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

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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.

Acknowledgements

This paper is based on author's research on the history of India's nuclear submarine program. The author would like to thank his PhD supervisor—Prof. Rajesh Rajagopalan—for providing detailed comments on the paper and also for his continuous support on the larger project. Contributions of Dr. Balazs Szalontai in this research are many. His constant guidance on

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

India's hostile neighbors. While the report considered a surprise attack from Pakistan an imminent possibility, any full scal

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

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 war[16] 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]

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

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.

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

In his submission to the Apex Group II, the Finance Secretary also made the argument for nuclear deterrence against China

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.

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.

[46]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 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

[47]Ministry 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

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

[56]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. 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,

number of factors influenced the IAF's decision. First, the IAF found that the TU-22 did not fit

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 committee[63] and statements on immediate requirements of the IAF[64]—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.
[63]See, Air HQ/TS. 96091/4/ASR, C.A.S. Presentation: Haksar Committee (No Date), Nehru Memorial Museum and

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]

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 a 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 militaryff

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]

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.

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 Admi

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]

[87]In 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 .30tiodsn6d001 odsn6sterventieTm1[(wo)5.3(or9(n-)7.in)or9(

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

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.

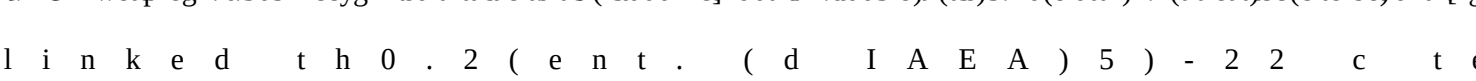
If against China, India had to "accept a calculated risk of losing certain territory up to the line of denial approved by the government," vis-à-vis Pakistan, the objective was to "frustrate Pakistan's offensive aims, inflict substantial damage of Pakistani forces and installations, and within first 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 s

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



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that conditions may change in which this policy may have to be given up. Towards this end, we should concentrate a little mo

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 Moni8uTd( ) 1 sc reat 1(f)5.Exter(oni8uulta)4leat sfeiihiltaP

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

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."

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 issumg MoDh00-fTw -19e “implementation of the Shimla agreement is

he issue of the implications of India’s recently conducted

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

renders even a limited use of tactical nuclear weapon

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, 3April 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 3April 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 Weefenda-.2( )]TJ0.0014

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- 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 th

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 rev3301 2-0.00

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 of

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

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 Cou21.3(mae C)f99(8Ji0.00 Minim)7.8(t)-2.ricy 8JiExist7(nal)58.5(D)5.taf8J6(a)-4.5rh

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

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

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.

countries).” He also referred to the Soviet Union having shown an “understanding about our

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