

milletts – will only accumulate data without any use or purpose.

Thus, I can safely state that spending enormous monies into such fashionable areas like molecular systematics of crop plants, genetic diversity studies for protecting our diversity will only go down the drain if we do not use the generated data effectively.

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NEWS

PM's statement in Parliament spells out stand on CTBT and FMCT: Extended range Agni being developed

On 15 December 1998 while making a statement in Parliament on bilateral talks with the United States, Prime Minister A. B. Vajpayee took the opportunity 'to reiterate that India's commitment to global nuclear disarmament remains undiluted. As Hon'ble Members are no doubt aware, India has consistently maintained that a nuclear-weapon-free-world would enhance not only our security but the security of all nations. That is why numerous initiatives in this direction were taken during the last fifty years; such steps as would encourage decisive and irreversible measures for the attainment of this objective. Regrettably, the international community, particularly countries that have based their security on nuclear weapons or a nuclear umbrella, have been reluctant to embrace this objective. Keeping open our nuclear option, therefore, became a national security imperative three decades ago, an imperative equally valid for India in the post-Cold War period. The option that was exercised in May 1998 was thus a continuation of a decision taken near 25 years earlier; during which period India had demonstrated an exemplary nuclear restraint, given the exceptional security-related complexities of our region. I wish to place on record that successive governments continued to safeguard this option, demonstrate our capability and take such steps as were necessary to ensure the viability of the option through weaponization.

Just as our conventional defense capability has been deployed in order to safe-

guard the territorial integrity and sovereignty of India against any use or threat of use of force, the adoption of our nuclear deterrent posture has also followed the same logic. We have announced our intention to maintain a minimum nuclear deterrent, but one that is credible. Mindful of our global and enhanced responsibility to address concerns of the international community, and in order to re-assure all countries about the defensive nature of our nuclear capability, we have engaged in bilateral discussions with key interlocutors. In international fora, like the United Nations, India is the only country possessing nuclear weapons to raise a call for negotiating a gradual and progressive elimination of all nuclear weapons, within a time-bound framework. . . .

In his statement Vajpayee revealed that, after six rounds, the range of talks between India and the United States has become focused. On the Comprehensive Test Ban Treaty (CTBT), the PM spelt out India's position thus:

'India remains committed to converting our voluntary moratorium into a *de-jure* obligation. In response to the desire of the international community, as expressed to us in our bilateral and multilateral interactions, that the Treaty should come into effect in September 1999, in my address to the United Nations General Assembly on 24 September, I reiterated broadly what I had said in Parliament, that: "India is now engaged in discussions with our key interlocutors on a range of

issues, including the CTBT. We are prepared to bring these discussions 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 stand does not come in the way of our taking such steps as may be found necessary in future to safeguard our national security. It also does not constrain us from continuing with our R&D programmes, nor does it jeopardize in any manner the safety and effectiveness of our nuclear deterrent in the years to come.'

On the proposed Fissile Material Cutoff Treaty (FMCT) the PM anchored India to the following position:

'We have expressed our willingness to join the FMCT negotiations in the Conference on Disarmament at Geneva. It is our understanding, as that of many other countries, who have confirmed this to us, that the objective of these negotiations is to arrive at a non-discriminatory treaty, that will end the future production of fissile material for weapons purposes, in accordance with the 1993 consensus resolution of the UN General Assembly. We are willing to work for the early conclusion of such a treaty.

'It was suggested to us that we might examine announcing a moratorium on fissile material production. We have conveyed that it is not possible to take such steps at this stage. We will, of

course, pay serious attention to any negotiated multilateral initiatives in the course of the FMCT negotiations.'

On foreign technology-denial regimes in relation to our missile development programme, the PM revealed the on-going development of an extended-range *Agni*, and said:

'We have expressed our reservations about provisions of certain export control regimes that ostensibly seek to promote non-proliferation objectives, but are discriminatory in application. India's missile development programme is an indigenous programme, that was launched almost 15 years ago. This programme is regularly reviewed, taking into account our security environment, particularly missile acquisi-

tions and deployments in our regions. We have announced that a new version of the *Agni*, with an extended range is under development. Flight-testing of such an enhanced range *Agni* will be conducted fully in accordance with established international practice. While our decision is to maintain the deployment of a deterrent which is both minimum but credible, I would like to re-affirm to this House that the Government will not accept any restraints on the development of India's R&D capabilities. Such activity is an integral of any country's defence preparedness and essential for coping with new threat perceptions that may emerge in the years ahead. This Government remains unequivocally opposed to any suggestions that seek to

place India at a technological disadvantage through intrusive or sovereignty violative measures.

At the same time, we will continue to take initiatives in the international fora towards fulfilling the objective of complete elimination of all nuclear weapons. At this year's UN General Assembly, we had taken the initiative for what could be an important first step, through a resolution on "Reducing Nuclear Danger". This initiative was intended to urge countries to move back from the nuclear hair-trigger response postures of the Cold War. If such initiatives are multilaterally accepted by other nuclear weapon states, they will, of course, be accordingly reflected in our own positions, too.'

NASA selects new name and sets new launch date for advanced space X-ray telescope

NASA set a new launch date for the Advanced X-ray Astrophysics Facility, and announced that it will be renamed the Chandra X-ray Observatory in honour of the late Indian-American Nobel Laureate Subrahmanyan Chandrasekhar. The Chandra X-ray Observatory will be shipped to NASA's Kennedy Space Centre, Florida, on or before 28 January and launched no earlier than 8 April 1999. The launch date will be subject to the actual shipping date and the results of a mid-February independent review of the progress towards preparing the operations centre in Cambridge, Massachusetts for launch.

Chandra will be carried to space aboard the Space Shuttle Columbia on mission STS-93, commanded by astronaut Eileen Collins. The shipment of the spacecraft was delayed in mid-October so the prime contractor, TRW Space and Electronics Group, Redondo Beach, California, could complete testing on flight software.

'Chandra', a shortened version of Chandrasekhar's name, which he pre-

ferred among friends and colleagues, was chosen in a contest to rename the X-ray telescope. 'Chandra' also means 'moon' or 'luminous' in Sanskrit. The winners are a high school student in Laclede, Idaho, and a teacher in Camarillo, California. In all, 59 people submitted the name 'Chandra'. Altogether, the contest drew more than 6,000 entries from all 50 states and 61 countries.

'Chandrasekhar made fundamental contributions to the theory of black holes and other phenomena that the Chandra X-ray Observatory will study. His life and work exemplify the excellence that we can hope to achieve with this great observatory', said NASA Administrator Daniel Goldin.

'Chandra probably thought longer and deeper about our universe than anyone since Einstein', said Martin Rees, Great Britain's Astronomer Royal.

Chandrasekhar, widely regarded as one of the foremost astrophysicists of the 20th century, won the Nobel Prize in 1983 for his theoretical studies of physical processes important to the structure and

evolution of stars. He and his wife emigrated from India to the US in 1935. He served on the faculty of the University of Chicago until his death in 1995.

The Chandra X-ray Observatory will help astronomers world-wide better understand the structure and evolution of the universe by studying powerful sources of X-rays such as exploding stars, matter falling into black holes and other exotic celestial objects. X-ray astronomy can only be done from space because earth's atmosphere blocks X-ray from reaching the surface. Chandra will provide images that are fifty times more detailed than previous X-ray missions. At more than 45 feet in length and weighing more than five tons, it will be one of the largest objects ever placed in earth's orbit by the Space Shuttle.

For information about S. Chandrasekhar, or comments from his Chicago colleagues, including those who will use the Chandra X-ray Observatory, contact Steve Koppes, University of Chicago, 773/702-8366, or via email at: s-koppes@uchicago.edu.