

India's nuclear policy should stop resting on the laurels of 1998

Unprepared for the worst

In a recent speech at George Town University, the national security adviser of the United States, Sandy Burger, asserted that had not the US led by President Bill Clinton intervened in the Kargil conflict and compelled Pakistani forces to pull back beyond the line of control in Jammu and Kashmir, India and Pakistan were on the brink of a nuclear confrontation. Whether this was a factual prospect is a debatable point. But Burger has some basis to make this claim.

By the second week of June 1998, Pakistan had made public statements to the effect that it will not hesitate to use nuclear weapons against India if the Indian military response to its military operations in Kargil crossed thresholds which would directly endanger its security. Burger went on to state that the US inevitably would have to take direct interest in ensuring south Asian peace and stability in the context of a nuclear weaponization of India and Pakistan.

It is now two years since India and Pakistan openly tested their military nuclear devices. They have also tested their missile delivery systems. It is time to take stock of the follow up action that has been taken by both countries on their respective nuclear weaponization. It is also necessary to survey international reactions to this situation as they have evolved. Finally, both India and Pakistan have to decide how they intend to manage their destructive capacities, rooted in their respective threat perceptions, with a view to not letting things get out of hand, particularly in the context of continuing Indo-Pakistan confrontation on the issue of Jammu and Kashmir.

First international reactions, as they have evolved. One hundred and fifty-two out of the 185 or so members of the United Nations have categorically criticized and condemned the nuclear weapons tests conducted by India and Pakistan. The group of eight industrially advanced countries, the European Union, the Organization of American States, the Gulf Cooperation Council, the Organization of Islamic Countries and the Nordic Council of Ministers have opposed Indian and Pakistani nuclear tests and called on both countries to sign the comprehensive test ban treaty, roll back and eliminate their nuclear weapons capacities. The apex political body of the world, the UN security council, adopted a resolution on June 6, 1998, demanding that both countries do not conduct any more nuclear tests.

The 14 industrially advanced countries imposed sanctions against India and Pakistan which still continue. The sanctions had the following ingredients: enhancing controls on exports of dual-use equipment and technologies, banning financial institutions from giving loans and credits to governmental entities in India and Pakistan and the postponement or delaying of loans and grants from multi-lateral financial institutions. These institutions and other private banks are also being stopped from giving credits and invest-

The author is former foreign secretary of India

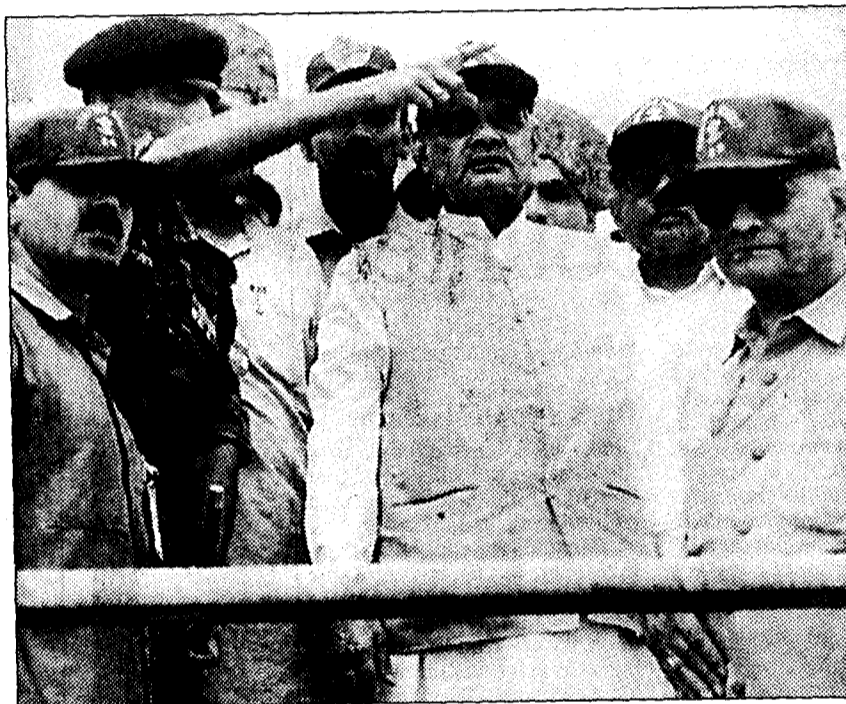
ment guarantees. Deliveries of all military assistance and military equipment have also been stopped. The objectives of the sanctions were to impose punishment on India and Pakistan for what the nuclear weapons powers call the globally accepted norms of nonproliferation. It was expected that this will coerce India to fall in line with the mainstream nonproliferation objectives of the nuclear weapons powers.

The more operational aims of the sanctions were to pressurize India to

tal instrumentalities. A number of non-governmental organizations undertook campaigns and passed resolutions.

Two Indian analysts, Praful Bidwai and Achin Vanaik, have been awarded McBride prizes for international peace for their persistent and strong opposition to India's nuclear weaponization, in the print and audio-visual media. In the final analysis, neither the international community nor domestic critics of India's decision had widespread public support as well as strong support from

J.N. DIXIT



Conducting nuclear tests and the testing of delivery systems are not an end in themselves

sign and ratify the CTBT, to discourage India from producing nuclear missile material and nuclear weapons, put a stop to the development and deployment of nuclear weapons and missiles, to compel India to tighten its export control laws on nuclear technology and nuclear materials and to compel India and Pakistan to enter into a dialogue.

This dialogue ought to have two aims — to come to an agreement on restraint in the use of nuclear weapons and missiles and to address the basic problem of Jammu and Kashmir, considered a nuclear flashpoint by all the important powers in the world. A number of countries like Japan and Australia, and to some extent the United Kingdom and the US, got on a high horse and cancelled bilateral and international meetings related to economic, technological and defence cooperation with India. They even withdrew military and technological personnel from their embassies in New Delhi.

If one reviews the objectives of the sanctions as summarized above, not a single one of them was fulfilled. India has not succumbed to this pressure. In political and economic terms the sanctions have had no profound negative impact on India. In technological terms, there has been some impact, but on all counts India can cope with this pressure. The nuclear weapons powers have also generated pressure for nongovernmen-

the strategic establishments of the country. By not succumbing to the sanctions, India has structured its nuclear policies with practicality and a sense of responsibility. India declared a moratorium on further tests for an indefinite period.

Elaborating on this first decision, India finalized its draft nuclear doctrine and made it public for public discussion before it could be finalized. The nuclear doctrine talks about no first use, non-use and India's nuclear weapons capacity against any non-nuclear weapons power. India has underlined its nuclear weapons capacity has the limited objective of maintaining a minimum credible deterrent against nuclear weapons powers, which have or which could have an adversarial relationship with India in strategic and security terms. This is the first time that any nuclear weapons power has straightaway publicized the outline of its nuclear doctrine before debating it.

Though refusing to sign the CTBT, India has announced that it will not stand in the way of the treaty's coming

into force in relation to those countries which are signatories to this treaty and which desire to abide by it.

The prime minister, Atal Behari Vajpayee, tried to take care of the major international concern about a nuclear conflict between India and Pakistan when he went to Lahore for a meeting with the then Pakistani prime minister, Nawaz Sharif. Vajpayee and Sharif signed an agreement to enter into negotiations to finalize arrangements to maintain strategic restraint between India and Pakistan in the context of nuclear weapons and missile capacities of both countries. They also agreed to set up an express working group to commence negotiations early in 1999, immediately after their February meeting.

An important consequence of international sanctions failing against India had been the commencement of substantial discussions between India and the major powers of the world to come to a political and strategic understanding on the issue of India's nuclear weaponization. There is an incremental acknowledgement of India's nuclear weapons status, though this is not being given formal expression. India's nuclear weaponization has undoubtedly resulted in India being taken more seriously as a factor affecting international political and strategic high-level contacts standing resumed with all the five permanent members of the UN security council who are also the five recognized nuclear weapons powers.

One can come to the conclusion that India has coped with the external dimensions and implications of its nuclear weaponization with some success. It is in the internal structure of our nuclear policies that one notices certain inertia and ambiguities. The difference of opinion between scientists and technical experts on whether India should conduct more tests or not has been expressed publicly. India does not appear to have taken measures to make the delivery systems of these weapons effective and operational.

There have been no tests on the Agni, India's intermediate range ballistic missile, for nearly four years now. There seems to be a delay in finalizing command and control arrangements governing our nuclear weapons and missile capacities. The nuclear doctrine, though ready in draft form for nearly a year now and though it has been discussed in the media, has not yet been discussed and finalized in the cabinet or being placed before the Parliament.

The imperative desirability to enter into negotiations with Pakistan for mutual strategic restraint seems to be on the back-burner in the government's strategic planning. It is clear that the government and its experts concerned should focus full attention on these issues and tailor solutions to them prognostically. One gets the impression that we are resting on our laurels of 1998. One hopes this is not true. Conducting nuclear tests and the initial testing of our delivery systems are not an end in themselves. These are exercises which are integral to defence preparedness of the country.

India is now a 'nuclear-power' with no nuclear strike force worth the name

THE HINDUSTAN TIMES

From euphoria to distrust

6 OCT 2000

BY PREM SHANKAR JHA

IN HIS preface to Dennis Kux's book *Estranged Democracies: India and the United States*, former US senator and ambassador to India Daniel Patrick Moynihan described India-US relations during the Cold War as one of estrangement punctuated by moments of intense infatuation. Despite all the changes wrought in the international order after the end of the Cold War, this description still holds true. A year ago, the attitude of most Indians to America was one of visceral distrust. Today most of the distrust has been replaced by a state of mild euphoria.

This euphoria is premature. Despite President Bill Clinton's visit to India and Atal Behari Vajpayee's return visit to the US, and despite the decision taken by the two Governments to raise both the frequency and level of consultations between them, India-US relations are very far from a partnership. In fact, they are still cast in the adversarial mould of the past.

This may not be evident in the Clinton-White House, or in the American embassy in Delhi, but it is very much so in the think-tanks and research institutes that abound in Washington, where future policy is incubated.

First, India's reasons for going nuclear are consistently trivialised. No one believes that India did so because it felt insecure in the aftermath of the disintegration of the USSR, and the reckless transfer of nuclear and missile technology by China to Pakistan in the Eighties and Nineties. At a recent seminar, a State Department official went so far as to assert that India is far more secure today than what it was in 1991. Everyone believes that India set off the bomb because it craved status in the world community and resented being assigned a permanently inferior status to China. Some also believe that the Vajpayee Government did it to shore up political support for its shaky coalition Government, or to restore 'Hindu' India to its former glory.

Second, no one believes that the Vajpayee Government did not sign the CTBT because of stiff opposition from the RSS. Everyone believes that India never had any intention of doing so and had only been playing hide and seek with Strobe Talbott and the Clinton administration. This, they believe, was because the 1998 tests had been only partially successful and had demonstrated just how far India had to go to become a first rate nuclear

power. Above all, after M.R. Iyengar's articles in *The Hindu*, no one any longer believes the Indian scientists' claim that India has accumulated all the data it needs for designing future weapons and does not need to carry out any more tests.

All this is adding up to a growing reputation for untrustworthiness. Sooner or later, most people in Washington believe, that India will conduct more nuclear tests. Then all those in the new administration who have invested in promoting closer relations with India will be seriously damaged. This is what happened in 1998 to State Department officials from Thomas Pickering to Karl Inderfurth, and well-wishers like former ambassador Frank Wisner. The same thing is likely to happen again.

Distrust of India has been greatly increased by the Government's failure to sign the CTBT after two-and-a-half years of half-promises to Talbott. Had India done so, the damage to its credibility and to that of the officials who had advocated closer relations with it, would have been repaired. Today there is not much that the Clinton adminis-

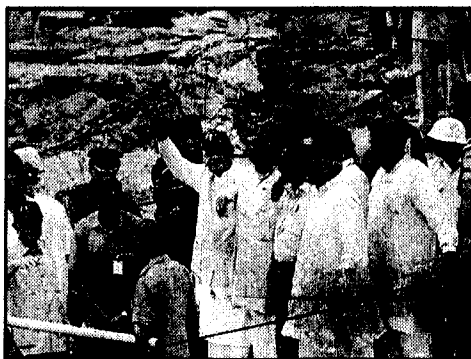
tration can do to express its sense of betrayal, but it is a safe bet that the next administration will fight shy of courting any similar experience. This will be particularly true if Al Gore becomes the President.

Everything Indians say or do not say, feeds this distrust. In private talks with American visitors, Indian officials and 'track two' interlocutors keep insisting that the principal long term threat that the bomb is intended to neutralise comes from China and not Pakistan. Not a single person in the US is prepared to buy this argument. They also insist that there is little danger of a nuclear exchange with Pakistan.

This assertion, made in the face of other assertions that Pakistan is engaged in a proxy war against India in Kashmir that it is stepping up day by day, and of at least seven recent warnings by

Pakistani leaders, including two by Musharraf, that it will use nuclear weapons to counter India's conventional superiority, also carries zero credibility. Washingtonians conclude that either India is lying about Pakistan's involvement in the insurgency in Kashmir, or it is lying about the security threat that Pakistan poses. Either way the distrust grows deeper.

India's actions do not match its words. If the purpose of nuclear weapons is to counter China's capacity to blackmail India into submission, then why has India halted the development, let alone production, of the Agni? If Pakistan is no threat, why has Vajpayee ordered the production of 300



All that hype: Vajpayee & Fernandes at Pokhran

Prithvi missiles for the three forces? Since no liquid fuelled missile can be a credible weapon, let alone a quick reaction second strike weapon, why is India not straining every nerve to develop or acquire from not too particular countries, the technology for making solid fuels? Is this too one of Dr Abdul Kalam's failed promises?

Pakistan, in contrast, has a fully focused doctrine governing the use of nuclear weapons, that the Americans understand. It has a defined enemy, and a clear statement of the circumstances in which it will use nuclear weapons. It has augmented both its warhead making capacity, and improved the punch of its warheads by commissioning the Chinese supplied Khushab reactor and switching from Uranium 235 to Plutonium. Courtesy the Chinese, it is now producing short range solid fuelled M-11 missiles. It has repeatedly tested the Ghauri IRBM, and more recently, the Ghauri-II.

It has made no secret of its purpose in doing so, which is to station nuclear tipped missiles in the mountains of Baluchistan where they will be invulnerable to Indian aircraft and beyond the range of the Prithvi. It has created a nuclear strategic command to co-ordinate the development of weapons

and delivery systems. And far from keeping the armed forces out of the decision-making and weapons development loops, the only contentious issue the Government faces today is whether the army should continue to maintain its monopoly on decision-making or bring in the navy and air force too.

India still has no nuclear doctrine. Because it cannot bring itself to acknowledge who its principal enemy is, and where its most urgent threat is coming from, it is unable to define the purpose of its nuclear weapons and therefore the number and type of weapons and missiles it needs to develop. Due to the lack of a doctrine, it has not been able to give the armed forces any indication on how nuclear forces should be factored into their tactical planning. It has no nuclear weapons directorate, and the power hungry bureaucratic and scientific establishment has kept the armed forces out of the decision making loop.

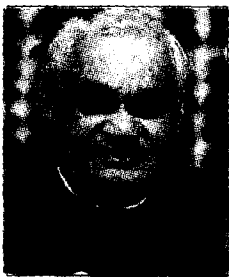
Given Pakistan's undeniable superiority in missile acquisition and deployment, the only credible deterrent India can construct is sheer numerical superiority. Pakistan has to know that India will always have so many more warheads deployed in so many airfields and silos that no matter how devastating a first strike it launches, retaliation and annihilation will surely follow. But this involves making scores, perhaps hundreds of warheads, and that involves production, transport, storage and above all the maintenance of security at missile and warhead silos.

Beyond relatively small numbers, this is a job that can only be done by the armed forces, but to the best of one's knowledge the armed forces have not been asked for any help in maintaining security. So, are the scientists running a private army or have they made so few warheads that security is not a problem? In view of the American pressure on India, which has already stalled missile deployment and development, one suspects the latter. The BJP-led Government has therefore put India squarely in that most dangerous of situations: it is now a nuclear-capable country with no nuclear strike force worth the name.

And while it stays there, perplexity will continue to grow abroad about what India plans to do, and why India bothered to go nuclear when it did not even know what it needed these weapons for.

RSS chief lauds Vajpayee for not signing the CTBT

PRESS TRUST OF INDIA
KOTA (RAJASTHAN), OCT 19



RASHTRIYA Swayamsevak Sangh (RSS) chief K C Sudarshan has praised the leadership of Prime Minister Atal Behari Vajpayee who, he said, had refused to bow down to "foreign pressure".

Replying to questions after addressing a select gathering of prominent citizens here yesterday, Sudarshan said despite pressure from the US, Vajpayee refused to sign the Comprehensive Test Ban Treaty (CTBT).

The Prime Minister had shown exemplary independence in conducting Pokhran-II nuclear experiments and succeeded in repulsing Pakistani forces in Kargil, Sudarshan added.

Vajpayee, he said, was faced with three problems, "First, he is heading a coalition of 25 parties, some of whom have created difficulties some time. Second, he has to honour international commitments made by his predecessor governments. And thirdly, he was unable to take action in Bihar and West Bengal against misrule by state governments in the absence of requisite majority in Parliament."

However, despite all these difficulties, Vajpayee had been able to run the government successfully for the last one year which in itself was no "mean achievement on his part", Sudarshan added.

In his address, the RSS chief said that only by adopting "Hindu chintan" and "swadeshi" was it possible to bring about full economic, social and political development of the country.

INDIAN EXPRESS

20 OCT 2000

No Risk Reduction Restraint not in Pak's Lexicon

By K SUBRAHMANYAM

91-10
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THE draft nuclear doctrine recommended by the National Security Advisory Board stipulates 'no-first-use' as India's basic nuclear strategic approach. This is in consonance with Prime Minister Atal Behari Vajpayee's own declaration in Parliament on August 4, 1998 though there has not been much elaboration of 'no-first-use' as the most effective and appropriate strategy for India. In the West, the no-first-use policy has been denounced by those who believe in nuclear war fighting, as an unverifiable declaration and of little consequence. Therefore, the 'no-first-use' doctrine needs to be explained in detail both to the Indian public and to the rest of the world.

At present technology levels, there is no way a nuclear weapon attack by an aggressor can be stopped. The Americans are attempting to develop technologies which will intercept theatre and intercontinental missiles. Even these cannot stop short-range and cruise missiles. Therefore, nuclear deterrence has to depend on the ability to inflict punitive retaliation and impressing on the adversary that his use of nuclear weapons will result in certain devastating retaliation. Therefore, the survivability and certain retaliatory capability form the core of deterrence.

Dispersal, strategic deception, camouflage, mobility of launchers, their diversity and adequacy in numbers in relation to enemy arsenal are all factors which will ensure that the adversary will not be able completely to eliminate one's own arsenal and that there will be certain retaliation. Even the US could not be sure when it had 5,100 warheads in 1961 that it would be able to eliminate 300 Soviet weapons and escape retaliation. Therefore, deterrence worked. It is more the uncertainty over possible retaliation than the certainty of one's own capability to strike that makes deterrence mutual and stable. The latest NATO doctrine recognises this.

The 'no-first-use' doctrine is not merely a declaratory one especially for states which do not build mindlessly monstrous arsenals as the US and the USSR did. With modest arsenals, states with 'no-first-use' policies have to keep their weapons and launchers away from forward areas so that they will not be vulnerable to an adversary's disarming strike even with conventional forces. Second, 'no-first-use' would

preclude delegation of the powers of use of nuclear weapons to force commanders and thereby avoid the risk of unauthorised use.

Third, if the weapons are to be used only in retaliation, this will enable the separation of warheads from launchers during normal times. Keeping the warheads and launchers separate will complicate the adversary's task in eliminating both. Therefore, inherent in the 'no-first-use' policy are measures of risk reduction advocated by many arms controllers. A 'no-first-use' policy also implies that dangerous and risky strategies such as 'launch on warning' and 'launch under attack' will not be resorted to. Such strategies resulted in high-risk contingencies in the Cold War era. Therefore, the usual scares about how the Americans made mistakes about a flight of geese or a wrong tape are totally irrelevant when a country adopts a 'no-first-use' strategy.

IN BRIEF

- The core of nuclear deterrence is the ability to survive and retaliate
- Inherent in a no-first-use policy are risk reduction measures
- Pakistan's aggressive first-use policy generates the risk of a possible nuclear exchange
- Pakistan's belief that it is India's equal prevents it exercising any meaningful nuclear restraint

Much has been written about the near absence of a warning period in the case of missile flights between India and Pakistan; it is pointed out that in respect of the US and the USSR, the ICBMs had a 30-minute flight time and submarine-launched missiles nine minutes. That comparison with India and Pakistan is irrelevant. The NATO and Warsaw Pact forces confronting each other eyeball to eyeball in central Europe had no warning time at all. Each side had thousands of warheads, including tactical ones and the commanders had delegated powers to use them. Therefore, the situation between NATO and Warsaw Pact was far more unstable and risk-prone than the one between India and Pakistan. Most of the risks in the US-USSR confrontation arose at a time when both sides believed that a nuclear war could be fought and won. India has rejected the viability of nuclear war fighting and maintains that the sole purpose of nuclear weapons is to deter use and

threat of use of nuclear weapons against India.

Nuclear confidence-building and risk reduction measures were adopted in Europe after the two sides agreed in the Helsinki declaration that neither side would use force to change the status quo in respect of borders and lines of control arising out of World War II. There is an analogous agreement between India and Pakistan in the Simla pact which stipulates that both sides would respect the Line of Control. Pakistan's refusal to honour the provisions of the Simla pact and the Lahore declaration as demonstrated by the Kargil intrusion and continuous proxy war in Kashmir and its first-use nuclear deterrent policy generate risks of a possible nuclear exchange arising from its likely nuclear aggression. This is the crux of the problem to be addressed in the South Asian context in the light of the Cold War experience between the US and the USSR.

Unlike in the confrontation between the two super powers, the US and the USSR who could consider a nuclear exchange between them without worrying about any other power in the world, India and Pakistan will have to factor into their calculations the existence of other nuclear weapon powers far more powerful than they are. The five NPT nuclear weapon powers are not likely to consider it in their interest to allow any other state to use nuclear weapons to its advantage. This factor cannot be overlooked by states like India and Pakistan which have modest nuclear arsenals.

No-first-use is a confidence-building measure and incorporates many factors necessary for nuclear risk reduction. NATO countries like Canada and Germany have argued in favour of no-first-use. A number of US scientists and strategists have also come out in favour of it. It is opposed by those nations which are keen on using nuclear weapons as a currency of power and for nuclear blackmail. Pakistan has persuaded itself that its nuclear capability successfully deterred India thrice in 1984, 1987 and 1990 and the nuclear first-use policy makes it India's equal. This mindset and Pakistan's refusal to accept the territorial status quo come in the way of that country accepting any meaningful nuclear restraint and nuclear risk reduction measures.

PM assurance to USA on CTBT unlikely

SUDESH K VERMA
STATESMAN NEWS SERVICE

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NEW DELHI, Aug. 16. — The Prime Minister may find it difficult to give any assurance to the USA on CTBT in view of stiff opposition even from within the BJP. The differences came to the fore at a meeting the external affairs minister had with some BJP MPs today.

Faced with a barrage of questions from them on whether something was likely to come up on CTBT during Mr Atal Behari Vajpayee's trip to the USA in September, Mr Jaswant Singh said nothing was likely in the immediate future.

But some apprehended that the government might force something on them if it got the support of the Congress, the way it did on the issue of economic policies.

The meeting was convened at the instance of the senior BJP leader, Mr Vijay Kumar Malhotra, who had demanded at a parliamentary party meeting recently that the government should clarify its position on India's CTBT commitment. The meeting was inconclusive and another one is likely to be held soon.

Among those who attended the meeting included Mr Malhotra, Mr BP Singhal, Mr TN Chaturvedi, Mr Mahesh Chandra Sharma and the BJP general secretary and Rajya Sabha member, Mr Sangh Priya Gautam.

The 13 MPs present at the meeting reportedly urged Mr Singh not to give any commitment to the USA about signing the CTBT. They argued that India should wait till the US Senate approved the treaty. They also pointed to the BJP's considered stand that India should not sign the treaty as it was discriminatory, a BJP leader said. India should work towards ending the discriminatory nature of the treaty that allow the haves to keep their nuclear arsenals but prohibits the have-nots from producing them, he said.

Mr Singh while accepting the negative points pointed out the positive outcome of signing the treaty. Japan and other countries would lift the economic sanctions against India and help boost its economic prospects, he argued, a BJP leader said.

Also, this could help India to take over as leader of NAM. All other NAM countries had signed the treaty, he pointed out, and argued that signing would help to restore India's rightful place as leader of the NAM.

Some BJP MPs, including Mr Malhotra, had argued at a meeting of the consultative committee on foreign affairs that there was no need for India even to try to evolve a political consensus on the CTBT. Such a step would mean that the government was keen to sign the treaty, he had reportedly argued.

THE STATESMAN

17 AUG 2000

Floor show on CTBT

FROM PRANAY SHARMA

New Delhi, Aug. 17: A last-ditch attempt is being made by the BJP government to initiate a debate in Parliament on building the "broadest possible" consensus on signing the Comprehensive Test Ban Treaty (CTBT). The debate is likely to start either on Monday or Tuesday, so that the process can begin before the monsoon session gets over on August 25.

The timing is significant. It starts not only less than a fortnight before Prime Minister A.B. Vajpayee embarks on his 14-day visit to the US, but also at a time when Japanese Prime Minister Yoshiro Mori is in town.

Irrespective of the outcome, the debate will allow Delhi to show the international community that it has begun the process of consensus-building on the sensitive subject.

Indian foreign minister Jaswant Singh, who will initiate the debate, will stress that by Pokhran II tests, India had met its se-

curity needs which will not be compromised if Delhi is to sign the CTBT.

Singh has made it clear that the decision to sign the treaty now depends on whether the number of tests conducted by India are sufficient and not linked to either the lifting of sanctions imposed on it or its demand for access to sophisticated technology.

South Block officials argued that the stand taken by Parliament in 1996 was different as the treaty was seen as an unequal one when India was still considered to be a nuclear threshold state. But after Pokhran II, there was need for the country to move from its earlier position.

Singh will have to assure Parliament that the data achieved by India through its five tests was adequate for developing a minimum nuclear deterrent. He will also have to explain how Delhi, even if it signs the treaty, will not ratify it till the US and China also do so. This will give the opportunity to block the treaty from coming into

effect if India's security interests are affected.

Referring to apprehensions in certain quarters that once India signs the treaty it will be forced to open all its nuclear installations for inspection, South Block officials clarified that Delhi can build enough safeguards to block any intrusive policy. As per the treaty provisions, a 51-member executive council will be set up, but at least 30 of them will have to cast positive votes before an inspection can be carried out. India, which will surely be a member of the council, is confident that it will be able to block any move that may jeopardise its security interests.

It is important for India to show some positive sign on CTBT. The government had plans of starting a debate on it at the beginning of the monsoon session. But the plans had to be shelved because of the Kashmir developments.

Japan, which is India's biggest aid-donor, is eagerly waiting to see what progress Delhi makes on the CTBT issue.

THE TELEGRAPH

18 AUG 2000

Nuclear Nuances

Credible Deterrent Through Testing

By P K IYENGAR

11-10-2008

AFTER a long period of indecision and ambivalence regarding its nuclear preparedness, India detonated five nuclear devices in May 1998. Consequently, it declared itself a nuclear weapons country. However, it is unlikely that we will be accepted as a weapons country under the Comprehensive Test Ban Treaty (CTBT), because there is no provision for threshold states maturing to become nuclear powers.

When Prime Minister Atal Bihari Vajpayee visits the US next month, the CTBT will certainly be one of the important issues raised by the Americans. There may be political arguments both for and against signing the CTBT, but if we have decided to follow a policy of nuclear deterrence, which will require weaponisation, then, scientifically, we have no option but to continue testing. It is the scientific case that I wish to make here.

If one goes by the numbers for the total nuclear yield put out by the Department of Atomic Energy, which I see no reason to dispute, the yield of the thermonuclear device detonated on May 11, 1998 was around 40 kilotons. This is a rather low yield. If the yield was deliberately kept low to restrict damage to the nearby villages, then surely it would have been more sensible to test the thermonuclear device separately, and not along with the 15 kt fission device. Now, the thermonuclear device itself consisted of two parts: the fission trigger and the fusion core.

The crucial question is not what the total yield of the device was, but what was the ratio of fission energy to fusion energy? Clearly, for a given total yield, the greater the fraction of the fusion energy, the more efficient is your thermonuclear device. In my opinion, that ratio must have been around 1:1, and no one has so far, to my knowledge either publicly or privately, disputed that number. Therefore, by my estimate, the fusion yield could not have been more than 20 kt. Further, it seems likely that a fission 'spark-plug' was used at the centre of the fusion core, in which case the actual fusion yield would have been even less.

Sticking to the larger number of a 20 kt fusion yield, one can easily calculate that the amount of LiD fusion material needed would be only around 400 grams or around 500 cc. This is a very small size for the fusion core, and the actual core used must certainly have been

much larger. This suggests that the fusion core burnt only partially, perhaps less than 10 per cent. This can easily be checked; if the burn was only partial, there should have been a lot of tritium produced, which should have been detected after the explosions.

In such a complex system as a two-stage thermonuclear device, getting any burn at all is a credit to the abilities of the scientists and engineers of the Bhabha Atomic Research Centre (BARC). However, a thermonuclear device that only burns partially is certainly inefficient. Logically and scientifically, the next step would be to improve the design of the device to achieve greater efficiency. This is particularly important from the point of view of a weaponisation programme.

The government has declared a policy of maintaining a minimum nuclear deterrent. Nuclear deterrence means that we have a demon-

successfully tested one.

Some people argue that we have benchmarked our computer simulations using the data from the Pokhran tests, and, therefore, further weapons can be designed based on those computer simulations. We should note that we have conducted only one thermonuclear test, and that too of low yield. It is, as mentioned before, likely that this device burnt only partially. Devices that are more efficient will have to be built. In order to weaponise, we will need missile-mountable devices, which will have a different geometry. They will also have to be of higher yield. Then these will have to be made compact, and integrated with delivery as well as command and control systems. Can our nuclear deterrent be credible if we go through this long process of weaponisation without a single additional test? The bottom line is that we just cannot hand over to the army, or deter potential aggressors with, weapons based on computer simulations.

It is unscientific to embark on a long programme of weaponisation, and develop elaborate plans for maintaining a credible nuclear deterrent, all based on just one, low yield, thermonuclear test. When we do not do this for the Agni or Prithvi missiles, why would we want to take this risk for nuclear weapons? I am sure that the BARC scientists themselves, like their DRDO counterparts, would prefer to take a more conservative approach and test further to refine their designs and their capabilities. This is the scientific way. It would be wrong for the government to pressure the scientists to put a premature end to nuclear tests, for political expediency.

In principle, India accepts nuclear disarmament, and hopes its problems will be solved if all countries accept non-discriminatory, global, nuclear disarmament. Yet, this is unlikely to happen, from what we see around us as well as in the 'N5' (five nuclear weapons) countries. In spite of long and friendly discussions with the US, we haven't come to any concrete decision relating to a new status under the CTBT. If we are to maintain our independence in today's world, it is essential for us to have a credible nuclear deterrent, and this requires us to continue testing.

(The author is former chairman of the Atomic Energy Commission)

IN BRIEF

- If we are to weaponise, as part of nuclear deterrence, we have to continue testing
- Logically, we should be improving the design of the thermonuclear device which was tested at Pokhran
- India cannot deter potential aggressors with weapons based on computer simulations
- It is unlikely at present that all countries will commit to nuclear disarmament

strable nuclear capability that deters a potential adversary from attacking us. For us to have a nuclear deterrent we must weaponise. For this, we must have fusion weapons, because these are smaller, lighter, and more efficient than fission weapons. But for that deterrent to be viable, we must master all aspects of thermonuclear weapons, and demonstrate that expertise not just in one, but many thermonuclear designs, particularly those of greater efficiency.

Whether that should include a neutron bomb or not, is not of the essence. In a neutron bomb, one establishes a thermonuclear burn by igniting only a part of the core, and making the burn propagate. This is the crux of the matter in designing an efficient thermonuclear device. One may not have a neutron bomb in one's arsenal, but it would strengthen our abilities if we

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assert the rights of a nuclear weapons state, India should carry out subcritical tests like others

Nuclear interruptus

BY BRAHMA CHELLANEY

THE 20TH century will be best remembered in history for its two odious legacies. The first legacy is the rise of weapons of mass destruction (WMD) and missiles as military instruments. In fact, WMD and missiles now occupy a central place in the military strategies of the major powers. The second legacy relates to the extraordinary scale of war, death and destruction that made the 20th century the bloodiest in history.

That double legacy is going to haunt efforts to promote peace and cooperative security in the 21st century. It will not be easy to build a more peaceful and stable world. Since the end of the Cold War, the number of conflicts in the world has increased, not decreased.

We also are now witnessing deteriorating relations among the three major powers whose policies and actions have the greatest impact on international security. The US-China and US-Russian relationships have soured due to several disputes and conflicting interests. The issue of missile defences will further aggravate tensions between these powers and in turn affect the international strategic environment.

Just when international politics and security are in flux, rapid technological developments are unveiling new destructive capacities. The revolution in military affairs (RMA) is producing new lethal conventional systems. WMD and missiles, however, will continue to be at the centre of military strategy in the foreseeable future.

None predicted the dramatic changes that swept the world in the past decade. The next decade should be equally dramatic. However, one would need to have a very romantic view of the world to believe that the value of WMD and missiles is going to decline. In fact, the 21st century has already set in motion developments that are strengthening the salience of WMD and missiles. No nuclear-armed nation is going to get out of the deterrence game.

Going by current research on lasers, space-based weapons and directed energy systems, it will not be a surprise if a new WMD technology emerges within the next quarter-century. At a minimum we are likely to see the emergence of new anti-satellite laser weapons and techniques that could be employed to block enemy use of GPS, satellites and commercial communications in the event of war.

Given this scenario and the ongoing build-up of nuclear and missile forces around India, it is essential for this country to construct a credible deterrent capability. Since India in the coming years will remain dependent on imports for its high-tech conventional needs, the only kind of homegrown deterrent it can create is one based on WMD and missiles. And this deterrent will be very small, as India has limited resources. To offset constraints on quantity, India will have to emphasise quality.

It is thus important that India continue to refine its nuclear-deterrent capability to the extent possible in the prevailing international environment. In a world of rapid technological and political change, no nation can secure its long-term interests by resting on past laurels. India's five nuclear tests in 1998 were a splendid success, as revealed by post-shot radiochemical analysis, with Dr R. Chidambaram and his team getting the yields they estimated, including for the thermonuclear test. Predicting yields accurately is the key to the manufacture of sophisticated nuclear weapons.

India's 27-month old test moratorium is likely to hold, at least under Prime Minister A.B. Vajpayee, even as a national consensus in favour of CTBT remains hard to build. Instead of being smugly content with the success of the 1998 tests, India should at a minimum be honing its capabilities through ways that do not demand an end to its moratorium. Such methods include subcritical and other hydronuclear experiments. These tests are permissible even under CTBT.

CTBT was deliberately designed with major loopholes. It is a test ban that permits underground test sites to remain open for tests even if they involve, as the official US fact-sheet states, "a release of nuclear energy". The US and Russia have been conducting subcriticals without any international monitors being present to certify that their experi-

ments are not reaching criticality. China too has engaged in unspecified experiments at Lop Nor.

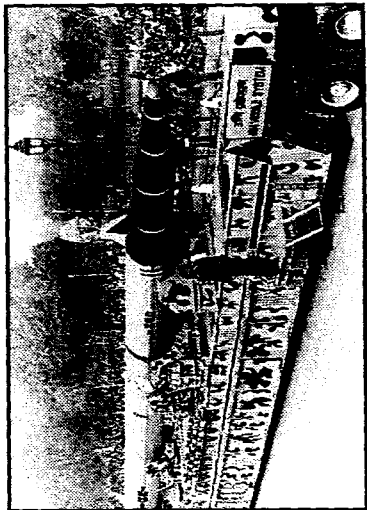
The traditional nuclear powers have diluted the test-ban treaty by crafting exceptions and defining 'permissible activities' for themselves. It came out during the US Senate hearings last October that these states have concluded 'side agreements' and exchanged 'classified documents, memoranda of understanding, (and) some letters' to confer special rights on themselves under CTBT.

To uphold the loopholes, the CTBT verification regime has been designed with a sensitivity or test-detection level of 1 kiloton in hard rock. An underground test in sandy ground will escape detection unless it has a yield of several kilotons.

The International Seismic Network (ISN) was unable to detect India's two sub-kiloton tests of May 13, 1998, with yields of 0.5 and 0.3 kiloton. The value of extremely-low-yield experiments can be seen from the way America developed the W-54 tactical warhead in the late Fifties through tests with yields lower than India's sub-kiloton tests. Not only mini-nukes and micro-nukes, but also the neutron bomb can be tested without detection by the ISN.

When the traditional nuclear powers are merrily exploiting the loopholes, why shouldn't India? In fact, a national consensus in favour of CTBT signature can emerge only if a programme of subcritical tests demonstrates to the Indian public that the treaty does not disadvantage India. Any serious policy consideration by India to sign the CTBT can begin only after a programme of subcriticals has been set in motion.

Such tests constitute nuclear interruptus, with withdrawal of action central to the technique. A plutonium-bearing device is blasted underground and before criticality is reached. However, due to the 'whoops' factor, a tiny 'leak' is always possible and



does occasionally occur. Subcriticals can serve as a cover for more promiscuous tests at slightly supercritical level.

Engaging in nuclear interruptus is regarded by other nuclear powers as their inalienable right. It should also be India's right — in action, as for others. After all, Vajpayee and Parliament have both affirmed that India is a nuclear-weapon state. India should assert in practice the rights and privileges that come with being a nuclear power.

Indian scientists so far have not been given permission to do subcritical tests. That they can do such tests was shown by the way they successfully matched designed yields with realised yields in the tricky sub-kiloton class, hitting the bull's eye with a yield as low as 0.2 kiloton in one test. Subcritical and slightly supercritical experiments are fully within the grasp of Indian scientists.

The attraction of subcriticals is self-evident: New Delhi will need to release no extra funds for such experiments as their cost is trivial; each test will demand only a few grams of plutonium but the plutonium need not be weapon-grade — 'dirty' plutonium can be adequate; these tests are useful for new fission-bomb designs; and since they are not detectable, it will be up to India to disclose (or not to disclose) information on the tests.

Subcriticals are also important for conveying a political message — that India is a nuclear-weapon state employing the very rights that other nuclear powers exercise. India has to show it needs no certificate from anyone about its nuclear status. Politically, subcriticals are necessary to demand a level-playing field and to deflect pressure. If Vajpayee goes to the US after asking Indian scientists to do the tests that the Americans regularly do, he will only earn respect in Washington. Americans have no regard for those weak in vision and resolve. It is largely due to Vajpayee's 1998 tests that India is taken more seriously now by the world.

It is high time Vajpayee gave permission to Dr Chidambaram, Dr Anil Kakodkar and their colleagues to institute a programme of subcritical tests. There will, however, be no point doing one or two subcriticals merely to sell CTBT to the country. Subcriticals should be part of a larger Indian stockpile-stewardship programme to build elbow-room and safeguard the credibility of India's nuclear deterrent under a test-ban regime, including the present moratorium.

CTBT: consensus eludes BJP

By Neena Vyas

HD-17 2-N 21
NEW DELHI, AUG. 23. There is no consensus on India signing the Comprehensive Test Ban Treaty even within the Bharatiya Janata Party, not to speak of the other political parties. And the BJP leaders have indicated that no major effort has been made to bring the party around to the Government's view tilted in favour of the CTBT.

About ten days ago, a meeting of some party MPs and senior leaders was attended by the External Affairs Minister, Mr. Jaswant Singh, where they let him know their views against signing the CTBT. Reportedly, party leaders were also critical that some noises in favour of signing the CTBT were made from "foreign soil" and they wanted to know how much American pressure was there on the Government.

Privately, senior party leaders have also been critical of the Government for signalling, every now and then, as if India was about to

sign on the CTBT dotted line. What is the need now to say this when Mr. Bill Clinton has been unable to get a ratification of the CTBT from his own Congress? That is the argument being advanced.

It is also no secret that the RSS top brass is dead set against the CTBT as they view this as limiting India's options in the nuclear field. The BJP's own stand was against the CTBT, except that after Pokhran, the Vajpayee Government began indicating to the Americans that it was getting ready to sign the CTBT, but before that it would have to prepare the political ground and build a national consensus.

In fact, it is said that on this issue the Vajpayee Government will not be able to easily defy the RSS leadership or go against its wishes without endangering its own life. There was considerable criticism within the BJP of the Prime Minister's statement during his visit to Lisbon for the In-

W
dia-European Union summit that he was hopeful of evolving a consensus on the CTBT during the monsoon session of Parliament. The BJP was quite embarrassed as in the past it had been critical of Congress(I) Government leaders making statements on major policy matters from foreign soil, as that smacked of "foreign pressure".

Ahead of the party's national council session in Nagpur, once again there are indications that neither is there a consensus in the party on the issue nor has any serious attempt been made by the Government to build a consensus within the party. How can you create a consensus among other parties without sorting out that matter at home? This was the question being asked.

It is being suggested that since this is a sensitive issue, the BJP's resolutions at the national council are likely to skip it to avoid an embarrassment to the Government and the party.

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UN seat bait for test ban sign-up

FROM DIPTOSH MAJUMDAR

June 30: The Vajpayee administration expects to find a consensus on signing the Comprehensive Test Ban Treaty (CTBT) by December.

The government, which maintains there is no deadline for initialling the pact, has agreed to start a debate in Parliament's monsoon session, due to begin on July 24.

It appears that the Centre is playing up its claim for a permanent seat on the United Nations Security Council in an attempt to convince the people in India, especially Vajpayee's detractors within the Sangh parivar, that signing

the treaty would help the country.

The government will try and argue that a Security Council berth at a time when Pakistan is diplomatically isolated could work out to India's advantage.

The Centre is in a hurry because the Prime Minister is due to visit the US in early September. If he succeeds in building a consensus on CTBT by then, he will be able to drive a hard bargain with the Americans.

The Vajpayee administration is eager to give a thrust to its improved ties with the US following President Bill Clinton's visit. To seal this friendship, Delhi will have to agree to a few terms and conditions which Washington has

been insisting on, especially the one relating to CTBT.

The US has made it clear it would back India's claim for a permanent seat only if Delhi inks the pact. Also, South Block fears that Clinton's successor might not be as sympathetic if India continues to defer a decision on the treaty.

At the European Union summit in Lisbon, the government stressed its demand of being accommodated in the Security Council.

In a statement on his way back, Vajpayee said: "There are indications that this issue will feature prominently in the coming millennium summit of the United Nations General Assembly to be held

in September."

"Our stand with regard to India's claim to a permanent seat in the expanded Security Council has been clear and consistent. We are happy to see that there is growing recognition of India's credentials as a permanent member of the UNSC.

"During our discussions in Italy and Portugal, we made it clear that we would not be in favour of any quick-fix solution or any attempt to place the developing countries at a disadvantage. As you know, Portugal has supported our candidature for permanent membership of the Council," he said on board his special aircraft.

THE TELEGRAPH

1 JUL 2000

Whither nuclear policy?

By V. R. Raghavan

There are too many voices talking on nuclear policy issues and the cacophony does no good either to the country or its deterrent.

HERE ARE increasing signs that an Indian nuclear policy is becoming difficult to evolve. In the absence of a nuclear policy, there are doubts emerging on the status and credibility of the Indian nuclear deterrent. A nuclear policy would in the normal course include an outline of the size and shape of the nuclear force. It would include the current nuclear weapons arsenal and plans for the future size of the arsenal. The nuclear posture India wishes to adopt would also be part of that policy. There would be some idea of the costs and time dimensions on which a nuclear policy is predicated. There would also be evidence on the ground of the nuclear command and control infrastructures to implement the policy. Above all, there would be an endeavour on the Government's part to create and sustain the credibility of its nuclear deterrent.

The second year after the 1998 nuclear tests is significant in the meandering course nuclear policy has taken before seemingly petering out into an amorphous entity spoken in many voices. After announcing that a significant part of humanity cannot be denied the right to possess nuclear weapons, the Government sees to have done little else but remain satisfied with only a nuclear arsenal. It is common knowledge that an arsenal of nuclear bombs — ready or in a ready-to-assemble state — does not make a nuclear deterrent. A credible nuclear deterrent which India wishes to have would need more than mere bombs. As of now there is no Indian nuclear doctrine, since the Government has neither accepted nor rejected the draft doctrine prepared by its National Security Advisory Board. The Foreign Minister had gone so far as to remark that all that was stated in the doctrine may not be necessary. A new NSAB has been constituted and it is not clear if it has been asked to either revise, redraft or make afresh a nuclear doctrine.

There is no indication that the defence services of the country have been integrated in the operational nuclear planning. It is not even clear if a nuclear planning process has been evolved or if the exercise is handled by an individual or

two in an ad hoc manner. There are no foreign policy initiatives which can be perceived as indicative of a nuclear deterrent being present in policy formulations. There are no signs of the delivery systems being either upgraded or refined. As for command and control, a national command structure is yet to come about either as an concept or in practice. The four task forces created to examine the restructuring of the security apparatus do not seem to have any nuclear dimensions listed in their terms of reference. The Strategic Defence Review which the Government had promised as the first step in its security priorities is nowhere in sight. It is therefore not clear if a road map is available to the Government or its security forces of the employment of nuclear weapons in different contingencies.

Two significant developments have occurred this year with a specific bearing on the Indian nuclear deterrent. The first sowed doubts on the nature of the Indian deterrent. Earlier this year a former Chairman of the Atomic Energy Commission who was part of the team which conducted the 1974 test raised an important issue. In his opinion the single fusion test of 1998 was insufficient in its yield to have given all the required data to start building a thermonuclear arsenal. Similar doubts had earlier been raised by atomic scientists abroad. Other internationally reputed atomic scientists have also argued that the journey from a test to manufacturing thermonuclear bombs requires many tests to validate data. This was also stated in the hearings before the U.S. Senate on the question of ratifying the CTBT. The Indian deterrent would therefore be seen to be of uncertain technical parameters at best and of doubtful credibility at worst. A doubtful deterrent is an invitation to strategic miscalculations in a crisis.

In related events, a demand has been made by that India should go in for neu-

on the other further adds to the dangerous uncertainties created by nuclear weapons.

The Foreign Minister on his recent visit to Russia had stated the Indian position on the question of ballistic missile defence. He made a strong plea to strengthen the Anti-Ballistic Missile Treaty and not to amend it, or even put into place new ballistic missile defence systems. This statement was in keeping with global sentiment on the subject. On the other hand, nearly a year back, the Scientific Advisor to the Government had suggested that an Indian ballistic missile defence arrangement was a possibility. The contradictions in the Indian nuclear policy are thus bewildering to say the least.

It is time the Government created greater transparency and accountability in matters of nuclear policy. There are also too many voices talking on policy issues and the cacophony does no good either to the country or its deterrent. An important requirement therefore is to create an apex nuclear policy establishment which can speak solely, authoritatively and only when in the interest of policy. It would also do good to have a group of respected nuclear and strategic experts do an independent audit of the 1998 tests, to lay at rest the doubts and anxieties connected with it. Above all, there is the urgent need to start demonstrating that infrastructure for handling the nuclear deterrent is in place. Repeated assertions that everything is in place and in control, neither allays the anxieties of friends nor convinces the foes.

It is apparent that in the absence of a coherent and reasoned nuclear policy, the credibility of the Indian deterrent will be denied, if it has not happened. Nuclear weapons are indispensable to nuclear deterrence. They cannot however by themselves provide credibility to the deterrent. The Government needs to energetically put into place the many strands which go to make a credible nuclear deterrent. At present, of the numerous strands that are part of the deterrent credibility network some are non-existent and others run the serious risk of becoming a tangled knot.

iron bombs. The Government has preferred to remain silent on this, giving rise to an impression that it subscribes to the idea. This puts a different perspective on its claims to a responsible and restrained approach on nuclear policy. The current Chairman of the Atomic Energy Commission has recently announced that of the five tests conducted in 1998, only one was a weapon and the rest were 'weaponisable' devices.

This ambiguous phraseology in fact creates more doubts than it clears. Does this new and possibly selective hint on the 1998 tests mean that all such devices can now be transformed into deliverable weapons? Does it on the contrary mean — as it should — that 'weaponising' is a different engineering process than testing the fission or fusion physics of an explosion? The same scientist had publicly proclaimed that the 1998 tests had obtained all the data necessary for creating a nuclear arsenal. That proclamation had allowed the Prime Minister to announce a moratorium on further tests. Does the 'weaponisable' argument now indicate some scientific conditionalities being placed on the moratorium?

There were in recent weeks reports of the unfavourable comparisons between the Indian and Pakistani nuclear arsenals and the quality of delivery means available on the subcontinent. It was stated that Pakistan had a clear edge over India in both its nuclear arsenal and means of delivering it. The Indian Government's response has been to rubbish the news at the Ministerial level. There has, however, been neither a reasoned analysis of the report nor a convincing assertion of the reality of Indian capability. The uncertainties created by these events is not going to enhance the credibility of the Indian deterrent.

The absence of a nuclear risk reduction regime between India and Pakistan on one hand and between India and China

AD-12 1/78

For a consensus on the CTBT

By K. K. Katyal

The job of building consensus within the BJP and the Sangh Parivar on the CTBT is no less difficult than enlisting the support of the Congress(I).

WILL INDIA sign the Comprehensive Test Ban Treaty (CTBT) and if so when? The question has been raised, time and again, by interlocutors from abroad and Government representatives give suitably-tailored replies. This, in some cases, triggers wrangles within the country. It has gone on like that for months, without much clarity on the issues involved. The problem is complex but it is possible to identify its various elements. One, the Government's mind is made up, in principle, in favour of the CTBT. As against the arrangement seeking to check the spread of nuclear weapons — the Nuclear Non-Proliferation Treaty which is regarded as discriminatory —, adherence to the CTBT is not ruled out. Two, it is hard to fix a timeframe because of the nature of the processes, to be gone through, namely the building of a national consensus. Three, the definitive connotation of official utterances, perhaps unintended, adds to the complication, provoking as it does Opposition resistance. This means a setback to the moves for a wide national agreement — and distortion of the debate. Four, developments in other countries, say in the U.S., if not in Pakistan, have a bearing on the thinking here.

There are several instances of Government leaders landing themselves in trouble because of their utterances. In his talks last week with the U.S. Secretary of State, Ms. Madeleine Albright, in Warsaw, on the sidelines of the inter-governmental conference on "democratic governance", the External Affairs Minister, Mr. Jaswant Singh, spoke of the Government's "obligation" to obtain a political consensus on the CTBT, expressing the hope that the issue would be taken up in the monsoon session of Parliament. The semi-categorical point, it was later realised, could create problems — a senior from the External Affairs Ministry promptly came out with a clarification that there had been no such reference. Two days later, the Prime Minister, speaking in Lisbon, during his visit for the India-European Union Summit, was guarded, saying the matter was under discussion and Parliament was expected to

— that fact stands out even taking into account the deviation during the second half of the Narasimha Rao Government's tenure. The country did oppose — unitarily — entry into the CTBT in 1997, when the draft treaty was taken up by the Geneva-based Conference on Disarmament — but the context has since altered drastically. The Congress(I) will be amenable to persuasion, if there is a serious attempt at engagement by the Government. The Congress(I) — ruling party for decades — will also be exposed to international diplomacy and, as such, will need to take a position that carries conviction with outsiders. Important visiting dignitaries have met Ms. Gandhi and other party seniors for discussion on issues, which invariably included the nuclear situation. However, the party does not seem to be in a hurry to define its attitude.

On its part, the Government could not ignore the sentiments, within the BJP — and others of the Sangh Parivar outfits such as the RSS and the Swadeshi Jagran Manch — against the CTBT, as on the recent economic policy decisions. The Prime Minister may be able to bring the BJP round but it would not be easy to convert the RSS. The job of building consensus within the BJP and the parivar is no less difficult than enlisting the support of the Congress(I). The hard-liners in the RSS oppose the CTBT because they do not want the options for further testing foreclosed. This may not be the Congress(I)'s case — some in the party would like the implications of the test ban examined carefully, others find it discriminatory and yet another section would like to await ratification of the treaty by the U.S. Senate (Where is the hurry, it is pointed out, when the U.S. has a lame-duck administration and there is uncertainty over whether the Senate could be made to change its earlier stand against it).

The Government leaders would need to keep in mind the wheels within wheels. Adherence to the CTBT is, no doubt, a right course but while the outsiders would do well to make it clear that the phase of arm-twisting is a thing of the past, the Government should concentrate on serious efforts for a domestic consensus and be careful with the rhetoric.

and tell the nation whether it necessary because of Pakistan or China. This is an astounding proposition — asking the Government to spell out details of sensitive, security-related issues. This was the demand made by the U.S. during the Jaswant Singh-Strobe Talbott marathon rounds and the Indian side expressed its inability — and rightly so. The Congress(I) accepts the present-day nuclear reality of India (it could not have taken any other position), it is duty-bound to come out with its views on consequential matters.

The Congress(I), has no reason to be apologetic. After all, it was the far-sightedness of the Governments run by its leaders, starting with Jawaharlal Nehru and including Indira Gandhi who, encouraging programmes of nuclear development, took the country to a stage where our scientists could exercise the nuclear option. That it happened during the tenure of a BJP-led Government is not the central point. (Just as the BJP is to be lambasted when it seeks to make partisan use of the tests, the Congress(I) hesitation in acknowledging the scientific community's achievements would be ascribed to narrow considerations).

The Congress(I)'s support for any step towards India's entry into the CTBT could not be taken for granted, as of now. Here again, it is difficult to conclude whether its stand (or the absence of it) arises from partisan factors or out of ideological considerations. Some of the ideological points, adduced against it, are too thin and do not stand the test of objective analysis. The argument is unnecessarily stretched to make the point that the decision in favour of the CTBT would run counter to the country's pledge to strive for a nuclear-free world under the Rajiv Gandhi action plan. It ignores the qualitative change that has taken place on the nuclear scene after India conducted the

In the past, the Congress(I) Governments were ardent advocates of the CTBT

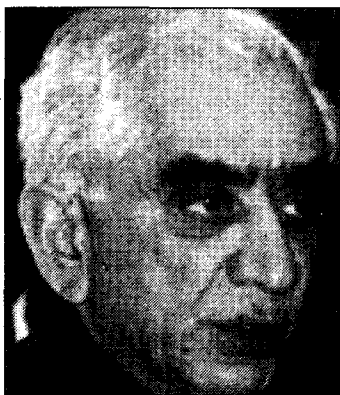
CTBT signing not linked to access to technology: Jaswant

PRESS TRUST OF INDIA

HAIFA, July 3. — India's decision on the CTBT is not linked to the broader question of access to high technology from the West or export controls, the external affairs minister, Mr Jaswant Singh, indicated today.

"The whole approach to the treaty should be what the approach to the testing was. Is testing something that is so inescapably required in the national interest," Mr Singh said when asked whether New Delhi would link signing the CTBT with lifting of embargo on high technology to India.

On whether the CTBT issue would come in the monsoon session of Parliament, he said it was not a discussion on CTBT issue alone. What was intended was a full-fledged dis-



Mr Jaswant Singh

cussion on foreign policy which would be incomplete if there is no discussion on non-proliferation and disarmament."

Stating that the government was already engaged in discussions with other political parties and the issue had already

been discussed in parliamentary select committee, he said "parliament is supreme and it must do it". Mr Singh was speaking to reporters accompanying him on his four-day visit to Israel and Palestine at the conclusion of his visit.

Asked whether he would meet the US Deputy Secretary of State, Mr Strobe Talbott, before Mr Atal Behari Vajpayee's visit to Washington in September, he said he would like to meet him and "I am trying to find the time to do it".

Mr Singh has dismissed reports of US pressure on Israel against selling arms to India and done some plain-speaking about the politics of "Muslim vote bank" that had delayed establishment of diplomatic ties between New Delhi and Tel Aviv.

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THE STATESMAN

Weaponisation & the CTBT

By P. R. Chari

The inescapable problem confronting India is whether to sign the CTBT at this juncture or conduct more tests to operationalise its nuclear posture.

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A PRESS report quotes Dr. R. Chidambaram, Chairman, Atomic Energy Commission, affirming that of the five nuclear devices exploded in Pokhran two years ago, "The 15 kiloton device was a weapon, which had been in the stockpile for several years. Others were weaponisable configurations". The difference between a weapon and a "weaponisable configuration" lies in the fact that a host of other parameters, including the reaction of the device with the environment, has to be taken into account before a "weaponisable configuration" can be converted into a weapon. In other words, a "weaponisable" device could be designed or made into a weapon. The question now arises whether more tests are required to convert these "weaponisable configurations" into weapons.

The Joint Statement issued by the AEC Chairman and the Scientific Adviser to the Defence Minister shortly after the nuclear tests had stated that: "The three tests conducted on May 11, 1998, were with a fission device with a yield of about 12 kt, a thermonuclear device with a yield of about 43 kt and a sub-kilo tonne device. On May 13, 1998, two more sub-kilo tonne nuclear tests were carried out." It further informed that: "The tests... have provided critical data for the validation of our capability in the design of nuclear weapons of different yields for different delivery systems. These tests have significantly enhanced our capability in computer simulation of new designs and taken us to the stage of sub-critical experiments in the future, if considered necessary." This carefully-worded phraseology does not clarify whether more field tests would be required to fashion the devices tested at Pokhran, with reasonable confidence, into deliverable nuclear weapons.

This issue gains salience because several assertions have been made by Dr. Chidambaram, the scientific bureaucracy and the political leadership that India does not need to conduct more nuclear tests, since the data provided by Pokhran would allow proceeding towards weaponisation and deployment of nuclear weapons. Based on the advice of the nuclear-defence scientific community India had announced "a voluntary moratorium on underground nuclear test explosions" soon after the May 1998 tests. The Prime Minister also formalised India's position on the CTBT by

assuring Parliament in December 1998 that, "We are prepared to bring these discussions (on the CTBT) to a successful conclusion, so that the entry into force of the CTBT is not delayed beyond September 1999. We expect that other countries, as indicated in Article XIV of the CTBT, will adhere to this Treaty without conditions.

This assurance was indubitably in response to the communications issued by the P-5 countries in Geneva and G-8 nations in London that were included in Security Council Resolution 1172 of June 6, 1998, after the Indo-Pakistan nuclear tests. They required India and Pakistan, in part, to "conduct no further nuclear tests; (and) sign and ratify the Comprehensive Test Ban Treaty immediately and without conditions". But an escape route was kept open with the Government's caveat that a national "consensus" was necessary before India could sign the CTBT.

The demarche that India enters the CTBT is included among the "benchmarks" being discussed within the continuing Strobe Talbott-Jaswant Singh dialogue. The failure of the U.S. Senate to ratify the CTBT has currently placed it on the backburner, gaining valuable breathing time for India. In the U.S. perception, however, it is important that India and Pakistan sign and ratify the CTBT, and great emphasis is being placed on this particular benchmark in official and non-official dialogues. The two motivations informing U.S. policy are obviously the need to corral the two South Asian adversaries into the CTBT, which would be a major incentive for other holdouts to join and ratify the Treaty, and ensure thereby its universalisation; and to stop further tests by India and Pakistan, this would mitigate the likelihood of a dangerous nuclear arms race ensuing between them.

The U.S. pressure upon both countries to sign and ratify the CTBT will persist till the end of the Clinton Administration. Whether the next administration will abandon this policy, is essentially a speculative question. The inescapable problem confronting India is whether to sign the CTBT at this juncture or conduct more

two-stage thermonuclear device had, indeed, been tested in Pokhran, common-sense suggests that one test of such a complex system is not enough, and more tests are essential to validate the design to the satisfaction of the military and political leadership.

Why is the need for a credible thermonuclear device imperative? To cite Mr. Garwin again, in testimony before the U.S. Congress, "even in the yield range accessible to fission weapons, thermonuclear weapons are attractive for their economy of fissile material, their compact size, and their improved safety." But, "without nuclear tests of substantial yield, it is difficult to build compact and light fission weapons, and essentially impossible to have any confidence in a large-yield two-stage thermonuclear weapon." The capability no doubt exists currently to deploy 15-20 kt fission weapons. The need for thermonuclear weapons, however, is unavoidable if India is to deploy a nuclear triad as envisaged by the nuclear doctrine, which is moreover not country-specific but possesses an all-azimuth character. This would be impossible unless further tests are conducted, their number would depend on the sophistication required from the nuclear arsenal. In the current state of the game, India cannot be accepted as a *de jure* nuclear weapon state without amending the Nuclear Nonproliferation Treaty, which is a highly improbable possibility. Its claim to be *de facto* nuclear weapon status would be constrained by the inadequacies of its nuclear capability, noted above, all other recognised nuclear weapon powers premise their arsenals on thermonuclear weapons.

What then are India's narrowing options vis-a-vis the CTBT? It is to sign it without reserve, or sign it but not ratify the Treaty (it needs mention that the Vienna Convention on Treaties binds a country signing a Treaty to abide by its provisions thereafter), continue the present standstill policy of honouring its declared moratorium but of honouring its declared moratorium but continue laboratory work to refine the warheads, or resume testing and then enter the CTBT. Obviously, each of these options has its attendant costs and benefits. The process of hammering out a national consensus cannot shirk addressing these issues.

(The writer is Director, Institute of Peace and Conflict Studies, New Delhi).

India's missile worries

THE PROLIFERATION of ballistic missiles in India's neighbourhood has been one of the more striking developments since the Eighties. Latest developments indicate that this problem will only become more acute. This is evident from the failure of Sino-US weekend talks in Beijing centred on persuading China to cease its covert missile transfers to Pakistan. Another weekend development, the failure of a US missile defence flight test, is unlikely to stop the American technological and political imperative to develop national missile defence (NMD) and theatre missile defence (TMD) systems. That imperative in turn provides the justification to China to continue to not only modernise its nuclear and missile arsenals, but also to rapidly build up such forces.

The failed Sino-US talks revealed that China is determined to carry on its clandestine missile assistance to Pakistan while cleverly using such aid as a bargaining chip to influence US policy on Taiwan and deployment of the TMD system in East Asia. Beijing, while threatening to invade Taiwan, strongly opposes a TMD shield for that democratic state. India haplessly finds itself at the receiving end from developments beyond its control. A China building up its weapons of mass destruction and their delivery vehicles, and transferring its older technologies to close ally Pakistan so as to countervail India, will bring Indian security under increasing strain.

Against this background, India can hardly do without a credible missile deterrent. Such a force has to deter both China and Pakistan. But in the past one decade there have been only three Agni tests. At this pace, India will not be able to effectively deter even Pakistan. Indeed it may be falling behind Pakistan in the missile field due to the accelerated Chinese transfers to that country. India's sole deployed missile system today is Prithvi 1, a rudimentary 150-kilometre missile useful for tactical missions in a conventional conflict. In comparison, Pakistan claims to have several ready-to-fire, nuclear-capable missile systems, including the Chinese-supplied, solid-fuelled M-9s and M-11s that have been rechristened the Shaheen 1 and Hatf 3 by Islamabad. Production facilities for their indigenous manufacture have come up in Pakistan. The current state of the longer-range Ghauri, based on North Korea's Chinese-designed Nodong 1 missile, however, is less clear, even as there is evidence to indicate that Beijing is routing Ghauri components via Pyongyang. Although missile-related developments are making India's security environment more difficult, there has hardly been any debate in the country on China's missile modernisation and transfers to Pakistan, besides the wider ramifications of NMD and TMD systems. Nor has the government told the nation anything on the status of the Agni 1 and Agni 2 missiles. The nation has a right to know what the authorities are doing to ensure adequate defence against missile threats.

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12/8
The right incentive for CTBT

To sign or not to sign

HERE are indications that the government would seek a consensus on the subject of India signing the CTBT during the coming weeks and months. But this should not be assumed to mean that India would sign the treaty which has been in a coma since the US Senate severely injured it last year. The consensus could emerge in favour of one of the three possible choices: sign the CTBT, or not to sign it, or a consensus that there is no consensus on the subject. One can only hope that any consensus would be based on our judgement of what the real issues are and where our national interests lie.

India had rejected the CTBT in its present form in 1996 on both substantive and technical grounds. India's tests and declaration of its nuclear-weapon status have significantly altered the framework. We are certainly in a far better position to continue possessing a credible, even if minimum, nuclear deterrent into the future. The CTBT is discriminatory in the sense that it locks different weapons states at different levels of capability in terms of the type of nuclear warheads they can field in the future. In that sense, it places India at a certain position in the nuclear hierarchy. But the important point is that it does not take away the nuclear deterrent from India (as the NPT would). It defines the quality of that deterrent.

Some people have argued vehemently that we need more tests either because we must have only thermo-nuclear weapons or because of other technical reasons. Others have disagreed. The finer points of such debates are important. But what the decision-makers need to understand is that signing the CTBT would place legal limits on the type of warheads (its weight-to-yield ratio, and the amount of weapon-grade material required for a certain level of arsenal) India could deploy at a future date. But there is no reason to believe that such a step would come in the way of a credible minimum deterrent with warheads of up to around 200 kiloton yield (the Hiroshima bomb was a 15-kiloton one) even if we signed the treaty.

But an adverse balance in the quality (or quantity) of warheads by itself does not come in the way of ensuring the credibility of our deterrence. Such factors may or may not have an influence on fighting a war with nuclear weapons. But where the aim is to simply deter another country from using nuclear weapons against us, as is the objective in our case, the equation is not composed by numbers of nuclear weapons or even their yield and quality. Horrendous destruction unacceptable to all types of leadership can be caused by weapons of the type for which we have demonstrated capability. Ideally we should carry out more tests so

Punitive measures are in place in spite of the fact that we did not violate any treaty or obligation. The question, thus, is (and ought to be): why should India accept such legal restraints? What are the incentives? One is that it would remove an irritant in our relations with other countries. Is this enough? Even so, there is equal risk that some of them then would demand that India sign the

NPT (as a non-nuclear state) as sought by UN Resolution 1172. Providing a face-saving formula to Western states would be logical if they are also willing to bring greater realism into their policies toward India. A UN Security Council seat in return for a CTBT signature is a pie in



JASJIT SINGH

Just as we can set aside a sovereign decision our moratorium on testing, we can also withdraw from the CTBT on grounds of national interest

that we can ensure thermonuclear warheads of the type we might need and have the assurance that they will work to specifications. How many should they be? The range could vary from 45 to hundreds! But the realities of the current geopolitical situation is that any nuclear test by any country would invite severe penalties, far outweighing, in most cases, any advantage seen in upgrading the quality of nuclear warheads by testing. We have declared a moratorium on testing, which could be set aside by our sovereign decision. But then we can also withdraw from the CTBT on grounds of national interest.

The central issue is that accepting legal treaty obligations not to test in future would certainly place restraints on future policy especially in limiting the quality of warheads and the quantity of material needed to produce the requisite arsenal.

the sky. Would removal of sanctions qualify as a reasonable incentive? But many of these are mandated by national laws, especially in the US. Living from waiver to waiver (if they are forthcoming) may not be the best way of building future relations with such countries. What then would qualify as adequate incentive for India to sign the CTBT?

Our national interests require that the negative impact of the measures taken before and consequent to the nuclear tests be minimised, if not entirely eliminated. For that to happen, the international community will need to deal with India on the basis of ground realities rather than unilaterally declared self-serving goals. This means acceptance of the reality of India's nuclear weapons even if no "recognition" is given to this capability. After all, signing the otherwise moribund CTBT would amount to treaty

obligations to cap our future capabilities. Hence the incentives for India must be commensurate with what we are expected to give up. These might have been lower if the CTBT was anywhere near entry into force. But at this point there is no chance of that. The US Senate rejected it last year. Russian Duma has approved it subject to many conditions. China has yet to ratify it and can be expected to now link it to BMD (Ballistic Missile Defence) issues. Even for India BMD issues (in spite of the failure of the recent test) will also have to be factored into in any arms control measure like the CTBT. The likely collapse of arms control framework due to these issues might tempt us to stay away from CTBT. But it would be better to exploit these developments with the leverage of negotiating our signature.

Many possible incentives can be identified. But the most logical route then would be to open nuclear trade and technology to India in the peaceful sector on the same basis as that conducted with nuclear-weapon states. For example, access to set up nuclear power reactors would go a long way in reducing emerging power shortage in India. Our plan to build up nuclear power to 20,000 MW level by 2020 can be expedited by infusion of foreign capital and technology. The power reactors would naturally be under IAEA safeguards. But all nuclear facilities would not be brought under "full-scope" safeguards. There is no international treaty which bans such access. Only the "guidelines" specified by the Nuclear Suppliers Group (of Western democracies) come in the way. These can be easily modified by the group if they wish to. Such an arrangement would be based on the existing ground realities without formalising India's nuclear-weapon status, and a potentially acceptable compromise by both sides. The ball is in the court of the G-7 who can make a consensus to sign the CTBT possible in India.

Commodore Jasjit Singh is director, Institute for Defence Studies and Analysis, New Delhi.

ACCIDENT-FREE OPTION / INDIAN SCIENTISTS ON THE JOB

New method of tapping n-energy

By Arunkumar Bhatt

MUMBAI, JULY 25. Like their European counterparts, Indian scientists have also commenced work on a new way of tapping nuclear energy, terminating chain reaction at a sub-critical level, according to Dr. S.S. Kapoor, director of Physics Group of Bhabha Atomic Research Centre here.

Presently, fission-chain reaction is the only method known to tap nuclear energy, both in controlled and uncontrolled ways with uranium or plutonium fission reactions as the source. Energy from fusion reactions between isotopes of hydrogen in an uncontrolled way (hydrogen bomb) is also realised. But unlike the chain reaction, the new method uses a large number of neutrons for terminating the chain reaction.

The new method is what Dr. Kapoor calls Accelerator-Driven Sub-critical Reactor System (ADSS). It will have terminating chain reaction at a sub-critical level and consumes actinide nuclei and fission products. He was presenting here a paper on Basic Research in the Context of Futuristic Nuclear Energy

Sources at a seminar under the auspices of the Indian Physics Association.

India is endowed with the largest thorium deposits in the world and the father of Indian nuclear programme, Dr. Homi Bhabha had seen it energy security for the country. Hence, the ADSS has added attraction for the country.

Dr. Kapoor told the gathering of physicists that the new method facilitated straight use of thorium and the country could bypass its current three-stage power programme to reach the level of thorium option.

But the biggest problem was 'the state-of-the-art' accelerator needed for carrying out the research and development, the noted physicist said pointing out, nobody would sell it to India. The country would have to build one of its own.

The 500-odd nuclear power reactors operating in the world people were apprehensive about them because of the accidents at Chernobyl and Three Mile Island. But the subcritical ADSS is absolutely safe.

Talking to *The Hindu* later, Dr. Kapoor said that the new option removed that 'one in a

million chance at least in theory' for radiation accident of which one was apprehensive.

The present Indian nuclear power programme envisages conversion of thorium into uranium 233 in breeder reactors and use that as fuel in the third stage reactors. The ADSS facilitates the use of thorium straight and one would need only little uranium 233 as 'seed' fuel to be able to burn thorium in situ.

Like others, India is also many years away from the ADSS. For a host of new technologies are needed to finally assemble the ADSS, Dr. Kapoor said. These may include even superconductivity. The need was to convert electric power into beam power.

The Europeans are interested in the ADSS for it could be used to incinerate troublesome actinide nuclei which have very long half-life, the period for which they would continue to emit deadly radiation, ranging from few to hundreds of years. "These are very difficult to dispose off and therefore better to burn them and take energy out," he said. Such a reactor could be used also to recycling warheads of dismantled weapons.

THE HINDU

26 JUL 2009

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Govt. warned against signing CTBT in haste

NEW DELHI, JULY 30. Disputing the Department of Atomic Energy's claims that the 1998 nuclear tests at Pokhran have generated sufficient data, the former chairman of the Atomic Energy Commission, Mr. P. K. Iyengar, has warned that India needs to test more hydrogen and neutron bombs before signing the Comprehensive Test Ban Treaty.

India has tested five fission or atomic bombs (including Pokhran-1) and one fusion or hydrogen bomb so far. Mr. Iyengar was skeptical as to how India, on the basis of just one hydrogen bomb test, could claim that it had sufficient data for a nuclear weaponisation programme.

Many more tests will be needed to try out different designs and to perfect a few of them, he told a workshop organised by a private think-tank, Security and Political Risk Analysis (SAPRA), here.

If India wanted to develop a credible minimum nuclear deterrent, it could not sign the CTBT, he cautioned.

Scientific data indicated that the core of the hydrogen bomb had burnt only partially during the test. The bomb design included two components — a boosted fission device (a small atomic bomb) that triggered the secondary core of the hydrogen or fusion bomb. The boosted fission device released about 20 kilotons (kt) of energy that triggered the fusion

core that produced another 20 kt, giving a total yield of about 40 kt. This indicated that only about 400 grams of the fusion device had burnt.

"There was only a partial burning. I doubt if a complete burn wave was established," he said, adding that larger megaton devices could not be made with such partial-burn type devices. India needed to test more hydrogen and neutron bombs with complete burning of the core before it signed the CTBT. "We cannot stop here. We must continue testing with improved designs so that there is total burn and fusion yield is higher," he said.

"Many more tests will be needed to try out different designs like boosted-fission device, the two-stage fusion device and the neutron bomb which India is yet to test." Mr. Iyengar said even if the designs had been perfected, India must have a delivery system that could be used by the Army. It also needed to address the issue of a safe and reliable command and control system, before signing the CTBT. "Pakistan's command and control systems are in a better shape." Non-proliferation and CTBT would become "meaningless" with the development of future fourth-generation nuclear weapons which did away with enriched uranium or plutonium using laser beams to replace the atomic bomb trigger. — PTI, UNI

21 JUL 2000

CTBT: Cong set to block Govt bid for consensus

JYOTI MALHOTRA
NEW DELHI, JULY 26

THE government's attempts to forge a national consensus on the Comprehensive Test Ban Treaty (CTBT) during this Parliament session may come a-cropper, with the Congress likely to ask New Delhi to wait for the new US administration to be sworn in next January before considering a signature.

A Congress veto would ensure that New Delhi cannot sign the CTBT before Prime Minister Vajpayee makes his trip to the US in September.

The only way the BJP-led government can still go ahead with a signature, is if it selectively interprets its own statement of calling for a "broadest possible national consensus".

There is speculation that New

Delhi, knowing well that a CTBT signature would mean the difference between a good and a great reception for Vajpayee by the US in September, might ignore the Congress veto and instead ask for support by the 13 parties, who are part of the Government.

Principal Secretary Brajesh Mishra, who has recently been in the US, met his counterpart National Security Advisor Sandy Berger in Washington on Monday. Mishra has gone to finalise the agenda for the PM's trip and is likely to meet other senior officials in the State Department as well, including Strobe Talbott.

Meanwhile, the Congress seems determined not to support the government if it pleads for help on the CTBT in Parliament. Senior party leaders say they are not against the Treaty per se, but intend to ask why

New Delhi wants to sign on the eve of Vajpayee's trip, when it didn't do so after the Pokharan tests in 1998.

"Why is there such a hurry on the part of the government to sign the CTBT, when the US Senate itself has rejected it," K. Natwar Singh, chairman of the Foreign Affairs Cell of the Congress, told *The Indian Express*.

He said: "The Clinton administration has already become a lame-duck administration. The government should wait for the new US administration to be sworn in next January before it arrives at a decision."

The Congress' opposition to the CTBT is matched by the government's keenness to sign. External Affairs Minister Jaswant Singh recently told journalists that he would not like to link a signature to the removal of sanctions by the

US.

Government sources say the decision to delink a Treaty signature from US sanctions was taken more than six months ago.

The hope remains that the Congress may be brought around during the debate in Parliament.

The debate on foreign policy promises to be a lively one. The Congress says it intends to question the government on issues like Sri Lanka, Fiji, Sierra Leone and the comments by Home and External Affairs Minister on Israel and the Arab world.

The Congress itself has been speaking in different voices on major aspects of the country's nuclear policy. More than the confusion on the party's stand on the minimum nuclear deterrent, it has been unable to explain its positions on these issues.

INDIAN EXPRESS

27 JUL 2000

Secrecy necessary for nuclear devt: Chidambaram

Ramola Taiwar Badam
BOMBAY 1 JUNE

INDIA'S CHIEF nuclear scientist on Thursday defended the decision to halt monitoring of the country's main nuclear weapons facility by a watchdog body.

"We are a nuclear weapons state. We should learn to behave like one," said Rajagopalan Chidambaram, chairman of the Atomic Energy Commission. He said more secrecy was necessary to safeguard nuclear weapons development.

Chidambaram, a key figure in India's 1998 nuclear weapons tests that brought international economic sanctions, last month signed an order ending monitoring of the Bhabha Atomic Research Center by the Atomic Energy Regulatory Board, whose

duty is to represent the public.

The order, issued under Prime Minister Atal Behari Vajpayee's authority, said BARC would monitor itself.

"This is inevitable when you are a nuclear weapons state," Mr Chidambaram told a news conference. "We must ensure safety in all our strategic activities and have a structure to take care of this."

The decision raised concerns about nuclear safety and was seen by the scientific community as a prelude to an expansion of India's nuclear weapons programme.

Some scientists were upset with the dilution of powers of the Regulatory Board, a government-appointed body that has monitored India's nuclear installations since 1983.

hostile neighbour, Pakistan, has sufficient highly enriched uranium for 40 nuclear warheads. Pakistan also tested nuclear weapons in 1998.

Chidambaram said the health and safety department within the BARC was capable of maintaining the standards set in advance by the Regulatory Board.

"Safety is our lifeline," he said.

Some scientists have filed a petition in the Supreme Court demanding that the Regulatory Board be given more autonomy and freed from India's Official Secrets Act.

The petition made public some 132 safety lapses in various nuclear facilities recorded by the Regulatory Board in 1995. Fifty of them concerned the BARC facility. The Supreme Court has

not ruled on the petition.

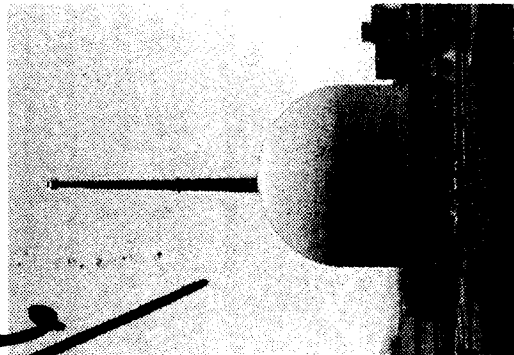
Anil Kakodkar, director of the BARC, said the new internal safety committee had already been set up. Chidambaram refused to disclose the names of the members.

The committee would also monitor the surroundings of the BARC facility, nearly 20 miles east of downtown Bombay.

In the United States and Europe, regulatory bodies have control over civilian nuclear plants, but they only monitor the environment around nuclear weapons facilities.

"The regulatory authority is always transparent, they interact with the public," said Chidambaram. "But strategic activity in a country is not regulated by a regulatory authority."

— AP



A view of Barc

Analysts estimate India has enough plutonium to produce 85 to 90 nuclear weapons, and its

N-arms programme off AERB jurisdiction

By Our Special Correspondent

MUMBAI, JUNE 1. India has formally taken its nuclear weapons programme out of the jurisdiction of its safety organisation, Atomic Energy Regulatory Board (AERB), and set up a separate panel to do the job.

This is to follow the model evolved by several other nuclear weapons states for the safety of their weapons programme. For instance, the U.S. Nuclear Safety Commission oversees the functioning of civilian nuclear facilities from the radiation safety point of view, but its plants producing nuclear warheads are outside the commission's purview.

Dr. Anil Kakodkar, director of the Bhabha Atomic Research Centre (BARC) has formed an unnamed safety panel for his organisation following an order from Dr. R. Chidambaram, chairman of the Atomic Energy Commission, the nuclear authority of the country.

The BARC is the heart of Indian nuclear programme and has all the research, design and fabrication facilities for making nuclear warheads. Its sprawling campus in Mumbai has the country's first nuclear waste reprocessing plant, used for extracting plutonium from burnt natural uranium.

The BARC had several health and safety panels for its various research programmes and these bodies used to work closely with the AERB which would provide safety standards and codes. But, say insiders, the AERB seldom invoked its jurisdiction and exercised little control over the BARC.

The AERB and BARC are located close to each other. The AERB uses the laboratories and other facilities of the BARC and also depends upon the latter for scientific and technological back-up that it needs for regulating commercial nuclear power plants. Besides, both belong to the same 'nuclear family,' the Department of Atomic Energy (DAE).

Many believe that the formation of the safety panel by the BARC and the research centre's withdrawal from the jurisdiction

of the AERB only formalised the existing arrangement. BARC sources refused to give details about the new panel.

Dr. Chidambaram told reporters that the move was of strategic importance and more details could not be given. He said it was aimed at ensuring the safety of strategic nuclear programme.

The AERB secretary, Dr. K.S. Parthasarathy, said the BARC would continue to follow the safety management norms, codes and standards evolved by the AERB, especially in the area of radiation exposure.

Wisdom of action questioned

HYDERABAD, JUNE 1. Dr. A. Gopalakrishnan, who served as the Chairman of the AERB from 1993 to 1996, stated in Hyderabad today, "The news that the authority of the AERB has been substantially reduced by the Government is not surprising in today's context. In one stroke, the safety assurance and regulation of the mostly old and dilapidated BARC facilities has been made the responsibility of those who are managing these installations, defeating the very principle of independent external scrutiny which is at the core of any safety regulation. But, if the Government's intention is to accelerate the weapons programme, it will require the three-shift operation of all such essential old facilities, whose degraded safety status and continued operation without substantial repairs have been causing serious concerns within the AERB from the standpoint of worker and public safety, even in 1995. The only way to circumvent the problem of external interference in their operation is to immediately remove the AERB's oversight authority over these facilities. This could very well be the argument which the Secretary Department of Atomic Energy (DAE), seems to have used to get the Prime Minister's consent, throwing basic tenets of independent regulation down the drain and keeping the PM in the dark about the glaring safety issues involved in doing so. If only

the Prime Minister's Office (PMO) will once again go through the AERB Safety Issues Report I. had submitted in 1995, the appalling defects in BARC facilities will be clear to the IAS cadre in that office. But, the DAE is able to push through this change because of their new-found power under the present Government, as a result of the May 1998 Pokhran tests. Unfortunately, the ultimate sufferers will be the public living near these facilities.

As regards AERB's independence, he said, "The AERB never had enjoyed the required independence from the DAE and it has not been properly manned to make its safety evaluations without strong DAE influence and interference coming in. It was kept technically dependent on DAE totally, and answerable administratively and financially to the Secretary DAE, whose facilities it is to regulate in an "unbiased" manner. Now that the AERB has been divested of the responsibility for all weapons-related facilities, one would hope that it will be permitted to carry out its few remaining tasks without DAE interference. But, this may be wishful thinking, since the power reactors are also used as producers of second-grade plutonium for weapons and certain primary fusion materials for the thermonuclear devices, through irradiation in these reactors. The DAE may therefore want to continue the stranglehold on even the emasculated AERB which now will be overseeing these power plants.

The reported claim of the DAE that this re-organisation follows our nuclear-weapon status since Pokhran-2, he said, "Perhaps, the DAE wants us to believe that now that they claim India is a nuclear-weapon state, we must organise our safety evaluation systems also like other such states. If you take the US as an example, it is true that they have a Nuclear Regulatory Commission (NRC) which regulates all the civilian nuclear installations, while the Defence Nuclear Facilities Safety Board (DNFSB) is responsible for the independent external overseeing of

all activities in the nuclear weapon complexes of the Department of Energy (DOE). The DNFSB presents its recommendations on actions needed to ensure worker & public safety to the Secretary, DOE., but, in cases where their reviews show an imminent or severe potential threat to public health and safety, the board is required, under law, to transmit their recommendations directly to the US President, as well as to the Secretaries of Energy and Defence. To some extent, they are required to explain their actions at public hearings, where they come under questioning of public interest groups. In addition, the DNFSB Chairman and members are often asked to testify before the U.S. Congressional Committees and, since all members of such committees also hold top security clearances, the board necessarily has to reveal full details, without taking cover under the Official Secrets Act. The DNFSB Chairman and members are selected from non-DOE personnel, usually eminent public figures from the industry, academia, and management circles. Will Dr. Chidambaram and the DAE assure us that his "Internal Safety Review Committee" for BARC will also meet all these requirements like in the developed nuclear weapon States?

NUCLEAR BLINDNESS

In theory, India is following international practice by removing its nuclear weapons programme from the purview of the atomic energy regulatory body, the agency responsible for nuclear safety. There will now be two such bodies. The AERB will keep an eye on the civilian nuclear industry and a new safety panel, set up by the Bhabha Atomic Research Centre, will do the same for nuclear weapons facilities. On paper this looks reasonable. In reality it is likely to further undermine the credibility of nuclear safety in India. Regulatory bodies need a certain degree of institutional independence to serve as effective watchdogs. The AERB never had such autonomy because it was made subordinate to the department of atomic energy, the same body whose activities it was supposed to monitor. There is evidence, including statements by former AERB members, to believe India's nuclear industry has been far more error prone than the government admits. And that the AERB is disallowed from going public with findings and told to stay away from certain facilities. The new move will mean replicating AERB in a military setting. Again, it will be a case of a custodian controlled by its ward. India's nuclear programme is already shrouded in oppressive secrecy. It will now become even more opaque and less accountable.

Questions need to be asked as to why the nuclear establishment has felt the need to further retreat into its shell and seclude itself from any watchdog's prying eyes. The former AERB chairman, Mr A. Gopalakrishnan, has provided a possible explanation. He believes New Delhi has ordered the regulatory split because India is determined to build up its fissile material stockpile. However, BARC's ageing reactors and facilities would find it hard to pass AERB's muster if New Delhi insisted they be put to round the clock use. Therefore, he argues, the government decided to strip the regulatory body of its oversight authority in the case of nuclear weapon facilities like BARC. This would fit other circumstantial evidence that India is aggressively pushing ahead with plans to build a minimum nuclear deterrent. Whatever the reason, there is no excuse for diluting India's already weak nuclear safety regime. Nuclear accidents are not in the same league as other industrial mishaps. An out of control chain reaction can level cities, radioactive leaks can contaminate and poison regions for years. Run like public sector enterprises, accountable to almost nobody and equipped with dated and unsafe technology, India's nuclear facilities are atomic powderkegs. The suspicion exists that New Delhi's skewed definition of nuclear power status puts a premium on nuclear explosions and downgrades safety and security. If Pokhran II should be followed by an indigenous Chernobyl, New Delhi would have none to blame but itself.

Basu project hope fades on BJP ally entry

Naidu butts into nuclear race

FROM DIPTOSH MAJUMDAR

New Delhi, June 6: The Centre is having second thoughts about awarding a nuclear power plant to the eastern region, not to speak of West Bengal, with N. Chandrababu Naidu staking claim.

After their meeting with Prime Minister A.B. Vajpayee on April 19, veteran CPM parliamentarians, Radhika Ranjan Pramanick and Basudeb Acharya, were confident Bengal was the next destination of the cash-starved Nuclear Power Corporation.

It doesn't seem that simple any more with the entry of Naidu, even though the corporation is going ahead with its paperwork on sites in Bengal. Already, 11 sites have been shortlisted. One of them is in Darjeeling, one in Purulia and the rest in South and North 24-Parganas. South 24-Parganas is important because the most enthusiastic of all MPs about the project is Pramanick, elected several times from his constituency near the Sunderbans.

A corporation spokesperson in Mumbai said they have asked Bengal to prune the shortlist. They have sent a questionnaire to the state government which includes queries like whether the

site falls within the seismic zone, whether water is available or whether the site faces any security threats.

Viewed from this angle, the Purulia site is considered suitable. The spokesperson said there is a particular spot about 15 to 20 km away from the site mentioned by the Bengal experts which is "quite good". "It has access to Damodar water," he explained. Darjeeling has been ruled out because it falls within a seismic zone.

The government has yet to receive feedback from other eastern states like Orissa and Bihar which were also asked to prepare a list of sites.

The corporation may be enthusiastic but the department of atomic energy sounds quite remote about the idea of setting up a nuclear power plant in Bengal. Indications that Naidu is exerting pressure on the Centre are coming out of the department. One of his initial suggestions for a particular site has been overruled because of its proximity to a tiger reserve. But Naidu is choosing other sites.

Given the fact that nuclear power plants are expensive, the government would have to prioritise once it chooses a few sites across the country. In the current balan-

ce of power, Naidu's state will weigh more than a Left-run or even a Mamata Banerjee-ruled Bengal. Naidu brings to Vajpayee's alliance 29 MPs, compared with Mamata's seven, and has already leveraged this clout to extract various concessions from Delhi.

Atomic energy department sources said the Centre holds the view that nuclear power plants should come up only at sites far away from coal pitheads, which runs contrary to the opinion of the corporation. It believes every state should have an optimal mix of nuclear, thermal and hydel power. The department's view that states with coal pitheads within 1,000 km should opt for thermal power does not fit in with the Kyoto protocol, to which India is a signatory. For environmental reasons, the protocol discourages thermal power.

Pramanick insists that the Kyoto protocol has come almost simultaneously with the Left's revision of stand on nuclear power.

In the circumstances, the department says that though the Centre is committed to creating an additional 20,000 mw of nuclear power by 2020, resources are hard to come by, which is why political considerations might come into play to Naidu's benefit.

THE TELEGRAPH

7 JUN 2000

Why delay signing the CTBT?

By Jagat S. Mehta

Having earlier been in the forefront of favouring disarmament for development, India should not appear to break ranks with the have-nots on the nuclear weapons issue.

THE QUINQUENNIAL review of the Non-Proliferation Treaty (NPT) has ended with no definitive progress towards nuclear disarmament but there is unmistakable impatience that the Nuclear Five (n-5) show more sensitivity to the consensus amongst non-nuclear nations. The Government of India is yet to identify a national consensus on the Comprehensive Test Ban Treaty (CTBT). Since the U.S. Senate itself has refused to ratify the Treaty, it was not difficult to skirt the question during the Clinton visit. But the CTBT has relevance not just to our relations with the U.S. but to the broader parameters of our foreign policy which, since independence under Nehru's priorities, focussed on decolonisation and then economic and social development which implied resisting extravagant militarisation.

Some latter-day analysts, Indian and foreign, who belong to 'strategic enclaves' have sought to make out that Nehru at heart was really a permissive nuclear hawk who only fluttered in the plumage of a dove. These accusations do less than full justice to Nehru's lifelong revulsion for the abuse of atomic power for destructive purposes. The contention that if faced with a dire challenge Nehru would have permitted India to develop nuclear weapons is based on quoting from replies to loaded questions or alarmist parliamentary interventions. They overlook the overwhelming evidence of *suo matu* statements which more truly reflected his convictions. Nehru was the first statesman in the post-Hiroshima world who, as early as 1954, commissioned Dr. D. S. Kothari, an eminent physicist, to study in cooperation with Dr. Homi Bhabha, Chairman of the Atomic Energy Commission, the consequences of nuclear explosions. Nehru himself wrote that forwards both to the first (1956) and the second (1958) editions. Referring to the possibility of death on a colossal scale, Nehru wrote, "there can be no doubt that the people all over the world passionately desire some agreement amongst those who control the frightful engines of destruction and to put an end to the fear that haunts humanity." In 1961, at the first Non-Aligned summit in Belgrade, in a speech, without a written

text, Nehru articulated the demand that all nuclear testing be stopped. He was behind the despatch of special envoys to Washington and Moscow to plead for the discontinuance of the resumed testing by the superpowers.

The world came nearest to a nuclear armageddon in October 1962. The post-terrible revelations from KGB archives show that U.S. apprehensions of a planned nuclear blackmail were far from the Soviet intentions. The Cuban missile, however, brought home the danger of nuclear conflict by misperceptions.

What role Nehru's pleas in 1961 had is not known, but within nine months of the Cuban missile crisis the recognition of a common interest to prevent radiational hazards culminated in the Partial Test Ban Treaty (PTB) sponsored jointly by the U.S., the Soviet Union and the U.K. In the past, agreements had been concluded to limit existing military capabilities such as the U.K.-Japan Naval Treaty of 1922, but never before had there been an agreement to inhibit future sophistication of weapons between sworn adversaries. Even though China and France and some other countries kept aloof from it, Nehru publicly welcomed the PTB (China now upholds this Treaty but at that time, it vehemently denounced the PTB and in 1968 the NPT as attempts at superpower hegemony). Nehru instructed the Indian envoys in the three capitals to be the first to sign the PTB Treaty. I recently asked Mr. B. K. Nehru, who was then Ambassador in the U.S., and he confirmed that on instructions he was indeed the first envoy to sign the Treaty in the U.S. State Department.

After Nehru's death India continued to be in the vanguard in demanding nuclear disarmament. We welcomed the ban on biological weapons, proposed a nuclear freeze in (1982) and were the first to propose a comprehensive end to all nuclear testing.

are. India's original constituency was this vast fraternity of small and poor nations. We still cherish their support in the NAM, the G-77 and the WTO. India's chances of being vote a permanent member of the Security Council will greatly improve if, in addition to most permanent members, we had the ballast of active support of the General Assembly.

Having earlier been in the forefront of favouring disarmament for development, India should not appear to break ranks with the have-nots on the nuclear weapons question. It amounts to a wholly implausible diplomatic brief to argue that the 182 signatories or a sizeable number of them have surrendered their sensitivity on national security by explicit or implicit acceptance of the nuclear umbrella of a big power. The one dominant feature of our times is that a small country, be it Vietnam, Afghanistan, Iraq, Chechnya or Serbia, is capable of defying big country coercion.

To realise the full potential of India in the 21st century, we should revert to the spirit of Nehru's policies — balanced defence postures with vigorous diplomacy on disarmament. Instead of risking suspicions of exceptionalism we can reaffirm faith in collective security, which can be combined with our advantage as a credible example of democracy and a new leader in the knowledge revolution. It is to the credit of the NDA Government that it announced that India will exercise a moratorium on testing and not obstruct the CTBT from coming into force. It is surprising that some in the Congress(I), overlooking the legacy of Nehru, should stand against a consensus on the CTBT. Even Rajiv Gandhi's proposal in 1988 envisaged an incremental progress towards the elimination of nuclear weapons. India must subscribe to the Treaty, regardless of when or whether the U.S. or others ratify it. This would be a signal to our old partners that India has not diluted its commitment to feasible steps towards nuclear disarmament. We could thus get back the leadership role of the fraternity where we once shone and not be left in lonely isolation, bracketed with Pakistan and Israel.

(The writer is a former Foreign Secretary.)

India's nuclear calculus will be affected by a US missile defence

Swords follow the shield

GAURAV KAMPANI

As the Clinton administration prepares to decide on whether the United States should field a limited national missile defense, it has focussed attention on the strategic response from Russia and China. Yet any US decision that affects global nuclear arms control and provokes strong negative reactions from Russia and China, will echo strongly in south Asia.

Should the US decide to deploy a limited NMD, it would come as a serious blow to the post-cold war nuclear arms control regime. Possible Russian responses might include halting further reductions of its nuclear forces. Similarly, China, whose small long range nuclear force would be rendered impotent by NMD, would likely accelerate the modernization and quantitative expansion of its arsenal. The cumulative impact of these decisions would be to halt any further decreases in the nuclear arsenals of the nuclear weapon states.

In India, nuclear lobbyists establish a link between global nuclear disarmament and regional proliferation. They have argued nuclear weapon states have no intention of undertaking comprehensive nuclear disarmament. Should the global nuclear arms control agenda stall, this argument will gain strength. The belief nuclear weapons will remain forever will bolster the case of those who argue India needs such weapons to keep up with the nuclear "Joneses".

China has warned it will respond to an NMD by accelerating its nuclear modernization programme. It also threatens to expand its strategic deterrent quantitatively. A possible Chinese response could also be to maintain its strategic deterrent at a higher state of alert.

A modernized Chinese nuclear force and more robust posture will have a negative cascading effect in south Asia. Notwithstanding China's declared intentions, changes in its force capabilities and deployment posture will influence the nuclear debate in India. Likewise, New Delhi's nuclear decisions will affect Pakistan's strategic response.

At present, India is divided between nuclear moderates and hardliners. The moderates support a minimal and de-alerted nuclear force in the low hundreds. Hardliners favour a maximalist posture: a triad nuclear force of 400 to 1,000 warheads.

Thus far, the moderates, led by the prime minister, Atal Behari Vajpayee, and his foreign minister, Jaswant Singh, have prevailed. If current trends persist through this decade, India will probably field a modest nuclear force in the low hundreds. There is also the possibility

India might participate in the global nonproliferation regime — except for the nuclear nonproliferation treaty. Pakistan, also inclined to "strategic restraint," would adopt a similar policy.

However, quantitative and qualitative improvements in China's nuclear capability would undermine south Asia's moderates. A higher Chinese alert status would invariably increase threat perceptions in New Delhi and Is-

calculus, causing both to delay negotiating a fissile materials cutoff treaty.

China could also react by ending its informal commitment to abide by the missile technology control regime and resume missile sales to south and west Asia. Resumption of Chinese missile sales to Pakistan above the MTCR limit would invariably exacerbate the missile race between India and Pakistan.

A US decision to deploy NMD, be-

ambitions are extra-regional. India regards itself as an emerging great power.

Its global ambitions and history of colonial subjugation have made its power elites acutely sensitive to notions of equality, especially when it comes to sovereignty and national security. Negative images of India being a "soft" or weak state top these elites' self-perceptions. They share visions of transforming India into an "effective" state by partially reproducing and adapting the development and security paradigms of more successful states.

Although Indian analysts find incredible the US's identification of ballistic missile threats from "rogue" states as justification for a continental missile defense, for them it is symbolic of the US's aggressive national security culture that proactively seeks to identify the remotest conceivable threat and then institutes measures to defeat it. Although disdainful of the US's alarmist attitude, Indian strategists admiringly seek to imitate such aggressive behavioural norms.

Following the US example, several leading Indian defence scientists such as the government's scientific advisor, APJ Abdul Kalam, have begun lobbying for a limited anti-missile defense that would provide protection against a small Pakistani nuclear force. An Indian national missile defense would force Pakistan to seek countermeasures or to expand and diversify its nuclear arsenal.

Finally, for both India and Pakistan, NMD would also signify a shift from multilateral efforts at preventing the spread of weapons of mass destruction and their delivery systems to unilateral defensive measures, the most powerful indicator yet from the US that it doubts the efficacy of the nonproliferation regime in stemming such threats.

It would communicate the presumption that states must rely on their own resources and technical means to ward off threats to national security, as against investing in building a common global community of security interests. This would complement the argument of nuclear protagonists in India and Pakistan that nuclear weapons are essential to safeguard national security and retain strategic autonomy.

A US decision to deploy a limited NMD will have negative and destabilizing effects in south Asia. It will come at the expense of furthering global nuclear disarmament. Worse, changes in China's nuclear modernization and deployment plans in response to a US NMD will have a cascading impact in India and then Pakistan.

Finally, NMD will provide a cultural model for the power elites in the region to mimic, not only in the hopes of advancing their own states' security interests, but also to keep pace with emerging paradigms of modernity and security in the international system.



A US missile defence would help hardliners in India who want a 1000 warhead arsenal

lamabad successively. It would intensify pressure in both capitals to accelerate the integration of nuclear weapons into their respective armed forces and improve operational readiness — actions that will have adverse consequences for nuclear crisis stability in south Asia.

An NMD could also create pressures on India and Pakistan to modernize their nuclear arsenals through the resumption of nuclear tests, and thereby prevent efforts to bring the comprehensive test ban treaty into force.

Moreover, it could also stymie efforts to negotiate a global fissile material control. Although India and Pakistan have ruled out an immediate moratorium on fissile material production, neither is averse to accepting a fissile material cap as part of a globally negotiated treaty. Both hope to use the interregnum until such a treaty is negotiated to augment fissile material stocks. But the expansion of China's nuclear arsenal could change India's and Pakistan's strategic

cause of the decision's military and strategic contents, ideological undercurrents of absolute security, its negative consequences for global nuclear disarmament and inherent aggressive unilateralism, will influence strategic beliefs in south Asia perceptibly.

Above all, NMD would provide the region's strategic elites a paradigm to remodel their own national security behaviour.

Arguably, the effects of the US decision will be more strongly felt in India than in Pakistan. Unlike Pakistan, which is more concerned with maintaining regional parity with India, India's

THE TELEGRAPH

8 JUN 2000

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Signing CTBT 'a matter of time'

TOKYO, JUNE 7. The Defence Minister, Mr. George Fernandes, said today that it was only a matter of time before India signed the Comprehensive Test Ban Treaty (CTBT), a key element in nuclear non-proliferation efforts.

Mr. Fernandes, in a meeting with the Japanese Foreign Minister, Mr. Yohei Kono, said India was in favour of total elimination of nuclear weapons, a Foreign Ministry official told presspersons. "It's just a matter of time," Mr. Fernandes was quoted as saying and that it would not be "so far in the future." Mr. Fernandes is in Tokyo to attend the memorial service of Keizo Obuchi tomorrow. — Reuters

THE HINDU

2000-06-07

Nuclear chess game

Union defence minister George Fernandes has assured the Japanese that India will sign the Comprehensive Test Ban Treaty not so far into the future. He did not give a specific time but indicated that the government is quite prepared to sign the controversial document. The official line, of course, is that the government will do so only after a national consensus is reached on the issue. But there was no mention of this in the media reports on Mr Fernandes' remarks. Of course the failure of the US Senate to ratify the treaty has lifted the immediate pressure off India, and to that extent, Pakistan, but both are committed to signing the document that was a major prestige point with US President Bill Clinton. Interestingly NBC news has quoted senior US intelligence officials as saying that Pakistan has better nuclear capabilities than India. This is a marked change from the US assessment of the two countries' nuclear position two years ago, when top marks were given to Delhi and not to Islamabad. Now the US believes that Pakistan has a larger nuclear arsenal and a better and more potent nuclear delivery system than India. And that it has managed to achieve this through generous help from China. A document prepared by the US defence department has been quoted by the television channel to say that India has no nuclear capable missiles as against 30 such weapons with Pakistan. This report alone will set back the government's efforts to achieve a national consensus on the CTBT and the general non-proliferation programme. As the BJP and even other political parties will find it difficult to accept an enforced moratorium which will keep India far behind Pakistan insofar as its nuclear capabilities are concerned. If the report is found to be true, then it will definitely generate added pressure on the NDA government to step up its nuclear programme to bring the country on par with Pakistan. Any move to sign the CTBT will be resisted now by those who believe in nuclear muscles as a sign of strength. It is not clear why the US intelligence officers have spoken to NBC News about such a sensitive matter, and at a time when they must be aware of the repercussions of these disclosures in the subcontinent. The BJP and the RSS are not supportive of non-proliferation and are amongst those who believe that India should race ahead with its nuclear programme regardless of international pressure. The US assessment will give a fillip to this lobby which is fairly influential, and will definitely come as a setback for the peaceniks who have been trying to make both the developing neighbours talk sense on the nuclear issue. This particular and predictable fallout of the US assessment might also be to the liking of some lobbies in Washington who would feel more comfortable with a well-armed nuclear India to offset the China threat in the region. For despite the diplomacy, the US and China look at each other with deep suspicion and currently Beijing enjoys better relations with Islamabad than with Delhi. The Beijing-Islamabad nexus has also been drawn by the US intelligence men who almost seem to be creating the environment for more aggressive assertions by the Vajpayee government on this front. It is too early to predict the next moves, but suffice it to say that more will be heard from the region on the nuclear front. And all of it will not be music for those who want non-proliferation to become the only legitimate mantra for the nuclear world.

THE ASIAN AGE

9 JUN 2000

Pak N-arms superior to India: Report

N.C. Menon
Washington, June 8

9-11-8
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10

PAKISTAN'S NUCLEAR arsenal is qualitatively and quantitatively superior to India's, according to an NBC News release, which quotes US military and intelligence officials.

Following the May 1998 nuclear tests by India and Pakistan, which took American intelligence by surprise, the US has focused on South Asia with a new intensity, the NBC report says. Until recently, Pakistan was considered to have between 10 and 15 nuclear weapons, and India between 25 and 100. But after two years of intelligence gathering, US officials are currently engaged in a reassessment of the South Asian balance of power.

The US now believes that the figures of nuclear weapons overstate the capabilities of India's homegrown arsenal and understate those of Pakistan, whose programme has relied on generous Chinese assistance. One official was quoted as saying that the Pakistanis "are more likely to have those numbers (25 to 100) than the Indians". The official also felt that

Pakistan was more capable than India of delivering nuclear payloads, because the former was more advanced, particularly in the matter of ballistic missiles.

Marine Corps General Anthony Zinni, Commander of the US Central Command, is reported to have said that long-time assumptions that India had an edge in the South Asian strategic balance of power were questionable, at best. "Don't assume that the Pakistani nuclear capability is inferior to the Indians," Zinni said.

US officials believe that India realises that it is behind. A recent US Defence Department analysis of the Indian programme states that India is moving to address its shortcomings.

According to the Defence Department document, India has no nuclear capable missiles and fewer aircraft capable of delivering a nuclear payload than Pakistan.

India has twice tested a new intermediate-range Agni missile, which may eventually provide the basis of a nuclear missile force.

However, current US analysis suggests the Agni will not be fielded with nuclear

warheads for another year. Additionally, India has only begun work on missile warhead design, and on the miniaturisation of weapons, two crucial hurdles to the actual use of weapons.

In contrast, Pakistani air and missile delivery systems are now believed to be "fully capable of a nuclear exchange if something happens."

Other officials hold that Pakistan's Air Force, with its US F-16s and its French Mirage fighter-bombers, is superior at penetrating enemy airspace than India's Soviet-designed MiGs and Sukhois.

Even more importantly, Pakistan is now thought to possess about 30 nuclear-capable missiles: The Chinese M-11 short-range missile and its Pakistani variant, the Tarmuk, as well as the North Korean Nodong intermediate-range missile (known locally as Ghauri).

It was significant in this context that in an address to the Woodrow Wilson International Centre last week, Pakistani Ambassador Maleeha Lodhi charged that India was trying to emerge as a global nuclear power equal to China, to dominate South Asia, and to control the sea lanes of the Indian Ocean.

THE HINDUSTAN TIMES

23 JUN 2000

FRAGILE BALANCE

Atomic programme another failed PSU?

IN a reassessment, US officials, including General Anthony Zinni who recently visited Pakistan, told NBC News that Pakistan's nuclear arsenal is much superior to India's. If this is the case, then India's nuclear capabilities are more sound than fury, the worst possible combination since they provoke Pakistan into developing weapons systems which are superior. The genesis of India's nuclear programme is traced to hostilities against China in 1962, coupled with Chinese test explosions at Lop Nor in 1964. India's nuclear ambitions, however, stretch back before hostile relations with the Chinese; the Nehru government's defence policy in 1948 stated it was "absolutely essential for us to develop the method of using atomic energy for both civil and military purpose". But India's arsenal is home-grown, while the Pakistanis have had the benefit of superior Chinese technology, helped in the past by Moscow. India's atomic programme thus has gone the way of most Nehruvian public sector enterprises. Undisclosed amounts of money have been sunk into it in the name of achieving "self-reliance"; the results, nevertheless, are disappointing since reinventing the wheel is always a daunting task, Abdul Kalam and his wonder boys notwithstanding. What, therefore, are the options India has in the nuclear race? Borrowing technology from elsewhere is not on, since nobody is willing to give it to India. Developing India's own is too slow, giving enough time to Pakistan to acquire matching or superior weaponry. A good option, therefore, would be to pull out the diplomatic stops to bring a halt to the nuclear arms race.

In terms of deterrence, just the threat to blow up a few of the opposing side's cities is enough; it does not matter in the end whether you can do this to two or twenty cities. However, the more weapons one accumulates, the more the chances of touching off an actual nuclear exchange; quite apart from the ruinous impact on the Indian economy. Whatever nuclear hawks might say, India has to accept that it is now too late a moment in world history to become a serious nuclear contender, particularly with development priorities as pressing as India's. George Fernandes has indicated that India's signing the CTBT is imminent, a good move. There should also be an overall effort to reduce tensions with Pakistan, while preserving India's interests. Vajpayee and Advani's symbolic gesture of friendship to Pakistan at Leh, washing their hands in the Sindhu river, is welcome in this regard. Instead of posturing for the benefit of political constituencies at home, the signals India sends to Pakistan should be consistent and clear-cut, consisting in effect of the following: no, you cannot have Kashmir, but on other issues we are more than willing to meet you half-way. In suggesting that India's endeavour for friendship with Pakistan will succeed though it may take some time, Vajpayee is a visionary; he deserves all the support he can get.

THE STATESMAN

12 JUN 2000

PROPOSAL A CASE OF PURE PROPAGANDA

India dismisses Pakistan offer on nuclear restraint

Our Political Bureau

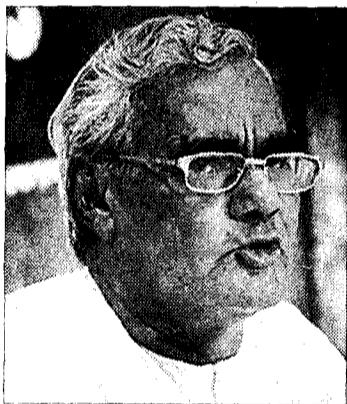
NEW DELHI 14 JUNE

INDIA DISMISSED Pakistan's offer for a nuclear restraint regime, saying talks will only be possible in a "positive atmosphere" to be created by Pakistan. "It is for Pakistan to create the right environment which needs to be put in place for this process to start, by stopping cross-border terrorism and hostile propaganda against India."

Terming the offer "essential-

er any restraint arrangement on a reciprocal basis with India."

This is essentially what Pakistan desires, so that it can talk on Kashmir without having to talk about the other outstanding issues. Pakistan's offer is actually aimed at western concerns about south Asia being a nuclear flash point, therefore requiring nuclear CBMs to be put in place. India's rejection, which was a foregone conclusion will give Pakistan the necessary leverage to put the ball into



Vajpayee, Musharraf: Consensus still eludes the two

ly propagandist" coming, as it does on the eve of Pakistan's security dialogue with the US, a spokesman of the ministry of external affairs (MEA) said, "there is nothing new in the Pakistan's latest offer."

India believes, any dialogue with Pakistan should be held within the framework of the composite dialogue process which encompasses eight subjects, including peace and security. India is unwilling to dissociate security talks from the total package. The Pakistani statement read, "Pakistan has proposed to India a strategic restraint regime for avoidance of an arms race, nuclear and conventional, and confidence-building in the region. We are willing to consid-

India's court. General Musharraf has already told a newspaper on Wednesday that India did not want to initiate a dialogue on Kashmir.

India isn't about to let that happen. "India's security policies are not country-specific and it is inappropriate to look at restraint or transparency in the narrow framework of India and Pakistan." India swears by the Lahore Declaration which contained the crucial memorandum of understanding (MoU) on nuclear and conventional CBMs.

The military government of Pakistan has consistently downgraded the value or importance of the Lahore pact, which will not go down well in the international community.

The Economic Times

18 JUN 2000

18 JUN 2000

Congress and India's n-policy — I

By Muchkund Dubey

10-12 1976

AFTER ALL the agonising over the past few weeks, the Congress has not been able to emerge out of the ambiguity in its position on India's nuclear policy. It is still fighting shy of a minimum nuclear deterrent. All that it is prepared to say is that it is in favour of keeping India's nuclear option open and of a further enhancement of the nuclear capability. But this is neither here nor there. It betrays an ostrich-like attitude. The fact is India has already exercised its nuclear option and converted its nuclear capability into the reality of a nuclear deterrent.

The Government has so far not been able to develop a national consensus on signing the Comprehensive Test Ban Treaty. This is providing a constraint to completely normalising India's bilateral relations with the major powers and playing its legitimate role in the disarmament dialogue. The Congress holds the key to developing the consensus. But the party seems to be opposed to India signing the CTBT. Its leadership is being held hostage to the view of a small pressure group, which ignores the history of India's — which means the Congress' — disarmament policy and which is based on a tortured interpretation of Rajiv Gandhi's Action Plan for Ushering in a Nuclear Weapon-free and Non-Violent World Order.

There is nothing in the Action Plan to warrant the link that is being sought to be established between the CTBT and the elimination of nuclear weapons. The Action Plan was not designed to paralyse all initiatives by India on the disarmament front till the acceptance by the international community of the entire package. This, on the face of it, sounds absurd and is a self-defeating proposition. Besides, India pursued the goal of CTBT independent of the Action Plan both before and after its submission to the United Nations General Assembly in 1988.

The Action Plan was formulated in the context of persistent internal pressure, in the wake of the progress in Pakistan's nuclear weapon programme, to go in for nuclear weapons and external pressure to give up India's nuclear option altogether.

The Action Plan was the last desperate bid by India to seek its security through global disarmament. It was inspired by the INF (intermediate-range nuclear forces) Treaty of 1987, the very first nuclear disarmament measure in the post-War period, Gorbachev Plan for the Elimination of Nuclear Weapons and India's own strivings in the past for a nuclear weapon-free world. The plan was meant to be a comprehensive contribution by India to the then disarmament debate which had enlivened suddenly. It was inspired by practical considerations but its model was essentially idealistic.

The two key elements of the Action Plan which constituted its grand bargain

to pin me down to this clause and draw me out on the measures intended for operationalising it. In response, I drew her attention, also repeatedly, to the nuclear powers' part of the bargain. As she could not give any commitment on behalf of the U.S., I had to call off the talks.

India and other non-aligned countries pursued the goal of CTBT for more than four decades. At no stage did they try operationally to link the CTBT with the elimination of nuclear weapons. As early as in April 1954, India proposed a suspension of nuclear tests in the form of a "standstill agreement". In July 1956, it made a proposal on "cessation of all explosions of nuclear and other weapons" in the then

CTBT. That year the U.S., reversing its historical opposition to the CTBT, went to the other extreme of co-sponsoring a draft resolution recommending the commencement of negotiations on a treaty. By that time, it had accumulated a vast arsenal of nuclear weapons and with the end of the Cold War, the nuclear threat it faced from the then USSR was becoming increasingly remote. The U.S., therefore, had no difficulty becoming a convert to the CTBT. In fact, it pressured other countries, including India, to become a co-sponsor of its resolution. This led India for the first time to co-sponsor a resolution on the CTBT and, in the process, also agree with the U.S., on tactical grounds, to drop any reference to elimination of nuclear weapons, even in the preambular part.

The CTBT was also the principal theme of the Six Nation Five Continent Initiative for Peace and Disarmament, which India actively pursued along with the other five from 1984 to 1988. Through the three declarations and several statements issued by the six under this initiative dealt with all aspects of disarmament, the main theme of each of them was a moratorium, followed by a ban, on the testing of nuclear weapons. At the end of 1985, the six also offered "to assist in verifying any halt in nuclear testing".

This offer was reiterated in several messages sent subsequently to the U.S. President, Mr. Ronald Reagan, and the Russian leader, Mr. Mikhail Gorbachev. At their Mexico summit in 1986, the six issued a separate document on "verification measures". In pursuance of this, they adopted measures to improve their own national verification capabilities and their mutual cooperation with a view to monitoring and announcing on-going test activities.

Thus the CTBT was a key element of India's disarmament policy from 1954 to 1995. Since the Congress was in power for most part of this period, the CTBT should legitimately be regarded as an important policy objective of the party. It must therefore give valid reasons for suddenly deciding to jettison this policy.

(The writer is a former Foreign Secretary.)

The CTBT was a key element of India's disarmament policy from 1954 to 1995. Since the Congress was in power for most of this period, the CTBT should legitimately be regarded as an important policy objective of the party. It must therefore give valid reasons for suddenly deciding to jettison this policy.

U.N. Disarmament Commission. In August 1959 and July 1962, India proposed inclusion of a supplementary item on the agenda of the next General Assembly session on "suspension of nuclear and thermonuclear tests". The explanatory memoranda were confined to suspension of tests and made no attempt to link it with nuclear disarmament.

For several years, particularly between 1988 and 1992, India voted for the resolution on the CTBT adopted by the General Assembly. In none of these, a linkage was made in the operative part between the CTBT and the elimination of nuclear weapons. In resolutions 46/29, adopted in 1991 and 47/47 adopted in 1992, the only reference "to the eventual elimination of nuclear weapons" was in one of the preambular paragraphs. The operative paragraphs mainly requested the Conference on Disarmament to intensify its efforts to negotiate the CTBT.

The year 1993 represented a great departure in the effort to conclude the

Congress and India's n-policy — II

By Muchkund Dubey

THE CONGRESS pursued the Comprehensive Test Ban Treaty for 40 years without linking it operationally to nuclear disarmament. The first time India opposed the CTBT basically in the absence of a linkage and for other reasons as well was in 1996 when the treaty was finalised and adopted by the United Nations General Assembly. We did so purely for security reasons. We resorted to the linkage with disarmament because we thought that it would be the most plausible and least objectionable reason to oppose the treaty. But the real purpose was to keep open our option for testing in view of the developments that had taken place in our neighbourhood. Once the tests were conducted in May 1998, the real reason for our opposition to the CTBT lost its validity. No serious person believed in 1996 or believes now that the linkage was seriously meant or that it is a feasible proposition, except some diplomats who were carried away by their own rhetoric and a few politicians who tried to extract every ounce of political advantage from their opposition to the CTBT. The Congress cannot afford to let its policy become a hostage to the misguided views of these people.

A large part of the Rajiv Gandhi Action Plan has become outdated. Some of the disarmament measures stipulated in the plan have already been implemented by the United States and Russia. The CTBT has been concluded and is now open for signature and ratification. And two of the nuclear-capable states, India and Pakistan, have already crossed the threshold. However, the main objective of the plan, elimination of nuclear weapons within a time-bound framework, remains unfulfilled.

In this context, it has been suggested that the plan be updated, submitted to Parliament for adoption and then used as a basis of global negotiations on the elimination of nuclear weapons. There can be no objection, in principle, to this course. After all, it is the policy of the Government of India also to work for their elimination even while being engaged in acquiring a minimum credible deterrent. However, the issue is not the basis on

which India should take an initiative for pursuing the elimination but whether, after Pokhran-II, we are in a position to do so.

One of the positive fallout of the Indian and Pakistani tests has been a renewed international interest in the objective of elimination. These tests have proved once again that it is impossible to prevent proliferation in a discriminatory way, without eliminating the weapons of all nuclear weapon powers. This is the argument being given by the new post-Pokhran converts to the objective of

programme. In 1968, Indira Gandhi decided to keep India's nuclear option open by not signing the Non-Proliferation Treaty. India's first nuclear explosion took place during her regime in 1974. Sometime in 1988-1989, Rajiv Gandhi gave orders for assembling nuclear devices. And in June 1995, the Narasimha Rao Government very nearly carried out the second series of tests. In the light of this background, it is very difficult to comprehend the Congress reluctance to support India's minimum deterrent.

There is no contradiction at all between

The position taken by the Congress is a repudiation of its past, a bad bargain in terms of electoral politics and not at all conducive to India's security.

elimination, particularly the Rio Group of 14 Latin American countries and the Group of Eight consisting of European Union countries such as Sweden and Ireland.

Today, these countries carry greater credibility than India does because they have consciously decided to abjure the possession of nuclear weapons. On the other hand, India, after the Pokhran-II tests, has lost its initiative and stands isolated. It cannot regain its initiative simply by submitting an updated version of its old Action Plan. It will now have to work with and be part of the initiative of the Rio Group and the Group of Eight. Even for this purpose, it will first have to establish its credibility and join the mainstream. Signing the CTBT can be an important move in this direction.

Among the political parties, the Congress has been the longest committed to the idea of India keeping its nuclear option open and can claim the lion's share of the credit for developing the country's nuclear deterrent. Pandit Nehru was the inspiration behind India's peaceful nuclear programme which laid the foundations for its indigenous nuclear capability. Another Congress Prime Minister, Lal Bahadur Shastri, authorised giving a weapon-orientation to this

to its acquiring an essential ingredient for emerging as a global power to be reckoned with.

Going by its past record, the Congress should be expected to support India signing, and eventually ratifying, the CTBT. There is in fact a contradiction between the Congress' ambivalence on India's minimum deterrent and its opposition to the CTBT. The only valid reason for anyone in India opposing the CTBT is to keep open the option of developing new weapon systems in order to bolster the nuclear deterrent. Opposition to the CTBT thus assumes the maintenance of a nuclear deterrent. For, what will be the use of keeping open the option of testing if the knowledge gained thereby is not translated into weapons. If the purpose is only to enhance capability, then the Congress should know that India long ago crossed the threshold of having a nuclear capability into the acquisition of weapons, and that too at the behest of its own Prime Minister.

The critical issue before the nation today is not the desirability or otherwise of India signing the CTBT or acquiring a nuclear deterrent, but how to acquire a credible deterrent within the shortest possible time and how to close quickly the vulnerability we are threatened with on our security front. A recent report emanating from U.S. official sources indicates that India suffers from a big margin of nuclear vulnerability even vis-a-vis Pakistan. It is here that the Congress can play the role of real opposition. The party should keep a close watch on the progress of India's nuclear and missile programmes, point out their inadequacies and shortcomings, if any, draw attention to any complacency that might have crept in in implementing them, and take a hand in building the national will to resist outside pressure. The Congress should demand maximum transparency in all these matters. Finally, it should ensure that the delicate balance between the provisions against military and non-military threats to India's security is never disturbed. In particular, India cannot afford to slide into a nuclear arms race. The Congress should not allow this to happen.

(Concluded)

One of the 5 nuclear devices in Pokhran-II was a weapon: AEC

PRESS TRUST OF INDIA
NEW DELHI, JUNE 20

ONLY one out of the five nuclear devices tested at Pokhran in May, 1998, was a weapon, the rest being devices with "weaponisable configuration", Atomic Energy Commission (AEC) chairman R Chidambaram has said.

"The 15 kiloton device was a weapon which had been in the stockpile for several years. Others were weaponisable configurations," Chidambaram said delivering a talk here last evening.

The fission device was evolved from India's peaceful nuclear experiment in May, 1974, he said.

Pointing out the difference between a weapon and a weaponisable configuration, Chidambaram said a host of other parameters, including the reaction of the device with the environment, has to be taken into account before a weaponisable configuration is converted into a weapon.

India conducted five nuclear tests in 1998 which included a 45 kiloton thermonuclear device, a fission device and three sub-kilaton

devices. Though the total yield of the two-stage thermo nuclear device was made available, AEC intentionally neither gave the fission-fusion break up nor declared the material of the device so that "nobody can calculate the fusion yield," he said, adding that it consisted of a "fusion-boosting fission device" as the primary stage followed by a fusion device. He, however, said the fusion part worked perfectly. Chidambaram said neutron bombs, considered the third generation nuclear weapons, are not a substitute for fission products.

INDIAN EXPRESS

INDIAN EXPRESS

21 JUN 2000

July date for CTBT debate

FROM PRANAY SHARMA

New Delhi, June 27: The government has agreed to initiate a debate on signing the Comprehensive Test Ban Treaty in Parliament's monsoon session scheduled from July 24.

Foreign minister Jaswant Singh said this after meeting US secretary of state Madeleine Albright in Warsaw on the sidelines of the Community of Democracies — the first conclave of democratic nations around the world.

"It will be our endeavour to build a national consensus on CTBT. A debate on this will come up in Parliament," Jaswant said.

Technically, the BJP-led government does not need Parliament's approval to sign the treaty, but politically it does. A discussion is aimed at ensuring that the nation — or, at least, most of its major parties — goes with the government and that the sign-up does not lead to a tussle later.

Even if a consensus is not reached, India can at least tell the world that it is seriously trying to build one.

Jaswant's announcement indicates that Delhi is trying to take a decision on the matter before Prime Minister Atal Behari Vajpayee meets President Bill Clinton in Washington in September. The invitation to Vajpayee was reiterated by Albright in Warsaw.

At their Warsaw meeting yesterday, Albright and Jaswant talked about disarmament and non-proliferation. That everything went smoothly was evident from Albright's decision to join Jaswant and UN chief Kofi Annan at a discussion on the developments in Sierra Leone, especially the fate of the 21 Indian peacekeepers held hostage there.

Annan assured Singh he would make every effort to get the peacekeepers released.

Delhi is in a bit of a fix over the CTBT. If the Prime Minister goes to the Washington meeting without anything to show, it will be a let-down for the US leadership.

On the other hand, the Centre does not want to take a hasty decision on this crucial issue as it would be interpreted in India as bowing to US pressure.

27 JUN 2000

India denies commitment on CTBT issue

HTC & Agencies
New Delhi, June 27

THE EXTERNAL Affairs Ministry today denied that Mr Jaswant Singh had made a statement that the CTBT issue would be 'brought' in Parliament during the Monsoon Session.

"Non-proliferation and disarmament had come up during the bilateral talks between the External Affairs Minister and the US Secretary of State Madeline Albright. The Minister had said efforts would be made to work out a political consensus. But he did not mention that the CTBT issue would be discussed during the Monsoon Session," a senior External Affairs Ministry official said.

Earlier, an agency report from Warsaw had noted that India hoped to bring the CTBT issue in the Monsoon Session of Parliament as part of its efforts to build a national consensus, has said.

The report said, during a 60-minute meeting with the US Secretary of State Madeleine Albright here last night, External Affairs Minister Jaswant Singh said India had an "obligation" to obtain "political consensus" on the CTBT issue, and that it will be "moving toward it now".

Mr Singh told Ms Albright that although the Government was not able to address the CTBT issue in the Budget Session, he hoped the CTBT issue would come in the next session of Parliament, a senior US State Department official said after the meeting on the sidelines of the inter-governmental conference on "democratic governance".

The official said Washington has been "working very hard" at trying to see whether or not India can move forward with CTBT because it is in "India's interest".

Albright said the US would like to "clearly see concrete steps such as signing the CTBT" which will allow the two countries to make "further strides" in their relationship.

THE HINDUSTAN TIMES

28 JUN 2000

EFFORTS ON TO ARRIVE AT A BROAD NATIONAL CONSENSUS ON TREATY

PM charts roadmap for CTBT debate

Our Political Bureau

NEW DELHI 28 JUNE

MARKING A definite forward movement in the CTBT debate, the Prime Minister, on Wednesday, laid out a specific roadmap for the evolution of a consensus on the treaty. Addressing journalists in Lisbon this afternoon, Mr Atal Behari Vajpayee said the issue of CTBT would be taken up during the coming monsoon session of parliament.

"Parliament will discuss the matter in the next session and efforts are on to reach a broad national consensus on the issue," he told a joint press conference with the Portuguese Prime Minister and EU president Mr Antonio Guterres.

Although India has been maintaining for the past year that it will not stand in the way of the entry-into-force of the treaty the past two sessions of parliament saw a kind of hit-and-miss on the debate.

The winter session was pre-



SHOW US THE WAY: Portuguese Prime Minister Guterres and Prime Minister Vajpayee in Lisbon on Wednesday

AFP

occupied with key economic bills that needed to be passed. Moreover, the recent rejection by the US Senate on the ratification of the CTBT acted as a check on India's own efforts.

The budget session was marked by opposition disruptions which again made it difficult for CTBT to go through. Therefore, the fact that it would be taken up in the coming ses-

sion was virtually a foregone conclusion.

India had also made it clear to its key interlocutors that the monsoon session would be a denouement in the CTBT debate. Hence Jaswant Singh's statement to the US secretary of state Madeline Albright was in the nature of a reassurance.

While India has engaged constructively with key nations regarding its security interests, threats and compulsions for conducting the tests, it was also clear that India has run the course on capitalising on the advantages without signing the treaty.

It is interesting to note that the government's stand on the whole nuclear issue too, has undergone a subtle change. During the foreign minister's suo moto statement to parliament on the eve of the NPT review, India showed that it was willing, in fact a de facto adherent, of the global nuclear non-proliferation regime.

The Economic Times

29 JUN 2000

119-13
80/6

PM criticised for promising consensus on CTBT

Q. N. S. P. M. S.

By Our Special Correspondent

NEW DELHI, JUNE 29. The Congress(I) today took the Prime Minister to task for promising consensus on the contentious CTBT in Lisbon. "Announcements of such significance should not have been made outside the country, he should have said it before Parliament or on national television" said the CWC member and chairman of the AICC foreign affairs cell, Mr. Natwar Singh.

Accusing the Prime Minister of trying to revive a dead treaty, Mr. Singh said the Prime Minister must tell the nation why he was trying to revive a treaty "which the United States Senate had decided to bury". According to the AICC foreign affairs chairman, the priority being accorded to the CTBT by the Prime Minister was surprising because the treaty is not only the priority list of the present U.S. Government and it is also unlikely that the next administration will treat it as a priority.

Mr. Singh charged the Vajpayee Government of merely paying lip service to the idea of building a consensus on the issue. "There is no national consensus on the issue and neither has the government made an effort to take the Opposition or the Leader of the Opposition into confidence," he said. Mr. Singh a former Foreign Minister urged the Prime Minister to spell out the package that he has in mind for a consensus.

Speaking of his party's stand on the issue, Mr.

Natwar Singh clarified that while his party does not have a closed mind on the issue, it was the government's duty to hold consultations with opposition parties. The Congress(I) party, said Mr. Singh, recognises that Pokhran was a fact of life but were it in force it would work overtime for nuclear disarmament, "at the same time it would do everything in its power to safeguard the security and territorial integrity of the country without getting tied up into knots over matters purely semantic."

He also took a dig at the government's understanding of the issue, he reminded the Prime Minister it was that CTBT was "about nuclear non-proliferation and not disarmament". Referring to the Prime Minister's dramatic challenge to Ms. Sonia Gandhi in the last session of Parliament, asking her to spell out the party's stand on the issue, Mr. Singh said the party President had done the right thing "by not falling into the trap because it is for the government to spell out the policy not us." The former Foreign Minister urged the government to come out and state its position with regard to minimal deterrent. "Minimal deterrence against whom, Pakistan or China, and how many bombs for China and Pakistan", he asked sarcastically.

Left parties today said the NDA Government could not take the opposition for granted on the issue of consensus on CTBT, saying that there should be a debate first in Parliament on the crucial matter.

b PTI

0 JUN 2001

Vajpayee to have tough time over CTBT

Kalyani Shanker
New Delhi, June 29

PRIME MINISTER Atal Behari Vajpayee will have to face many hurdles before building a consensus on signing the controversial Comprehensive Test Ban Treaty (CTBT).

For one thing, he has to persuade his own party to agree to the move. As of now, the BJP is divided on this issue. The party's intellectual cell is of the view that there is no hurry to sign the test ban treaty as even the United States Senate has put the CTBT issue on the back-burner. The cell has had several rounds of discussions on the issue and is yet to arrive at a decision so far.

Then the party in general also has to be made ready to accept the move. The Prime Minister's statement in Lisbon that efforts would be made to build a consensus on CTBT has raised eyebrows. One BJP leader admitted that it is more difficult to build a consensus within the party than with the Opposition, although the party may ultimately fall in line with the Government's decision.

"After all we in the party do not know the real facts and the decision has to be taken in consultation with the armed forces and scientists,"

points out a senior BJP leader.

If Mr Vajpayee manages to convince the party, then comes the hurdle of Sangh Parivar, particularly the RSS. It is no secret that the RSS is against India signing the treaty at this juncture. In the past, the RSS made it clear that it is not in favour of such a move. Now the RSS is getting ready to pass a resolution on CTBT at its forthcoming annual meeting in Ahmedabad. BJP president Kushabhau Thakre and general

News Analysis

secretary Govindacharya are expected to attend the meeting.

Even if Mr Vajpayee manages to convince the RSS bosses, the task of building up a consensus with the Opposition parties is going to be a difficult job. There is no uniform stand in the Opposition and most of the parties are confused about the issue.

The Congress has already got wind of Prime Minister's move and it is getting ready with its response. A high-level team headed by senior Congress leader Pranab Mukherjee is already working on the policy and has met a few times to decide about the party's response. While there is a strong view that the party should insist on late Rajiv Gandhi's stand of total disarmament,

the Pokhran nuclear tests have complicated the issue.

The party is trying to raise the question of what exactly is a "credible deterrent". Credible against whom - Pakistan or China -- is the basic question, and if so what should be the strength of the deterrent. These are some of the delicate questions the Congress may put to the Government before taking a position on the CTBT issue.

Congress chief Sonia Gandhi's meeting with US President Bill Clinton when he visited India had raised some controversy over whether she agreed with the Government's view of "minimum deterrent".

While Pranab Mukherjee briefed the Press about it, the party spokesman Ajit Jogi later clarified that Mrs Gandhi did not say that she is for "credible deterrents". The Prime Minister even dared Mrs Gandhi during the Budget Session to come out with what she told Mr Clinton. The Prime Minister has held two rounds of talks with the Opposition parties last year, but during the Budget Session, the subject was not touched. But for the moment, the Government's urgency to push through the CTBT issue in Parliament is apparently seen in the context of Prime Minister's scheduled visit to Washington in September.

THE HINDUSTAN TIMES

0 JUN 29 1998

India & nuclear disarmament

By Arjun Makhijani

19-12-65

HERE HAS been notable silence on the issue of nuclear apartheid from the Indian nuclear establishment after the May 11, 1998, nuclear tests. Not that nuclear apartheid has disappeared, of course. Of 187 parties to the Nuclear Non-Proliferation Treaty (NPT), 182 do not have nuclear weapons; five do. Having broken down the door to the nuclear club, India has been seeking legitimacy from its charter members, most notably the United States. India knows that this cannot be achieved by accession to the NPT as a nuclear weapons state, because most countries would not stand for it. Rather, India's hope seems to be that it will be recognised as a weapon state in other ways, such as being a party to the Comprehensive Test Ban Treaty (CTBT) that will engage in new weapons design through American-style stockpile stewardship, and by acquiring nuclear technology from members of the Nuclear Suppliers Group, who have heretofore restricted exports to India.

Before going farther down this road, India should ask itself, as it did before the Pokhran tests, why the U.S. Government should be accorded special status as the provider of legitimacy. After all, the U.S. is in the process of violating its commitments to the 182 non-nuclear weapon states. It has not accepted the legitimacy of the World Court's opinion, which held that nuclear weapons are illegal and that Article VI of the NPT requires all nuclear weapon states party to the Treaty to actually achieve nuclear disarmament in all its aspects. (The U.S. Senate rejected the CTBT breaking another commitment to the NPT parties in the name of maintaining U.S. superiority. Even the defence of the CTBT by the Clinton administration was made on the basis that it would lock in U.S. advantages (which the \$60 billion, 13-year U.S. stockpile stewardship programme would do). It seems prepared, if necessary, to abrogate the Anti-Ballistic Missile Treaty to achieve what it believes would be unilateral security advantages. It led the 1998 and 1999 bombings of Iraq and Yugoslavia (respectively) without obtaining the necessary authorisation from the United Nations Security Council.) This dismal catalog of illegitimacy can, unfor-

unately, be quite easily extended.

The positions of the vast majority of countries being expressed at the NPT Review Conference going on now in New York, are not in accord with U.S. policy. Indeed, on ballistic missile defences, the U.S. is practically isolated. Even its NATO partners have grave reservations about the direction of the U.S. on this issue. Moreover, U.S. claims that it is attending to its NPT disarmament obligations by reducing weapons systems ring hollow in the halls of the U.N. Most are aware that

Rather than seeking legitimacy in the nuclear arena from the one nuclear weapon state (the U.S.) that is increasingly isolated, India should act independently.

the U.S. is designing new weapons and that its real policy is to maintain nuclear weapons as a principal feature of its military arrangements for the future.

India would be far better off seeking legitimacy in a different direction. The ratification by the Russian Duma of the CTBT even in the face of its rejection by the U.S. Senate was a bold and refreshing departure from the politics of reaction to the U.S. Coming on the heels of Russian ratification of the START II nuclear arms reduction treaty, and just before the NPT Review Conference, Russia put the U.S. on the defensive, newly unsure how to pursue its agenda. In contrast, Russia has been applauded at that conference for its ratification actions. The strength of the Russian position derives from the fact that it acted in a way that was at once in its own interest, for instance, it can hardly afford to spend vast sums on testing readiness, and simultaneously in the interests of disarmament. Russia's asking the U.S. to stick to the ABM Treaty gained additional credibility because it proposed a way to address missile proliferation threats by intensifying missile non-proliferation policies, rather than by unilateral installation of national missile defenses that could also serve as part of a first-strike nuclear arsenal.

Russia has taken some bold actions, but they are in the context of promul-

gating a doctrine that increases the role of nuclear weapons. It is still partly locked in a dangerous battle of nuclear wills with the U.S. India can further its own security and that of the whole world by being even more bold on the CTBT, but without conceding Russia's nuclear doctrine.

(The CTBT could be a sound instrument for disarmament, since it bans all nuclear explosions. Its disarmament goal is being vitiated not by its provisions, but by non-treaty factors.) One of the principal problems is the flagship enterprise of the U.S.

stockpile stewardship programme a huge laser-driven device, called the National Ignition Facility (NIF), designed to create laboratory thermonuclear explosions. These explosions, which are intended to reach ten or more pounds of TNT equivalent, would be illegal under the CTBT, according to the analysis done by my institute. Planning for them is also prohibited under Article I of the CTBT. Interestingly, the U.S. Department of Energy (DOE) has so far failed to respond to a letter from the U.S. Senator from Iowa, Mr. Harkin, for the basis on which laboratory thermonuclear explosions are considered legal, even though the DOE states that smaller fission explosions (four pounds TNT equivalent) are banned.

France is similarly violating the CTBT, since it is building a device of the same type and size as NIF near Bordeaux. Britain is cooperating with the U.S. in the NIF program and such collaboration is also prohibited by Article I. The French and British actions are all the more egregious, since both countries have ratified the CTBT.

Further, the U.S. is developing new low-yield nuclear weapons, and may develop pure fusion weapons, the latter by using NIF as a scientific proving ground (though not for detailed weapon design). Pure fusion weapons would have essentially no radioactive fallout. It may be un-

dertaking these activities with one eye on the World Court opinion, which found that nuclear weapons are illegal, in part because they cause indiscriminate damage. This path of seeking to legitimise nuclear weapons increases the chances of nuclear war.

In 1996, the Government of India frequently voiced the objection, quite legitimately, that the nuclear weapons powers, notably the U.S., were converting the CTBT into an instrument of non-proliferation to the exclusion of the long-cherished goal of disarmament. India now has the chance to help make the CTBT into a disarmament treaty, especially since Russian ratification has left the U.S. more vulnerable to international pressure.

(India should sign the CTBT, with the announcement that it intends, as a signatory, to ensure that it will be an instrument of disarmament and that its letter and spirit will be completely respected. India should announce that it will seek an end to design of new weapons by all nuclear weapon states, as well as clarification of Article I to ensure that laboratory thermonuclear explosions are explicitly banned. India could invite Pakistan to sign the CTBT and to join it in this effort. It could also enlist the support the vast majority of other signatories, possibly including Russia and China, to make the CTBT a true disarmament treaty.)

India should note that most Governments as well as non-governmental organisations at the NPT Review Conference have given pride of place to Russian treaty ratifications as well as to the disarmament proposals of the New Agenda Coalition (Egypt, Mexico, New Zealand, South Africa, Ireland, Sweden, Brazil). Rather than seeking legitimacy in the nuclear arena from the one nuclear weapon state that is increasingly isolated and seen as an obstacle to nuclear disarmament, India should act independently in accord with its best traditions. It should sign the CTBT and work hard to convert it into an instrument of disarmament. That would be a historically fitting task for the Government of a country whose Prime Minister was the first world leader to call for such a treaty.

Disarming Argument

On the eve of the second anniversary of the Shakti tests, India has taken the lead to put forward pragmatic proposals to harmonise the concerns of the NPT-community with the long-term goals of nuclear disarmament. External affairs minister Jaswant Singh has timed his proposals in Parliament to prod the nations now assembled in New York for the first quinquennial review conference of the Non-Proliferation Treaty after the legitimisation of nuclear weapons in 1995. New Delhi's aim is to stimulate some fresh thinking on the issue. Mr Singh emphasised that India would not give up its nuclear arsenal so long as the five nuclear weapon nations keep theirs; whether the NPT nations acknowledge India's status as a weapons nation or not will make no difference to the effectiveness and significance of the capability. The NPT community has run out of ideas and is dangerously poised to unleash a new arms race; the US proposal to initiate a national missile defence programme will have adverse implications for the entire arms control structure. The Indian foreign minister has offered a step-by-step approach towards fulfilling the obligations under Article VI of the NPT to achieve ultimate nuclear disarmament. India's current proposals are very pragmatic in that, unlike the earlier Rajiv Gandhi plan, they avoid unrealistic demands for nuclear disarmament within a stipulated time frame. India is now prescribing the first steps towards delegitimising the nuclear weapons as a litmus test to check if the five nuclear weapon powers and their supporters have any intention of making genuine progress towards the objectives spelt out in Article VI of the NPT.

No weapon can be eliminated unless it is first delegitimised. The use of chemical weapons was delegitimised in the Geneva Protocol in 1925, and the convention to eliminate them was effected 68 years later. However, in the interim, certain taboos in the use of these weapons did operate except in situations of asymmetry. India has proposed a no-first-use treaty, analogous to the Geneva protocol, as a first step towards delegitimisation. De-alerting of weapons, and firm negative assurances to non-nuclear weapon states are the other proposed steps. India has already adopted these principles which are to be found in the draft Indian nuclear doctrine. Significant sections of the arms control community in the US also favour no-first-use. India has reiterated its earlier call for negotiations on a nuclear weapons convention which could mark the way to progressive reduction of nuclear arsenals and final elimination of nuclear weapons at a pace acceptable to all nuclear weapon powers. The initiation of talks for a nuclear weapons convention will generate its own pressures on the nuclear weapon powers to reduce their arsenals and move towards disarmament. They are putting up stiff resistance even to initiate the process, thereby creating concern in the international community whether the nuclear weapon powers and their supporters have any commitment at all to fulfil their obligations under Article VI of the NPT. Today India is placed in a better position to nudge the NPT community to demonstrate their bona fides. Till now they have been preaching non-proliferation without practising it.

THE THROAT OF THE

1 MAY 1997

Consensus still eludes CTBT

Udayan Nambodiri
New Delhi, May 10

11/5
TOMORROW IS the second anniversary of Pokhran II. Between May 11 last and the present day, the international profile of the Vajpayee Government has been on the ascendant, but whatever its claims regarding global superpower acceptability of India's minimum deterrence policy, domestic consensus still eludes it on the Comprehensive Test Ban Treaty.

(Sanctions by economic superpowers, though considerably diluted since 1998, are still in place. Still, India seems to be over the hills where diplomatic, strategic and economic consequences of Pokhran II are concerned. But the Government's failure to articulate what constitutes its "credible minimum deterrence policy" persists.)

During the past year, on August 17 to be precise, the National Security Advisory Board released with much hype what it called a "draft" nuclear arms doctrine. But when its contents sent alarm bells ringing, the Government quickly beat a retreat. External Affairs

9-12-12
Minister Jaswant Singh told the Rajya Sabha when the matter was raised that it was not a Government paper. It was not even a National Security Council paper! A highlight of the resultant "non-paper" was an aggressive nuclear posture and an ambitious force structure. It talked of developing a strategic defence system in which nuclear weapons could be delivered by aircraft, submarines and mobile land-based ballistic missiles. Today, nobody talks about the exercise.

Equally curious was yesterday's suo motu statement in Parliament by Jaswant Singh on the Nuclear Non-Proliferation Treaty (NPT), which has just concluded in New York. Mr Singh reiterated that India is a nuclear weapon state.

The provocation behind Mr Singh's suo motu statement remains unclear. A spokesman of the Ministry claimed that it was timed to coincide with the NPT conference and send out the message that notwithstanding India's refusal to be party to the NPT, its consistency with the treaty's key provisions remain unchanged for the past 30 years.

11 MAY 2000

India joins the NPT debate

By C. Raja Mohan

Mr. Jaswant Singh's message to the NPT Review Conference highlights the irrevocable reality that India is a nuclear weapon power. At the same time, he has also begun to position India for a long-term engagement with the NPT system.

IT WAS Groucho Marx, the American comedian, who once famously said that he would not join any club that would have him as a member. India's position on the Nuclear Non-Proliferation Treaty (NPT) is somewhat similar. (The Sixth Review Conference of the states party to the NPT, now under way at the United Nations, might indeed call upon India to join the Treaty as a non-nuclear weapon state. Responding to that sentiment, the External Affairs Minister, Mr. Jaswant Singh, has told them, in effect, "forget it") in proclaiming that he had no time for any club that offered him membership, Marx was not being facetious. He was in fact making a major political statement about the world in which he was living. His remark, legend now has it, was in reference to an exclusive "whites-only" club in California.

Discrimination was indeed at the heart of India's rejection of the NPT (India's opposition to the Treaty over the last three decades was based on the argument that the NPT was both unjust and ineffective). India, in fact, was among those few countries that had called for the negotiation of a non-proliferation treaty in the mid-1960s. Deeply concerned by the first Chinese nuclear test in October 1964, India turned to the international community to address its nuclear insecurity. But the NPT that came out of those negotiations left India stranded. It neither met India's security concerns nor provided a framework to effectively manage the threat of nuclear proliferation.

Since then, India has been the prize catch the NPT managers were looking for. But New Delhi remained firmly rejectionist in its approach to the NPT. (Much has changed, however, since the NPT came into being three decades ago. There is a new political legitimacy to the NPT as more and more states have joined up. Only four countries — Cuba, India, Israel and Pakistan — are now holding out.)

(Near-universal membership does not, however, mean that the Treaty has stopped being discriminatory or that the member-states are no longer unhappy at the way it is being implemented. The debate at the Review Conference in fact re-

fects the enormous frustrations of the member-states about the manner in which the Treaty is being run. Five years ago, the member-states agreed to extend the Treaty, unconditionally and indefinitely. And exactly two years ago today, India conducted nuclear tests and proclaimed itself a nuclear weapon power.)

(As a consequence, the tension between the NPT and India has sharpened. At the NPT Review Conference, the nuclear weapon states have issued a statement that they will not recognise India as a nuclear weapon state, despite its nuclear tests.

And they have urged India to abide by the United Nations Security Council Resolution 1172 passed in June 1998 in the wake of the South Asian nuclear tests. The resolution calls on India, among other things, to abide by the NPT.)

Many non-nuclear states, particularly in the Arab world, are also demanding that the international community enforce universal membership of the NPT. Their efforts are not targeted against India, but against Israel which has nuclear weapons. Although motivated by regional concerns, there is no question that India gets trapped in the Arab-Israeli nuclear wrangle in various multilateral fora.

(Mr. Jaswant Singh's statement explaining India's approach to the NPT is an important political contribution to the ongoing debate at the NPT Review Conference in New York.) The intervention was particularly necessary since India is not present at the Conference. India had the option to be represented as an observer, but having always kept out of the NPT meetings in the past New Delhi was wary of attending this time. (With much of the world present there and debating the full spectrum of nuclear issues, it is im-

had considerable success in nudging the major powers in that direction. Most of them have come around to accepting that India will not give up its nuclear weapons and that there is need to find a *modus vivendi* with New Delhi on nuclear issues at the bilateral level. But at the multilateral level there is tension between India's nuclear weapons and the legal fiction of the NPT that there are only five nuclear weapon powers. Mr. Singh's message to the NPT review conference highlights the irrevocable reality that India is a nuclear weapon power. At the same time, he has also begun to position India for a long-term engagement with the NPT system. Mr. Singh is not only claiming that India is a nuclear weapon state but also drawing the significance of that fact to the NPT regime in operational terms.

For the first time, India has now claimed that it is in compliance with the obligations that the NPT imposes on a nuclear weapon state. (Mr. Singh said "Though not a party to the NPT, India's policies have been consistent with the key provisions of the NPT that apply to nuclear states.") On the responsibilities of the nuclear weapon states under the NPT to prevent proliferation and promote disarmament, India is now saying its record is far superior to those of the five nuclear weapon states party to the NPT. While this is a well-known fact, India has never articulated it within the NPT framework.

(In reformulating its nuclear approach after Pokhran-II, India is also reaching out to the vast majority of non-nuclear states who are party to the NPT and have grievances of their own.) To them, India is reaffirming its commitment to negotiate a treaty to eliminate nuclear weapons, as well as address their other nuclear security concerns. (Mr. Singh is making it clear India is empathetic to the demands of these states for a no-first-use of nuclear weapons, nuclear weapon-free zones, and negative security assurances.)

It will be a while before the message from India is digested at the Review Conference. But the new approach towards the NPT now outlined by India allows it to intervene effectively in the nuclear debate at New York.

portant that India clarifies the policy direction it has set for itself after the May 1998 nuclear tests.)

(The unambiguous message from Mr. Singh was that "the NPT community must understand that India cannot join the NPT as a non-nuclear weapon state". Implicit in his assertion is the interesting question whether India could join the NPT as a nuclear weapons state. There may be two ways in which to admit India into the NPT as a nuclear weapon state.)

One is to amend the Treaty language and acknowledge India as a nuclear weapon

state. The other is to add a protocol to the NPT recognising the reality of India as a nuclear weapon power. But the prospects for either move are indeed remote. The procedures for the amendment of the NPT are extremely complex. And there is no real political support at this stage to either amend the Treaty or expand it to include India as a nuclear weapon power. India itself has not really sought the legal recognition from the international community as a nuclear weapon state. The Prime Minister, Mr. Atal Behari Vajpayee, had declared that the status of a nuclear weapon state is not something for others to confer on India.

The conundrum, then, remains. The NPT is here to stay as a perpetual treaty. It cannot legally accept India as a nuclear weapon power. But the practical reality is that New Delhi is in possession of nuclear weapons, and will not give them up unilaterally. India has sought to circumvent this problem by engaging the major powers to get them to politically accept the fact that India will build and maintain a credible minimum deterrent, so long as other nations maintain them.

(Indian diplomacy since Pokhran II has

WORLD VIEW

Pokhran In Retrospect

The High Costs of Nuclearism

9-11-1975
11-16-1975

By PRAFUL BIDWAI

TWO years after India and Pakistan exploded their way to the nuclear club, they bristle with paradoxes. Consider just three. China went nuclear in 1964. For a good 34 years after that, India did not consider emergency measures, e.g., raise military spending by 28 per cent in a single year, or build nuclear-proof shelters. Indeed, it didn't even protest against Chinese nuclear tests until the mid-1990s. India's knowledge of Pakistan's nuclear pursuits, for over a decade before Pokhran II happened, didn't warrant extreme measures either. But nuclear India, supposedly far more secure, now proceeds to build underground nuclear-command shelters costing Rs 1,100 crore. Does this speak of security or rationality?

Nuclear Bravado

According to classical deterrence theory, nuclear Weapons-states (NWSs) do not go to war with one another. Less than a year after Pokhran II/Chagai, India and Pakistan did just that. One more year on, they appear close to yet another confrontation. Lest it be thought that Kargil was only an "aberration", as high deterrence theory once termed the Sino-Soviet Ussuri river conflict, we are being treated to a new strategic doctrine: routine, normal, "limited wars" between NWSs. This comes from no less than India's defence minister, who declares that we can win such conventional wars with ease — despite New Delhi's loss of overwhelming strategic superiority over Islamabad. Cold logic or nuclear bravado?

(Nuclearisation, many believed, would induce sobriety, stability and maturity into India-Pakistan relations. But our government taunted Islamabad into testing by linking nuclearisation with Kashmir. Today, instead of sobriety, we have unprecedented exchanges of hostile rhetoric and heightening of tensions. The number of Indians who believe that Pakistan's destruction is a *pre-condition* for peace in this region (and vice-versa), has never been greater. One of the subcontinent's two rivals is convulsed by a coup. In the other, there is an explosion of majoritarian prejudice. Conducive to strategic "balance" between states which can rain megadeath, but won't talk to each other?

The Pokhran/Chagai balance-sheet should impel serious introspection. Pakistan is gravely crisis-ridden. Nuclearisation has strengthened fundamentalist forces there. Chagai accelerated Pakistan's economic downslide through "austeri-

ty" measures and impounding of foreign-currency deposits. India and Pakistan together have lost to sanctions \$3 billion in aid and concessional loans — equivalent to their annual foreign direct investment inflows. India's assets side too looks ungainly — despite the Clinton lovefest, lifting of sanctions, and vague talk of a Security Council seat. New Delhi is plain lucky that the long-overdue "correction" of South Asia's relations with the world, especially America a decade after the Cold War's end, should have coincided with Clinton's discovery of India, American NRIs' successes, the IT boom, and wit Pakistan's marginalisation.

A gap has opened between US softness on India's nuclear posture and Security Council resolution 1172. But it is delusory to imagine that India has gained stature as a "nation on the march" with a booming economy, or as a responsible, mature, state with a relaxed nationalism, at peace with itself and its neighbours. India has antagonised its biggest neighbour. As for India's upbeat commercial image one IT swallow does not an economic summer make. (Nor does a Kargil decisively alter regional strategic equations. Pessimistically, Indian is still one of the sick nations of the world; optimistically, a country with much *potential* — although it shines beside Pakistan.)

Grim Liabilities

The liabilities side looks grim. Both countries have hardened their nuclear posture — especially India with its draft nuclear doctrine, ambitions for a triadic, open-ended arsenal, and cynicism towards nuclear restraint, leave alone disarmament. A special synergy now operates between nuclearism and a growing "national security" obsession: Two-nation theory prejudices are under revival, complete with condemnation of "Hindu cowardice" and Pakistan's "design" to "disintegrate" India. Never since partition have militarists and communalists worked in such perfect unison inside and across borders. These are the heaviest political costs nuclearisation has claimed anywhere. Once "national security" mindsets and "military necessity" doctrines prevail, values of transparency, inclusion, pluralism, participation and human rights are jettisoned.

Nuclearisation's economic costs could prove ruinous. Even a small arsenal, one-fifth the size of China's, could over some years cost Rs 50,000 crore, which exceeds India's entire annual expenditure on prima-

ry education. Should India go in for a bigger arsenal, its cost could exceed a frightening three to five per cent of GDP, especially if there is an arms race. India will race not just against Pakistan but with China, perhaps devastating itself economically. Nuclear weapons manufacture imposes high ecological costs too. Cleaning up the environmental mess left behind by the US weapons programme is officially estimated to cost \$250 billion — the same order of magnitude as India's GDP. There are harmful radiation and waste releases at each stage of the nuclear "fuel cycle" from uranium mining onwards, including handling, transportation and storage of nuclear materials.

Denuclearise India

The social costs of nuclearisation dominate all others. Embracing the doctrine of nuclear deterrence means seeking security through insecurity, terror, and threat to cause havoc on a mass-scale, with pitiless disregard for life. This is incompatible with civilised, humane, values. Nuclearisation spells *matsyanyaya* — big fish swallowing small ones, as the "natural" order of things, extendable to society itself. Nuclearism entails getting our children to accept a deeply immoral state of society as normal. It means rationalising and routinising mass terror and a version of "might is right". From here, a "realistic" embrace of "reasons-of-state" irrationality and fundamentalism is one small step. Putting the veneer of "responsible" behaviour and "rational" conduct by "us", and the opposite by "them", won't help. We have seen restraint and sobriety take far too many knocks. Ultimately, we must ask if we want to leave this irrational legacy to future generations.

If the answer is no, we must change course — to preserve sanity and gain security. Real security can come only through democracy and pluralism, equity and social cohesion, caring and sharing, compassion and justice. Food security, minimum entitlements, gender security, human capacity-building and empowerment, are more important here than military security. India can still claim greatness, if it struggles for comprehensive security. It has a historic opportunity; unilaterally freeze nuclear and missile programmes for a limited period, so that the NWSs make deep arms reductions and move towards abolition. Morally and politically, this will be electrifying. *That's* when the world will take *real* notice of India.



India will retain minimum credible N-deterrent: PM

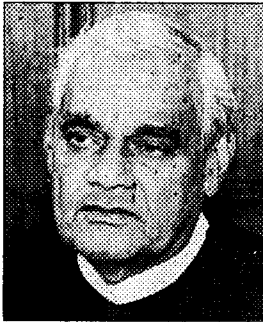
PRESS TRUST OF INDIA
NEW DELHI, MAY 12

PRIME Minister Atal Behari Vajpayee has said India would retain minimum credible nuclear deterrent and indicated that the Government proposed to take some more steps to restore peace and normalcy in Jammu and Kashmir.

"The country is much more secure internally than before," Vajpayee declared at a dinner hosted by him for Members of Parliament belonging to constituents of the National Democratic Alliance (NDA) and supporting parties on the occasion of second anniversary of Pokharan nuclear tests.

The Prime Minister said two years after the Pokharan blasts, the situation has changed dramatically for India with almost the entire world having better appreciation of the country's security needs.

Vajpayee said his Government had gone ahead with 'Operation Shakti'



Prime Minister Vajpayee

based on assessment of the country's security needs.

"Also, we had full knowledge that had India not conducted nuclear tests in May, 1998, our neighbour would have certainly done so," the Prime Minister said.

He said the country had displayed exemplary unity and solidarity in the face of harsh sanctions imposed

after the Pokharan blasts and it was because of this unity that economic sanctions failed to have impact on us.

Vajpayee declared that after two years, India was now recognised, both internally and externally, as a much stronger nation and said the credit for this went to the entire nation and not to the Government alone and certainly not to any individual.

Vajpayee assured the international community that even as India retains its minimum credible nuclear deterrent, "we shall continue to vigorously strive for complete global nuclear disarmament". He said it was extremely dis-

heartening that in the past two years the established nuclear powers have not moved in the direction of disarmament.

On the internal situation, he said the situation in the North-East had improved considerably. Expressing deep appreciation for the excellent work done by his ministerial colleagues, he said "our Government is stable and is working hard to implement our policies and programmes to make India more strong and prosperous".

Meanwhile, Prime Minister Vajpayee will lead a high-level Indian delegation for the first-ever India-European Union Summit meeting to be held in Lisbon on June 28, an External Affairs Ministry spokesman announced today.

An India-EU senior officials meeting preparatory to the Summit will be held here on May 15 between Foreign Secretary Lalit Mansingh and Director General for External Policy of Portuguese Foreign Ministry Joao Salgueiro. The European Union (EU) will be represented by Director Asia of the Directorate General of External Relations of EU Commission Emiliano Fossati, he said.

INDIAN EXPRESS

13 MAY

Underestimating India

Project a Credible Nuclear Deterrent

By K SUBRAHMANYAM

OPINION in this country is divided on whether nuclear deterrence operated during the Kargil crisis and influenced the course of operations. Those who are anti-nuclear or at least opposed to the nuclear tests of 1998 argue that the nuclear factor had no influence at all on the Kargil operation and, therefore, nuclear deterrence was not a factor. Some among them go to the extent of arguing that the nuclear tests by India followed by the Pakistani tests led that country to conclude that with such nuclear deterrence operating, India could not use its superior conventional forces to punish any aggression.

On the other hand, influential Pakistanis claim (in an article by Abdul Sattar Agha Shahi and Air Chief Marshal Zulfikar Ali Khan in *News International*, October 5, 1999) that Pakistan's nuclear capability, in their view, deterred Indian conventional superiority three times in 1984, 1987 and 1990. The Kargil report confirms the officially conveyed nuclear threat in 1987 and the perception of nuclear threat in 1990. General Musharraf is on record saying that because of nuclear deterrence there would be no conventional war between the two nations but that the probability of a proxy war had increased. It could be argued that because of Pakistan's perception of its own deterrent capability from 1987 onwards, it has been sustaining a proxy war in Kashmir for the last 11 years. All these arguments would indicate that the nuclear factor had been operating in Indo-Pak relations since 1987.

Constant Rapport

One of the major problems with Pakistan is that in spite of its being defeated in its aggressive designs in 1948, 1965, 1971 and 1999, its politico-strategic elite rationalises all its defeats and still considers itself superior in its martial prowess and strategic conceptualisation. This was brought out vividly by Altaf Gauhar in his article *Four wars and one assumption*. Therefore, it is essential for India to keep in continuous communication with the military elite of Pakistan and minimise the chances of misperceptions and miscalculations especially in respect of nuclear weapons. There are very major philosophical and attitudinal asymmetries between Pakistan and India on their respective approaches to nuclear weapons. Therefore, projecting deterrence

vis-a-vis Pakistan is a continuous exercise in communication.

This is done in several ways. There could be talks between the two diplomatic and military establishments. Exchanges of views between the defence analysts of the two countries also constitute an effective form of communication. During the Cold War, each side exercised deterrence vis-a-vis the other in totally different ways. An open society like the US did it through publication of literature and well-articulated doctrinal debates. A closed society like the Soviet Union depended on secrecy and the generation of uncertainty on the size and sophistication of its arsenal. Both sides held military exercises involving dummy nuclear weapons. The US with its nuclear superiority also flaunted its weapons.

Deterrent Posture

The situation in southern Asia among the three nuclear weapon powers (China, India and Pakistan) is very different and the present era is different from the Cold War era. Of the three, only India is an open society and a democracy. The other two countries are in a position to keep their nuclear strategy and posture concealed from their public. India has also proclaimed a no-first-use policy and that makes it all the more important that it should be in a position to project deterrence in a credible manner. That exercise involves both the capability and the will to retaliate. One of the problems India faces in relation to Pakistan is the perception among the politico-strategic elite of the latter about India's lack of will to sustain a war.

In these circumstances, it is essential that India should demonstrate in a non-provocative manner its deterrent capability. A minimum deterrent should demonstrate its credibility through the command and control system and the overt and publicised involvement of the armed forces. It is in this context that the recent book *A Nuclear Strategy for India* by Rear Admiral Raja Menon (Sage Publications) is timely. The book raises a whole host of issues. Of particular relevance are the ones on force structure and command and control. Whether one agrees with the logic and conclusions of the author or not, he has rendered a distinct service by focusing on questions which ought to be debated in the country. Perhaps not all the points he has raised can be

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dealt with in public. But it is essential to demonstrate that they are being addressed. It is not only inescapable that the armed forces would be involved but to project deterrence they should also be seen to be involved. India is no longer a covert nuclear weapon state but a declared one.

Second, our foreign service and armed forces should learn to talk the language of nuclear deterrence. In Pakistan, the article "Securing nuclear peace" was written by two former foreign ministers who have been on the seminar circuit and who specialise in nuclear strategic issues. While this country has generated some literature on the politico-strategic aspects of nuclear issue, Admiral Raja Menon's book is a pioneering attempt at discussing the problem quantitatively and also in terms of alternative strategies. It is to be hoped that this effort will be followed by other analyses, some of them challenging Admiral Menon's assumptions. Such a healthy debate is a vital part of the deterrent posture in an open society.

The Indian deterrence projection is slightly more complicated than in other open societies such as the US, the UK and France. In those countries, a better understanding of national security problems among political parties enabled the framing of a consensus on these issues. Unfortunately, in India, a large section of our political class does not understand issues like long lead times in defence preparedness and the need for assessment of the international security environment.

Inept Conception

So questions are raised about what the immediate security threat was which necessitated our going nuclear overtly in 1998. Those who follow this line of thinking advocate cuts in defence expenditure and also thunder about why our army was not adequately prepared at the time of Kargil. The effectiveness of a minimum credible nuclear deterrent calls for an adequate understanding of the doctrine and its implications by our political class and the setting up of necessary command and control infrastructure. The government of the country is yet to realise the importance of an information strategy in adopting a nuclear deterrent posture.



India's nuclear culture

By Gopalji Malviya & W. Lawrence S. Prabhakar

IN THE history of global nuclear policy and technological evolutions, the Indian case stands apart, unique because of its incremental approach. It took a quarter century for India to go in for its first atomic test in May 1974 and nearly as long to weaponise, in May 1998. The long cycle of this evolution was, however, coloured with its principled stand against nuclear weaponry in global fora, its emphasis on civilian nuclear development and its strident opposition to international control regimes viewed as discriminatory. India's strategic gain has been its declared nuclear ambiguity since May 1974 that worked very well. Successive Governments used this ploy successfully to shield India from international pressure and it was also a convenient excuse to be indecisive.

The revised assessment of threat perceptions by the BJP (apparently twice, once in March 1996 and again March 1998) provided the primary basis for the weaponisation tests of May 1998. It was an irony of sorts that the previous Gujral Government stated that there was no radical change in India's threats perceptions, but with the change of the domestic political order a new dimension to the external security situation was discovered.

The May 1998 tests moved India from its position of nuclear ambiguity to one of minimum nuclear deterrence. This has been vociferously articulated as a doctrine of defensive posture, an insurance against the fluid global nuclear situation and an effective retaliatory capability for India, should deterrence fail.

However, its effectiveness against a wide spectrum of nuclear adversaries is difficult to rationalise. Earlier minimum nuclear deterrence was an arithmetic solution (Gen. K. Sundarji; K. Subrahmanyam 1994) but with the weaponisation tests, this was replaced by a qualitative matrix that allows for flexibility in numbers and targeting options. Perhaps the only credible measure that followed weaponisation is the release of the Draft Indian Nuclear Doctrine.

India's nuclear culture thus raises three seminal issues to be analysed in the light of the second anniversary of the weaponisation process: (a) the role of institutional structures to evaluate systematically the strategic priorities and objectives; (b) the

role of the country's strategic culture in determining the nuclear dynamics and clear force design and doctrine have been given significance, the "software" vitals — viable command and control operations, chain of command, degree and scope of civilian-military coordination, contingency measures and essential fire-fighting operations — have not yet been put on record or drilled into practice.

The role of institutional structures needs serious analysis in the context of the recent developments — Kargil and Kandahar. The lacunae have been the absence of coordination among the various units of the decision-making apparatus, the lack of viable crisis management approaches, of credible intelligence gathering and analysis methods, and of decisive moves to con-

tain and manage the crisis. At the root of this malaise is the failure of the Governments (both past and present) to institutionalise the decision-making and implementation process to withstand a crisis situation.

Logically, the Government should have conducted strategic defence reviews to comprehensively address the entire gamut of security issues. Such an exercise should have involved the civilian, foreign and defence policy bureaucracies along with the military, the scientific establishment and the community of strategic analysts. But, successive Government have been keen to put their stamp on all official and institutional process. The end result was that each succeeding Government contented itself with an *ad hoc* plan that was neither viable nor able to endure the changing security situation.

Nuclear weaponisation is not the key solution to India's security challenges.

A full scale evolution of the nuclear force design and employment doctrine may take years and would be subject to variations in the security climate in the global and regional environment. India's nuclear doctrine needs viable security concepts not *ad hoc* preferences. India's strategic culture is the root determinant of its nuclear culture. It has often been contended that Indian strategic culture had always been "absorptive", "cyclical" and "inward looking", characterised by *ad hoc* actions and re-

sponses. The persistence of this tendency

is evident in its nuclear culture too. While the "hardware" elements of the Indian nuclear force design and doctrine have been given significance, the "software" vitals — viable command and control operations, chain of command, degree and scope of civilian-military coordination, contingency measures and essential fire-fighting operations — have not yet been put on record or drilled into practice.

India's doctrine may swear by its defensive posture based on "retaliatory capability", but if contingency plans are not in place, it will be a recipe for disaster.

The second dimension of this issue has been the lack of involvement of the military which would be the executive arm of the nuclear deterrence system. The overt civilian bureaucratic control has stifled the voice of the military. While much has been made of the hike in defence expenditure, in real terms the military's autonomy of choice is completely controlled by the civilian bureaucracy. Therefore, any reorganisation, any innovation such as the joint doctrine in operations, is subject to the approval of the civilian bureaucracy. One of the main reasons for the marginalisation of the armed forces has been the lack of an integrated higher defence organisation — either in the form of a Joint Chiefs of Staff Committee or a Chief of Defence Staff. The lack of appropriate autonomy to the armed forces thus denies them their due and meaningful roles in strategy formulation and implementation.

The third dimension in this issue is the inhibition of the pluralist views on the subject. There is yet to be a detailed parliamentary debate on the draft nuclear doctrine. With a minimal role for Parliament, the marginalising of the military and a largely ignorant public, the civilian bureaucracy has monopolised conception, formulation, debate and decision-making on the nuclear force design and doctrine.

The need is for a proper balance in these issues. The post cold war era and the age of

globalisation and transnational concerns has transformed the security agendas of states. Micro, non-traditional security issues have emerged with serious societal, demographic, energy and environmental complications with corrosive effects on the fabric of the state. India is simultaneously caught between the pressures of macro-strategic threats, that involve nuclear weapons and their employment in deterrence roles, and lesser non-military threats of the above category. This generates enormous pressures on budget, policy and time. How would the Government address these issues? What would be the vital inputs to the process of a policy that would comprehensively address the macro-strategic and the micro-security issues? It has generated considerable pressure for additional resources, budgeting and appropriate policy responses and hence the need to evolve long-term policy directions.

The other dimension is the link of nuclear weapons to escalation of unconventional or subconventional wars. Successive Kargil-type operations would gravely undermine the defending state's conventional deterrence. On the other hand, the risks of the aggressor state adventurously or inadvertently invoking the nuclear option cannot be completely ruled out. Such future crisis could feature a military preemption by either side or preventive airstrikes, using nuclear weapons or strikes on nuclear targets, run the risk of surrogate use of nuclear weapons and of nuclear accidents. Critical intelligence failures could also gravely imperil the situation.

The need is, therefore, to evaluate the wide spectrum of threats and contingencies and their complicated links with the nuclear issue and evolve a viable, durable security strategy. In the age of nuclear plenty, nuclear weaponisation is not the key solution to India's security challenges. Rather, a objective, viable review of all related security issues and challenges, with due autonomy for all the actors involved and proper balance in resources, budgeting and priorities, would be desirable.

(The writers are, respectively, Professor of Defence & Strategic Studies, University of Madras, and Assistant Professor of Political Science, Madras Christian College, Chennai.)

Sonia treads middle path on nuclear arms

FROM RASHEED KIDWAI

New Delhi, May 19: Sonia Gandhi has finally firmed up her mind on the party's stand on the nuclear issue, recognising the need for upgrading nuclear technology but said her party was opposed to the arms race in the subcontinent.

In an informal interaction, Sonia today said: "Our nuclear policy is to strive for total nuclear disarmament which alone can provide security to the world community from nuclear disasters. We do recognise the need to upgrade nuclear technology but at

the same time, we cannot allow unintended arms race in the subcontinent." About the signing of the Comprehensive Test Ban Treaty (CTBT), Sonia asked the government to evolve a national consensus before finally deciding to sign the treaty.

Sonia's remarks on the nuclear issue assume significance in the wake of a raging debate in the Congress over the need for minimum nuclear deterrent. While Mani Shankar Aiyar and K. Natwar Singh had favoured continuation of the total disarmament policy on the basis of the Rajiv Gandhi Action Plan, 1988, Pranab Mu-

kherjee, Manmohan Singh and others were supportive of the nuclear weaponisation programme on the grounds that it had become inevitable in the post-Pokhran II era. Sources said the Congress formulated its views on the nuclear issue after consulting several apolitical experts, including J.N. Dixit, K. Raghunath, Amitabh Mathoo, Kanti Bajpai and others and decided to opt for a "middle path" to strike a balance between two divergent views.

Reacting to the political situation in Sri Lanka, a cautious Sonia articulated the party's point of view. "We want a peaceful resolu-

tion of the conflict, a resolution that will fully protect the legitimate interests of all ethnic groups including Tamils. A solution must be found, safeguarding the territorial unity and integrity of Sri Lanka," she said.

She welcomed the Vajpayee government's move to start a dialogue with Hurriyat leaders in Jammu and Kashmir and said: "The government must not hesitate to initiate a dialogue with various groups in Jammu and Kashmir, but it must not compromise on the basic constitutional framework of our country."

Sonia has appointed a working group on Kashmir, comprising senior leaders like Manmohan Singh, Madhavrao Scindia, Ahmad Patel, M.L. Fotedar, Karan Singh, Ghulam Nabi Azad, Pranab Mukherjee and Mohammad Shafi Qureshi, to keep a close tab on the political developments in the valley.

The group recently called on Prime Minister Atal Behari Vajpayee and home minister L.K. Advani, raising queries about the law and order situation in the state and the government's proposed move to hold talks with Hurriyat leaders.

Sonia said the Congress was

not opposed to the information technology Bill but wanted a more detailed and informed debate in Parliament. "We are not against adopting a new information technology law to provide legal support for electronic commerce," she said.

As the budget session of Parliament has ended, Sonia will now focus on party matters while touring various parts of the country. On Monday, she will visit Maharashtra and then proceed to the drought-hit areas of Gujarat and Rajasthan. She today appointed V. Narayanswamy as PCC chief of Pondicherry.

THE TELEGRAPH

Snubbed by the club

INDIA HAS been a key target of the Nuclear Non-Proliferation Treaty regime for three decades now. The final consensus document to emerge from the just-concluded NPT review conference carries an important message for New Delhi: However much India may desire, it cannot be accommodated in the regime as a nuclear weapons state. Also, India cannot gain access to the international commercial nuclear power technology market to meet its growing energy needs. This central message should not be lost in assessments of the wishy-washy outcome of the first NPT review since the treaty was permanently extended five years ago. The consensus document, stitched together through shaky compromises, helped the 26-day conference from collapse. But on issues of relevance to India, there were hardly any open dissensions. The document takes repeated pot-shots at India and Pakistan, deploring their 1998 nuclear tests and asking them to abide by the impious UN Security Council Resolution 1172. "The Conference declares that such actions do not in any way confer a nuclear-weapons state status or any special status whatsoever." India is also the subject of criticism in the document's reference to "two states" that have declared testing moratoriums but not signed the test-ban treaty, as well as in its mention of nations that operate facilities not open to international inspection. The conference also called on India, Israel and Pakistan "to accede to the treaty as non-nuclear-weapons states, promptly and without condition".

India has been pressing the United States, France and Russia to change the present nuclear-export guidelines that bar all commercial sales, including of safety equipment, to a non-NPT state that does not open all its nuclear facilities to outside inspection — a condition not applicable to the five original proliferators. These guidelines were designed by the Nuclear Suppliers' Group, also known by its original name, the London Club, which is an extra-legal cartel with no UN sanction. The conference has not only supported the requirement of comprehensive inspections (or "fullscope safeguards"), it has also called on the NPT holdouts to embrace a strengthened international inspections system known as "93+2". This new system gives the International Atomic Energy Agency the right to go anywhere, anytime to conduct searches without notice.

The conference outcome holds three lessons for India. First, the NPT regime will remain inimical to India's interests. Second, the present Indian strategy of keeping quiet on the NPT in the hope that India will be accommodated at least as a de facto nuclear weapons state is unlikely to pay dividends. Like the P.V. Narasimha Rao government which stayed mum when the NPT was indefinitely extended in 1995, the Atal Behari Vajpayee government did nothing to influence the latest treaty review. Third, India will remain a target of nuclear and non-nuclear technology controls as long as the NPT regime survives.

THE HINDUSTAN TIME

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Inside a nuclear cloud

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The Congress is confused about a nuclear policy. But the BJP-led Government does not seem to have a clearer picture on the matter either, writes SHUBHA SINGH

THE CONGRESS' dilemma over its stand on the nuclear policy revolves largely around paying the price of success. The Congress is torn between its sentimental attachment to the concept of global disarmament as embodied in the 1988 Rajiv Gandhi action plan for disarmament and the new ground realities that came into existence after the Pokhran tests of May 1998. It is also unsure how to reconcile the contradictions of publicly acknowledging that it carried on a nuclear programme while taking the high moral ground on global nuclear disarmament.

The nuclear ambiguity served the Congress well, for it catered to the section which is opposed to all forms of nuclear weapons while keeping alive the option to go nuclear. For several decades, the Indian Government had manoeuvred through the non-proliferation pressures exerted by the major international powers, by keeping its nuclear policy in *purdah*. The Vajpayee Government rent that screening veil with the May 1998 nuclear tests.

Indian opinion favours global nuclear disarmament as a general rule, but while the nuclear powers continue to hold their nuclear arsenals, India cannot give up its nuclear option. This kind of dichotomy prevails elsewhere in the world, for the Japanese have managed to reconcile their natural aversion to nuclear weapons with living under the protection of a nuclear umbrella.

The Congress has been struggling to find a new definition for its nuclear stance. It should have no qualms on admitting that it needs to make readjustments in its nuclear policy in line with these developments.

The Congress dilemma centres over the term minimum nuclear deterrent. This term has disturbing connotations since it implies a strike capability and the threat to use it. The party is more comfortable with the more genteel term "nuclear capability". Some sections in the Congress are reluctant to talk of a "minimum nuclear deterrent" because of the BJP clamour that it means a Congress endorsement of the Government's position.

Nuclear tests cannot be undone, and India's nuclear weapons status can be changed only by dismantling its nuclear programme. This is a reality which needs to be understood. And a nuclear power has to decide on what it considers to be a minimum nuclear deterrent. Instead of letting the main opposition party consider this important issue, the ruling party

PLATFORM

has been using it to score petty debating points. The BJP has changed the rules of the game from nuclear capability to minimum nuclear deterrent, and is now enjoying the Congress display its discomfiture with the new rules.

It is actually a storm in a tea cup, for the Congress does not need to describe what it means by minimum nuclear deterrent when the BJP-led Government itself is not in a position to specify what it means. When you have nuclear weapons, you have to decide on the minimum number you need to maintain for protection. It is for the Government to go into the details of a nuclear policy, while the Opposition needs to evolve a broad position on the subject.

But the BJP has been acting as though it is the Congress which needs to define the kind of nuclear deterrence the country requires. The Government released an ambitious draft nuclear doctrine which now seems to have been buried in the maze of the country's National Security Council. Nothing more has



Indira Gandhi visiting the 1974 Pokhran site

been heard of it since. The Government has to work out what it means by a minimum nuclear deterrent, its costs and the delivery system that would be required for it. There has been no further discussion on the subject and the Government has also fallen back on the old policy of deliberate ambiguity on nuclear subjects.

The controversy began with the Congress tying itself up in knots over the use of the term minimum nuclear deterrent during party president Sonia Gandhi's meeting with visiting American President Bill Clinton. Congress Working Committee member Pranab Mukherjee spoke of a minimum

nuclear deterrent while briefing the media on the talks. A couple of days later, party spokesman Ajit Jogi tried to distance the party from the former External Affairs Minister's formulation.

It is no secret that Mani Shankar Aiyar's views had prevailed: that talking of a nuclear deterrent was not compatible with the party's policies formulated in the 1988 Rajiv Gandhi plan for global disarmament. Aiyar has long believed that the Rajiv Gandhi action plan, which he had helped to draft, should be the definitive word of the Congress on the nuclear issue. It is quite another matter that the entire context of India's nuclear policy has changed after the Pokhran II tests.

Prime Minister Atal Behari Vajpayee tried to embarrass the Congress president in the Lok Sabha by asking her to clarify the party's position. But the Congress is in such a sad state that none of its MPs thought of turning the tables by asking the Prime Minister what the Government meant by a credible nuclear deterrent. Especially since the PM was responding to the motion of thanks to the President's address to Parliament, which is the occasion to spell out his government's policies. It was vintage Vajpayee repartee, but his levity covered the fact that the BJP is still to announce its nuclear policy and though the pressure on signing the CTBT has eased off for the time being, a decision will have to be taken on the treaty.

The Rajiv Gandhi action plan for disarmament was drafted in another era. Since then the NPT was extended indefinitely and the CTBT came up on the international agenda. In its election manifesto before the nuclear tests, the Congress had promised to continue its efforts for total and complete disarmament while adding that "we will not be found wanting in case of any threat by hostile forces". After Pokhran II, the Congress restricted itself during the 1999 elections to criticising the BJP-led government for exploding the bomb "without adequate preparation or study of its consequences".

The Congress leadership needs to remember that the country's nuclear policy is not just a foreign policy matter. It deals with security matters. During the Congress regime, the nuclear programme progressed to a stage where it could quickly assemble nuclear weapons. There was clearly no aversion to nuclear weapons. After the Pakistani tests in Chagai, the Congress cannot deny the need for nuclear weapons.

Ulfa no to Bhutan order to leave

STATESMAN NEWS SERVICE

NEW DELHI, April 27. — The Bhutanese government has held talks with Ulfa, asking the militants to leave its territory, but they haven't heeded to the request.

Senior external affairs ministry officials said Bhutan had kept the Indian government informed about the talks held over the past year. Bhutan has acknowledged that Ulfa and Bodo camps exist in its territory, MEA officials said. Bhutan has adopted a resolu-

tion in the Assembly to evict the militants and asked the people not to help Ulfa activists and has cancelled licences for shops run by them.

Officials confirmed that no military action had been undertaken by the Bhutanese government against the militant bases so far.

Bhutan, despite its limited capacity, was prepared to step up pressure against the militants in a phased manner and the Bhutanese King had said the government might have to use force if necessary to evict

them. ^{MA} Officials said Bhutan had briefed India about the problem of Bhutanese refugees in Nepal but that India had expressed the view that the problem could be best solved by bilateral dialogue.

Officials said Bhutan's longstanding demand for extradition of Rongthong Kuenley Dorji was now being decided by courts but that India would not like its territory to be used by such elements for activities directed against a friendly neighbouring country.

RECEIVED

25 MAY 2000

Our nuclear industry

By M. R. Srinivasan

40-12

ON MARCH 5, 2000, the Prime Minister, Mr. Atal Behari Vajpayee, dedicated to the nation the second unit of the Kaiga Atomic Power Station. Nestled in the folds of the Western Ghats along the Kalinadi, this beautiful site is now home to producing clean non-polluting power. The first unit will enter service later this year.

(This is a major achievement for Indian industry which has produced all the equipment and components in manufacturing shops within the country)

Until about a decade ago, all of us were proud that India produced its own power plants, petrochemical plants, refineries etc. All of a sudden, India has lost its commitment to self-reliant development.

Now our newspapers and commentators are euphoric about how India is an attractive market for industries from the developed countries. Gone is the objective that we would be exporting capital goods and engineered products to other parts of the world.

Let us by all means increase our software exports but let us not lose the gains made in the mastery of producing high technology products in the classical industries.

Developed country economists play down the importance of heavy industry because their growth is saturated. We need massive additions to capacities in power, steel, cement, housing, roads, bridges, dams, airports and so on and our situation is just not comparable to the U.S. or western Europe.

(Our industry has greatly benefited by participating in nuclear project activities. They took to substantial upgradation of quality and learnt to work with new materials working under onerous conditions and have in the process achieved a high level of maturity.

(Since the U.S. and its allies stopped supply of what they consider sensitive items, for nuclear proliferation consid-

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The expertise accumulated on the nuclear projects is a valuable asset that must be put to work more generally to push our technological progress.

erations, our industries have stepped in and produced the needed items. There is no item or material that our industry cannot now make. We have achieved what we may call "end-to-end self-reliance.")

During a recent visit to the Heavy Water Project, Kota, I found that the engineers and technologists had done commendable work in achieving high energy efficiencies and high on-stream factors.

India has now mastered several heavy water production processes namely liquid hydrogen distillation, ammonia-hydrogen exchange, and hydrogen sulphide water exchange process. Another, namely ammonia-water exchange process, is being scaled up to industrial scale from pilot plant scale. Our latest plants, namely the heavy water plant at Manugune and the one at Hazira, are operating extremely well on a continuous basis.

While the U.S. and Canada were the early pioneers, India has overtaken these veterans in the diversity of technologies available to us. Let us recall that some 15 years ago, heavy water production had not kept pace with our demands and had delayed the start up of completed reactors.

In recent years India has supplied heavy water to South Korea. The Romanians were keen to buy heavy water from India but the Canadian reactor supplier prevailed upon them to buy this material from Canada.

(On an earlier visit to the Nuclear Fuel Complex at Hyderabad, I noticed a similar advance in mastering the complex processes involved in the manufacturing

steps relied heavily on the skill and discipline of the technician.) Now all the processes have been automated using machines designed and developed within the country. In earlier times the yields in various process steps were low resulting in generation of large amounts of scrap.

By careful and meticulous examination of all process parameters, the yields have gone up and scrap recycling steps have also been incorporated successfully.

At the heavy water plants as also at the Nuclear Fuel Complex, Hyderabad, certain hazardous substances have to be handled. Great care has been bestowed to the containment of these hazardous substances and the plants have built-in facilities for treating the solid liquid and gaseous effluents.

There is an elaborate system of monitoring the plant environment as well as the surrounding area. The Atomic Energy Regulatory Board carries out regular auditing of the discharges to ensure that they are within the prescribed limits.

Engineers, technologists and technicians working in conventional chemical and metallurgical industries have much to learn from studying how our nuclear industries run.

Located as they are in remote places, they are not easy to get to. Moreover there is a tradition of secrecy though there is no direct relationship to any military secrets.

It will be in the country's interest if the Department of Atomic Energy were to hold three-day seminars at the location of the nuclear industries and invite engineers and technologists from industry

involved in designs and plant operations. There is substantial scope for technology transfer. For instance, the exchange tower intervals used in heavy water plants can be used in petroleum refineries and petrochemical plants.

Similarly the automated handling machines used in the nuclear fuel complex could be adapted for use in our food and drug manufacturing industries.

There are other valuable lessons our industry have learnt over the years which we may recall. Bharat Heavy Electricals at Tiruchi makes nuclear steam generators — four such are used in each reactor. When we started making them, it took six years or more to make one. Now they can be made in three years.

Other key equipment such as end shields and calandria used to take five or six years to make. Larsen and Toubro and Walchandnagar industries can make these now in two and a half or three years.

Similar progress has been made in the manufacture of many other items by our industry spread all over the country. Industry had been mobilised to build a nuclear power unit in six or six and a half years instead of in ten years.

By the time we succeeded in mobilising industry to do so, our nuclear power programme went into a limbo.

There are now some signs of revival and our industry will be ready to once again take on these challenges. In the mean time let the Department of Atomic Energy organise seminars at selected manufacturing shops and expose the younger professionals to the earlier efforts and prepare them for further improvement of quality and reduction in cost and manufacturing time.

The expertise accumulated on the nuclear projects is a valuable asset that must be put to work more generally to push our technological progress.

(The writer is a former chairman of the Atomic Energy Commission).

India should not miss the NPT review conference

Love me, love my bomb

14/4
V.R. RAGHAVAN

Nuclear nonproliferation was a good mantra. It invoked many things for many people. It ordered the world in a certain shape, that is, between the nuclear haves and have-nots. It promised to permanently deny nuclear weapons to some, while allowing some to have them for ever. It invoked hopes in the many non-nuclear weapons states that the world can be rid of nuclear weapons. It promised peace, prosperity and wellbeing for long suffering humanity which had lived under nuclear threats for over 50 years. It was a mantra all could chant. (Major powers, medium powers and inconsequential powers all hoped to gain from it.)

Like the powerful mantras of mythical times, this nonproliferation mantra had to be chanted correctly. It had to equally apply to all states. Unfortunately that did not happen. Those that had nuclear weapons had no intention of giving them up. While they chanted the mantra they also corrupted it by saying different things to different people.

(The United States wanted India to cap, reverse, and eliminate its nuclear weapons capability. Non-nuclear nations kept asking the nuclear weapons states when elimination would come about. The nuclear weapons states amongst themselves chanted the mantra differently. Even as they chanted loudly, some, like China, passed on the technology to Pakistan. North Korea got on the nuclear weapons route. It then cleverly exploited the fears created, to obtain some massive aid in food and money, as a price to put off the day when it would make a bomb.)

(The effect of improper chanting of the nonproliferation mantra was seen in the nuclear blasts of Pokhan and Chagai in May 1998. India felt it would land up being neither a nuclear have nor a have-not and did not want to be a "might have been". Suddenly the nonproliferation treaty which was signed in 1995 was found to be in tatters. The NPT had in fact encouraged proliferation.)

The NPT bargain or contract was for the nuclear weapons states to start eliminating their nuclear stockpiles, in return for others not acquiring the wretched things. The NPT bargain however was never honoured. In fact, even as the NPT was being drafted, the US had concluded in its nuclear posture review of 1994 that it needed the weapons for ever and in large numbers.)

(The signatories to the NPT had agreed in 1995 that a review of the progress on the NPT would be undertaken in April 2000. That is scheduled to take place from April 24th. The NPT is

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however in disarray. Russia has recently announced a nuclear policy which demands nuclear weapons as essential security safeguards. North Atlantic Treaty Organization's expansion towards the Russian frontiers, a US penchant for unilateral military action in Kosovo, and other factors contributed to this. Britain, France and China are not interested in elimination until the US and Russia start on that task.

The comprehensive test ban treaty, which had been pushed hard by the US and signed with much fanfare as a feather in humanity's cap, was rejected by its own senate. Even as the US exhorts India to join the CTBT and sign the NPT, every one knows that the CTBT is not reviving soon after the knock out blow dealt to it by the US senate. The NPT bargain is off. No one knows what is to be done.)

The review conference, or, the 2000 review as some call it, will therefore become the next episode in the proliferation pantomime. It will become the stage to criticize India (and Pakistan) for having the temerity to test and acquire nuclear weapons. They will be threatened

India should make a statement to reassert its commitment to nuclear disarmament

with dire consequences and so on. The five nuclear powers will take the lead in this part of the show. Their acolytes will join the chorus. There would be enough among the signatories to the NPT who would also blame the five powers for not having done enough to reduce the value and importance of nuclear weapons even after the Cold War has ended.

There would be a huge army of lawyers' groups, anti-bomb activists and non-governmental organizations and others who would demand that nuclear weapons be abolished and eliminated. There would be much colour, noise and excitement but little of substance on a matter which risks the wellbeing of all humanity.

What is India's interest in this the-

atrical which would be enacted in Geneva? India is not a signatory to the NPT. It cannot therefore attend the review conference. It is however a state with nuclear weapons, which it was not in 1995. The Indian tests of 1998 were the defining event in the beginning of the end of the NPT. India would be the primary focus at the conference. Should it stay away from the conference altogether even as it is the centre of the discussions in it? There is strong counsel being given to the government that it should have no truck with the NPT, since national security interests are involved.

India's security interests are better served by engaging the review conference. India would miss a unique opportunity if it acts petulant on this occasion. It needs to seize the moment when its own security is being discussed at the conference. It cannot refuse to acknowledge the review conference and allow its case to go by default. This is a time to address the conference directly and through it the many signatories of the NPT, most of whom are non-nuclear weapons states.)

It should work on the conference process through the lobbies, NGOs and activist groups which would congregate in Geneva. There is, however, a greater opportunity in making a formal statement by the Indian government addressed to the conference. It can be made by the foreign minister who is most suited to do so.

(India should ask for a redefinition of the term proliferation. Proliferation has many faces. Tests are not the only form of proliferation. Laboratory experiments to develop new categories of weapons of mass destruction is proliferation. Deploying missiles and targeting smaller countries as is being done in the Taiwan straits is also proliferation. Passing on nuclear weapons and missile technology is proliferation. The NPT needs to be revised to include the new dimensions of proliferation.)

India needs to grasp the NPT nettle. It is being advised time and again to join the NPT. It cannot obviously do so as a non-nuclear weapon state. It should reassert its security needs and the many NPT violations by other states which led to India testing and going nuclear. The statement should reassert India's commitment to nuclear disarmament. It should place on record the measures it has already taken to abide by the NPT and CTBT regimes.

It should above all indicate its willingness to join the NPT if it is revised to recognize India's nuclear weapons status. It is time India took the lead on the global nuclear arena as a voice for reason and moderation. India also needs to start using the leverage from its nuclear status for the good of nonproliferation.

'ABUSES AND LIES' ON STATUTE REVIEW RESENTED

Congress misled nation on n-briefing to Clinton: PM

By Our Special Correspondent

NEW DELHI, APRIL 16. The Prime Minister, Mr. Atal Behari Vajpayee, today added a new dimension to the controversy within the Congress(I) on whether or not the party delegation, led by Ms. Sonia Gandhi, told the U.S. President, Mr. Bill Clinton, during his visit here in March that India needed a minimum nuclear deterrent. Mr. Vajpayee insisted that the Congress(I) was lying to the nation on the issue.

This unusual remark of the Prime Minister about the main Opposition party was made at the closing session of the two-day national executive of the BJP. He went on the offensive against the Congress(I) for what he described as growing "frustrated reactions" of the party leadership.

He told members of the BJP national executive that a directionless Congress(I) leadership was resorting to "abuses and lies" and asserted that the Congress(I) dream of returning to power would never be fulfilled. He was particularly angry with Ms. Sonia Gandhi for her allegations against the Government on the Constitution Review Commission and said the kind and quality of language used by some leaders has hit a new low.

"The Congress(I) has adopted political negativism from Pokhran to Kargil. The nation was misinformed about what the Congress party delegation told President

Clinton. The Congress delegation told President Clinton that India needed a minimum nuclear deterrent. The media was informed of the position. Later, the party denied having ever made such a statement. Petty political considerations resulted in this political somersault," Mr. Vajpayee told his party colleagues.

The Prime Minister was referring to the statement made by senior Congress(I) leader, Mr. Pranab Mukherjee, immediately after a Congress(I) delegation met Mr. Clinton, and the subsequent denial by the party spokesperson, Mr. Ajit Jogi, on the question of minimum nuclear deterrence.

'Don't be provoked'

Mr. Vajpayee maintained that

the strident attacks of Congress(I) on his Government in recent weeks and months was a consequence of the success of the National Democratic Alliance (NDA). He told the BJP members not to be provoked by the "undignified" attacks of the Congress (I) and endeavour to raise the level of debate.

The Prime Minister said the BJP has entered a crucial stage of its "journey" and its acceptability has improved. He attributed it to the distinctive character of the party and urged the party members to help in sustaining its distinctiveness as a party. "Our political behaviour will determine this." Mr. Vajpayee's message to the national executive was to ensure that the programmes of the

Government get the support of the party and that the party must endeavour to carry all sections of society with it.

TDP MPs to stage dharna

By Our Special Correspondent

HYDERABAD, APRIL 16. Members of Parliament belonging to the Telugu Desam Party have decided to stage a dharna in Parliament House, demanding that the Central Government act quickly to resolve issues pertaining to Andhra Pradesh.

The decision was taken at a meeting of Members of Parliament. There are 29 TDP members in the Lok Sabha and 12 in the Rajya Sabha. The meeting, presided over by the Chief Minister, Mr. N. Chandrababu Naidu, felt that the Centre was not taking the demands of the Telugu Desam MPs seriously, because there had been no response to repeated raising of these issues in the past. Since the TDP is not a member of the National Democratic Alliance, and since the party has not participated in the Central Government, it would be appropriate to stage a dharna to focus the Prime Minister, Mr. Atal Behari Vajpayee's attention on the State demands.

Mr. Naidu urged his party MPs to play an active, opposition role in Parliament without attempting to destabilise the Vajpayee Government.

'No proposal to legalise betting'

By Our Special Correspondent

NEW DELHI, APRIL 16. Within 24 hours of the Union Sports Minister, Mr. Sukhdev Singh Dhindsa, announcing that the Government might legalise betting, the Prime Minister, Mr. A.B. Vajpayee, asserted today that there was no such proposal before the Government.

In his remarks at the national executive of the BJP, the Prime Minister did not hide his unhappiness on the tendency on the part of some of his ministerial colleagues and leaders of the NDA to speak out of turn.

"We must be very careful about all our statements to the press. We must resist the temptation of speaking too frequently. I have read some reports on cricket betting. The Government has no proposal to legalise betting. We are all for eliminating this menace," Mr. Vajpayee said.

THE HINDU

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India to stay out of NPT till China, Pak are a threat: US ^{28A}

Washington, April 22 ^{HG-12}

IN A major shift in US thinking on India's nuclear programme, a top non-proliferation official has conceded New Delhi could not be expected to join the Non-Proliferation Treaty (NPT) unless its relations with both China and Pakistan improve.

Pakistan, by contrast, can afford to give up its nuclear weapons before India and join the NPT if its relations with New Delhi become cordial like those between Canada and US, country's official negotiator at the UN review meet on NPT Herman Wulf said in an interview yesterday, ahead of the conference which opens in New York tomorrow.

"One could clearly envisage a situation in which Pakistan would be prepared to surrender its nuclear weapons if Indo-Pakistani relations were like US-Canadian relations," Mr Wulf said in an interview to a US information agency.

As for New Delhi, he said "If India and China were to resolve whatever differences India believes may exist, one at least should be able to envisage a situation in which it is prepared to surrender its nuclear weapons."

Stating that China is a "complicating factor" in South Asia, Mr Wulf said India "claims" it needs nuclear weapons to counter the "Chinese threat".

"Whatever the reality is, that ends up in making it a three-cornered shot. And that in turn makes it much more difficult to see how one can get these two countries (India and Pakistan) to surrender their weapons," he added.

The US is making efforts at getting the two countries to stop where they are in terms of weapons of mass destruction and to begin addressing the problems that they have so that India and Pakistan no longer have the reason to feel threatened, he said. He added President Bill Clinton's visit to South Asia last month was part of the effort to normalise ties between the two neighbours.

Mr Wulf said US wants the NPT Review Conference to deal with the India-Pak issue and call upon both countries to comply with UN Security Council Resolution 1172.

The resolution, adopted soon after the Indian and Pakistani tests in May 1998, sets forth a series of steps that the Security Council believes the two neighbours should take to de-escalate nuclear tensions, and ultimately become parties to the NPT as non-nuclear weapon states. (PTT)

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Nuclear India & the NPT

By C. Raja Mohan

WHY IS India, a self-proclaimed nuclear power, not present at one of the world's biggest talk shops on nuclear issues that has opened this week at the United Nations? India indeed had the option to attend, as an observer, the review conference of the Nuclear Non-Proliferation Treaty (NPT) that takes place every five years. One of the major developments since 1995, when the NPT review conference met and indefinitely extended the treaty, has been the Indian decision to conduct five tests at Pokhran in May 1998 and declare itself a nuclear weapon power. Yet India will not be there in any capacity to either explain the logic behind its tests or contribute effectively to the debate on a whole range of nuclear arms control issues at the conference.

(What prevents a serious interaction between India and the NPT system? One is the pretense of the NPT managers that India will never be accepted as a nuclear weapon state. And the other is India's pretense that the NPT is a "discriminatory" treaty and hence it must turn its back on it.)

The time has come for both the NPT managers and India to end their traditional diplomatic posturing and find a historic nuclear reconciliation based on realism. The non-proliferation champions of the NPT insist that New Delhi, if not now, at least over the long-term, could be persuaded to join the NPT. If they have their way, which is not entirely certain at this point, the conference could urge India to join the NPT as a non-nuclear weapon state. Nothing could be more preposterous. Most members of the NPT know that whatever the United States and other major powers might say at the NPT conference, they are all engaging India by finessing nuclear differences with New Delhi. They are also aware that no amount of rhetoric either by the U.N. Security Council or the NPT conference will ever be able to force India to reverse its overt nuclearisation.

One of the loudest demands that the world will hear from the month-long NPT review conference is to make the treaty a

universal one. The NPT already has near-universal membership. Only four nations — Cuba, Israel, Pakistan and India — are outside the NPT system. Cuba has no nuclear weapons programme and its refusal to join the NPT is related to the continuing American military presence at the Guantanamo base on its soil. The other three states have been in a category of their own. None of them is likely to give up nuclear weapons, and there is very little the NPT system can do about it.

The U.S. was fully aware of the Israeli nuclear weapons programme when the NPT was being drafted in the mid to late 1960s. (And the treaty was indefinitely extended in 1995 with the full knowledge of the unique nuclear position of India, Israel and Pakistan.) Instead of the empty prattle about making the NPT universal, the time has come for the managers of the treaty to accept the reality of three nuclear weapons states outside the NPT system and the impossibility of getting them into the treaty without modifying it.

No multilateral treaty or a legal system can survive the test of time if it does not have the ability to adjust to changing circumstances. The insistence that there can be no more than five nuclear weapon powers, because the NPT said so, might be fine for the non-proliferation lawyers but most statesmen in the world understand the importance of pragmatic adaptation. Once the treaty managers accept the ground reality, it should be easier for the NPT system to seriously explore ways of finding a *modus vivendi* with the nuclear weapon states outside the treaty. A genuine accommodation between the NPT and the nuclear hold-outs would in fact complete the architecture of the global non-proliferation regime and enhance international peace and stability.

(India alone among the nuclear hold-outs is in a position to initiate a political reconciliation between the NPT and those outside it.) On matters nuclear, Israel's strategy is low-key and Tel Aviv has no desire to fall into the trap of a diplomatic confrontation with the Arab states in multilateral fora that address nuclear issues. In any case, the U.S. is there to take care of Israel's nuclear interests. Pakistan has never had an independent line on global nuclear issues. Islamabad has been content to repeat the line that it is prepared to do whatever India does.)

To be able to explore a reconciliation with the NPT system, India will have to discard much of the nuclear mythology that it has created over the last three decades. Take for example the Indian litany that the NPT is an "unfair" and "discriminatory" treaty and therefore it will have nothing to do with it. The Indian argument against the NPT in the framework of the North-South divide insults the intelligence of those nations from the South who have joined the treaty in such large numbers. The overwhelming majority of these states have joined the NPT on their own volition. Not one of them has left the treaty. And none of them dissented when the treaty was indefinitely extended in May 1995. Most nations joined the treaty not because it was the perfect arrangement but because it either suited them or they believed they could live with it.

(The argument on the NPT's "discrimination" was uniquely Indian, since the treaty would never permit New Delhi to acquire nuclear weapons.) India had good reasons to articulate its opposition to the NPT in terms of fundamental principles. But these principles had little meaning for the rest of the world which backed the NPT. Since Pokhran II, India has indeed begun to make some major readjustments in nuclear policy. The month-long

NPT review conference now under way offers India an important opportunity to reach out to the international community on nuclear issues and communicate its new and responsible approach to arms control and non-proliferation.

(The most important message that India needs to put out is that it no longer sees any fundamental contradiction with the objectives of the NPT. India can in fact rightfully claim that it is in full compliance with the obligations of the nuclear weapon states as laid out in the NPT.) Article I calls on nuclear weapon states not to assist non-nuclear states to acquire atomic weapons. Article III expands on this obligation by insisting that any nuclear technology transfers nuclear weapon states make to other states must be under international control.

India, which is in better compliance with these provisions than many other nuclear weapon states, must communicate the significance of its impeccable non-proliferation credentials to the NPT review conference. The NPT, under Article VI, imposes special responsibility on the nuclear weapon states to work towards nuclear disarmament. India's own nuclear restraint and its efforts to promote nuclear disarmament are well known and must now be re-emphasised. India also needs to point out that its nuclear weapons posture is in greater conformity with the wishes of the non-nuclear states party to the NPT review conference.

(India's proclaimed policy of no-first-use of nuclear weapons, its proposal at the U.N. urging all nuclear weapon states to review their nuclear doctrines to reduce the nuclear danger, and its support for nuclear-free zones in various regions of the world aligns it with the majority sentiment at the NPT review conference. As a new nuclear weapon state, India has a credible message to offer to the NPT review conference. Although a reconciliation between New Delhi and the non-proliferation regime may be some distance away, nuclear India must now begin a serious engagement of the NPT system.)

India wants a seat in EC under CTBT

HT Correspondent
New Delhi, March 1

FOR THE first time India has indicated that it wants a seat in the Executive Council (EC) to be set up under the Comprehensive Test Ban treaty (CTBT), thereby signalling its progress towards signing it.

In a written answer to a question by Lok Sabha member R L Bhatia (Cong), External Affairs Minister Jaswant Singh said that under the CTBT, one-third of the seats on the EC were to be filled in on the basis of indicative criteria of the number of monitoring facilities, expertise in monitoring technologies and contribution to budget.

"This is assessed," he said, "as providing countries such as the US, Russia, UK, France, China and India with the possibility of continuous membership."

As was the practice in multilateral groupings in international fora, regional groups under the CTBT

were free "to enter into understandings on rotation of seats on the EC." The US had reached an understanding with the States of the N. American and Western Europe region, as defined by the treaty, providing that the US would always have a seat on the EC.

The Minister also pointed out that as India was not a party to the Non-Proliferation Treaty (NPT) but a "nuclear weapon State", "as such, (it) can undertake the full range of activities (relating to development, non-explosive testing, production and safe maintenance of nuclear arsenals as allowed by the CTBT), subject to its own technical capabilities."

Asked if the government was still contemplating signing the CTBT, the Minister said that as the priority of meeting the country's security concerns had been addressed (by carrying out the nuclear tests in May 1998), the government believed that India now needed to convey "reassurance" to the international community and desired to develop a national consensus.

THE HINDUSTAN TIMES

- 2 MAR 2000

Disarmament: India guided by strategic autonomy, says PM

Kaiga (Karnataka), March 5

PRIME MINISTER Atal Behari Vajpayee today asserted that India's commitment to a time-bound global nuclear disarmament would be guided by "strategic autonomy" and the need to maintain a credible minimum nuclear deterrent.

"I wish to reiterate India's commitment to time-bound and comprehensive nuclear disarmament. But till all weapons of mass destruction are dismantled, we continue to be guided by the imperative of India's strategic autonomy and the need to maintain a credible minimum nuclear deterrent," he said.

(Dedicating the second unit of the Kaiga atomic power station to the nation, Mr Vajpayee said India would follow a "no-first-use" policy with regard to nuclear weapons and declared "this shows our confidence in our nuclear strength and desire that weapons of mass destruction should not be used by anybody".)

The Prime Minister said India, after pursuing restraint in area of nuclear weapons over the years, was compelled to conduct the tests in 1998 due to "deterioration" of the regional security environment.

Mr Vajpayee's remarks assume significance as they come ahead of US President Bill Clinton's forthcoming visit to India amidst indications that nuclearisation of South

Asia, non-proliferation and CTBT would figure high on the agenda of Indo-US summit-level talks.

Mr Vajpayee asserted that India's self-reliance in the nuclear sector would not be hindered and asked scientists to master emerging frontiers of technology so that India could defeat "neo-colonisation exercised through technology control".

He said the government was preparing a plan to assure a guaranteed career profile for young boys and girls who are highly talented students of science right from the 10+2 stage, if they choose a career in research in India and live up to their initial promise.

REHABILITATION: The Prime Minister announced a grant of Rs two crore for the rehabilitation of families displaced by the Kaiga nuclear power project, taking the total amount sanctioned so far to Rs four crore.

Mr Vajpayee, responding to the Karnataka Government's request for higher allocation of funds for the rehabilitation programme, made the announcement while dedicating the second unit of the nuclear power plant to the nation.

Earlier, Karnataka Chief Minister S M Krishna, in his address, had expressed the State's limitation in rehabilitating the displaced families and had requested the Prime Minister for further funds

(PTI)

THE HINDUSTAN TIMES
- 6 MAR 2000

Credible minimum n-deterrent vital: PM

By Our Correspondent

KAIGA (KARNATAKA), MARCH 5. The Prime Minister, Mr. A.B. Vajpayee, on Sunday reiterated India's commitment to time-bound and comprehensive global nuclear disarmament.

Dedicating the second unit of the Kaiga Atomic Power Station to the nation here, he said: "We will continue to be guided by the imperatives of India's strategic autonomy and the need to maintain a credible minimum nuclear deterrent." India always followed a policy of restraint in the area of nuclear weapons.

Deterioration of regional security environment compelled India to exercise the nuclear option in May 1998, he said defending the Pokhran tests.

Mr. Vajpayee said he had declared India as a nuclear weapons State then. "The fact that we pleaded to follow a no-first-use policy indicated our confidence in our nuclear strength and also our desire that weapons of mass destruction should not be used by anybody," he said. His Government was committed to increasing funding for research and development from 1 per cent to 2 per cent of the GDP in five years.

Lauding the achievement of the Nuclear Power Corporation Limited (NPCL), he said despite sanctions imposed on the country, the capacity of the nuclear power plants had gone up considerably.

Last year, the NPCL gave a dividend of over Rs. 50 crores to the Government. This indicated the country's progress on the path of self-reliance.

Stating that reducing project gestation period could bring down installation cost, he said the efforts of the NPCL in this respect would be supported by the Government.

Nuclear power had proved to be a viable, clean and safe energy source. Recalling his visit to the Bhabha Atomic Research Centre in Mumbai and the Indira Gandhi Centre for Atomic Research in

Kalpakkam as Prime Minister in 1998, he said: "Nuclear sector is close to my heart."

Describing the 200 MW pressurised heavy water plant at Kaiga as the one which incorporated the latest safety standards and state-of-the-art technology, the Prime Minister said this success symbolised India of the 21st Century. The lush green forests surrounding the magnificent domes of the two reactor units at Kaiga showed that the country's heritage could be preserved even while marching forward by adopting the latest in science and technology. "This is the India of my vision," he said.

The Prime Minister, who began his speech in Kannada and later switched to English, announced that Rs. 4 crores would be provided for the rehabilitation of the people of Devkar villages.

The Karnataka Chief Minister, Mr. S.M. Krishna, said despite high claims about the safety of nuclear power projects by experts, doubts still persisted about the ill-effects of nuclear energy. Therefore, the Atomic Energy Commission and the NPCL should educate people and take confidence building measures. He said people affected by the project should be properly compensated and rehabilitation package should be part of the project.

The Governor, Ms. V.S. Rama Devi, hoped that the proposal to establish the third and fourth units at Kaiga would be approved soon by the Union Cabinet.

The Chairman of the Atomic Energy Commission, Dr. R. Chidambaram, the Union Minister for Culture, Mr. Ananth Kumar, the Union Minister of State for Finance, Mr. Dhananjay Kumar, the former Chairmen of the Atomic Energy Commission, Dr. P.K. Iyengar, Dr. M.R. Srinivasan and Dr. Raja Ramanna, former NPCL Managing Director, Mr. S.L. Kote, the Karnataka Minister for Medium and Large Industries, Mr. R.V. Deshpande, and MP, Ms. Margaret Alva, were present.

THE HINDU

- 6 MAR 2000

Dangerous nuclear uncertainties

By V. R. Raghavan

The Government needs to decide not so much the extent as the limits of India's nuclear deterrent. The problem is less with nuclear weapons and more of a lack of conceptual clarity.

INDIA WAS declared by the Government a nuclear weapon state within hours of the tests conducted in May 1998. An effective nuclear weapon state needs an effective deterrent which, in turn, requires a nuclear weapon infrastructure. This includes weaponised warheads, delivery systems, command and control structures, early warning facilities and an institutionalised working linkage between nuclear scientists and the military hierarchy. With none of these being in place, the claim to India being a nuclear weapon state reinforced the belief that the nuclear explosions were an end in themselves for the Government which had just assumed power. Apparently, neither the long road beyond the tests had been visualised nor was an action plan thought through. Recent developments not only confirm that impression but also create serious doubts about the veracity of the Government's claims. Even more dangerous, they raise questions on the quality of India's deterrence.

Soon after Pokhran-II the Government committed the nation to a moratorium on testing. Two leading scientists publicly claimed that the May 1998 tests had provided all data required for weaponising. The fission devices exploded in 1998 did no more than confirm the capability demonstrated by the single device test of 1974. They undoubtedly improved on the quantity and quality of fission explosion data. The most significant part of the 1998 tests, however, was the single thermonuclear explosion. The thermonuclear or fusion capability is the key to a nation becoming an effective nuclear weapon state. Fusion or thermonuclear warheads include a fission device to initiate the fusion chain. In layman's language, a thermonuclear bomb includes a small atomic bomb within itself. The process is complex to manage and control.

Thermonuclear warheads are much smaller and therefore lend themselves to miniaturisation. They can be easily mounted on missiles. Smaller weight and size of fusion warheads permit longer missile ranges. Thermonuclear weapons are absolutely essential if the deterrent is to be based on submarines and intercontinental missiles. They are also, as scientists term them, elegant in concept and

design. Again in layman's parlance, a fission bomb is like a big iron ball shot from a catapult, while the thermonuclear warhead is a precision weapon. The Indian nuclear deterrent will therefore be a primitive one, if it is based solely on fission technology.

The success of the 1998 thermonuclear test was, therefore, the keystone to India becoming a nuclear weapon state. For its deterrent capability to be taken seriously, the success of the thermonuclear test was a crucial necessity. Soon after the tests, there were reports in the Western media of doubts having been cast on the Indian thermonuclear claims. These were vehemently refuted by Indian scientists. Now, a former Chairman of the atomic energy establishment, Dr. P. K. Iyengar, has raised questions on the completeness of the fusion explosion. In a presentation at the Delhi Policy Group recently, he made a convincing case, which raises doubts about the Government's thermonuclear claims.

According to Dr. Iyengar, the thermonuclear explosion did not fully reach its planned potential. He gives credit to the scientists, who could get a thermonuclear burn to start, in the limited explosive size which was used. He also conclusively argues that the burn having taken place, the totality of the thermonuclear process was inadequate to provide conclusive data for use in the weaponising process. The partial explosion was insufficient as a basis for manufacturing fusion warheads. Experience in the development of thermonuclear weapons clearly shows that data in greater quantity and quality is necessary to move from the explosion stage to warhead manufacturing. This could not have been available from the Pokhran thermonuclear test. Dr. Iyengar's essential conclusion is that if India wants thermonuclear weapons, they cannot be had without more tests.

The Government officially released a nuclear doctrine. But faced with some

well-founded critique of that document, it retreated to say it was a draft doctrine. Some in the group which drafted the document now call it a provisional doctrine. In a significant interview to this newspaper, the Foreign Minister, Mr. Jaswant Singh, further diluted some elements of the doctrine. As of now, there is no official explanation of where the Government stands vis-a-vis the nuclear doctrine. If it disassociates itself from it, India will apparently have no doctrine even as the Government possesses nuclear weapons. If the Government endorses the doctrine, more tests will be needed to make it viable.

The Indian nuclear doctrine is based on thermonuclear capability. That alone can provide the basis of a triad which the doctrine demands. The size of the nuclear arsenal needed to sustain a no-first-use pledge, which the Government has already taken, cannot be obtained without thermonuclear weapons. The assessed volume of India's processed nuclear weapons-grade fuel can only sustain the needed arsenal through a thermonuclear ability. The Government has also given an undertaking of a moratorium on further tests. Its single thermonuclear test was, on the other hand, inconclusive. It, therefore, appears that the nuclear doctrine cannot be implemented without further tests. Under the circumstances, the Government's moratorium will be viewed with circumspection at the least and with suspicion at worst. If it goes back on its word, it would irretrievably harm its credibility.

There are now serious doubts about the nature and quality of the Indian deterrent. The questions on the thermonuclear test, the Government's ambiguous position on the nuclear doctrine and its inability to put together a credible nuclear command and control structure create serious security problems. India being an effective nuclear weapon state is wholly different from its merely being a state

possessing nuclear weapons. The danger in this state of ambivalence is that the adversary can draw his own conclusions about the credibility of India's deterrence. Nuclear deterrence requires the adversary being left in no doubt about the quality and quantity of deterrence. The credibility of deterrence also depends on the clarity of thinking demonstrated on the subject.

The Government promised the people a National Security Council, a Strategic Defence Review and a decision on nuclear weapons, in that order. The decision to go nuclear was to depend on the outcome of a strategic review. It went back on that assurance and conducted the tests first. As a consequence, it has had to spend more time coping with the fallout of the tests than on creating a semblance of order in nuclear policy. Its inadequately thought-out act of committing India to nuclear weapons has left it indecisive on what to do with them. As a result, the Indian deterrent appears no less opaque than it was before May 1998.

There are critical issues which need to be urgently addressed. Should India conduct more thermonuclear tests and get the conclusive data needed for making fusion weapons? Can it be content with fission devices and forget about further testing? If so, what prevents India joining the CTBT? How effective will such a deterrent be in the judgment of its adversaries? If India is to conduct some more thermonuclear tests and join the CTBT, how many tests would be adequate? What would be the direct and indirect costs of testing after our having declared a moratorium?

The challenge lies in getting out of the nuclear maze the Government has built around itself. This has happened because of nuclear weapons having been granted an unwarranted centrality in India's security discourse. The way out lies in placing a new perspective on nuclear weapons. There is more to national security than nuclear weapons alone. The Government needs to decide not so much the extent as the limits of India's nuclear deterrent. The problem is less with nuclear weapons and more of a lack of conceptual clarity. In the interim, the dangerous uncertainty is not going to diminish.

Confusion in Cong over stand on N-issue

STATESMAN NEWS SERVICE

NEW DELHI, March 27.
Confusion prevails in the Congress over what stand it would take on the government's position that India needed to preserve the option of having a minimum nuclear deterrent.

The Congress's confusion came out today when the party spokesman, Mr Ajit Jogi, claimed that Mrs Sonia Gandhi, during her meeting with Mr Bill Clinton, did not discuss anything on India's nuclear options, though the Congress Working Committee member, Mr Pranab Mukherjee, in his Press briefing last week had said the party president told the US President about the need for a nuclear deterrent.

The Congress's "clarification" came today amid surprise as it became clear that the party was trying to make amends because of its announced stand that the country should have a consensus on the nuclear issue. Immediately after the Pokhran tests, the Congress had blamed the government for disturbing the long-term consensus on this issue. It never complimented the government, but praised only the scientists for the successful nuclear tests.

Senior Congress leaders conceded that the party itself was yet to take a firm view on India's nuclear needs. "Certain things have changed in the post-Pokhran scenario and, therefore, the party is talking about arriving at a consensus," a senior leader said.

For the record, the Congress spokesman said since the country's "long-term security interests" were linked with the nuclear issue, a national consensus was the need of the hour.

Mr Jogi pointed out that even expert advice on the issue had not been uniform as a former chairman of the Atomic Energy Commission had doubted the government's contention that

CONG:

(Continued from page 1)

no more tests were needed to build up a credible nuclear deterrent.

Mr Jogi was also wary of politicising the issue "as this is a very important defence matter" and felt that it was for the government to take security steps because only the government is privy to certain classified information.

Politically, the Congress does not seem too eager to show that it supports the government's views on the credible nuclear deterrent at this stage as was the message sent out by the party after the meeting between Mrs Gandhi and Mr Clinton.

For the time being, the majority opinion in the party is that unanimity is necessary before signing the CTBT as the country's pronounced policy was to go for total nuclear disarmament before signing the treaty.

"If we are talking about CTBT, then the talks of maintaining nuclear deterrent does not make sense," a senior party leader said. "We still stand by total disarmament and as long as this stand is not officially abandoned, we should not be vocal about maintaining credible nuclear deterrents."

■ See CONG: page 10

THE STATESMAN
28 MAR 2000

Pranab Nuclear fog *W.P. 13*

THE CONFUSION about the Congress' position on India's nuclear policy stems as much from the recent conflicting statements on minimum deterrence made by Pranab Mukherjee and Ajit Jogi as from the party's failure to explain its stand. This inability is difficult to understand because the Congress had carefully evolved and pursued its nuclear policy right from Pokhran I in 1974. Its essence was ambiguity. Since the closure of admission to the nuclear club by the NPT in the late Sixties meant that India could no longer become a "legitimate" nuclear power, it decided to follow the clandestine path of keeping bombs in the basement. Our public position, of course, was that having shown the world that we can make the bomb, we have purposefully refrained from doing so in accordance with our advocacy of universal nuclear disarmament.

But those who mattered in India's strategic calculations, like Pakistan and China, knew — or at least suspected — that India was a nuclear power. Since atomic weapons are not expected to be used any way, it matters little if a potential enemy is deterred only by suspicion. Even then, it has been suggested that Indira Gandhi in 1983 and P. V. Narasimha Rao in 1995 had considered opting for a test. But if they hesitated, the reason probably was that they felt that the policy of ambiguity served India's purpose better by enabling it to enjoy the best of both worlds. It kept its adversaries in doubt about our actual strength but, at the same time, it did not cause any uneasiness or concern in the rest of the world. Yet, the fact that the bombs were ready was shown by the promptness with which the BJP Government could opt for the tests in 1998 within a few weeks of attaining power.

There is much to be said for this policy, but the Congress has been strangely reticent about it. Similarly, much can also be said against Pokhran II, such as that it invited sanctions and may have cost India a place in the Security Council without dissuading an enemy any more than what Pokhran I did. But, again, the Congress seems to have lost its voice. The reason perhaps is that the party has not paid much attention to the need for closely debating the major issues of the day. This lapse relates as much to the nuclear policy as to other crucial issues as liberalisation and the meaning of secularism. The resultant impression is that the Congress does not always know its own mind.

THE HINDUSTAN TIMES

31 MAR 2000

'Signing of CTBT only after consensus'

By Our Special Correspondent

NEW DELHI, FEB. 1. (The Union Minister for Power, Mr. Rangarajan Kumaramangalam, today informed a Japanese business delegation that India would sign the CTBT only when there was a political consensus on the issue.)

Addressing a meeting of the India-Japan Business Cooperation Committee here, he said the Government would wait till a consensus was reached. On India's nuclear status, the Minister reiterated the Indian position that there were be "no first use".

He said security concerns had forced India to conduct nuclear tests and added India could appreciate the Japanese Government's compulsion in imposing sanctions against the country.

The Minister pointed out that the nuclear issue should not affect trade between the two countries," the Minister said.

The Chairman of the Japan-India Business Cooperation Committee, Mr. N. Kawamoto, said Japan was still imposing some economic measures against India because of the nuclear tests .

RSS decision may not allow Govt. to sign CTBT

By Neena Vyas

NEW DELHI, FEB. 17. (The question of the Government signing the Comprehensive Test Ban Treaty (CTBT) did not arise — at least not in the foreseeable future — for the leadership of the Rashtriya Swayamsewak Sangh (RSS) has taken a firm stand against this.)

This was confirmed here by RSS leaders inside the Bharatiya Janata Party as well as those outside the Sangh.

It seems that for the present the Government will continue to make noises about trying to get political consensus on the issue, but at least in the foreseeable future, there is no question of the Government signing the CTBT.

The RSS view of the issue first became apparent at the Bharatiya Janata Party's national executive committee meeting in Jaipur in 1998 when the Government first started speaking about "moving in the direction" of signing the CTBT. A brake was put on the BJP there, and more recently, the

strong views of the RSS on this subject have been conveyed to the Government.

At the same time, it is being said that the Government has been able to sell to the RSS its economic policy of speedy globalisation and liberalisation as opposed to the "swadeshi" economics earlier preferred by the RSS. "By and large, the Government has made peace with the RSS on economic issues," a person close to the top leadership of the RSS said, but it was a big "NO" as far as the CTBT is concerned. The RSS was prepared to "take steps" if the Government made a move in that direction, a senior leader said.

Some senior BJP leaders believe that no matter what the pressure from the United States, the Vajpayee Government will not be able to ignore the internal pressure from the RSS. "Even the Prime Minister knows where he must draw the line when it comes to crossing swords with the RSS," was how one leader put it.

THE HINDU
18 FEB 2000

Progress in nuclear power

By M. R. Srinivasan

MAJOR technical achievement during 1999 was the start-up of one 220-MW atomic power unit at Kaiga in the last week of September and of a similar unit at Rawatbhata in the last week of December. Unfortunately this success in harnessing nuclear energy for power generation has not received the kind of euphoric support and encouragement that the nuclear explosions at Pokhran did get in 1998.)

It is well known in scientific and technical circles that it is much more difficult to design, build and operate a nuclear power unit successfully than to set off a nuclear explosion. (China, which has a nuclear arsenal, has so far built only one 300-MW nuclear power unit on its own while we have completed eight 220-MW units and two more will go on stream during the year 2000.)

(In the last four years, the operating units at Tarapur, in Rajasthan (via Rawatbhata), Kalpakkam, Narora and Kakrapar have all performed at very high capacity factors, thus giving the country reliable power at economic costs. A special point to note is that the first unit in Rajasthan had an inherent inadequacy in one of the major components called the end-shield supplied by the Canadians.) The Canadian specialists were of the opinion that repairs were not possible. (It is a tribute to the competence and innovativeness of the engineers and scientists of the Nuclear Power Corporation, the Bhabha Atomic Research Centre and the Defence Metallurgical Laboratories that an effective repair procedure was developed. This unit is operating at near-full output now.)

The second unit in Rajasthan needed the replacement of the entire lot of an in-core component called the pressure tube, which is a requirement in reactors of early design. The Canadians had taken a long time and spent a lot of money to carry out this work. The engineers and technicians of the Rajasthan Atomic Power Station carried out this work at a fraction of the cost and in much less time. In spite of its having a small nuclear capac-

ity, India has acquired great maturity in the Pressurised Heavy Water Reactor technology.

(Now what of the future? From 1990 till 1998, no new nuclear power project was taken up by the Government of India. During the time the Narasimha Rao Government was in office, the Planning Commission actively opposed further nuclear power development. This policy was reversed during the time Mr. Deve Gowda and Mr. I. K. Gujral were Prime Ministers and Mr. Madhu Dandavate as Deputy Chairman actively supported nuclear power development.)

actors at Rawatbhata and two 500-MW reactors at Nagarjunasagar. Kalpakkam in Tamil Nadu could also host some more units but the DAE has reserved that site for the prototype Fast Breeder Reactor, work on which may be taken up in the next few years.)

It is important to take up work on the package as a whole and the ten reactors could be brought on stream in seven to eight years. Starting work on two reactors at a time will lead to a very slow growth of nuclear capacity. Indian industry has already achieved end-to-end self-sufficiency and is very keen on once again taking

supplying PWR nuclear power units to India. This was because the French nuclear industry needed orders from other countries to remain in business. The needs of France have already been met and it may at best build a few more reactors after long intervals of no orders. In the past, that country was very sympathetic to India's concerns about maintaining nuclear autonomy as France itself had suffered discrimination at the hands of the U.S.

(Unfortunately in the post-Pokhran-II negotiations, France has taken a rather holy position and is insisting on India signing the Comprehensive Test Ban Treaty.) Our interlocutors with France should throw open the prospect of cooperation on building four PWRs in the 900 to 1000-MW range, with prospects of a similar package later.

The first four could be located at Rajapur in Ratnagiri which in the past was found suitable for such a project. The French can be expected to provide financing for the project although they are constrained by the European consensus on interest charges.

The time for imaginative initiatives to step up nuclear power is now. If a substantial new momentum is not imparted now, nuclear power will remain only a curiosity, no matter how much expertise has been built up within the country. Indeed, there is a danger of this capability eroding away over a period of time.

Our engineers and technologists who have achieved spectacular successes in the fields of nuclear power, heavy water production, fuel fabrication and the manufacturing industry have not received their due recognition. All of the limelight has been hogged by those engaged in the nuclear weapon programme. This is not a satisfactory state of affairs and can act as a demotivating factor for the large number of highly-qualified people carrying out difficult assignments. We must restore a sense of balance and fairplay in distributing the awards and prizes.

(The writer is a former Chairman of the Atomic Energy Commission.)

It is more difficult to design, build and operate a nuclear power unit successfully than to set off a nuclear explosion!... The time for imaginative initiatives to step up nuclear power is now.

up manufacture of nuclear components. The other key inputs are heavy water and nuclear fuel. The country has surplus capacity for heavy water and this will be adequate for the needs of the 3320-MW programme suggested in this article.

(Regarding nuclear fuel, some new uranium mines have to be opened up and additional capacity for production of nuclear fuel has to be created.) The technologies are available within the country and there is adequate lead time. The big question of course is how to find the investment capital.

The collaboration with Russia for building two 1000-MW VVER (Russian equivalent of the western PWR) has been revived after a lapse of ten years. The detailed project report is now under preparation. While in the first stage two reactors are foreseen, the site at Koodankulam in Tamil Nadu should be developed for four units so that 4000 MW of nuclear power can underpin the power systems of Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and Pondicherry.

(France in the past was very keen on

In 1999, work was restarted on two 500-MW reactors at Tarapur after it had been suspended in 1990. In the process, ten valuable years were lost in bringing 500-MW reactor units into the power systems. In recent times, representatives of the Department of Atomic Energy have been talking of a target of 20,000 MW of nuclear power by the year 2020. There has, however, been no road map of how this target can be achieved.)

(It is proposed that the Government commit itself to an immediate package of six 220-MW reactors and four 500-MW reactors, some located at the existing sites and some at new sites. The site selection committee earlier found some sites not so far used for nuclear power units to be suitable for the purpose. These sites are Nagarjunasagar in Andhra Pradesh, Mata Tila in Uttar Pradesh and Shivpuri in Madhya Pradesh.)

(Having regard to limitations on access, the package now proposed could have two 220-MW reactors at Kaiga (in Karnataka), two 220-MW reactors each at Mata Tila and Shivpuri, two 500-MW re-

Not in national interest

THE CTBT has resurfaced; politically and diplomatically. Strategically, no one talks about it anymore. The belief is that the scientists have given the green light that India's weaponisation programme will not suffer because the data gathered at Pokhran II is adequate. This claim, as we shall see, is dangerously flawed. The emphasis of the arguments on the Comprehensive Test Ban Treaty has therefore shifted to the sole arena of diplomacy. This is a game that most people can play, as it needs no specialised knowledge.

Should we, shouldn't we? What will US President Clinton say and what about Jesse Helms? If we do sign what elite club will we be permitted to enter, in New York or Washington? Or worse, what will China be given that we will be denied if we don't sign. Some analysts have argued on the merits of signing based on the views of major political parties, other than the Bharatiya Janata Party. But none of them have been briefed on what the arsenal will be once testing has been given up. The issue has become akin to a village football game — anyone passing can take a kick, and no limit on the number of players.

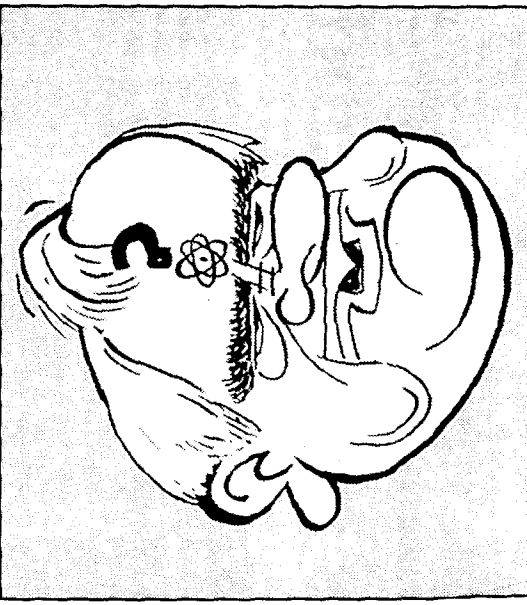
(The issue actually is not whether we should or shouldn't sign — it is whether we can, despite the scientific green light. To understand this, we have to delve into nuclear strategy and the large gaping holes in the Indian strategic scene. The effectiveness of a nuclear weapon is measured largely by the amount of blast that it creates. Blast is a compressed wall of air that moves outwards at supersonic speeds from the impact point and the force is enough to shatter buildings, overturn tanks, rupture aircraft fuselages and kill people.)
(The blast is measured in terms of pressure or overpressure. It is also accompanied by the blast wind and for a one megaton bomb, the blast at 10,000 metres would be 18 atmospheres and the wind could approach 400 mph. All civilian targets and most military targets would be destroyed at 2 atmospheres of blast.) On the other hand, a missile, housed in an RCC silo might withstand up to 200 atmospheres. Military planners require that for the target to be attacked successfully there is an opti-

RAJA MENON argues against signing CTBT

become apparent only seven or ten years from now, after the present decision makers have vacated the office.)

(As missiles become more accurate, warhead sizes can reduce, but not below a certain minimum. That minimum is decided, not by the scientist, but by the strategist who knows what the target is that is to be destroyed. The entire explanations of the present government that the scientist has given the go ahead is a patently bad argument. Explosive testing is inescapable in a few cases. One of them specifically is the upgrading necessary in making a warhead of a higher yield, with a lesser weight.

This ratio, called the yield to weight ratio is paramount in the creation of a modern nuclear arsenal. (The bombs dropped on Hiroshima and Nagasaki weighed 4000 kilos and produced 20 kilotons, for a yield to weight ratio of five tons per kilo of bomb. The current best figure runs at about 1000 tons per kilo and is not achievable by Indian scientists. More worrying is that the country's ability to improve is being signed away permanently.)



The issue actually is not whether we should or shouldn't sign — it is whether we can, despite the scientific green light

Our scientists have to come clean and let all the

political parties know, where Indian technology is at today. Why is this necessary? Because if the Indian arsenal is not to be vulnerable to a first strike it would either have to be made rail or road mobile, or housed in RCC silos with sliding steel doors. India already makes rocket systems that can travel 14,000 kilometres like the PSLV. But this rocket is hardly of any military use — just as the device exploded in Pokhran I weighed 1,500 kg and was militarily unusable.

(Today's rockets which are mobile or stored in silos can travel 4,000 miles (7,500 kilometres) and are no more than 20 metres in length. The public would be appalled to know that the Agni with a range of only 800 miles is almost 21 metres long. Small rockets require warheads of high yield compressed into small weights and volume — a definite case for explosive nuclear testing. The five tests in Pokhran II do not give us the necessary yield to weight ratios, commensurate with today's technology. An arsenal made with India's current technology will be primitive, vulnerable to a first strike and create nuclear instability.)

To weaponise at the levels of nuclear and rocket technology that prevails today will be dangerous, for it will result in the country being targeted specifically against which we will have only a ramshackle arsenal. (The Chinese scientist caught stealing American nuclear secrets was doing just this — getting at the plans of a higher yield to weight warhead than the one China possesses today. The flurry of tests that China and France indulged in 1995 before signing the CTBT was also about just this — higher yield to weight ratios.)

The issue before us is not diplomatic or political. The issue is strategic and technological. It is not enough that the government tells us that the scientists have given the go ahead. Scientists do not choose the targets, they don't fly aeroplanes or drive submarines, and least of all are they responsible for nuclear strategy. The age-old absence of a strategic culture has surfaced once again. At the crucial moment we have once again demonstrated that we do not have the tenacity to hang on till the end of the game be it nuclear strategy or cricket.

S-N Policy

Congress against India signing CTBT

Our Political Bureau

NEW DELHI 6 JANUARY

WITHOUT ARTICULATING its position on CTBT in unambiguous terms, the Congress on Thursday signalled to the government that it was not in favour of India signing the contentious treaty in the light of the rejection of its ratification by the US Senate recently.

The Congress Working Committee, summoned by party president Sonia Gandhi on Thursday evening, deliberated on CTBT as well as the aftermath of the hijacking — which yielded a scathing resolution against the Vajpayee establishment — criticising it for the “most inept handling” of the crisis.

Briefing reporters, senior CWC member Pranab Mukherjee said the party would be taking a final view on the CTBT only after the government made clear its stand on all aspects of the treaty. “It was decided by the CWC that we will urge the government to state its position on all aspects of CTBT, after which the CWC may meet again

to take a final decision,” he said.

Recently, Prime Minister Atal Behari Vajpayee had initiated a process of consultation with Opposition parties and had interacted with the senior leadership of the Congress as part of the process. Thursday’s meeting, Mukherjee maintained, was to brief the other

CWC members about the meeting of the Congress delegation led by Sonia Gandhi with the Prime Minister.

However, that Thursday’s exercise was a strategy to force the government into articulating its position on the issue was evident when Mukherjee re-

ferred to the line resorted to by Prime Minister

Atal Behari Vajpayee on the treaty. The Congress maintained that the crux of Vajpayee’s statements, made on September 24 last year at the UN General Assembly and on January 15 in Parliament, was that the Indian approach would be dependent on two considerations.

One, there should be successful completion of the negotiations which the government was carrying out with key interlocutors, referring to the Jaswant-Talbott talks. And secondly, the treaty should be signed by all countries without any conditions.

While Mukherjee’s contended that the government was yet to state whether the negotiations had been successfully concluded or not, he, however, said the question of US being a party to the treaty could be completely ruled out since the US Senate had recently rejected its ratification. Without suggesting any implications, Mukherjee made it clear that the government would have to bear this aspect in mind.

NUKE NEWS

The Economic Times
- 7 JAN 2000

Nuclear realpolitik

By V. R. Raghavan

In the absence of credible explanations only one reason seems to drive the Government's urge to sign the CTBT. The visit by Mr. Clinton to India appears the most plausible reason for the unseemly hurry.

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HERE IS a momentum being built up in India on the issue of the Comprehensive Test Ban Treaty (CTBT). It remains to be seen if it turns out to be for joining the treaty or keeping away from it. The problem arises when questions are framed in the stark terms of signing or not signing. There are, however, other options available if one takes stock of the CTBT in the overall context of India's strategic requirement. That is what the Government has been saying, i.e., of deciding in the light of Indian security interests. The nuclear tests were for strategic interests. Not joining the NPT and the CTBT were for strategic interests. It is now made out that signing the CTBT is in strategic interests. What is the nuclear reality and its realpolitik? Is there an element of political economy in the moves being generated by the Government?

The reality of the CTBT is that it is not going to come into force for some years. The U.S. President, Mr. Bill Clinton, is not going to be in a position to revive it. The Republican contenders to the President's office have made it clear that they will dump the Treaty if they come into the White House. The Republican Party has left no one in any doubt by its Senate vote not long ago. The Russians have not ratified it. The Duma, reconstituted after the recent elections, is unlikely to change the position in view of U.S. criticism of the Chechen operations. The U.S. interest in reviving the ballistic missiles programme and NATO's new doctrines are going to put a further constraint on progress on the entire disarmament issue. The Chinese are justifiably upset about U.S. ballistic missile defences in Taiwan and other regions. While the Chinese have said they will ratify the CTBT, there is no indication when that would be. The CTBT is thus comatose, if not moribund. India cannot in any case revive it by putting its signature to it.

(A new element has been introduced in the Indian debate on the CTBT. It is of Pakistan getting ready to sign the Treaty. It is now put out that if Pakistan signs up, India will be left out in the cold with only

North Korea for company. To say the least, it is an amazing U-turn from India claiming to decide the issue on strategic interests to not wanting to be left out! The Government has done well to talk to political parties. It is, however, unwilling to debate it in the Parliament, which does it little credit. Technically the Government is within its rights to decide the matter by a Cabinet decision. On the other hand, the consensus which the Government wanted to build must be seen to be prevailing in Parliament. This will also allow the major parties to formally state their positions and the reasons thereof. The debate should not go over issues which are confidential but can provide the basis for future governments to be guided on nuclear matters. In the absence of a parliamentary debate, political parties are trying to explain their positions by audio bytes through the media. This is hardly the way a democracy conducts issues of national importance. The other major democracy with which India is negotiating the CTBT issue, conducted its debate in the Senate.

Indian security interests have been made out to be the deciding factor. On the technical side, the nuclear scientists have stated that adequate data is available to conduct laboratory tests to determine nuclear weapon efficiencies. The other security interest is of building a lasting and reliable strategic relationship with major powers. That requires levels of confidence in each other's willingness to understand mutual security needs. It cannot also come about on the basis of being forced to abide by unequal arrangements. The major powers with whom a strategic relationship is being sought are themselves not agreed on the CTBT.

Economic cooperation and global engagement are other issues of national im-

were either sought or imposed or agreed upon, during the series of U.S.-India dialogues. There is also no reason to doubt that assurance. Under the circumstances, the gains to India from signing the Treaty, which it is as good as in cold storage, are even more difficult to fathom.

All India needs to do is to reassert itself to the ideals of the CTBT, and offer to sign and ratify it once all the major nuclear powers do so. In no other country is the CTBT a major issue at the moment. Even in the U.S., all sides to the non-proliferation and disarmament movement have reconciled themselves to a period of inactivity. Nothing is certain until the next U.S. Presidential and Congressional elections are over. There is no clamour for the CTBT either in Russia or in other major nuclear weapons states. There is not a mention of the issue in Japan. All concerned are resigned to await the political outcome in the U.S. In India, an impression is unnecessarily being created of an impending turning point in its history.

In the absence of credible explanations only one reason seems to drive the Government's urge to sign the CTBT. The visit by Mr. Clinton to India in the new year appears the most plausible reason for the unseemly hurry. A visit by the U.S. President to India is a major event and is to be welcomed. The visit is hopefully being made in the spirit of a new awareness in the two countries of their mutual strategic interests. A strategic partnership is best built on a realistic acceptance of each other's strategic compulsions. It cannot come about by rushing to smoothen the U.S. President's visit by the signing of a Treaty which is only on paper. It cannot also improve the atmospherics by demanding that India sign up before the visit. The contradictions between the Government's stated views and its actions are apparent. We shall have to wait to see if the realpolitik of a presidential visit or national interests take precedence in the Government's decision.

(The writer is Director, Delhi Policy Group, and a former Director-General of Military Operations.)

CTBT: a phoney consensus?

By M. R. Srinivasan

The phoney consensus is that India should make gestures that will create the right conditions for the U.S. President, Mr. Bill Clinton's visit.

10-12
1911

THE NEWSPAPERS are full of articles from various people on the question whether India should sign the Comprehensive Test Ban Treaty (CTBT) or not. A large number of commentators who claim to be nuclear specialists have been urging that India should sign the Treaty without any further delay. Some have gone further to say that it would be irresponsible if India withheld its signature and that it could end up in the rogue nuclear club.

No one has cared to objectively assess the decision of the United States Senate not to ratify the Treaty. Whether India signs now or not and whether it ratifies or not a little later will make no difference to whether the Treaty enters into force.)

It is simply an orchestration to build up a phoney consensus to ram the Treaty down the throat of the country. Let us recall the principled opposition that Ambassador Arundhati Ghosh put up in Geneva some years ago when she said "India will never sign the Treaty, not now, not later". Let us keep aside principles, which do not matter in the world of realpolitik.)

The phoney consensus is that India should make gestures that will create the right conditions for the U.S. President, Mr. Bill Clinton's visit. High dignitaries of the Government and the media have derived great satisfaction that the U.S. has removed some 150 institutions from the Entities List.

To begin with, it was completely unreasonable to ban export of so-called sensitive items to Bharat Heavy Electricals Ltd units which make power plant equipment. The removal of the Institute of Mathematical Sciences in Chennai would mean it can receive books and magazines and maybe low-power computers from the U.S.

How the objectives of non-proliferation were met by the earlier listing will be clear only to the nuclear cold warriors of the U.S.!

Japan took independent decisions on export of dual-use technology products. Now they all fall in line and bend over backwards to satisfy the U.S.

(The U.S. administration sugarcoats all this by saying that it is in India's interest to sign the CTBT now and the Fissile Material Cutoff Treaty later. It does not want India or anyone else to question the danger to the world posed by the large nuclear arsenals of the U.S., Russia, China, France and Britain. Any time the issue of universal nuclear disarmament is raised, it is laughed off as a bore.)

The Government of India has hastily announced import from the U.S. of some 1,500 items covering a wide range of consumer articles which are being produced within the country and which provide vital employment to millions of our country men and women. Because the motor car lobby is well organised, it has expressed concern about the impact of cheap second-hand cars coming to India on its business.

There is no informed debate on the future of the self-reliant Indian manufacturing enterprises and the attendant employment. Worse still is the behind-the-scenes move to allow multinational firms into the retailing business. Some ten per cent of the Indian population earns its living from the retailing business. India has one of the lowest-overhead retailing activity. We seem to be blindly going ahead to invite high-overhead glitzy departmental stores which could render millions of Indians destitute.

It was a shame a handful of hijackers humiliated the mighty Government of India. Now our own elected leaders, claiming great maturity and sagacity, are hijacking our hard-earned economic independence and kowtowing to the mighty Americans, Europeans and Japanese.

(The writer is a former Chairman of the Atomic Energy Commission.)

tests were conducted. The U.S. has consistently refused to give such a commitment.) The former Soviet Union had given such a commitment but Russia later abrogated it. (China has given such a commitment but has qualified that this will not apply to disputes concerning what it considers its own territories.) (Pakistan has consistently refused to give a no-first-use commitment as it argues with reason that such a position effectively devalues the deterrent nature of the nuclear arsenal.)

(The Indian position of building a second strike capability appears like day-dreaming as the costs of such a capability may be very high for India to bear. Add to this the draft nuclear doctrine's intention to have a triad of nuclear missiles — land-based, air-based and submarine-based.) The country can ill-afford such a luxury when so much remains to be done on poverty eradication and social development.

The National Security Board which had a large advisory body could not have discussed the issues objectively. Or its members were handpicked to produce a consensus acceptable to the Government.

(Why is the Government so keen to sign the CTBT? The desire to please Mr. Clinton has already been mentioned. The Japanese have told India to sign the CTBT if it wishes to avail of development loans.) Imagine a country defeated in the Second World War telling a nuclear India how it should behave!

(The U.S. has been saying that signing the CTBT has nothing to do with India gaining access to dual-use technology.) Various other U.S. laws applicable for export of such technology have to be complied with. There was a time when France, Germany and even Britain and

India's experience with the fuel supply contract entered into with the U.S. in 1963 shows how unreliable the U.S. is as a supplier of high technology materials or products. An inter-Governmental agreement between the U.S. and India was made non-operational on the ground that subsequently enacted U.S. domestic laws came in the way.

The senior scientists of the nuclear and defence establishments are reported to have advised the Government that India possesses adequate information on nuclear weapons design for different purposes based on results obtained from the five Pokhran-II tests.

There is no doubt that we have some very competent computer modellers who can use the data from the tests in an innovative way. Also the art of modelling in the last decades has advanced most dramatically compared to the Seventies or the Eighties.

Nevertheless, the claims made sometimes that we are on a par with the original nuclear weapon powers in weapon design technology are certainly exaggerated. There would indeed be weighty scientific opinion that we would need some more tests of an explosive kind to really be able to design a wide variety of weapons.

The U.S. has conducted over a thousand tests and even China and France have conducted many times the number of Indian tests. Also it has been reported that the U.S. would supply China and France with weapon test information on the ground that this will improve the safety of their nuclear weapons. No such courtesy will be shown to India by the U.S.

(The next issue relates to the no-first-use commitment given by the Prime Minister shortly after the Pokhran-II

George admits getting N-ideas from China

Our Political Bureau
NEW DELHI 24 JANUARY

FOR A man believed to have demomised the "Chinese threat", defence minister George Fernandes on Monday said India's nuclear posture was closest to the Chinese one. Outlining the similarities at the inauguration of the Asian security seminar here on Monday, Fernandes said: "We are committed not to use nuclear weapons against non-nuclear states. Our strategy therefore will be one of retaliation only."

The Indian nuclear posture was described as "defensive" and a credible deterrent. "It is not surprising that the concept has been found difficult to understand by other nuclear states who have built up huge arsenals of nuclear weapons for nuclear fighting."

India's nuclear posture was articulated in the draft nuclear doctrine prepared by the National Security Advisory Board, though its insistence on developing a nuclear triad has alarmed some analysts. Fernandes, in fact, asked that non-nuclear states participate at global studies

"Development and deployment of ballistic missiles defence will increase strategic instability since significant asymmetries will prevail among states for a long time." "Nuclearisation," he said, did not obviate the possibility of conventional war. Quoting Chinese military doctrine, he said, conventional war remained feasible though with definite limitations if escalation across nuclear threshold.

Managing change in the era of information revolution was a challenge to governments, he said. India, in fact, was facing an unprecedented level of cross-border terrorism for last one decade in Punjab and Jammu and Kashmir and this "viciousness of violence" had increased from Pakistan after Islamabad went nuclear and held out nuclear threats.

He drew the attention of the assembled international experts to the threat posed by Pakistan, especially its military and the ISI, who, he said, had been rationalising the use of terror as a legitimate activity sanctioned by Islam.

Govt rings death knell for J&K carpet weavers

Our Delhi Bureau
NEW DELHI 24 JANUARY

WHILE THE Prime Minister and his senior colleagues are seriously working on security and economic packages for Jammu and Kashmir, a customs department notification has brought the states famous carpet weaving industry — the backbone of the state's economic base — to its knees.

While various chambers and the industry have been lobbying for a reduction in the 45 per cent import duty on Chinese spun silk, a recent customs notification has drastically reduced duty drawback by about 90 per cent.

The Kashmiri silk carpet industry has foreign orders of over Rs 50 crore in hand. These were booked at prices calculated at the old duty drawback rates.



Fernandes: On the defensive

on nuclear doctrines and their implications for international peace and security to get a more "objective" view of things.

However, international arms control arrangements have faced a serious setback by the US Senate's refusal to ratify the CTBT, which has put the treaty into a "coma", and recent conflicts between Russia, China and the US on ballistic missile defence systems will make the system more precarious, he said.)

Delay in decision on CTBT likely

By K. K. Katyal

NEW DELHI, JAN. 26. (The national consensus on the Comprehensive Test Ban Treaty as also the Government's decision on adherence to it will take longer than was expected earlier.) Those who had fixed a set time-frame for it will need to revise their opinion now — in the wake of the latest round of the Indo-U.S. dialogue in London last week, and the Government's discussions with the Opposition leaders last month. A decision on entry into the CTBT in the run-up to the visit here of the U.S. President, Mr. Bill Clinton, probably in the second half of the March or, for that matter, soon after his return home is considered unlikely. For the simple reason that New Delhi would not like a linkage to be seen between Mr. Clinton's trip and its decision on the highly sensitive subject.

That the U.S. was keen on according top priority to India's entry into the treaty had been evident from the public statements from Washington, in particular the pointed references by the U.S. Deputy Secretary of State, Mr. Strobe Talbott. As a matter of fact, last week's round of discussions between him and the External Affairs Minister, Mr. Jaswant Singh, was counted upon to reconcile India's security interests with America's non-proliferation goals. That this did not materialise is evident from the plain reading of the Press statement after Jaswant Singh-Strobe Talbott talks on January 18 and 19. It did not indicate any hurdle in the process of reconciliation but there was nothing to suggest a finality in the ongoing discussions.

India has every reason to derive comfort that the two interlocutors addressed the main issue of concern to New Delhi now — the threat of terrorism — a subject that was added to the agenda for the first time at New Delhi's instance. The brief Press release had two parts. One, while referring to the meeting of Mr. Jaswant Singh and Mr. Strobe Talbott "to continue the on-going Indo-U.S. dialogue on security, non-proliferation, disarmament and related issues", and their discussions on bilateral relations, regional developments and security and the recent hijacking of the Indian Airlines plane, counter-terrorism and other global issues, it said: "Mindful of the goal of crafting a multi-faceted partnership, they also discussed the possibility of institutionalising their dialogue." Two, speaking of the "positive and constructive manner that has characterised their continuing dialogue", it announced the agreement of the two sides to establish a joint working group on counter-terrorism and "to work together to ensure that the perpetrators of the hijacking of Indian Airlines flight 814 are brought to justice as part of their joint efforts to combat international terrorism". Then followed a reference to the proposed Clinton visit and the resolve of the two sides to intensify and broaden Indo-American discussions.

This contrasts sharply with the specifics listed in the joint statement after their meeting nearly a year ago in New Delhi, when they announced a three-point work plan to jointly deal with four subjects — U.S. stress on the CTBT, India's plan for a minimum cred-

ible deterrent (or its defence postures), control on the export of nuclear material and cut-off of the production of fissile material. The processes, envisaged then, were interrupted by political developments in India, leading to fresh elections. This caused a slow-down in the momentum, which had since not picked up.

(The talks with the Opposition leaders for a consensus on the CTBT, conducted by the Prime Minister, Mr. Atal Behari Vajpayee, last month, were, no doubt, thorough, covering as they did various political, strategic and technical points. With the Left parties having taken a tough line, what mattered was the support of the Congress(I). The discussions with its leaders were inconclusive and although they listened to the clarifications given by the Government with attention, they did not appear to favour an immediate adherence to the CTBT.)

The Government was now, more or less, clear about the stand of the Congress(I) and other Opposition parties but whether it chooses to have another round of talks or exercises its executive authority to take a decision to join the CTBT would depend on its assessment of the totality of the political situation. In case the U.S. stand on counter-terrorism and its role in bringing to justice the hijackers of the Indian Airlines plane is considered positive, a propitious climate would have been created for a decision in favour of signing the CTBT — as the first step of the de-aggregated process, of which the ratification and depositing the instruments of ratification would be the other two.

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