithstanding these limitations, these documents do offer some very valuable insights into India's nuclear program.

First, China's role in driving India's nuclear weapons program may not have been as consequential as it has been portrayed in the common discourse. From 1967 onwards, Indian decision-makers seem to have been convinced that China would not directly intervene against India. In addition, they concluded that China would not use atomic weapons against India in an intervention, as other great powers would come to India's aid in such an event. Even when the strategic environment underwent a drastic change through the US tilt towards Beijing and Islamabad, Indian decision-makers continued to discount the atomic threat from China. It appears that such a perception was heavily influenced by the treaty of friendship with the Soviet Union.

Second, the interactions between the MoD and the MoF on the military implications of the PNE suggest that both of these important ministries were kept out of the loop in nuclear decision-making. Yet, when seen in combination with the absence of parallel developmental programs for nuclear delivery systems, these interactions also indicate that the 1974 nuclear explosion may not have had any direct military component. In sum, these new materials confirm the lack of direction from the prime minister's office to both the MoD and the MoF regarding the nuclear test.

Third, the logic of ascribing strategic roles to India's nuclear submarine program in the 1970s can now be credibly challenged for several reasons. First, as is evident from the minutes of the 22 January 1976 meeting on the "compact nuclear reactor," ambivalence enveloped the military objectives of the nuclear submarine. Decision-makers—especially the Deputy Chairman of the Planning Commission, P. N. Haksar—wanted more clarity on various defense applications of the project. Second, no design studies were available on the nature of nuclear submarines in which the "compact nuclear reactor" would be installed, even when the Planning Commission agreed to provide Rs. 300 million for the project. Third, post-PNE, active weaponization of India's nuclear option does not seem to have immediately occurred. In this light, the idea that India was looking forward to a submarine-based deterrent in the early 1970s—the most complex and difficult of nuclear delivery options—appears far-fetched.

Finally, this body of archival evidence points to the fact that India's PNE may not have had any short to mid-term military applicability. The lack of imminent nuclear threats from powers hostile to New Delhi and the absence of developmental programs to build nuclear delivery systems indicate that even though it conducted a PNE, India felt no compulsive need to immediately develop a nuclear arsenal in the mid-1970s. This seriously undermines the artificial coherence of strategic planning which many commentators and analysts have imposed upon the decade of the 1970s in India's nuclear journey. Furthermore, the nuclearization of the sub-continent may not have begun in 1974 as many external observers seem to believe. The non-weaponized nature of the PNE seriously questions the logic of associating the 1974 tests with the opening of South Asia's nuclear tinderbox. The decision to operationalize India's nuclear weapon option was first considered in 1982–83. It was largely a reaction to success of Pakistani nuclear weapons program, which was initiated

at least a couple of years before the PNE. Therefore, the early 1980s, rather than the mid-1970s, appear to be the real beginning of South Asia's nuclear arms race.

The peaceful nuclear explosion may have been entirely peaceful; a nuclear arsenal immediately after the PNE was almost imaginary. Reasons for India's, or rather Indira's, decision to conduct the PNE must therefore be located elsewhere than New Delhi's desire to achieve a nuclear deterrent.

Documents and Summaries

While the Nuclear Proliferation International History Project (NPIHP) strives to publish reproductions of all major new documents cited in its publications, archival access policies sometime limit the project's ability to do so. In place of full reproductions, document summaries of the major materials cited in this work are included as an appendix.

These summaries are not exhaustive. Rather, they intend to provide a synopsis of each document's important points. Moreover, the summaries are selective to the extent that they highlight those aspects which are directly relevant to the arguments presented in this working paper. Though representative of the content of the documents, the author does not claim a complete reproduction of the archival documents. Exact references to the location of these documents at Nehru Memorial Museum and Library, New Delhi are provided for easy access to scholars.

Document No. 1: The Defense Plan, Report of the Apex Planning Group by the Cabinet Secretariat (Military Wing), May 1973. Nehru Memorial Museum and Library (New Delhi): P.N. Haksar Papers, IIIrd Installment, Subject File no. 299, 1975–76 (Ministry of Defense and Related Files 1971–76, 79): 1–105.

Summary: In 1973, an Apex Planning Group (hence forth Apex Group I) was formed under the chairmanship of D P Dhar, Deputy Chairman of the Planning Commission, to decide a defense plan for the period 1974–79. Other members of the group consisted of the Defense Secretary K.B. Lall, Gen. G.G. Bewoor (Chairman, Chiefs of Staff's Committee), Cabinet Secretary B.D. Pande, Finance Secretary M.R. Yardi, and the Foreign Secretary Kewal Singh. The report contained an elaborate threat assessment of the post–1971 period. The report suggested that “main threat to India's security in the foreseeable future is likely to materialize

from Pakistan.” The report also mentioned that most probably China will provide “collusive support” to Pakistan with a “possible tacit approval” from the US.

Though this was a very generic impression of the threat scenario, the report also elaborated upon the kind of specific threats India could face from its northern and western neighbor. With regard to China, the continued supply of military hardware to Pakistan and assistance to insurgencies in India’s North East were the most likely possibilities. This report considered a direct invasion of the Indian Territory by the PLA “unlikely.” Most interestingly, it suggested that “use of atomic weapons by China can be ruled out.” The Apex Group also found land invasion of India by China to be “unlikely.” However, threats from China included assistance to insurgencies in India’s North East and threatening maneuvers by the Chinese army in case of a conflict with Pakistan with the aim to “prevent deployment of our forces committed to the defense our common border with China for use in the Western sector.” In case of a conflict, the Apex Group I observed that there existed a “remote likelihood [China] may use her Air Force.” In the maritime scenario, the Apex group considered China’s submarine arm especially threatening against India’s merchant shipping and in its mining of India’s Eastern Coast. In all, it concluded that a “confrontation with China, should it materialize, is likely to be limited in nature.”

Vis-à-vis Pakistan, the report predicted that “Pakistan will resort to a surprise attack against India . . . at the points of her choosing.” Such an action will be highly offensive in nature and therefore equally intense. For the Apex Group I, “judging from the buildup of Pak forces and their capacity to absorb new equipment,” the Pakistani threat would have matured “anytime after May 1974.” The threat assessment also figured in the likely assistance, mostly of military equipment, which Pakistan could receive from Arab monarchies, Iran, and some of the Gulf Emirates. The Apex Group I accepted the fact that the US would “continue to give military assistance to Pakistan and may also extend some diplomatic support consistent with

her commitments in the CENTO.” However, the group ruled out their open involvement in subcontinent’s conflicts. The document makes no mention of a Pakistani nuclear weapon, even though literature suggests that Prime Minister Bhutto had initiated a nuclear weapons program in 1972 after the humiliating loss of East Pakistan. It appears from the findings of the Apex Group I that the threat from Pakistan was purely conventional, as was India’s military strategy.

If against China, India had to “accept a calculated risk of losing certain territory up to the line of denial approved by the government,” vis-à-vis Pakistan, the objective was to “frustrate Pakistan’s offensive aims, inflict substantial damage of Pakistani forces and installations, and within first ten to fifteen days of the conflict reach a tactical situation which could enable us (India) to negotiate from a position of strength.” The report approved a sum of Rs. 98000 million for the period 1974–79; even though it accepted that for adequate defense modernization, a sum of Rs. 105000 million should have been more appropriate. The Apex Group report was approved by the Cabinet Committee on Political Affairs (CCPA) on 17 May 1973.

Document No. 2: Prime Minister’s Secretariat, “Nuclear Policy,” 3 May 1967. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 111, 1967–73 (Prime Minister’s Secretariat Files: Guard Files Maintained as Secretary/Principal Secretary to Prime Minister 1967–73), pp. 8–15

Summary: In this note titled “Nuclear Policy,” L.K. Jha confronts various policy dilemmas facing India “over many aspects of nuclear policy” and which also suffered from “considerable differences of opinion and assessment within the government, as well as outside, in the country as a whole.” Written in a format of questions and answers, the very first question which Jha attempts to confront was “should India make nuclear weapons?” For

him, the time had now arrived where this question was to be “squarely faced” by the government. Jha argues that the “main argument in favor of India going nuclear is the Chinese threat.” In his assessment, the threat from India’s northern neighbor was “partly military and partly ideological.” However, he argued that the costs associated with developing nuclear weapons would be enormously high and this process of nuclearization may entail loss of the “ideological battle” against China: “we cannot, with our limited resources, follow China’s foot-steps in the nuclear field without also adopting the Chinese way of life politically and economically.” As far as the military threat from China was concerned, Jha opined that India might be “over-reacting” not only to Beijing but also to Pakistan. He categorically rejected any full scale invasion of India: “I do not see the Chinese embarking upon a full-scale war with India.” Though accepting ancillary threats from China such as “pressure on the borders, threats of one kind or another, possible skirmishes and localized fighting,” he argued that there was little evidence suggesting “that the Chinese are in any kind of a mood to invade any country, or even to deploy Chinese forces in any terrain which they do not claim, rightly or wrongly, as their own.” He limited the military threat from Beijing to “subversive activities and Guerilla warfare.” Even if the military threat transpired into a full-scale war, Jha expressed his doubts over the use of atomic weapons by China: “even if there was a full-scale war with China, I doubt if the Chinese would use nuclear weapons.” Two reasons explained his optimism against the use of nuclear weapons by China. First was the historical precedent of the non-use of nuclear weapons against non-nuclear weapon states post-WWII. As Jha observed, “in Suez, in Korea and in Vietnam, parties having nuclear weapons have not dared to use them. However, unpredictable China may be, the Chinese would not dare use nuclear weapons against a country not possessing them.” But Jha’s idealism regarding non-use of nuclear weapons was also informed by Cold War realism. For him, use of atomic weapons would invite retaliation from the US and the

USSR: “one reason for this (non-use of atomic weapons by China) is that they would know that in such an event, neither the USA nor the USSR could stand by and watch.” A “nuclear China which has subjugated India,” as Jha argued, would pose tremendous danger to both these powers. Jha argued for nuclear restraint as he found that development of nuclear weapons would not only incite China but also dilute the nuclear guarantees, though vague, offered by the USA and the USSR: “the development of nuclear weapons by India would to my mind, greatly reduce the restraint on China using nuclear weapons against us and also weaken the political compulsions on the USA and USSR to come to our help in such an eventuality.” Also, in Jha’s assessment, China was “at least five years ahead” of India in both “nuclear weapons and delivery system” and if India had to “meet China militarily on the nuclear plane, the chances of our getting the worst of it would be very high.” Therefore, Jha advised to “remain non-nuclear for the present” even when it meant “living dangerously.”

The second question Jha addressed in this memo regarded the “prospects and possibilities of a USSR-USA guarantee.” From his experiences of negotiations in Moscow and Washington, Jha argued that though a “political guarantee is possible, but a legal guarantee is impossible.” Neither of the two superpowers, in Jha’s assessment, were ready to subscribe to a statement which would “amount to taking indefinite and unlimited liabilities beyond the UN Charter.” A “guarantee in a language which politically implies a firm commitment to help” was negotiable but as Jha cautioned, it was “not as water-tight as a Treaty of Alliance.” However, Jha also saw little “merit in seeking a guarantee couched in legal terms,” as “guaranteeing powers can always, if they so wish, wriggle out of even a formal treaty, leave alone a unilateral declaration.” For Jha, rather than the legal language, the strength of the nuclear guarantee lay in the “political compulsions behind it” and in the present situation, as Jha observed, “neither the USA nor the USSR can afford to let India go under Chinese domination.” The final question which Jha entertained in this memo was

regarding “India’s attitude towards the Treaty of Non-Proliferation.” The “objection in principle,” as Jha put it, was whether “we and, therefore, other nations too, should continue to have the right to make nuclear weapons as long as the any country in the world has the right to do so.” This “objection in principle,” argued Jha, would remain relevant irrespective of whether many other “objectionable features” in the draft treaty were to be removed. Jha then linked the NPT with universal disarmament and argued that a “treaty of non-proliferation in which non-nuclear nations undertake not to make nuclear weapons would be acceptable to us (India) as a holding operation and as a prelude towards progress in the direction of nuclear disarmament.” Such a treaty therefore could “hold good for a limited period of time while there is hope of further progress.” For Jha, this condition had been “partially met by the conceding the right of each nation to withdraw from the treaty by giving a three months’ notice.” He had also forwarded the idea that “it may be worthwhile limiting the life of the treaty to a five year period.” This would effectively mean that at the “end of the five year period, unless the nations concerned, having regard to the progress towards disarmament which might have been made in the interval, agree to extend it, everybody would be free to decide its own nuclear policy.” Specifically on inspections and safeguards entailed with the signing of the NPT, Jha argued that the “formula I have in mind is that countries which possess fissile materials should undertake not to transfer them to any country, except under IAEA safeguards.”

Lastly, Jha made several recommendations to the Prime Minister. First, he clearly argued against any change in India’s nuclear policy and crossing the nuclear threshold: “we should not abandon our policy of not developing nuclear weapons for the present.” Second, he cautioned the Prime Minister that the present conditions informing India’s policy of nuclear restraint might change in the future and therefore, New Delhi should embark on developing technologies associated with nuclear deterrence capability: “we should recognize

that conditions may change in which this policy may have to be given up. Towards this end, we should concentrate a little more on developing our missile capacity, which, incidentally, is not affected by the Treaty of Non-proliferation.” Third, India should “continue to work for a suitable political guarantee against nuclear attack and nuclear blackmail but should involve some other non-nuclear countries in the process.” Fourth, Jha also argued against eschewing India’s option to go nuclear in the long term: “We should make it clear that we are not prepared to tie our hands in perpetuity against making nuclear weapons-guarantees or no guarantee.” Fifth, Jha recommended to the Prime Minister that NPT should only be seen in terms of a temporary arrangement or a “holding operation” towards the ultimate goal of nuclear disarmament. Further, “such a treaty, however, should be for a period not exceeding five years which is adequate for making further progress towards disarmament.” He also argued against “any obligations on non-nuclear weapons countries to subject themselves to IAEA safeguards,” but agreed to the provisions which could restrain states from transferring “fissile material to any other, except (under) the IAEA safeguards.”

Document No. 3: Ministry of Defense, Defense Plan 1974–75, 8 June 1974. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1975–76 (Ministry of Defense and Related Files 1971–76, 79): 9–56.

Summary: Subsequent developments forced the Ministry of Defense (MoD) to seek a revision of the financial allotments made under the Apex Group I report. The primary economic reason was a steep rise in inflation leading to ballooning of costs involved in defense production and procurement; between 1973 and 1974, inflations rose to its highest, around 30 percent. However, subsequent developments in India’s neighborhood—the rearmament of Pakistan’s military, war in West Asia, Oil Embargo by Arab countries and

Pakistani rearmament supported by its CENTO allies—also motivated the MoD to seek another review of the country’s threat perception.

The document contains the summary of the revised threat assessment “undertaken by the Chiefs of Staff Committee in consultation with the Ministry of External Affairs in respect of the current threat and recent developments.” This new report was prepared during May-June 1974. The COSC’s fresh threat assessment concluded that the “main threat to India’s security will materialize from Pakistan.” The Kashmir issue in conjunction with the desire to avenge the defeat in the Bangladesh War would be the main reasons that may lead to hostilities. The threat situation also blamed the precarious internal situation in Pakistan as an additional factor in re-initiation of hostilities in the future. The COSC recommended that “proper judgment be made of Pakistan’s intentions of launching a surprise attack during such periods of transition and hostility.” The COSC’s appraisal of Pakistan’s military build-up suggested that the period from May 1974 to November 1975 was “crucial” as far as immediate hostilities with Pakistan were concerned. However, the COSC also argued that in case the immediate requirements of the defense forces are not satisfied at the earliest possible moment, this situation may well extend to 1976.

The threat assessment also focused on the implications of the West Asia war of October 1973 on India’s strategic environment. First, this war, for the COSC, highlighted the disastrous implications related to intelligence failure; for Israel before the war and for Egypt, during the military conflict. Second, it opined that “in a situation of continuing tensions and hostility, it is possible for an aggressor to achieve complete surprise by a good deception plan.” Third, and related to the second observation, was the conclusion that “an aggressor may hold on to its territorial gains in defiance of the UN, provided he has the support of a superpower.” Given India’s own experiences of US involvement in the 1971 war, this observation of superpower support to likely aggressors gains special importance. From the

document, it is also evident that the COSC was concerned about the growing support to Pakistan by Arab states and Iran. Oil embargoes can henceforth be used against India, argued the COSC: “In the event of a future conflict with Pakistan, the Arab states and Iran, may, in sympathy for Pakistan, impose an oil embargo on this country (India).”

Therefore, a revised defense proposal was prepared by the MoD and submitted for consultation to the Ministry of Finance (MoF) on 28 June 1974: “in the light of the above developments it became necessary to undertake a fresh plan exercise with a view to overcome shortcomings in the Defense preparedness,” argued the MoD. However, it is equally important to observe that by the time this was submitted to the MoF, India had conducted its peaceful nuclear explosion. However, no mention to the PNE is made in the revised threat assessment. The threat perception largely revolves around Pakistan as was the case in the Apex Group report but now also includes the implications of West Asian War, the Arab embargo on oil and also their support to Pakistan. Consequently, the MoD asked for more funds under the 1974–79 defense plan; from Rs 98000 million, it now requested a sum of Rs 112000 million.

Document No. 4: D. P. Dhar’s Note to the Prime Minister on his visit to the Soviet Union, Hungary and German Democratic Republic, 8 October 1974. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 284, 1970–98 (India’s Relations/Economic Cooperation with USSR, other countries and United Nations, 1970–98), pp. 69–89.

Summary: In September 1974, D.P. Dhar proceeded on a three nation tour of the Soviet Union, Hungary, and the GDR. In the Soviet Union, Dhar met Baibakov (Chairman of the Planning Commission and the Deputy Chairman of the Council of Ministers), Skachkov (Soviet Co-Chairman of the Joint Commission and the Head of their Foreign Economic Relations Department) and Premier Kosygin. Dhar explained to his Soviet counterparts that

India has been trying to improve its relations with Beijing and to put its relations with China on a “civilized, sensible basis.” However, just like the Soviets and the GDR, India has met only “disappointment.” Moreover, Dhar expressed concerns over the crisis in Sikkim and China’s involvement in instigating the crisis. He also suggested convergence of the Chinese and American interests and approach to the crisis in Sikkim. The Soviets expressed their bewilderment on “what was happening in China” though as Skachkov told Dhar, “it was certain that there was good deal of internal fighting going on.”

On 19th September, Dhar met Premier Kosygin. In this meeting Kosygin told Dhar that the Soviets “were going ahead in a big way in the field of atomic power” and “they had a very large programme.” Further, Kosygin argued for greater cooperation with India in the field of atomic power. As Dhar put down the recollections of his meeting for Prime Minister’s considerations: “They [Soviets] also knew that India was in a position to manufacture considerable proportion of the equipment for power plants. There was, therefore great possibility of cooperation between the two countries in this field, and the USSR could buy a good deal of equipment from India.” This, as Kosygin would emphasize to Dhar, “had inter-connected economic, political and prestige aspects.” The Soviets were willing to start the work as soon as possible: “He (Kosygin) said that India should think over the question and if there was an agreement on this, the two countries could begin work together even in 1975 or in 1976. This would be an important step forward in the field of production cooperation where both countries would take advantage of the complementarity of their respective economies.” Kosygin’s claims were supported by authorities in Hungary and the GDR.

In his recommendations to the Government, Dhar argued that “the Atomic Energy department should immediately examine the offer of cooperation with the USSR in the development of atomic power industry so that we can react in good time to the proposal made by Kosygin.”

Document No. 5: Ministry of Finance (Department of Expenditures), Revised Defense Plan 1974–79, 25 December 1974. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1975–76 (Ministry of Defense and Related Files 1971–76, 79): 57–80.

Summary: Six months after the MoD had requested a revision in defense expenditure from the MoF, the latter sent a detailed appreciation of the request to the former on 25 December 1974. The Finance Ministry was livid about the MoD’s proposal to increase the defense budget. For the MoF, even the Apex Group I allotment for the defense plan was based on an “unduly optimistic assessment of the possibilities of non-inflationary resource mobilization.” Inflation and dwindling foreign exchange reserves due to the oil embargo had made the financial situation desperate. Further, the MoF observed that “no country is able to provide to itself an absolute certainty of superior strength in relations to all conceivable enemies, singly or in combination at all time.” This forced the MoF to question the COSC’s threat assessment: “it has become necessary to undertake a detailed scrutiny of the strategic assumptions on which the defense plan is based and to examine the reasons why considerable outlays are now thought to be essential.” A “detailed reconsideration, of the conceptual basis of our defense plans,” as the MoF put it in its reply to the MoD, was therefore on the offing. The MoF reply entertained the two most important threats—China and Pakistan—to India’s national security in some detail. Though the MoF alluded to the fact that the revised threat assessment of June 1974 submitted by the COSC has “not referred to China,” it however it asked some very probing questions to the MoD on the logic of sustaining its defense posture vis-à-vis the northern neighbor. In the case of a conflict with Pakistan, the MoF considered the possibility of China assuming a threatening posture in the north as an “unqualified assumption” on the part of the MoD. As the MoF document argued, “In 1971, China gave only verbal support to Pakistan.” Though agreeing to the general idea that China would

remain hostile to India, it argued that the threat from China has largely been political rather than military: “has the threat from China, at least since 1962, not been political and subversive rather than military?” It therefore questioned the logic of sustaining India’s troop deployment in Bhutan, Sikkim, in the North East and along the Indo-Tibetan border, making a case for the MoD to reconsider the constant deployment of as many as 8 mountain divisions on the India-China border.

More critical was the MoF’s take on the threat from Pakistan. Countering MoD’s narrative, the MoF argued that the COSC’s threat assessment discounts a number of factors which point to the idea that the threat from Pakistan may not be as imminent as the MoD considers it to be. According to the MoF, the “estimates made by the JIC (Joint Intelligence Committee) of military hardware received by Pakistan after December 1971 do not really give much support to the theory that a rapid build-up is in progress, with the objective of launching an early offensive against India.” It pointed to five factors militating against the imminent nature of the threat proposed by the COSC. First, given the decisive defeat of Pakistan in 1971, the “Pakistani Armed Forces have no reason to consider that a sudden pre-emptive attack would succeed today.” Second, Pakistan would take some time to rebuild its armed forces. Third, the MoF argued that even when Bhutto was besieged with “internal political problems and problems on his North-Western frontiers,” there were “no signs that he is making special efforts to promote tensions with India as means of diverting attention from domestic issues.” Fourth, even though slow, the “implementation of the Shimla agreement is proceeding steadily.”

Lastly, the MoF brought the issue of the implications of India’s recently conducted peaceful nuclear explosion on Pakistan’s hostile attitude towards India. As the MoF argued, “it was India, not Pakistan, who detonated a nuclear device. Pakistan’s response was foreseeable but the fact now is that whereas Pakistan has yet to develop the necessary

technology, she knows that India would be in a position (using a conventional delivery system) to unload a relatively small yield nuclear weapon on any Pakistani target should there be a surprise attack and India happened to lose considerable territory. The nuclear threat may not be wholly credible, but it cannot be discounted by Pakistan as possible counter to any threat of an unprovoked surprise armor thrust, say into Rajasthan.”

Document No. 6: Comments of the Ministry of Defense on the Note received from the Ministry of Finance, January 1975. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1975–76 (Ministry of Defense and Related Files 1971–76, 79): 78– 119.

Summary: In response to the observations made by the MoF, the MoD prepared a rebuttal in January 1975. The MoD argued that that even when the MoF was correct in suggesting that “not only is it impossible for any country in the world to ensure absolute security, but even over-insurance of national security is a luxury that a developing country like ours can ill afford,” the more pertinent question is whether “we can afford to under-insure it?” The MoD suggested that it has in fact taken all measures for cost effectiveness and the revised estimate on Defense plans is in accordance with the general guidelines of the Apex Group I recommendations. In fact, the new proposal was “the minimum required for national security.”

It questioned the MoF’s thinking on the threat assessment as it affected “the very basis of our [India] national security,” particularly the arguments that military threat from China was “passive” in nature and that Pakistan’s arms build-up was “consistent with a defensive and long-term military planning.” Since the MoF had also questioned the MoD’s assumption behind China-Pakistan strategic collusion, the Defense ministry stated that “our defense planning has been on the basis that India should be able to face simultaneous conventional attacks from both China and Pakistan. Our aim must be to hold one—that is China—and to

reach swift military conclusion with the other that is Pakistan.” Moreover, the MoD argued that even “when China may not start active hostilities, even a hostile movement by China would lock up a substantial number of our forces and in the absence of adequate defensive measures on our part, China may be encouraged to enlarge the scope of its military posture.” The problem, as the MoD perceived it, was clearly of a two-front commitment of India’s military forces. Also, the growing build-up of Chinese forces all along the Himalayan frontier and especially in Tibet was of particular concern to the MoD. The document also suggests that the MoD was worried over a possible non-aggression pact between the USSR and the PRC: “the impact of a possible non-aggression pact between the USSR and China would be far-reaching as it would reduce the countervailing force of the Indo-Soviet Treaty on the one hand and release the Chinese forces in Sinkiang for hostile deployment against us on the other.” Further, the political vacuum left by the “removal from the scene of Chairman Mao and Prime Minister Chou makes the position with regard to China unpredictable.” Therefore, “lowering our guard,” as the MoD argued, would be “unwise.”

For the MoD, Pakistan’s military defeat in 1971 had not diminished the threat; rather, it had increased the chances of “Pakistan taking military adventure to avenge the defeat and deflect internal dissension.” The MoD was equally insistent on the reality of the “revanchist mood of the ruling elite in Pakistan” and suggested that “halting progress in the implementation of the Shimla agreement cannot be relied upon as an index of diminution of the threat from Pakistan.” On the MoD’s suggestion that India’s rudimentary nuclear capability will have a deterrent effect on Pakistan, the MoD observed the following:

“As regards the military implications of our nuclear device, it is well known that we are committed to peaceful uses of nuclear energy and in any case we cannot take into account the impact of our nuclear explosion on the threat from Pakistan in the absence of tactical nuclear weapon and a delivery system for it. The sanction of world opinion against such use

renders even a limited use of tactical nuclear weapons by us out of question even if we had them and were inclined to use them.”

Having settled the issue of the peaceful nuclear explosion as inconsequential for India’s military strategy, the MoD also argued that even when in arithmetical comparisons India may appear strong, in certain offensive capabilities such as “armored regiments, number of anti-tank recoilless weapons, Pakistan’s strength is at present superior to ours.” To the MoD, this offensiveness of Pakistan’s military was now being bolstered by American assistance. Further, whereas Pakistan enjoyed a geographical consolidation of its military forces; the geographical diffusion of forces in India was a natural handicap. After the war in 1971, the Pakistan army had not only augmented its operational capabilities but also its offensive power. Therefore, according to the MoD, India “should not be lulled into complacency by the results of the 1971 war. Pak army does not consider that it was defeated on the Western front and, even according to us, it was only a holding action.”

Document No. 7: Ministry of Defense, Summary for the Consideration of the Cabinet Committee on Political Affairs, “Provision of funds to the Ministry of Defense during the current five year plan 1974–79,” January 1975. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 296, 1974–79 (Ministry of Defense and Related Files 1971–76, 79): 1–9.

Summary: The exchange of letters between the MoD and the MoF resulted in an impasse. Clearly, both these ministries differed on their assessment of the threat scenario, the estimated defense budgets and their reading of India’s nuclear weapons policy. Facing resistance from the MoF to its new proposals, the MoD therefore approached the CCPA in January 1975 claiming that the “defense of the country should not be lowered beyond the stage of an acceptable risk.” Though “fully conscious of the gravity of present economic situation of the

country,” the MoD argued that it could not accept the divergence between defense and development of the country since “development cannot be sustained without defense and in many areas the defense expenditures contributes to the development of the country’s economy.” Efforts are being made by the defense forces to maintain economic probity, argued the MoD: “we have not lagged behind in enforcing various measures to eliminate wasteful expenditure, to prune schemes which could be staggered, to cut out other non-essential items and to postpone some others in order to play our due role in the overall requirements of restricting expenditure to the barest minimum.” The document also lists out some of these measures including the cutting down on training hours for the air force and to utilize the existing man power in the defense services to operate all new acquisitions.

In its submission to the CCPA, the MoD once again rejected the threat assessment made by the MoF in December 1974 including the prescribed force structure for the three defense services. The MoD appeared more livid on the invocation of nuclear weapons by the MoF. In its admission to the CCPA, the MoD considered “it unfortunate that in their [MoF] analysis, the MoF should have made the mention of the nuclear blasts which we have stated categorically plays no part whatsoever in our defense preparedness which is entirely based on conventional weapons.” The MoD therefore requested the CCPA to revise the allocations made by the Apex Group in 1973. It also rejected the suggestion made by the MoF “for reducing our deployment on the northern frontier or in respect of curtailment of the manpower in the army or in the number of fighting squadrons in the air force.” The MoD instead reasoned that “in face of the developments all round us particularly in China, in Iran, in Pakistan and in some West Asian countries and the sheikhdoms and Emirates of the Gulf area, we strongly belief that a certain minimum level of defense preparedness is absolutely necessary for us not only for safeguarding our security and territorial integrity, but also to have some position of credibility in the world.”

Document No. 8: Letter from Defense Secretary Govind Narain to P. N. Haksar, 3 April 1975. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 297, 1975 Part I (Ministry of Defense and Related Files 1971–76, 79): 1–4.

Summary: On 3 April 1975, the Defense Secretary Govind Narain wrote to P. N. Haksar, who was then the deputy chairman of the planning commission, explaining the stand-off between the MoD and the MoF. The letter cites in total ten reasons for the MoD's request to revise the defense budget for the fifth defense plan (1974–79) as was prepared under the First Apex committee and recommendations were submitted to the CCPA on 17 May 1973. These reasons included the following:

- Some errors in the initial plan of 1973 in calculating the financial impact of some approved programs.
- Some programs considered essential in the initial plan of 1973 but left uncovered financially.
- The initial plan had deliberately allotted lesser provisions than were originally required on an assumption that additional resources could be mobilized as financial situation improves (this had clearly not happened).
- Development after 1971 war (especially Pakistan receiving arms from the West and consolidating its position along the Western Border).
- The Egypt-Israel war had brought out the efficacy of certain new equipment.
- The new pay commission guidelines issued by the Government had led to a large financial impact.
- Increase in Dearness Allowance (DA) by the government had created similar financial strain on defense expenditure.

- This increase in salaries and dearness allowance could be accommodated with the defense budget.
- Various constraints have not allowed the indigenous defense production program to materialize.
- Additional defense needs cropped up like the protection of the Bombay High (offshore oilfields).

Reflecting on the correspondence between the two ministries since June 1974, the Defense Secretary argued that “these documents have brought out serious differences of approach and assessment between the two ministries and it was thought desirable to constitute another committee to review the whole position objectively and make suitable recommendations.” He also informed Haksar that on the request of the MoD, a New Apex Committee was formed (Apex Group II) to look into the matter. Led by Haksar, it also included S. Chakarvarthy (Member, Planning Commission), G. Parthasarthy (Chairman, Policy Planning Division, Ministry of External Affairs), the Cabinet Secretary, the Defense Secretary, the Foreign Secretary, the Finance Secretary, P.N. Dhar, Chiefs of the three Services and MGK Menon (Scientific Advisor to the Defense Minister). The terms of reference for this new committee were: first, “to examine the new paper of the MoD to the CCPA, the comments of the MoF and the rejoinder by the MoD,” and second, “taking into account the threat position particularly with reference to the developments since 1971 war, the state of preparedness of the defense forces, the economic situation of the country and the need to make the most effective use of the available resources.”

Document No. 9: Letter from Secretary (Expenditure), Ministry of Finance Ajit Mazumdar to P.N. Haksar, 28 April 1975. Nehru Memorial Museum and Library (New Delhi): P. N.

Haksar Papers, IIIrd Installment, Subject File no. 298, 1975 Part II (Ministry of Defense and Related Files 1971–76, 79): 41–46.

Summary: On April 28, 1975 the Finance Secretary wrote to P. N. Haksar insisting that the “Apex Group will have to revisit the political and strategic assumptions in the MoD’s plans.” The MoF repeated its earlier assertion of December 1974 of that the threat from China is largely political rather than military: “the hostility would take the form of trade and economic rivalry and political in world forums,” argued the MoF. Moreover, it also suggested that whereas China looms large in India’s strategic thinking, the opposite is hardly true: “China considers herself a super-power, and India does not play an important role in China’s thinking, as China plays in ours.” The MoF considered both an independent armed invasion of India by China and possible incursions from the north during periods of active hostilities with Pakistan as “highly unlikely”. However, in this correspondence, the MoF does refer to development of nuclear deterrence against China. In his submission to the Haksar committee, the Finance Secretary argued that:

“India’s greatest weakness in relations to China is not in her defense preparedness but in her inability to maintain a rate of savings that can simultaneously provide for better agricultural and industrial production, conventional defense forces and nuclear capability and missile development, as China has been able to do. If the growth of the Indian economy is further retarded by massive appropriations of resources to defense, China’s long term aim vis-à-vis India can be achieved without a single Chinese soldier crossing any official or unofficial frontier.”

Vis-à-vis Pakistan, the MoF once again stressed points made in its earlier submission to the MoD in December of 1974. The Finance Secretary urged Haksar to undertake a thorough review of India-Pakistan relations since 1971. Such a review, as the document argued, would “show that whereas Mr. Bhutto has made some diplomatic gains and his

position has strengthened by the lifting of the USA embargo on arms supply, there is no evidence of feverish degree of preparedness aimed at an early resumption of armed conflict with India.” Therefore, the COSC’s stipulation of the period of 1974-75 as particularly threatening, as the Finance Secretary argued, was based on “anything except conjecture.” The letter also argues that given mutual economic strains suffered by both countries in building their defense capabilities, the time may be ripe to initiate conventional arms control in the subcontinent: “in this situation (economic desperation on both sides), it is for consideration whether India cannot take a diplomatic initiative in suggesting the possibility of negotiations between the two countries on arms limitations. We would have nothing to lose from such an opportunity.” The document in fact laid out specific arms control measures to be pursued: “Instead of a sterile repetition of India’s offer of a ‘no war pact’, India can offer to discuss- (a) limitations of numbers and capacity of offensive weapons (e.g. DPSA (deep Penetration Strike Aircrafts and Tanks), including nil for surface to surface missile of a certain range; and (b) mutually balanced force reduction.”

Such a proposal, as the document argued, would have many advantages. First, it would “effectively halt or slow down the supply of more sophisticated weapons from USA directly or indirectly to Pakistan.” It would also buy India time because “if the offer of talks were to be accepted by Pakistan, it would take at least two or three years for confidence to be developed to an extent where mutually acceptable terms could be worked out.” It will also give India a distinct diplomatic advantage in “establishing her good faith, by effecting a token reduction unilaterally, in the size of her army.”

Document No. 10: Letter from P.N. Haksar to the Defense Minister Sardar Swaran Singh, 9 July 1975. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd

Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971–76, 79): 26–28.

Summary: On July 9 1975, the Apex Group II finally submitted its report to the Defense Minister Sardar Swaran Singh. The report is not available in the archives. However, in the letter to the Defense Minister Haksar requested Swaran Singh to critically evaluate all “subsidiary threats” which had figured in the Apex Group 2 submission to the Defense Minister. He argues, “either these [subsidiary] threats are real enough to be taken account in our defense preparedness or they are in the nature of padding for jacking up the demands of our navy and the air force. Anyone, even with the meanest of intelligence, can perceive that if we are to take account the subsidiary threats and total up the naval and air forces of a large number of countries, we simply do not have the wherewithal for meeting such threats even if we are prepared to dedicate fifty percent of our budget to defense.” No reference to nuclear weapons is made in this letter.

Document No. 11: Ministry of Finance (Defense), Additional Resources for the Defense Plan 1974–79, 24 November 1976. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File no. 298, 1975 Part II (Ministry of Defense and Related Files 1971–76, 79): 156–186.

Summary: In this note prepared by the Additional Finance Secretary C.V. Nagendra, it is made clear that on the recommendation of the Apex Group II, the CCPA had approved a ceiling of Rs 122500 million for defense expenditure during the period 1974–79. The CCPA approved the revised Defense plan on 18 September 1976. This ceiling contained a foreign exchange component of Rs. 11270 million and non-convertible rupee component of Rs. 11000 million. This ceiling was way beyond what the Defense ministry had requested for in June 1974. It seems that the Apex Group II approved almost all of the MoD’s revised

estimates for defense expenditure and the CCPA subsequently approved it. This also suggests that the report submitted by the Haksar committee in July 1975 did accept the MoD's version on India's nuclear deterrent. This is at most an approximation which is open to challenge in the future.

Document No. 12: Discussions Between the COAS and the Soviet Defense Minister

Marshall Grechko, 25 February 1972. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 242, 1972, (As Principal Secretary to the Prime Minister 1967–73), p. 73.

Summary: Chief of Army Staff Sam Manekshaw visited Moscow in February 1972. DP Dhar, Chairman, Policy Planning Committee of the Ministry of External Affairs accompanied him to a meeting with Defense Minister Marshall Grechko. At the end of the discussion, Marshall Grechko narrated them the story of Soviet nuclear submarines chasing the US Seventh Fleet. According to the Marshall, “One of their nuclear powered submarines went 400 meters below the Enterprise. He also reportedly said, “That is how, General Manekshaw, the Americans wished the world to believe that they can defend their fleet against my submarines.”

Document No. 13: Directorate of Marine Engineering, Compact Power Reactor, Minutes of the Meeting held on 22 January 1976 in the office of the Deputy Chairman, Planning Commission, 30 January 1976. Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 298, 1975 Part II (Ministry of Defense and Related Files 1971–76, 79), pp. 199–203

Summary: On 22 January 1976, a meeting was convened at the office of P. N. Haksar. Among others who attended this meeting were Prof. MGK Menon (SA to the RM), Vice

Admiral R. Tandon (Chief of Material, Indian Navy), Dr. Raja Ramanna (Director, Bhabha Atomic Research Center), VC Rajadhyaksha (Chief Consultant, Planning Commission), CP Ramachandran (Joint Secretary (Navy) and Coordinator (Marine Reactor Project), Cdr. P.N. Agarwal (Deputy Director of Marine Engineering and Project officer, Marine Reactor Project).

From the details of this document, it is evident that the marine reactor project was approved by the Committee of Secretaries in a previous meeting on 16 April 1975. Phases 1 and 2 of the project costing Rs. 50 million were to be completed in a time period of two and a half to three years. Committee of Secretaries had estimated the total cost to be around Rs. 300million, with 25 percent of the total budget in foreign exchange. Somewhere between April 1975 and January 1976, the Department of Atomic Energy (DAE) had prepared a detailed paper for the CCPA. This however could not be tabled as Planning Commission declined to provide funds during the current fiscal year. However, by late 1975, the financial situation had improved and therefore the January 22nd meeting was convened to allocate separate and specific funds for the project. The plan allocation was divided in 6 phases. For the first three phases of the plan, the amount allocated was Rs. 10 Million in 1976–77, Rs. 20 Million in 1977–78 and Rs. 20 Million in 1978–79. Amount for the remaining three phases was to be allocated under the 6th five year plan, 1979–1984.

However, there was a debate over who would fund the project: the Defense ministry or the DAE. Accepting the importance of the project for defense applications, Prof. Menon argued that even though “under normal circumstances it should come out of the Defense funds which have been allocated by the Apex Committee.” However, as the Apex Committee approved funds “have been on a very tight budget and it would be difficult to find the kind of money required for this project from the existing Defense sources,” Defense ministry may be helpless. Apportioning funds from the Defense budget would have also blown the lid of

secrecy and invited international concerns. As Menon argued, “allocation of money for this project from Defense funds at this stage may have serious international repercussions and even though it is accepted that main use of the package reactor will be for Defense, we should take up this Project as Package Reactor for power generation and marine propulsion of merchant ships, so that the reactor comes under the under heading of peaceful uses of Atomic Energy.” He therefore suggested that the funds should come from the budget of the DAE.

Dr. Raja Ramanna however countered Menon’s suggestion claiming that under the present budget of the DAE, it will not be possible “unless separate and specific funds are allocated to this project.” He also accepted that importance of the defense applications of the nuclear propulsion technology but also specified upon the civilian derivatives of this technology: “In actual fact the Russians have put the Package Reactor on Railway Wagons and the same can be transported by Rail to any place in their country where there is power shortage.” For him, the project was so important that it should be “considered in its entirety as a National Project.” When enquired by Haksar, Rajadhyaksha suggested that given the importance of the project, funds mentioned by Adm. Tandon and Prof. Menon could be made available.

Haksar agreed that he will be willing to provide funds but wanted more clarity “regarding the planned end use of the Power Reactor so as to establish that the country will get full dividends on the money spent on the project.” However, subsequent conversation makes it amply clear that the project was geared towards nuclear propulsion for submarines and large ships of the Navy. The Joint Secretary (Navy) told Haksar that the Navy has been negotiating with Russia regarding “design collaboration for a submarine and a large frigate.” In fact, the issue of design collaboration was to be taken up in the Defense Secretary level talks with the Soviets in May 1976. Ramachandran was also hopeful that given the potential

of Russian help, “we should be in a position to take up the design of a submarine in the near future.”

Haksar, however, was not very convinced and demanded to “know the plans in case collaboration did not fructify.” Prof. Menon intervened and suggested that since a lot of money is being invested in Defense Research under the fifth Defense plan (1974–79), both in the DRDO and NSTL Vishakapatnam, “even if the collaboration agreement to does not fructify, we shall be in a position to undertake submarine design; but in case the collaboration agreement does fructify, it will make our task that much easier.” Dr. Ramanna, however, was pessimistic of any foreign assistance; for him, it could only be developed indigenously. As Dr. Ramanna argued, “No help of any kind can be expected from any foreign Government on the Design and Development of the Package Reactor and all Design and Development work will have to be done by ourselves and therefore, we must commence on this as soon as possible.” Admiral Tandon was also hopeful of the Navy’s capability to finish the project given that it had now acquired substantial expertise in ship building and design, especially in building frigates. In contrast to Dr. Ramanna, as far as the issue of nuclear reactor was concerned, Admiral Tandon was much more cautious accepting that the Navy had no “experience on compact power reactors.” Therefore, the work on the reactor had to start at least four years before “ship/submarine designs on which it will be installed.”

Haksar’s concluding remarks are extremely insightful as they further clarify defense applications of the ‘Compact Nuclear Reactor’ and also the secrecy involved in the project. He expressed his satisfaction on the fact “the time frame of the Package Reactor has been studied in conjunction with the development schedule of the submarine.” Given explanations provided by Adm. Tandon, Prof. Menon and others, as Chairperson of the Planning Commission, he gave his final approval for the DAE paper to be put up to the CCPA. The project was also to undergo a review by the end of the third phase in 1979. He then instructed

the members present that “in view of the secrecy involved, the usual procedure for the CCPA papers should not be followed and only a very limited number of copies of this paper (CCPA paper) should be produced.” The CCPA paper should also not “elaborate on the Defense Application.” Only one copy of the paper concerning the defense application was to be produced and circulated by hand as a “Top Secret document.”

Document No. 14: Ministry of Defense, Report on the Visit of Defense Secretary’s Delegation to USSR: Vol-II, “Record of Discussions on the Call of Defense Secretary Shri D.R. Kohli with H.E. Mr. D. Ustinov, Defense Minister of the USSR, and Member of Politburo of Central Committee, CPSU on May 14 at 1100–1330 Hours.” Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 301, May 1976 (Ministry of Defense and Related Files 1971–76, 79), 56– 65.

Summary: On 14 May 1976, the visiting Indian Defense delegation had a discussion with its Soviet counterparts. From the Indian side, D.R. Kohli (Defense Secretary) and P.L. Sinai (Charge d’ Affairs) were present and the Soviets were represented by D. Ustinov (Defense Minister of the USSR), General V. Kulikov (First Deputy Defense Minister and Chief of General Staff of the Soviet Armed Forces) and Col. General M.A. Sergeichik (Vice Chairman of the State Committee for Foreign Economic Relations). The discussion revolved largely around domestic politics in India, the strategic situation in South Asia but also touched upon other relevant global affairs.

Defense Secretary Kohli apprised Marshall Ustinov of the improved economic situation in India during the emergency which included among other things “the success in increasing production and the new era of discipline, the increasing production and the beneficial results of Prime Minister’s (Indira Gandhi) 20-point programme.” He also thanked the Soviets for the “understanding that they have shown for the emergency and for the 20-point programme in contrast to the criticism from certain quarters unfriendly to us (Western

countries).” He also referred to the Soviet Union having shown an “understanding about our peaceful nuclear explosion.” Marshall Ustinov then asked Defense Secretary Kohli to elaborate upon India’s security and external relations. In response, Kohli admitted that India has “reason to be anxious to maintain a high state of preparedness precisely because of the situation that is developing in the region around us.” This included the lifting of the US arms embargo from Pakistan, the arms race in the Middle East and oil wealth of the Arab states which have traditionally been sympathetic to Pakistan. Kohli also exhibited alarm at the US decision to establish a naval base in Diego Garcia, adding that “their ships and planes are very much in evidence” in the Indian Ocean and “American planes fly low over our ships and sometimes buzz them.” India has constantly strived to improve relations with Pakistan, argued Kohli. However, in his view, Pakistan had “not shown the same approach” and was “working on a plan to create difficulties” for India. He blamed China for Pakistan’s hostile attitude: “behind this propensity of Pakistan is its God Father, China, which does not want normalization between India and Pakistan.” But later, he also emphasized upon the triangular strategic cooperation between Pakistan, China and the US: “Pakistan encouraged by US and China seems to be working on a time bound programme for a conflict with us and we cannot but take steps to ensure that our armed forces remain operational in readiness (sic).” Even when India was trying to establish diplomatic relations with China, Kohli argued that India had “no illusions that [China] will become friendly to us [India] in near future and, therefore, we have to keep our powder dry.” The main problem, as Kohli put it, was China’s “hegemonistic designs.”


Document No. 15: Ministry of Defense, Report on the Visit of Defense Secretary’s Delegation to USSR: Navy, Vol- I, May 1976. Nehru Memorial Museum and Library (New

Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 300, May 1976 (Ministry of Defense and Related Files 1971–76, 79): 39–47.

Summary: This document suggests that by 1975 Soviets had offered collaboration in a Naval Design Bureau with the Indian Navy. In February 1976, Soviets had laid considerable emphasis on an early response from the Indian side on their offer. Therefore, the visiting defense delegation presented a revised draft agreement on 10 May 1976. Even when the Indian delegation wanted to discuss the revised draft, the Soviets asked for some more time to go through the draft and promised to respond by July-August 1976. The visiting delegation also brought up the issue of a VLF transmitter station to be built in India, because until then there existed no facilities to communicate with submerged Indian submarines. However, the negotiations hit a roadblock on matters of costs and certain technicalities especially regarding the maintenance of the station. Nothing specific on nuclear submarines was discussed.

Document No. 16: Ministry of Defense, Report on the Visit of Defense Secretary's Delegation to USSR: Vol- II, "Record of Discussions between Rear Admiral A.K. Bhatia AVSM, VSM, ACOM and Maj. Gen. Kiselev of GTD held on Friday, 14th May, 1976 at 1430." Nehru Memorial Museum and Library (New Delhi): P. N. Haksar Papers, IIIrd Installment, Subject File No. 301, May 1976 (Ministry of Defense and Related Files 1971–76, 79): 89–96.

Summary: This discussion revolved around the Soviet-India collaboration in Naval Design Bureau. The document repeated the points made in document no. 13. Specifics of collaborative ventures are not available in the document.



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