

NATIONAL SECURITY COUNCIL

11/3/65

32

NOTE TO MR. KOMER

Bob --

You may find the attached working paper a useful point of departure in preparing your memo to Bundy on the Indian nuclear problem. Note the proposed lines of U. S. action, pp. 12-17. The thing that is lacking in all of this is the organization focus to get anything done.

*India  
nuclear*

Spurgeon

Att.:  
Memo 10/29 fm  
Amb. Thompson

Please return.

NOV 3 1965

DEPUTY UNDER SECRETARY OF STATE  
WASHINGTON

32a

11

17475

EO 13526 3.5(c)

~~SECRET~~  
LIMITED DISTRIBUTION

October 29, 1965

MEMORANDUM FOR: Members of the Committee on Nuclear Non-Proliferation

SUBJECT: The Indian Nuclear Problem: Recent Changes  
and Effect on US Policy

The attached paper has been prepared by our Indian Working Group. I am circulating it for your information. If you have any comments on the analysis, I would be happy to have them and to pass them on to the Working Group, but I do not believe we need to take formal action on this paper.

*L E Thompson*  
Llewellyn E. Thompson  
Acting Deputy Under Secretary

Attachment

1. "The Indian Nuclear Problem: Recent Changes and Effect on US Policy"

Distribution To:

- |             |                  |     |                  |
|-------------|------------------|-----|------------------|
| ACDA        | - Mr. Fisher     | S/P | - Mr. Owen       |
| ACDA        | - Dr. Scoville   | NEA | - Mr. Hare       |
| White House | - Mr. Keeny      | INR | - Mr. Hughes     |
| Defense     | - Mr. Barber     | L   | - Mr. Meeker     |
| JCS         | - RADM McCormick | IO  | - Mr. Popper     |
| AEC         | - Mr. Labowitz   | AF  | - Amb. Trimble   |
| USIA        | - Mr. Akers      | SCI | - Dr. Joyce      |
| CIA         | - [Redacted]     | FE  | - Mr. Mendenhall |
| EUR         | - Mr. Baker      |     | - [Redacted]     |

GROUP 3  
Downgraded at 12 year intervals;  
not automatically declassified.

~~SECRET~~  
LIMITED DISTRIBUTION

NOV 3 1965  
#329

SANITIZED  
E.O. 13526, Sec. 3.5  
NLJ/RAC 12-389  
By UCB NARA, Date 01-31-2013

32b

October 29, 1965

Subject: The Indian Nuclear Problem: Recent Changes and Effect on US Policy

I. Background

About a year ago, the Committee of Principals approved a comprehensive policy paper called "The Indian Nuclear Problem: Proposed Courses of Action." The paper concluded that the US had only a marginal influence over whether India adhered to or renounced its policy of using nuclear energy only for peaceful purposes. In order to maximize that influence it suggested that we follow a policy designed to help reinforce existing Indian forces opposing the nuclear route through use of persuasion and inducement.

More specifically, the report recommended:

1) High-level consultations with Indian leaders designed to strengthen India's determination to stick to its peaceful uses policy.

2) US scientific assistance designed to help India demonstrate its scientific prestige without producing a nuclear device.

3) Cooperation with Indians in regard to nuclear matters in UNGA and ENDC designed to place them in a position of leadership in the quest for nonproliferation measures.

4) Consultations with certain other governments (e.g., UK and Canada, Yugoslavia and Japan) designed to coordinate our efforts to influence Indian nuclear policy with those of other countries. As for the USSR, no approaches were recommended at least until after we had begun serious talks with Indians.

5) Assurances

DECLASSIFIED  
E.O. 13526, Sec. 3.5

By CTS  
NLJ/PAC 12-356  
NARA, Date 0/26/17

5) Assurances to India.

During the past year, our progress in implementing the foregoing recommendations has not been encouraging.

1. We have endeavored to draw Shastri and other Indian political leaders into a frank and private dialogue about nuclear policy and problems. However, while we have discussed this subject on occasion with Shastri and his principal lieutenants, we have not yet been able to get the kind of continual dialogue we want under way. In part this is probably because these Indians had not themselves developed sufficient knowledge of the intricacies of nuclear policy questions. Another factor may have been reluctance to enter into discussions with us which, if revealed, could be challenged as inconsistent with nonalignment.

2. We have examined various possible areas for collaboration on a scientific spectacular designed to increase Indian scientific prestige. We studied such projects as peaceful uses of nuclear explosives and a space program. For a variety of reasons none of them seemed to offer an early prospect for helping rebuild Indian prestige, at least for the immediate future. Meanwhile, however, AEC and NASA have either embarked upon various more modest joint Indo-US scientific projects, or begun to discuss them with the Indians.

3. We have not yet received any indication from the USSR which might suggest that a nonproliferation agreement is clearly in sight. Meanwhile the Indians in the UNGA and the ENDC have shifted from simple support for a nonproliferation agreement to a broad disarmament package approach, which, whether intended or not, will probably help keep the Indian option open.

(We think the Indians are doing this deliberately.)

4. As

4. As to consultations with other governments, we have coordinated our efforts with the UK and other old commonwealth governments.

5. President Johnson made a general statement of assurance against the threat of nuclear blackmail for Asian countries after the first Chinese detonation (October 1964). The Department also worked out another general statement of assurance in the form of a draft UNGA resolution and cleared it with certain Congressional leaders. It is currently under discussion in New York.

This Committee attempted to work out a more specific assurance, designed more fully to meet India's security needs, but an acceptable formula which went beyond the President's general assurance has not yet been found.

There has been no indication that the Soviets are willing to make a parallel assurance to India. When the Indians raised this matter in general terms with them earlier this year, they indicated little interest. The most recent Soviet statement on the subject (Zinchuk-Fisher conversation on October 15) indicated that Moscow might reconsider its opposition to a joint guarantee in the light of possible changes in the political environment after the U.S. had agreed to a nonproliferation agreement on Soviet terms.

II. Effects

II. Effects of the War with Pakistan

SNIE 31-1-65, "India's Nuclear Weapons Policy", suggests:

(a) While proponents of a nuclear weapons program have been strengthened by recent events, the GOI is unlikely to decide to embark on such a program at this time.

(b) Within the next several years, however, India will probably detonate a nuclear device and proceed to produce nuclear weapons.

(c) The pace and scope of the Chinese nuclear program will bear importantly on Indian policy, and a renewal of the war with Pakistan - with Peking again supporting Karachi - could trigger an Indian nuclear policy reversal.

We agree generally with these conclusions. We believe, however, that if we and other interested parties exert our influences on Indian nuclear policy in the proper ways we can at least persuade the Indians to continue deferring a decision to initiate a weapons program. Our assessment, directed primarily to an analysis of internal factors bearing on India's nuclear policy, follows:

1. Psychological and Political Factors:

India's belief that it scored a significant military victory against Pakistan has aroused unprecedented national exuberance and patriotic fervor. At the same time, the lack of support from outside against what India considered a coordinated Pakistan-Communist China campaign against India has greatly increased the strength of the "go it alone"

school of

school of Indian defenses. These developments have strengthened advocates of the bomb, and their urgings have been much louder and more demanding than before. But in another sense, the war may have eroded an intangible but basic psychological pressure to build the bomb - the nationally felt desire to register some solid achievement to overcome the deep sense of humiliation and inferiority that emerged after the military debacle with the Chinese Communists in 1962. We estimate that those elements of the Indian public that formerly espoused the bomb are now confirmed and strengthened in the conviction, and may be picking up support from former waverers. The key elements opposing the bomb are the senior leaders of the Congress Party and the military leadership.

As we see it, popular attitudes on this question are shifting perceptibly toward support to developing an independent Indian nuclear weapons capability and an Indian government policy reversal would have great political appeal. We believe that India has not yet made a decision to produce and test a device, although we would be unlikely to learn of such a decision until weapons design and technology work are further advanced and a testing site has been established. At the least, the Shastri government is keeping its diplomatic options open and may be supporting technical efforts to shorten the time between an affirmative decision and the detonation of a first device.

An important

An important factor in the Indian calculation is likely to be how India's general relationship with the US develops during the coming months. If the Indians get the impression that because of our position on Indo-Pakistan issues they cannot count on our support in a confrontation with Communist China (which they assume will also involve Pakistan), advocates of "go it alone" policies will be greatly strengthened and pressures to develop an independent nuclear weapons capability will be further increased.

All the front-line Congress Party leaders, including the entire Cabinet, have previously expressed public positions of renouncing the bomb, and none has yet switched. When and if one or more of these leaders does switch, the presently diffuse and fragmented forces supporting the bomb will probably coalesce rapidly and gain correspondingly in effectiveness. Elections are scheduled for February or March 1967, and the atmosphere of the pre-election period may intensify pressures for such a development if it has not already occurred by then. Protracted hostilities or semi-hostilities with Pakistan accompanied by high tensions with Communist Chinese would also presumably increase political and psychological pressures for adopting the nuclear route.

2. Economic Factors:

The economic cost of a nuclear weapons program ought to constitute a powerful deterrent, but we are by no means certain that all Indians will necessarily see it as such during coming months. We still  
estimate

estimate that India can detonate a nuclear device for around \$30-\$40 million, which is well within what most Indians would agree they could afford for something they see as cutting this close to the core of the national interest.

Obviously it will cost India a great deal more than \$40 million to advance from the detonation stage to the construction of a credible nuclear deterrent, including a delivery system. Those Indians who are most responsible for pressures for a nuclear weapons program, however, are surprisingly ill informed regarding the requirements for an effective nuclear capability.

It is therefore entirely possible that India could pass through the stage of producing and exploding a device before financial pressures could be effectively brought to bear on the question of whether or not India should embark on a weapons/delivery system program of deterrent capability.

3. Technological Factors:

We believe that India is now in a position to test a first nuclear device within one year after a decision to do so, possibly sooner. India may also have decided to advance its preparations for a testing program in order to minimize the time between a final decision and the first test. However, the Indians presumably calculate that if they made a public decision to embark on a nuclear weapons program they would risk losing much of the Western aid now being given in the peaceful uses field. In this connection it is worth noting that Canada is helping build two power reactors, to be completed two years or more from now, which will

which will greatly increase India's capability to produce weapons grade material. It is possible India might therefore embark on a weapons program but publicly camouflage it as a sort of "Plowshare" program. This would not fool the experts but India might reckon it would provide a face-saving mechanism for countries like Canada to continue giving aid in the peaceful uses field.

4) Military Factors:

We believe the general officers in charge of India's military establishment are presently opposed to embarking on a nuclear weapons program, at least for the next few years, primarily on the grounds that it would divert scarce resources from the more important task of strengthening conventional military capabilities. The Indian military establishment is relatively conservative, land-oriented, and defense-minded. We believe its planning for possible future hostilities with Pakistan continues to be primarily in terms of conventional military actions or responses, and that a similar situation obtains regarding the problem of border defense against possible Chinese incursions. The need to maintain in readiness a flexible conventional response to a variety of military or quasi-military actions by Pakistan should tend to reinforce the opinion of the Indian military that they should concentrate on building up an extensive conventional establishment.

III. General

III. General Factors Affecting U.S. Policy

The foregoing analysis suggests that the India-Pakistan conflict has increased the chances that India will embark on a nuclear weapons program, but that forces within the country operating against such a decision are still quite significant. It further suggests, as does the SNIE, that there is a good possibility that the forces supporting such a decision are not yet sufficiently strong and well organized to bring about an early change for nuclear weapons, but that after a certain period, perhaps as the February-March '67 elections approach, they could strengthen to the point where the situation, from our point of view, could become critical.

We believe that our influence over India's nuclear policy is quite limited, but even so it might be sufficient, if applied adroitly and at the proper time, at least to persuade the Indians to keep on deferring a decision to go nuclear. In examining how best to apply such influence we need to take into account not only the specific avenues or approaches available to us (Section IV below), but factors such as the following:

(1) Timing: Should we do everything possible now, or might some of our possible approaches better be held in reserve, on the assumption that they will not only be needed more urgently a little later, but might be more effective if deferred?

(2) Priorities

(2) Priorities and conflicting U.S. Interests: At present it is vitally important, in terms of our regional interests in the subcontinent, that the Indians be persuaded to adopt a reasonable enough stance towards Pakistan to preclude a resumption of hostilities and/or a situation in which Pakistan is driven to a closer relationship with Communist China. It follows that it would be unwise at this juncture to press the Indians on the nuclear question in ways that would significantly undermine our ability to influence their stance toward Pakistan.

Furthermore, there are conflicts between some of the approaches we might adopt to influence the Indians on the nuclear question and our policy interests elsewhere. For example, unless the USSR changes its position, progress on a nonproliferation agreement would require important changes in our European nuclear policy. Also, a credible statement of nuclear assurances adequate to ease India's security problems would probably require an increase in US commitments in Asia beyond what we have been willing to assume so far.

There is also at least a potential conflict involving rather complex ramifications between our desire for a firm basis of agreement with the USSR on nuclear proliferation and nuclear testing, and our continuing competition with the USSR for the stronger position of influence in India. The nub of the problem here is that the USSR places a very high regional priority on building up its influence in India. The idea of our working with the Soviets in a joint effort to deter the Indians from developing nuclear weapons is attractive, but we fear it is of limited practicability except for a limited range of measures

which

which the USSR could participate in without adversely affecting its interests in India. As soon as such initiatives reached a point where the Soviets felt their further prosecution would alienate the Indians, the USSR would most probably revert to some posture which, however camouflaged, would avoid any significant direct pressure on India.

(3) There appears to be some inconsistency between a US attempt to build Indian confidence in US security assurances and any threat that an Indian decision to produce nuclear weapons would affect US-Indian bilateral relations and cause a re-examination of US aid policy. Any open US attempt to use aid leverage to influence Indian nuclear policy would strengthen the "go it alone" policy of India's dependence on its own nuclear weapons. Therefore, since our influence at best is marginal, we believe that we should focus on other approaches and play the effect of our bilateral relations and economic assistance only in a very low key.

(4) We ought to reckon with the possibility that India may at some stage embark on a nuclear weapons program no matter what we say or do. If this happened it would be to our advantage to be able to retain some influence over the direction of India's nuclear program and subsequent nuclear policy. We believe this factor should be considered when alternative possible approaches are being weighed.

IV. Possible

IV. Possible Lines of U.S. Actions

1) United Nations: We should proceed with the reactivation of our draft GA resolution on assurance to non-nuclear powers. If the Soviets are not opposed, we should see that it is introduced to the General Assembly in a matter best calculated to achieve maximum support.

Even if the GA accepts it, this resolution will at best constitute only a marginal deterrent influence on the Indians. But it is a step we believe we can start on immediately at no appreciable cost or risk to our interests, and it may well prove useful in helping us obtain a more precise current reading on the intentions of the USSR, the Indians, and others.

2) Strengthening our General Position of Influence with India:

Our influence on Indian nuclear policy will be affected by the totality of our other actions in the subcontinent in coming months, particularly those relating to our aid policies and our efforts to achieve a process by which India-Pakistan differences can be examined.

As previously noted, we believe that during the immediately forthcoming period we have a vital interest in seeing that the Indians are persuaded to adopt a reasonably forthcoming stance toward the Pakistanis. Nevertheless, our interest in dissuading the Indians from a decision to go nuclear also is important, and we believe it should be given due weight when we face choices between alternative courses of action in our pursuit of the former interest. In the present charged atmosphere we believe an undiluted  
policy of

policy of pressuring the Indians to make concessions on Kashmir will both increase internal Indian pressures to go nuclear and sharply diminish our capability for dissuading them. But if our pursuit of Indo-Pakistani reconciliation is based on policies designed among other things to rebuild and strengthen our general position of influence with India, we believe that we will find ourselves in a much stronger position than we are at present to dissuade the Indians from going nuclear, using some of the approaches listed below.

3) Discussions with Indian Leaders: We should reactivate our plan for discussions with Prime Minister Shastri regarding Indian nuclear policy, seeking information regarding how we can best influence the direction along which India proceeds. As noted above, our influence during these discussions will depend on the general state of our bilateral relationship; we should not begin a serious dialogue until our bilateral relationship will support it.

Simultaneously, we should endeavor to draw other key GOI decision makers into similar discussions (e.g. Defense Minister Chavan and Finance Minister Krishnamachari). In all these talks, including those with Shastri, the first objective should be to get the Indians into a frame of mind where they felt they could speak frankly and candidly to us. We should remember that most of the top GOI leaders remain publicly committed against the nuclear route. Thus the task is as much as one of supplying arguments to friends to use with others as it is that of dissuasion. We  
should

should be prepared to discuss military and economic factors, long-term as well as short-term, drawing in some detail on our own experience as a major nuclear power.

We should also consider opportunities for influencing public opinion on a broader scale through personal contacts throughout India and through highly selective attempts to introduce appropriate informational material into mass media.

4) International Nuclear Arms Control Measures: We believe that agreement on international nuclear arms control measures could strengthen the anti-bomb faction within the GOI and might, within the limitations described below, at least persuade the Indians to delay a decision to build the bomb.

If the US and the USSR could reach agreement on a nonproliferation treaty, and if most of the non-nuclear states acceded, India would find it embarrassing to refuse. However, India has recently made clear its lack of interest in such an agreement unless it is part of a larger package, and even under these circumstances it would probably reserve its right to withdraw under certain contingencies, such as failure to secure Chicom and other agreement to further nuclear arms control.

A comprehensive test ban, which India still publicly supports, would be more directly responsive to India's view that the nuclear powers must also submit to nuclear arms control measures. Here again, however, India might well insist on reservations before signing, and its continued adherence would probably depend either on further steps toward nuclear disarmament (eventually involving the Chinese), or on other means of ensuring its security.

5)

5) Scientific Collaboration: We recommend taking another close look at all possible fields for joint scientific endeavor with the Indians which could have an important effect on Indian scientific prestige. Hopefully our internal review could turn up possible projects that might come to fruition several years from now. The process of discussing these with the Indians should give us useful entree with key Indian officials and the Indian scientific community during the period when we expect pressures to opt for the bomb to build up to critical proportions, as well as giving the Indians the prospect of an alternative to the bomb as a showpiece item.

6) Third Party Influences: Depending in part on the response to the consultation with the Soviets in New York recommended under item 1) above, we should introduce the Indian nuclear question into our continuing bilateral discussions with the USSR on nuclear questions. Our objective should be to ascertain the extent to which the Russians consider it in their interest to prevent India's becoming a nuclear power.

We should continue to coordinate with the UK and Canada, although we do not expect either country to be able to exert much more than a marginal influence over India in the period that lies ahead.

7) U.S. Assurances to India: Given the present atmosphere on the subcontinent and the unsettled state of our relations with India we believe that tactically this is not a good time for us to offer India further bilateral assurances. Various circumstances, arising either singly or in conjunction, could enhance the attractiveness and practicability of proposing some form of bilateral assurances. (a) Although it presently seems

unlikely

unlikely, our dialogue with the Russians might produce some fairly tangible suggestion that they would be willing to extend parallel assurances. (b) The Chinese might intensify their psychological and politico-military pressure against India.

Our group intends to study this question further in the near future with the objective of identifying specific types of assurances that might be most relevant to the various contingencies likely to arise; and to recommend certain formulations for approval on a contingency basis.

8) Contingency Planning for a Nuclear Sharing Arrangement with India:

Under present circumstances it is clearly out of the question for us to approach the Indians with an offer of some form of nuclear-sharing arrangement as a means of deterring them from developing an independent capability. Various contingencies might arise, however, which could make such an offer more practicable -- the most obvious being a marked increase in Chinese Communist belligerency. We believe it would be worthwhile, therefore, to ask the Department of Defense to review possible options open to us in the area, on a contingency basis.

9) Economic and Military Aid Leverage: For reasons previously adduced, we believe it would be counter-productive to use threats regarding our future aid as leverage to influence Indian nuclear policy at present. However, in the future, assuming we have reinstated our aid programs and regained a substantial position of influence, we should be able to support our other efforts by indicating on sound economic and military grounds that India's development

~~SECRET~~ - LIMIT DISTRIBUTION

-17-

development of nuclear weapons and a delivery system would prejudice economic development and the maintenance of an adequate conventional military establishment. By so doing, we could imply that for economic and military reasons an Indian weapons program could place our aid programs in jeopardy.

~~SECRET~~ - LIMIT DISTRIBUTION

THE WHITE HOUSE  
WASHINGTON

October 22, 1965

33  
Returned - MeFB  
10/22/65

Mr. Komer:

Mr. Bundy has not seen. Any Action?

No answer  
RWK

OCT 22 1965

*James McLean*

33a

The White House  
Washington

1965 OCT 20 PM 7 52

WA068 POM

KG NEW YORK NY OCT 20

THE PRESIDENT

THE WHITE HOUSE

REQUEST YOU SEND CONGRATULATORY WIRE TO PREMIER SHASTRI FOR  
RECENT INDIAN DECISION ON NUCLEAR WEAPONS

DAVID J LOEB FACULTY COLUMBIA UNIVERSITY.

# INCOMING TELEGRAM Department of State

- ~~BUNDY-SMITH~~
- ~~BATOR~~
- ~~BOWLER~~
- ~~BOWMAN~~
- ~~CHASE~~
- ~~COOPER~~
- ~~LESSUP~~
- ~~JOHNSON~~
- ~~KELLY~~
- ~~KOMER~~
- ~~MOODY~~

86  
Action  
NEA  
Info  
SS  
G  
SP  
SAH  
L  
H  
EUR  
FE  
IO  
P  
USIA  
NSC  
INR  
CIA  
NSA  
DOD  
DAC  
SCI  
AEC  
WHB  
RSR

NNNNQSA921SBA829  
RR RUEHCR RUEHDT  
DE RUSBAE 760 2921306  
ZZNY SSSSS  
R 191257Z

~~SECRET~~

FM AMEMBASSY NEW DELHI  
TO RUEHCR/SECSTATE WASHDC (1034)

15076

112

INFO RUEHDT/USUN NEWYORK 281  
RUFHDN/AMEMBASSY LONDON 340  
RUQVXR/AMEMBASSY KARACHI 438  
RUEHCR/AMEMBASSY MOSCOW 57  
ZEN/AMCONSUL BOMBAY UNN  
ZEN/AMCONSUL CALCUTTA UNN  
ZEN/AMCONSUL MADRAS UNN  
STATE GRNC  
BT  
SECRET OCT 19

*India nuclear*

1965 OCT 19 PM 5 37

IN MY DISCUSSION ON FRIDAY AFTERNOON WITH L. K. JHA, I ASKED FOR HIS FRANK APPRAISAL OF THE OUTLOOK FOR NUCLEAR WEAPONS IN INDIA. JHA REPLIED THAT ALTHOUGH PRESSURES TO BUILD A BOMB WERE MOUNTING, THE GOI HAS DECIDED NOT TO CHANGE ITS POSITION; HOWEVER, THIS POSITION MIGHT BECOME UNTENABLE UNLESS SOME MEANINGFUL ASSURANCES CAN BE PROVIDED SUCH COUNTRIES AS INDIA BY NUCLEAR POWERS.

IN RESPONSE TO MY REMINDER OF PRESIDENT JOHNSON'S ASSURANCES A YEAR AGO IN REGARD TO ANY CHINESE ATTEMPT AT NUCLEAR BLACKMAIL,

PAGE 2 RUSBAE 760 ~~SECRET~~  
JHA STATED THAT HE DID NOT THINK A UNILATERAL GUARANTEE COULD BE TRUSTED IN SPIITE OF THE GOOD INTENTIONS THAT MIGHT LIE BEHIND IT. HE THEN REPEATED THE DEGAULLE ARGUMENT WHICH I ALSO HEARD RECENTLY FROM BABHA, I.E, IF CHINA THREATENED INDIA WITH A NUCLEAR ATTACK AND THE US STATED IT WOULD RETALIATE AGAINST CHINA, THE SOVIETS MIGHT ASSERT THAT FOR EVERY BOMB DROPPED BY THE US ON A CHINESE CITY, A SOVIET BOMB WOULD BE DROPPED ON AN AMERICAN CITY, AND CONSEQUENTLY WE WOULD BE FORCED TO ABANDON OUR "GUARANTEE".

THEREFORE, IF THERE IS TO BE A MEANINGFUL NON-PROLIFERATION AGREEMENT, IT IS ESSENTIAL THAT THE US AND USSR SHOULD AGREE TO COOPERATE IN CRISES OF THIS KIND.

THIS MORNING THE PRIME MINISTER IS REPORTED TO HAVE TOLD NEWSMAN IN AURAANGABAD THAT INDIA WOULD STICK TO ITS POLICY OF NOT RPT NOT MANUFACTURING ATOM BOMB ALTHOUGH HE PARRIED QUESTION ABOUT WHETHER THIS IS "PERMANENT POLICY".

DECLASSIFIED

Authority NLJ 9095 (#56)  
By clp NARA. Date 5-5-01

~~SECRET~~

~~SECRET~~

-2- 1034, OCTOBER 19, FROM NEW DELHI.

COMMENT: ALTHOUGH I AM SOMEWHAT SURPRISED AT THESE UNEQUIVOCAL STATEMENTS THAT INDIA WILL CONTINUE TO STANDBY ITS DECISION NOT TO MAKE THE BOMB, I AM INCLINED TO THINK THAT THEY ARE THE TRUTH.

PAGE 3 RUSBAE 760 ~~SECRET~~  
HERE IS THE SITUATION AS I SEE IT:

1. INDIA CAN BUILD A BOMB WITHIN A YEAR OR SO AND IF THE GOVERNMENT SHOULD GO AHEAD, IT WOULD BE A VERY POPULAR DECISION;
2. SHASTRI AND HIS ASSOCIATES, HOWEVER, ARE KEENLY AWARE OF THE IMPLICATIONS, ARE BY NO MEANS ANXIOUS TO PROCEED AND THE TOP MEN IN THE ARMED FORCES AGREE WITH THEM;
3. INDIA IS DEEPLY CONCERNED ABOUT DEVELOPMENT OF CHINA AS A NUCLEAR POWER, NOT ONLY BECAUSE OF THE QUESTION OF COMPETITIVE SCIENTIFIC PRESTIGE BUT EVEN MORE SO BECAUSE OF THE CHINESE THREAT TO INDIA'S MILITARY SECURITY. YET THEY FEEL A UNILATERAL US COMMITMENT IS INSUFFICIENT FOR THE REASONS STATED BY JHA AND BABHA, AND BECAUSE THEY ARE AT THE MOMENT DOUBTFUL OF ALL UNILATERAL ASSURANCES WHICH FAIL TO SPECIFY EXACTLY HOW THEY WILL BE CARRIED OUT.
4. THE MOST VIABLE APPROACH TO REDUCING PRO-BOMB PRESSURES WOULD BE A BROAD AGREEMENT AMONG THE PRESENT NUCLEAR POWERS (WITHOUT CHINA AND PERHAPS WITHOUT FRANCE.) THIS MIGHT BE EXPRESSED IN THE FORM OF A SERIES OF AMENDMENTS TO THE MOSCOW TEST BAN TREATY WHICH MIGHT INCLUDE (A) A LIMIT ON STOCKPILES AND NEW PRODUCTION, (B) THE BEST DEAL WE CAN GET IN REGARD TO UNDERGROUND WEAPONS' TESTING-- HOPEFULLY WITH INSPECTIONS; (C) A NON-PROLIFERATION AGREEMENT BY ALL NON-NUCLEAR

PAGE 4 RUSBAE 760 ~~SECRET~~

NATIONS WHICH WILL AGREE NOT TO MAKE THE BOMB AND ALL NUCLEAR NATIONS WHICH WILL AGREE NOT TO TRANSFER NUCLEAR WEAPONS TO NATIONS WHICH DO NOT HAVE THEM; AND (DLXOA JOINT STATEMENT BY MAJOR NUCLEAR POWERS THAT THEY WILL TREAT A NUCLEAR ATTACK AGAINST ANY NON-NUCLEAR NATION AS AN ATTACK

AGAINST THEMSELVES, AND TAKE ACTION UNDER UN CHARTER AGAINST ANY NATION THREATENING TO USE NUCLEAR WEAPONS AGAINST A NON-NUCLEAR POWER.

OBVIOUSLY, THERE IS NO CHANCE OF SOVIET COOPERATION IN SUCH AN EFFORT UNLESS WE AGREE TO FOREGO THE L,,,\*AND BECAUSE OF OUR HEAVY COMMITMENT THIS PRESENTS US WITH A SERIOUS DILEMMA.

~~SECRET~~

~~SECRET~~

-3-, 1034, OCTOBER 19, FROM NEW DELHI.

HOWEVER, THE LONGER AN EFFECTIVE NON-PROLIFERATION AGREEMENT IS DELAYED MORE DIFFICULT IT BECOMES FOR INDIA TO REMAIN NON-NUCLEAR. THIS MAY BE INCREASINGLY TRUE IN OTHER NATIONS WITH NUCLEAR POTENTIAL. THUS ALTERNATIVE TO NON-PROLIFERATION AGREEMENT IN THE REASONABLY NEAR FUTURE IS A WORLD IN WHICH 15 OR 20 NEW NUCLEAR POWERS ARE IN A POSITION TO USE THOSE ULTIMATE WEAPONS TO "SOLVE" THE IRRECONCILABLE BUILT-IN CONFLICTS IN WHICH MANY OF THEM ARE INVOLVED. GP-3. BOWLES  
BT

\*AS RECEIVED.

~~SECRET~~

~~CONFIDENTIAL~~

36 4858

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY

1-Keeny  
2-Horn  
3-Rit.

DECLASSIFIED

Memorandum of Conversation

1

Authority ACDA letter 8-4-76  
By Jelma NARA, Date 5-5-04

1965 NOV 4 PM 3 36

DATE: October 14, 1965.

SUBJECT: Indian Attitudes toward Nuclear Weapons

PARTICIPANTS: Mrs. Betty Goetz Lall  
Various ACDA officers

*India nuclear*

OFF FILE-PER

1965 OCT 27 AM 10 04 Def 18

COPIES TO:	ACDA (15)	INR (8)	US Mission Geneva DISTO (3)
	SOA	CIA/ONE	Amembassy New Delhi
	G/PM	DOD/ISA - Mr. Barber	
	S/P	WH - Mr. Keeny	(39)
	USUN (2)	AEC - Mr. Labowitz	

NOTE: From March 1961 until July 1963 Mrs. Lall was a member of the staff of ACDA. Previously, she was Staff Director of the Senate Subcommittee on Disarmament, which was chaired by Senator Hubert H. Humphrey. In July, 1963, she resigned from ACDA and married Arthur K. Lall, who had been the delegate of India to the ENDC. Mrs. Lall is presently employed by Cornell University in New York City.

From June 8 to August 23, 1965, Mr. and Mrs. Lall made a study tour to India, Japan, Southeast Asia, and Germany. They discussed arms control and international security questions with a wide spectrum of people both within and outside the government of each country. In India, they spoke with Foreign Minister Singh, L. K. Jha, Secretary to the Prime Minister, General Chaudhuri, Krishna Menon, Homi Bhabha, and many other officials, both in the ruling Congress party and in the various opposition parties. This memorandum includes only highlights of remarks on India which Mrs. Lall made during and after an Arms Control Seminar at ACDA on October 14.

Bhabha told the Lalls he thought India had an opportunity to extract political concessions from the big powers in return

~~CONFIDENTIAL~~

GROUP 1  
Excluded from automatic  
downgrading and  
declassification.

CONFIDENTIAL

- 2 -

for not going nuclear, but is not yet exploiting this opportunity. He said that while he was doing all he could to make India self-sufficient in nuclear matters, his preference was to avoid building a bomb, though he would do so if the government decided he should. Bhabha felt that China should be brought into the United Nations, the ENDC, etc., but only because it is China, and not because it had exploded a few nuclear devices. He said India was ahead of China in nuclear technology and was exercising considerable restraint in not building a bomb, but was not getting proper credit for that restraint.

General Chaudhuri told Mrs. Lall that he was not interested in building a bomb at present, since such a decision could well be deferred. However, Chaudhuri expressed considerable interest in India's getting started right now on a modern "delivery system".

Krishna Menon is effectively crusading in India against the bomb. However, he is also very much opposed to any U.S. security guarantees, which he would interpret as a step toward U.S. domination of India. The Indian Communist Party is split and almost dead as a political force. The Swatantra is divided on the bomb issue, feeling generally that that bridge should not be crossed now. The Jan Sangh is in favor of building a bomb.

L. K. Jha, whom Mrs. Lall called "India's McGeorge Bundy", told her that when Shastri says India will not build the bomb, he merely means India will not build the bomb "for the time being".

Mrs. Lall suggested that resumption of a good-sized military aid program for India would increase India's feeling of security and thereby reduce India's pressure for the bomb.

When asked what the United States could do to persuade India to continue to abstain from producing nuclear weapons, Mrs. Lall replied that the most effective thing the United

CONFIDENTIAL

~~CONFIDENTIAL~~

- 3 -

States could do would be to reach arms control agreements with the Soviet Union. She explained that she did not mean merely a non-proliferation agreement, but rather agreements which limited the two super-powers themselves. She quoted Bhabha to the effect that India should use its nuclear abstention as leverage to prod the United States and the Soviet Union into agreeing on disarmament measures. She said that L. K. Jha had pointed out to her that India could remain non-nuclear in the long run only if the great powers themselves make progress toward disarmament. Mrs. Lall also thought it would help if U.S. spokesmen give credit to India loudly and often for refraining from building bombs when it has the technical capability to do so.

When asked whether she thought India would sign a non-proliferation treaty if pressed to do so by the U.S. and the U.S.S.R. together, she said India probably would do so, but there was some chance it would not.

In Mrs. Lall's opinion, the Indian statements in the UNDC and ENDC regarding a five-part package for non-proliferation were motivated only in part by a desire to prepare the ground for possibly opposing a non-proliferation agreement. She believes they were also motivated by a desire to prod the great powers into joint action toward nuclear disarmament. Such joint action would make it much easier for Shastri to resist public pressures to build an Indian bomb. Also, it would indicate Soviet movement toward the U.S. and away from China, and such movement would be highly significant for India's basic security interests.

~~CONFIDENTIAL~~

INCOMING TELEGRAM Department of State

39

SECRET

44  
Action NNNNVZCZCPSA 75 0SBA 424  
DAC RR RUEHCR RUEHDT RUMJDH  
DE RUSBAE 945 2351345  
ZNY' SSSSS

Info R 231239Z  
FM AMEMBASSY NEW DELHI  
TO RUEHCR/SECSTATE WASHDC 345  
INFO RUSBKP/AMEMBASSY KARACHI 82

SS RUFHDN/AMEMBASSY LONDON 83  
G RUEHCR/AMEMBASSY MOSCOW 31  
SP RUFHQA/AMEMBASSY PARIS 07  
SAH RUFIV/USMISSION GENEVA 10  
L RUMJDH/AMCONSUL HONG KONG 17  
H RUEHDT/USUN 32  
H RUEKDA/OSD/ISA  
EUR RUCJHK/CINCMEAFSA  
FE STATE GRNC  
NEA BT

IO ~~SECRET~~ AUG 23  
P CINCMEAFSA FOR POLAD  
USIA  
NSC PARIS FOR USRO  
INR GENEVA FOR TODIS  
CIA  
NSA NON-PROLIFERATION  
SCI

AEC DECISIVE MOMENT APPEARS TO BE RAPIDLY APPROACHING IN REGARD TO  
WHB NUCLEAR PROLIFERATION AND I WOULD LIKE TO TAKE OPPORTUNITY TO  
RSR PRESENT OUR ASSESSMENT OF SITUATION IN GENERAL AND IN PARTICULAR  
AS IT CONCERNS INDIA.

1. US POLICY SEEKS TO ACHIEVE TWO LAUDABLE GOALS, BOTH OF WHICH  
RELECTED IN DRAFT TREATY TABLED AT GENEVA: (A) WE ARE SERIOUSLY

PAGE TWO RUSBAE 945 ~~SECRET~~  
STRIVING TO OBTAIN MEANINGFUL AGREEMENT FOR NON-PROLIFERATION  
OF NUCLEAR WEAPONS; AND (B) AT SAME TIME WE DESIRE TO RETAIN OUR  
FUTURE OPTION RE EVENTUAL ESTABLISHMENT OF MLF/ANF AMONG OTHER  
REASONS IN ORDER TO DIVERT BONN GOVT FROM MOVING DIRECTLY INTO  
NUCLEAR FIELD AND TO BREATHE NEW LIFE INTO NATO.

2. AT PRESENT INDIA PLAYS KEY ROLE RE NON-PROLIFERATION.  
AS WE HAVE PREVIOUSLY REPORTED THERE ARE CONSIDERABLE DOMESTIC  
PRESSURES IN FAVOR OF INDIA'S BECOMING A NUCLEAR POWER. IN PART

17192  
1965 AUG 23 PM 12 04

*India nuclear*

- ~~BUNDY-SMITH~~
- ~~BATOR~~
- ~~BOWDLER~~
- ~~BOWMAN~~
- ~~CHASE~~
- ~~COOPER~~
- ~~JESSUP~~
- ~~JOHNSON~~
- ~~KENT~~
- ~~KRUMER~~
- ~~MOODY~~

125

SECRET

REPRODUCTION FROM THIS COPY IS  
PROHIBITED UNLESS "UNCLASSIFIED"

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
State Dept. Guidelines  
By *jc*, NARA, Date *5-5-04*

~~SECRET~~

-2- 345, AUGUST 23, FROM NEW DELHI

THIS PRESSURE STEMS FROM GENUINE FEAR OF CHINESE NUCLEAR THRUST. HOWEVER EVEN MORE PERSUASIVE TO MANY INDIANS IS ARGUMENT THAT MEMBERSHIP IN NUCLEAR CLUB IS ESSENTIAL TO GREAT POWER STATUS, THAT BY EXPLODING ATOM BOMB CHINA HAS ACHIEVED SUCH STATUS AND THAT INDIA IN CONTRAST HAS GAINED NOTHING BY FOLLOWING RESPONSIBLE POLICY OF RESTRAINT.

3. ALTHOUGH SHASTRI AND HIS ASSOCIATES ARE THUS FAR RESISTING THESE PRESSURES, IT IS CLEAR THAT GOI HAS NOT RENOUNCED OPTION OF BUILDING BOMB IN FUTURE IF INDIAN LEADERS BELIEVE THIS TO BE ONLY FEASIBLE WAY INDIA CAN PROTECT ITSELF FROM CHINA AND ENHANCE ITS WORLDWIDE INFLUENCE CONSISTENT WITH ALL RELEVANT POLITICAL FACTORS. (SEE A-197, AUG 17, 1965 FOR RECENT EMB ASSESSMENT.)

PAGE THREE RUSBAE 945 ~~SECRET~~

4. IN REFERRING TO DILEMMA OF LEADERS IN INDIA AND OTHER NATIONS CAPABLE OF BUILDING BOMB FOSTER COMMENTED APTLY IN JULY FOREIGN AFFAIRS ARTICLE AS FOLLOWS:

"WHETHER THEY WILL BE ABLE TO HOLD OUT AGAINST PRESSURE TO GO NUCLEAR WILL DEPEND SUBSTANTIALLY ON WHETHER OR NOT MEASURES TO PREVENT NUCLEAR PROLIFERATION ARE NEGOTIATED IN MONTHS AHEAD AND WHETHER OR NOT THERE IS OTHER EVIDENCE THAT GREAT POWERS ARE REALLY PREPARED TO DEAL WITH PROBLEM."

5. INDIA FEELS THAT USSR MUST BE ASSOCIATED WITH ANY FORM OF NON-PROLIFERATION AGREEMENT AND RELATED MEANINGFUL INTERNATIONAL GUARANTEES TO NON-NUCLEAR NATIONS. OTHER NATIONS IN SIMILAR POSITION MAY BE EXPECTED TO REACT IN SAME WAY.

YET USSR APPEARS TO BE IMPLACABLY OPPOSED TO MLF/ANF AND PRESUMABLY WILL NOT CONSIDER SUPPORTING ANY NON-PROLIFERATION INITIATIVE THAT DOES NOT PRECLUDE FUTURE OPTION FOR MLF/ANF.

6. THEREFORE IN ATTEMPTING TO ACHIEVE BOTH NON-PROLIFERATION AGREEMENT AND RETAIN OPTION FOR MLF/ANF WE SEEM TO BE PURSUING SET OF OBJECTIVES WHICH ARE DEEPLY IN CONFLICT. WITHOUT SOVIET SUPPORT NON-PROLIFERATION, WHICH DIFFICULT TO ACHIEVE IN BEST OF CIRCUMSTANCES, BECOMES IMPOSSIBLE; SUCH SUPPORT WILL NOT BE

PAGE FOUR RUSBAE 945 ~~SECRET~~  
FORTHCOMING UNLESS MLF/ANF IS ABANDONED. SINCE WE CANNOT HAVE

SECRET

~~SECRET~~

-3- 345, AUGUST 23, FROM NEW DELHI

OUR CAKE AND EAT IT TOO, OUR POLICY OPTIONS APPEAR NARROWED TO HARD CHOICE BETWEEN MEANINGFUL NON PROLIFERATION AND FUTURE MLF/ANF.

7. SHOULD WE DECIDE THAT MLF/ANF IS MORE IMPORTANT THAN NON-PROLIFERATION, PROBABLE RESULT IS THAT GOI WILL SUCCUMB TO PRESSURES TO JOIN NUCLEAR CLUB IN RELATIVELY NEAR FUTURE AND INDIA'S EXAMPLE WILL BE FOLLOWED BY OTHERS.

THERE MAY BE COMPELLING REASONS FOR US TO CHOOSE MLF/ANF OVER NON PROLIFERATION, AND I AM NOT PRESUMING TO MAKE THIS ADJUSTMENT. I AM CONCERNED, HOWEVER, THAT WE SHALL MAKE THIS CRITICALLY IMPORTANT CHOICE WITH OUR EYES WIDE OPEN TO FULL IMPLICATIONS.

GP-3. BOWLES

~~SECRET~~



INTERNATIONAL SECURITY AFFAIRS

~~SECRET~~

UNCLASSIFIED WHEN ATTACHMENTS ARE DETACHED

41

ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D. C. 20301

11 AUG 1965

In reply refer to:  
I-25254/65

*India nuclear spung.*  
*Here's Art's paper, which really doesn't get at the problem. What say? Bob B.*

Mr. Robert Komer / WH  
National Security Council  
Room 372  
Executive Office Building  
Washington, D.C.

Dear Bob:

Attached is the request which you can transform into an NSAM or a memorandum, as you believe appropriate. I think these are the questions which should be addressed.

Sincerely,

Arthur W. Barber  
Deputy Assistant Secretary

*I'd like to get a good NSAM to Mac next week.*  
*RWK*

cc: Mr. McNaughton, ASD/ISA

Attachment:  
Draft re India

*See RWK to me SB 8/28/65 - att. draft NSAM*  
*TO RWK for follow up 9/28/65 - no NSAM received*

~~SECRET~~

UNCLASSIFIED WHEN ATTACHMENTS ARE DETACHED

AUG 13 1965

118

✓

INCOMING TELEGRAM Department of State

SECRET

6  
Action

55

Info

PP RUEHCR RUFHDN RUEHDT  
DE RUSBAE 1164 23/0710Z  
P 230705Z ZEA  
FM AMEMBASSY NEW DELHI  
TO RUEHCR/SECSTATE WASHDC PRIORITY 3388  
INFO RUEHCR/AMEMBASSY MOSCOW ROUTINE 290  
RUFHDN/AMEMBASSY LONDON PRIORITY 868  
RUEHDT/USUN NY PRIORITY 241  
STATE GRNC  
BT  
~~SECRET~~ MAY 23

021997  
1965 MAY 23 AM 3 44  
P R I O R I T Y

- BUNDY-SMITH
- BATOR
- BOWDLER
- BOWMAN
- CHASE
- COOPER
- HAYNES
- JESSUP
- JOHNSON
- KEENE
- KEIN
- KOMER
- MOODY
- REEDY
- SAUNDERS
- THOMSON

*Ind. Note*

LIMDIS

REF: DEPTTEL 2429

DURING MY MEETING WITH FONMIN SWARAN SINGH, FRIDAY EVENING HE STATED, IN RESPONSE TO INQUIRY ABOUT NUCLEAR ASSURANCES, THAT SOVIETS FIRST REACTION WAS AN ATTEMPT TO BURY QUESTION BY SUGGESTING ITS INCLUSION IN EVENTUAL GENERAL DISARMAMENT AGREEMENT. WHEN INDIANS PRESSED FOR SOME MORE IMMEDIATE ACTION SOVIETS SAID THEY WOULD LIKE TO CONSIDER OTHER APPROACHES. SWARAN SINGH STRESSED IN RESPONSE TO MY PROBING THAT SOVIETS DID NOT RPT NOT ACTUALLY TURN ASSURANCES PROPOSAL DOWN. BOWLES

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
State Dept. Guidelines  
By *jc*, NARA, Date 5-5-04

SECRET

REPRODUCTION FROM THIS COPY IS PROHIBITED UNLESS "UNCLASSIFIED"

~~TOP SECRET~~

19 May 1965

44

*India Nuclear*

Memo for Bob Komer  
Hal Saunders  
(In Turn)

SUBJECT: Asian Nuclear Support

The attached JCS memo deals with Ambassador Thompson's study of nuclear sharing with India.

9 |

Key Point: To be meaningful and credible a nuclear support arrangement would have to include formal obligations, etc., and a commitment of US and/or British forces. The latter would have to be in place on Indian territory to assure a conventional defense to the extent practicable and the release of nuclear weapons when necessary.

*Dick*

R. C. BOWMAN

Please return

DECLASSIFIED  
E.O. 13292, Sec. 3.4  
NSC Memo, 1/30/95, State Guidelines  
By *jc*, NARA, Date *5-5-04*

~~TOP SECRET~~

MAY 19 1965

OUTGOING TELEGRAM Department of State

10165 45

INDICATE:  COLLECT  
 CHARGE TO

SECRET/LIMDIS

FILE COPY  
MAY 18 7 10 PM '65

85  
Origin  
55  
Info

ACTION: Amembassy NEW DELHI 2429  
INFO: USUN 2721  
Amembassy LONDON 7302  
Amembassy MOSCOW 3184  
LIMDIS  
REF: New Delhi's 3223  
Moscow's 3459 rptd New Delhi 75

*India nuclear*

Despite Shastri's apparent failure discuss security assurances in Moscow, we hope you will seek opportunity prior your departure New Delhi ascertain Prime Minister's latest views on this question, including his current estimate prospects Soviet support. Next steps will be decided only after receiving your report. (We are also still awaiting British Ministerial-level reaction).

If Indian reaction to UNGA assurances resolution idea proves negative, or prospects Soviet support seem dim, we would be inclined let idea lie quiet for time being. USSR may be more forthcoming should general East-West atmosphere improve. If Soviets appear likely support resolution, we foresee period of careful garnering of support, perhaps partially at resumed ENDC, <sup>and</sup> ~~and~~ we would hope obtain major favorable consensus by time next session GA convenes.

Drawn by: R.S.R.

ACDA:RSRochlin:RBFreund:aa

Telegraphic transmission and classification approved by: ACDA - Adrian S. Fisher

NEA/SOA - Mr. Schneider  
G/PM - Mr. Garthoff  
~~ACDA/IR - Mr. Beam~~  
ACDA/IR - Mr. Beam

IO - Mr. Gardner

SECRET/LIMDIS

REPRODUCTION FROM THIS COPY IS PROHIBITED UNLESS "UNCLASSIFIED"

FORM DS-324

DECLASSIFIED  
E.O. 13202, Sec. 3.4  
By jc, NARA, Date 5504

PRESERVATION COPY

~~SECRET/LIMDIS~~

Another consideration is question possible stronger unilateral assurances to GOI, which we will review in light your reports on Indian attitude toward UNGA resolution and effects in India of second Chicom atomic test. Therefore, would appreciate your current views on unilateral assurances question. You should not rpt not suggest stronger unilateral assurances to GOI at this time.

Would also be helpful, in light Indian proposal of integrated non-proliferation program (DEPTEL 2324), have your estimate of degree flexibility within GOI. For example, to what extent might they insist upon implementation of whole program? More specifically, would they insist upon progress on other measures before they be willing agree to non-proliferation agreement? As Embassy aware, we have difficulties with part of Indian program and do not want all-or-nothing approach which would only retard progress on non-proliferation. Foster spoke against such approach in UNDC yesterday, and Narendra Singh afterwards commented privately that US position this matter was QUOTE understandable UNQUOTE.

END

RLSK

GP-3

~~SECRET/LIMDIS~~

PRESERVATION COPY

# OUTGOING TELEGRAM Department of State

02475

47

INDICATE:  COLLECT  
 CHARGE TO

SECRET/LIMDIS

- BUNDY
- BATOR
- BOWDL
- BOWMAN
- CHASE
- COOPER
- HAYNES
- JESSUP
- JOHNSON
- KEENE
- KLEIN
- KROMER
- MOODY
- REEDY
- SAUNDERS
- THOMSON

MAY 5 7 03 PM '65

050

87  
Origin  
SS  
Info:

ACTION: Amembassy NEW DELHI PRIORITY 2323

INFO: USUN 2623  
Amembassy DUBLIN 347  
Amembassy LONDON 7077  
Amembassy MOSCOW 3039

*India nuclear*

LIMDIS

Problem of providing security assurances to India adequate to lessen pressures for Indian nuclear weapons has been under continuing intensive study in Department and ACDA. As we see it, a promising next step might be a UN General Assembly Resolution which would provide multi-lateral assurances. The UN approach would meet Indian desire for such assurances and is designed to be as palatable as possible to Soviets by being optically directed against China as little as possible. We have in mind tentatively a UNGA resolution introduced by some non-aligned country which would include language along the following lines:

BEGIN VERBATIM TEXT

DECLASSIFIED

Authority Stat 8-11-76; ERDA 730-76  
By fc/rg NARA, Date 5-5-04

Drafted by ACDA:RSRochlin:aa j 5/5/65 <i>RJR</i>	Telegraphic transmission and classification approved by: ACDA - Adrian S. Fisher
Clearances NEA - Mr. Handley IO - Mr. Cleveland ACDA/IR - Mr. Beam H - Miss Folger (draft)	EUR/SOV - Mr. Toumanoff EUR/RPM - Mr. Baker (draft) G/PM - Mr. Garthoff

SECRET/LIMDIS

REPRODUCTION FROM THIS COPY IS PROHIBITED UNLESS "UNCLASSIFIED"

SECRET/LIMDIS

The General Assembly,

Recognizing that aggression in any form is contrary to the principles of the Charter,

Considering the particularly grave dangers to international peace and security which would result from an increase in the number of States possessing nuclear weapons,

Noting, with appreciation, the decision of a number of States not to manufacture or otherwise acquire control of nuclear weapons,

Reaffirming the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security,

Recognizing that the danger of aggression with nuclear weapons against nations which do not possess them emphasizes the need of such nations for assurance of assistance to resist such aggression,

Welcomes the intention signified by Member States approving this resolution that they will provide or support

~~SECRET/LIMDIS~~

~~SECRET~~/LIMDIS

immediate assistance to any State not possessing nuclear weapons that is the victim of an act of aggression in which nuclear weapons are used, and calls upon all other States to associate themselves with the objectives of this resolution.

END VERBATIM TEXT

We believe this approach most promising way to meet following basic criteria:

1. Assist in inhibiting Chicom attempts at nuclear blackmail, in deterring Chicoms from nuclear aggression and in reducing pressure within India and certain other non-nuclear countries to acquire their own nuclear weapons.
2. Recognize Soviet reluctance to make clearly defined public choice between India and Peiping.
3. Meet Indian desire to maintain non-aligned status.
4. Help provide Indians with at least some indication Soviets would not interfere if US and others should attempt to implement assurances to India. (FYI This would enhance credibility of any stronger unilateral US assurances we may want to give later. End FYI.)

While Soviet response to this approach difficult to predict, we believe best chance of Soviet cooperation probably lies in initial approach to Moscow by Shastri rather than by

~~SECRET~~/LIMDIS

~~SECRET~~/LIMDIS

US. However in present atmosphere there may be danger of unqualified Soviet turndown which might convince India assurances route had little future and make it more difficult for Soviets to agree later. Hence US should leave to Shastri whether to approach Soviets now. However, we think Shastri should know before he goes to Moscow May 12 that US would support UNGA Resolution along these lines provided it not modified in ways unacceptable to US.

Private discussions on this with key US senators now scheduled for May 6. Hence you should not rpt not approach GOI until specifically authorized. ~~Department presently inclined to await results May 12 Moscow visit before raising UNGA resolution idea with other countries (except UK)~~

Department would appreciate your opinion soonest on:

1. Whether GOI likely to approach Soviets this month on assurances question.
2. Probable GOI reaction to above UNGA resolution text and particularly to last paragraph, which might alternatively be part of a broader non-proliferation resolution such as Irish are developing.
3. Effect on India if US should publicly support such UNGA resolution in face of Soviet opposition.

~~SECRET~~/LIMDIS

SECRET/LIMDIS

We would also appreciate your comments on following possible approach to Shastri.

1. USG desires to cooperate with GOI in devising some method, such as through the UNGA, to reassure countries not possessing nuclear weapons that they need not feel insecure against nuclear aggression. US would like to explore possibility of a UNGA resolution welcoming intention of member states to provide or support immediate assistance to any state not possessing nuclear weapons that is victim of an act of aggression in which nuclear weapons are used, and calling upon all other states to associate themselves with the objectives of resolution. We would welcome Indian views on such resolution, and would also welcome opportunity to discuss with GOI how resolution might be handled with Soviets and others so that it would have greatest chance for successful passage. FYI Embassy would also, as appropriate, discuss rationale this approach as indicated in numbered criteria listed above. Embassy should not rpt not pass text resolution to Indians. END FYI.

2. We think India probably in best position to obtain favorable initial private Soviet reaction to such UNGA resolution. However, Soviets might find it easier if

SECRET/LIMDIS

~~SECRET/LIMDIS~~

resolution were introduced in GA by some other non-aligned state in order to minimize impression resolution directed against Peiping.

3. Do Indians see merit in having this idea considered in current session of UNDC?

We would hope discussions of UNGA resolution would help strengthen overall relationship between India and US and at same time facilitate any effort Shastri may decide to make in Moscow May 12 to obtain Soviet agreement to multilateral security assurances for non-nuclear countries.

For USUN--Would also appreciate USUN's comments on above.

GP-3

END

RUSK

~~SECRET/LIMDIS~~

49  
NATIONAL SECURITY COUNCIL

March 29, 1965

Bob,

Attached is the letter that I would like  
to discuss with you at our 3:30 meeting  
today.

Spurgeon

Call Talbot

Sci.  
Tommy  
Mr. Phil.

MAR 29 1965

Returned to CE Johnson  
with HHS memo - 3/22/65

50

Mr. Rumsfeld      India  
Hal - Is this      nuclear  
letter to Khabba  
OK in terms of  
general policy  
towards India?  
3/22      CJ

~~CONFIDENTIAL~~

50a



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

MAR 19 1965

DECLASSIFIED  
Authority U.S. 032.025.002/18  
By pc, NARA, Date 6-29-12

Mr. Charles Johnson  
Office of Special Assistant to the  
President for National Security Affairs  
The White House

Dear Mr. Johnson:

Following your conversation with Hal Bengelsdorf of this office, I am transmitting herewith for your review a proposed letter from Dr. Seaborg to Indian AEC Chairman Homi J. Bhabha summarizing Dr. Bhabha's discussions with the Commission during his visit to Washington from February 19 to February 23, 1965. As you know, these discussions were held as part of a general effort the United States is making to enhance the image of India's scientific capability and the principal items that we discussed concerned the prospects of closer U.S.-Indian cooperation in the field of the peaceful uses of atomic energy. The discussions were a follow-up on the meetings Commissioner Palfrey and I had with Dr. Bhabha during our visit in India January 21 to January 31, 1965.

I believe the letter is largely self-explanatory and, as Hal indicated to you over the phone, many of the proposed cooperative activities which we discussed with Dr. Bhabha are modest in scope and are a logical outgrowth of our already existing cooperative relationships with India. In other words, we probably would have gone ahead with a number of these activities in any case even had we not been urged to give special attention to India at this time.

The draft has been reviewed and cleared by the Department of State.

Following your review and signature by the Chairman, the letter will be sent by the State Department to Ambassador Bowles for appropriate delivery. The Ambassador has already been informed of the highlights of the discussion. You will note that the first visit exchange is to take place in April.

I would be happy to answer any questions you have on this matter or to discuss any of the items further.

Sincerely yours,

*Myron B. Kratzer*  
Myron B. Kratzer, Director  
Division of International Affairs

GROUP 3  
Excluded from automatic  
downgrading and  
declassification

Attachment:  
Proposed Letter to Dr. Bhabha

This material contains information regarding the national defense of the United States within the meaning of the espionage laws, Title 18, U.S.C., Sec. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

~~CONFIDENTIAL~~

2359



506

UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

Dear Dr. Bhabha:

We were very pleased to have the opportunity to meet with you during your recent visit to Washington to discuss the various prospects for more intensive cooperation between the United States and India in fields related to the peaceful uses of atomic energy. I believe we found ourselves in general agreement that there were several interesting and important areas of cooperation that warrant further exploration. In the following paragraphs I shall attempt to summarize the principal points that we discussed and the conclusions we came to regarding the appropriate next steps.

1. U.S.-Indian Exchange In The Field of Thorium Recycle. As a result of your meeting with Commissioner Ramey, it was agreed that we should take prompt steps to initiate an intensive exchange of information and personnel, in areas of technology related to thorium based fuel cycles. As a first step it was concluded that an Indian team will visit the United States in April for an overall orientation on the Commission's principal activities related to this field. We shall forward to you shortly a recommended detailed itinerary for the visit. At the end of its tour of the appropriate AEC facilities we understand that the Indian group will plan to visit the USAEC Headquarters to put into final form a letter agreement covering our proposed cooperative exchange in this area. An outline of the principal provisions that we would anticipate would be incorporated in such a letter agreement is appended to this letter. We would anticipate that both thermal and fast reactors of significance to the thorium cycle would be covered in the proposed exchange. One of the first activities we would be prepared to consider in terms of implementation would be the long-term assignment of a U.S. reactor specialist to Trombay to work on the critical experiments using the Zerlina reactor.

DECLASSIFIED  
Authority NIS-032-025-002/18  
By jc, NARA, Date 6-29-12

2. Joint Study Regarding How India Might Utilize Its Uranium And Thorium Resources Most Effectively. In the course of the meeting we agreed that it would be desirable to establish a joint working group, comprised of about five to six people, to study and prepare a report on the various approaches that the Government of India might take, in its future nuclear power program, so as to achieve the most effective use of India's reserves of thorium and uranium. It was agreed that, during the April team visit referred to in the preceding paragraph, general discussions on this subject will be held, and that around May or June the USAEC would send a team to Trombay to meet with your designees and undertake the initial phases of this investigation. Our representatives would plan to review with your people the long-term studies that already have been prepared by the Indian AEC in this area and they also would be prepared to make available to your scientists the results of the recent studies performed by the USAEC on advance converters. We would expect that both thermal and fast reactors would be considered in this evaluation.
  
3. Fast Reactor Exchange. We agreed that it would be desirable for the United States and India to consider the development of a more intensive exchange of information and people in the field of fast reactors. As already noted, our proposed cooperative long-term study regarding the effective utilization of India's thorium and uranium resources and our exchange on the thorium based fuel cycle will each include a consideration of fast as well as thermal reactors. I propose that after these two activities have been initiated we consider further what specific type of cooperative activity in the area of fast reactors would be most appropriate.
  
4. Maritime Reactors. During our conversations you expressed an interest in exploring the development of a joint project that might serve to assist India in establishing its own program in the field of nuclear maritime reactors. You explained that this area might be particularly promising in view of the relatively high cost of the oil now used to fuel Indian merchant ships. It also was observed that the successful execution of such a project in India, with heavy reliance on Indian scientific and engineering personnel, could serve to demonstrate India's impressive capabilities in the field of atomic energy. As we explained, the U.S. nuclear program in the maritime field is now undergoing an overall reevaluation and this necessarily will influence the extent of our ability

to cooperate with the Indian AEC at the present time. Within these limits, however, we would be pleased to discuss the various possibilities for joint cooperation in further detail and to furnish the Indian AEC with our views on the economic studies you already have performed on the relative merits of fossil fueled and nuclear fueled vessels. As an initial step, we have agreed that the Indian AEC will send a team to the United States at a time to be mutually agreed, as soon as these preliminary Indian studies have been completed.

5. Plowshare Program. In the course of our conversations you indicated that it was conceivable that the U.S. Plowshare Program might be able to make an important contribution, in time, to the solution of some of India's basic engineering problems. It was noted, for example, that nuclear devices might be employed to deepen the ship channel between Ceylon and India, or to shorten the water flow distance in the Hooghly River, which, in turn, would increase the water flow gradient and reduce the rate of silt deposition. It was observed that the latter application probably could be performed with wholly-contained nuclear devices. In order to permit the Government of India to assess the current status of the U.S. technology in this area, it was agreed that the Commission would send a U.S. team of experts to India, at a mutually agreed time, to (a) present some lectures to appropriate Indian scientists on the current status of the U.S. Plowshare Program (including the remaining experimental work that needs to be done), and (b) assist the Government of India in evaluating the possible role this technology might play in helping India solve some of its engineering problems. Following this visit, and at a time to be agreed, a team of Indian scientists might wish to visit the United States and hold further preliminary discussions with our scientists on the matter. We noted that these discussions would be held without any commitment to proceed further on the matter and that the actual performance by the United States of any Plowshare projects overseas (in India or elsewhere) would depend on the further development of the technology and the relevant political considerations at the time, including whatever implications the specific project involved had insofar as the Limited Test Ban Treaty is concerned.

6. Desalting. We expressed our willingness to furnish the Government of India with full information on the U.S. program in the field of desalting and to consider the possibility of a joint program in this area. You explained that the Indian studies in this field are still in a very preliminary stage and that, accordingly, this matter could be taken up more profitably as soon as these preliminary studies had been completed.
  
7. Assistance In The Design And Construction Of Particle Accelerator. In the course of the discussions you indicated that there was some interest in India in building, with heavy reliance on Indian personnel, either a 20-25 Mev Van de Graaff (tandem type) accelerator or a 50 Mev variable energy cyclotron. You inquired as to the possibility of obtaining the assistance of two or three U.S. scientists in helping the Indian group design and construct the machine that may be selected. We indicated that in terms of our own experience we felt it would be exceedingly difficult for India to construct a tandem Van de Graaff accelerator and that if such a machine was desired it probably could best be purchased from the High Voltage Engineering Company. I gather that this coincides with your own evaluation. It was noted, however, that several U.S. institutions had successfully built, as of late, variable energy cyclotrons. Accordingly, as a first step and to assist India in its further study and evaluation of this alternative, it was concluded that you would send a team to this country, at a time to be agreed, to visit various laboratories and universities that either have or are planning the establishment of variable energy cyclotrons. We will be pleased to assist your people in planning and arranging the itinerary for such a visit. To assist you in this regard, I am appending a list of U.S. facilities that might be of interest as well as a table on isochronous cyclotrons located in various countries. You may also wish to refer to the "Proceedings of the International Conferences on Sector-Focused Cyclotrons", University of California, April 17-20, published by the North Holland Publishing Company. This volume contains a number of papers on the design and operation of variable energy cyclotrons.

8. Possible Transfer Of U.S. Plutonium. I understand that during your meeting with Commissioner Ramey you inquired as to whether it might be feasible for the Commission to transfer to India an amount of plutonium for use in your proposed research and development program related to plutonium and thorium recycle. We explained that due to questions of policy as well as the current limited availability of such material we were obliged to consider requests involving the transfer of sizeable quantities of plutonium on a case-by-case basis and it was agreed that you would furnish us for our review a detailed outline of your requirements. We observed that either a new Agreement for Cooperation or an amendment to our existing Agreement for Cooperation would be required to permit us to transfer additional quantities of special nuclear material to India (for uses other than the Tarapur reactor). We also explained that it is now our policy to include a provision in our Agreements for Cooperation to the effect that the safeguard responsibility will be promptly transferred to the International Atomic Energy Agency. I gather that you would not foresee any difficulty in our agreeing on such a formula regarding the IAEA in this case. I suggest that we resume our discussions on the possible need for an amendment to our existing Agreement or a new Agreement when the Commission has had an opportunity to review your requirements for plutonium in detail. I understand that you would prefer to handle this matter in a new Agreement for Cooperation rather than in an amendment to the Tarapur Agreement.

The Commission is extremely pleased over the prospects outlined above for more intensive cooperation with the Indian AEC in these areas, and we are confident that they will, in time, be supplemented by exchanges in other new areas as well.

As a closing note, I would like to state that the Commission has no intention to publicize this letter with the understanding that you also do not intend to publish the contents.

It was indeed a pleasure for all of us, and a personal pleasure for me, to see you in Washington and I look forward to seeing you on your next visit.

Sincerely,

Chairman

Dr. Homi J. Bhabha, Chairman  
Department of Atomic Energy  
Apollo Pier Road  
Bombay 1, India

Enclosures:

1. Principal Provisions Anticipated to be Incorporated in Letter Agreement
2. List of U.S. Facilities
3. Table on Isochronous Cyclotrons

---

cc: Chairman (2)  
Commissioner Bunting  
Commissioner Palfrey  
Commissioner Ramey  
Commissioner Tape  
GM  
AGMIA  
Secretariat (2)  
OGC  
AA/IA Br., IA

PRINCIPAL PROVISIONS LIKELY TO BE INCLUDED IN A U.S. - INDIAN EXCHANGE ARRANGEMENT RELATING TO THORIUM RECYCLE

1. The United States Atomic Energy Commission and the Indian Atomic Energy Commission recognizing their mutual interest in fields of research and development related to the use of thorium in thermal and fast reactors shall exchange information in the following fields:

(Detailed technical scope to be delineated following visit of the team of Indian scientists to the U.S. in April, 1965.)

2. The foregoing information shall be exchanged by reports, letters, drawings, specifications, visits, and the long-term assignment of personnel and such other means as the Parties may agree from time to time.

3. The information exchanged under this arrangement shall be available for use in the programs supported by the U.S. AEC and the Indian AEC and may also be made available to industry in the respective countries for normal commercial use.

4. A coordinator shall be designated by each Party for the purposes of developing and controlling the detailed arrangements for implementing the effective exchange of information under this arrangement. This shall include, among other things, the nomination of correspondents on each side to deal with specific areas of technology.

5. The Parties shall arrange joint meetings at approximately annual intervals for overall discussions in areas relating to the scope of this exchange.

6. Insertion of an applicable patent clause covering the disposition of rights to inventions or discoveries made as a result of the exchange.

DECLASSIFIED  
Authority ML3.03a.025.002/18  
By pc, NARA, Date 6/24/18

The text of an appropriate patent clause will be forwarded by the U.S. AEC to the Indian AEC for its consideration.

7. This arrangement shall come into force upon receipt of a letter from the Indian Atomic Energy Commission stating its concurrence in the terms outlined above, and shall remain in effect for a term of \_\_\_\_\_ years. The Parties may review the arrangement from time to time to determine whether any modifications are indicated. Moreover, they may each terminate the exchange on one years notice if they so desire.

50d

AEC Variable Energy Cyclotron Facilities

University of Colorado  
Boulder, Colorado

Prof. David Lind

52 inch      30 Mev protons 1 ma int. current  
                 30 Mev alphas

Research program includes experiments on pickup reactions and elastic and inelastic proton scattering.

University of Michigan  
Ann Arbor, Michigan

Prof. William Parkinson

83 inch      40 Mev protons 1 ma int. current  
                 40 Mev deuterons

Cyclotron in operation but on limited basis pending completion of additional shielding.

Oak Ridge National Lab.  
Oak Ridge, Tennessee

Dr. Robert S. Livingston

76 inch                      75 Mev protons 1 ma int. current  
                                  heavv ions  $\rightarrow$  100 Mev

Pickup reaction studies. Polarized proton scattering.

Lawrence Radiation Lab.  
Berkeley, California

Dr. Bernard Harvey

88 inch                      55 Mev protons 1 ma int. current  
                                  120 Mev alphas

Polarized proton studies. Elastic and inelastic scattering of alphas. p,t and p, He<sup>3</sup> reactions

Argonne National Laboratory  
Argonne, Illinois

Dr. John J. Livingood

Design study of 170 inch variable energy cyclotron. 100 Mev protons. 240 Mev alphas. 360 Mev Ne<sup>16+</sup>.

University of California  
Davis, California

Prof. John Jungerman

Copy of 76" Oak Ridge cyclotron with modest engineering changes. Scheduled completion end of 1965.

DECLASSIFIED  
Authority NLS.032.025.002/18  
By *jc*, NARA, Date 6/29/12

Texas A&M  
College Station, Texas

Prof. Royce Jones

Copy of 88" Lawrence Radiation Laboratory cyclotron. Preliminary engineering completed.

University of Maryland  
College Park, Maryland

Prof. Harry Holmgren

To be designed to obtain 100 Mev protons and 130 Mev alphas.

National Science Foundation Project

Michigan State University  
East Lansing, Michigan

Prof. Henry Blosser

64 inch 50 Mev protons 1 ma int. current  
Beam recently obtained.

AEC Electron Linear Accelerator Facilities

Yale University  
New Haven, Connecticut

Prof. Howard Shultz

40 Mev 750  $\mu$ amp av. current  
Neutron capture  $\gamma$  ray studies, photonuclear reactions, electron scattering.

Rensselaer Polytechnic Institute  
Troy, New York

Prof. Erwin Gaerttner

66 Mev 720  $\mu$ amp av. current  
Neutron cross section measurements. Reactor physics measurements.

MIT  
Cambridge, Massachusetts

Prof. Peter Demos

Proposed 400 Mev 100  $\mu$ amp av. current

Oak Ridge National Laboratory  
Oak Ridge, Tennessee

Dr. John A. Harvey

Proposed 120 Mev machine.

Non-AEC: National Bureau of Standards  
Gaithersburg, Maryland

Dr. William Koch

150 Mev 100  $\mu$ amps av. current.

ISOCHRONOUS CYCLOTRONS, SPECIFICATIONS

50e

		Status	Energy (MeV)	Beam, Goal			Magnet						RF System						Comments		
				Int (μA)	Ext (μA)	Orbit, r max (cm)	Pole dia (cm)	Gap min (cm)	Sect	Spiral max (°)	AVF Coils (pr/sect)	Circ Trim Coils (pr)	Av Field at r max (kG)	Total Power (kW)	Dees (No, °)	Dee Apt (cm)	RF (Mc/s)	Power max, in (kW)		Energy Gain, max keV/turn	Dee Tuning
Canada	Winnipeg	Const (1964)	≤50p*	100	1	53	117	2.5	4	49	0	0	20	120	2, 45	2.5	14-29	50	100	MS	Temp reg Invar shims
CERN	Geneva	Study	850p	100		437			8	60			12			9.4		200	FF	Meson factory	
France	Grenoble	Eng (1966)	≤60p*	200	20	80	200	14	4	45	3	9	15	250	2, 90	4	10.5-21	60	120	MP	CSF machine
	Orsay	Const (1965)	≤30p*	200		47	110	16	4	35	0	0	17	250	1, 180	4.5	10-25.2	100	200	MS	Alloy shims
	Orsay	Const (1963)	≤68a*	1000		85	200	21	3	0	5	0	14.3	400	1, 180	5	4-10.5	300	300	MS	Alloy shims
	Saclay	Const (1963)	≤25p*	100	20	56	120	14	3	35	3	11	15	140	1, 180	2.5	7-22	85	100	MS	Philips machine
C	Julich	Eng	≤90d	50	10		320	6	3	Yes				3, 60				300			AEG study
	Karlsruhe	1962, in use	50d	100	10	107	225	8	3	0	5	0	14.7	30	3, 60	4	33	70	240	FF	AEG machine
India	Calcutta	Study	≤25p*																		Would be purchased
Italy	Milan	Const (1964)	≤45p*	100	10	70	166	11	3	0	0	8	14.1	200	1, 180	3.6	17-22	120	140	MP	Pole tips contoured
Japan	Osaka	Study	40p	500	50	62	140	15	3		2	7	16		1, 180	3.5	7.5-22.5	120	160	MS	
Netherlands	Amsterdam	Const (1964)	≤25p*	100	20	56	140	15	3	35	3	11	15	140	1, 180	2.5	7-22	85	100	MS	Philips machine
	Delft	1958, in use	12p	500		34	86		4	0	0	0	14	1, 180	5.6	21		25	FF	1st isochronous cyclotron	
	Eindhoven	1963, in use	≤25p*	100	20	56	120	14	3	35	3	11	15	140	1, 180	2.5	7-22	85	100	MS	Philips prototype
	Eindhoven	Const (1964)	27p			57	142	16	3	48			13.4	1	3	20		100	FF	Philips; isotope production	
	Groningen	Design (1968)	≤50p*	100	10	115	280	25	3 or 4			10	14	300	1, 180	4	5-15	300	140		Philips machine
Switzerland	Zurich	Study	500p	100		490	1000	8	8	25	7		7.5	400	4 cav	5	60	400	1000	FF	Injection at 70 MeV
USSR	Alma Alta	Design				150															
	Dubna	1959, in use	≤13d	20		53	120	8	6	75			14	55	1, 180	4	10.4	15	70	FF	
	Leningrad	Const (1963)				69			3	Low							7-21				
	Moscow	1961, in use	≤32d*	300	70	69	150	16	3	0	1	6	16.7	200	2, 180	5.8	7.8-13	120	280	MS	Converted 1.5-m machine
UK	Amersham	Design	27p			57	142	16	3	48			13.4	1, 180	5.6	21				FF	Philips machine
	Birmingham	1961, in use	≤11d*	1000	250	46	102	7.6	3	0	2	8	15.8	40	1, 180	2.5	7-16	45	60	MS	Ions injected axially
	Harwell	1959, in use	3p	1000		20	56	10	3	0	0	12	13	100	1, 180	5	15-20	20	60	MS	Model of 76-in.
	Harwell	Const (1964)	≤50p*	500	50	76	178	19	3	42	3	12	17	750	1, 180	4.1	7.2-23	445	200	MS	
USA	Ann Arbor	1963, in use	≤37p*	1000	250	93	211	17	3	43	0	12	15	200	2, 180	3.2	6-16	360	280	MS	Beam testing (April 63)
	Argonne	Study	≤70p*		200		94	19	3	60		17	17	1, 180	3.8	6-20			MP		
	Berkeley	1961, in use	≤60p*	1000	100	99	224	19	3	56	5	17	17.1	1036	1, 180	3.8	5.5-16.5	350	140	MP	
	Boulder	1962, in use	≤30p*	1000	100	60	132	12	4	45	5	1	13.2	100	1, 180	3.8	7.5-21.3	100	150	MP	Deflecting H <sup>-</sup> ions
	Brookhaven	Model tests	≤42p*	300	50	64	152	19	3			8	14.65	200	1, 180	4.8	9-27	150	200	MP+MS	Conversion of 60-in.
	Claremont, Cal	1960, in use	2.5p	25		25	58	10	6	0	0	0	9	3	1, 180	2.5	13.9	2.5	34	FF	For undergraduate instruction
	Davis, Cal	1962, in use	≤12p*	400	100	25	60	4.4	3	45	1	9	19.7	45	2, 110	1.5	15-30	20	100	MS	
	Davis, Cal	Design (1965)	≤75p*				193		3	30	1	10		1, 180			7.5-22.5			MS	Old 60-in. Crocker magnet
	E. Lansing	Const (1964)	≤50p*	1000	500	71	163	17	3	0	0	8	14	140	2, 144	4.4	13.5-21.5	240	270	MP	Double mode RF
	Los Angeles	1960, in use	≤50p*			51	125	2.5	4	47	0	8	20	120	2, 45	2.5	26.5-29		90	MP	Deflecting H <sup>-</sup> beam
	Los Angeles	Study	700H <sup>-</sup>	170	150	1036	1113	76	6	78	4	17	3.1	3500	2, 180	20	11.31	1780	400	FF	To accelerate neg ions
	Maryland	Proposed	≤75p*	1000	200	99	224	19	3	56	6	17	17	460	1, 180	4.1	6-19.5	100	140	MP	Brubek Eng
	NRL (Wash)	Proposed	≤75p*	1000	100	80	193	19	3	30	4	10	17.2	2000	1, 180	4.8	7.5-22.5	650	200	MS	Horizontal "ORIC"
	NRDL (San F)	Model tests	≤100p*	1000		84	178	5	4	56	5	9	18	300	2, 35	2.5	10-30	205	300	MS	Movable iron shims
	Oak Ridge	1962, in use	≤75p*	1000	100	80	193	19	3	30	4	10	17.2	2000	1, 180	4.8	7.5-22.5	650	200	MS	Vertical mod plane
	Oak Ridge	Model tested	810p	200	100	584			8				18			10	13.7 or 20.6	<800	1000	FF	Testing RF cavities
	St Louis	Const (1963)	≤30*	1000	100	58	137	15	3	Low	4	5	14	150	1, 180	3.2	7.5-22.5	120	120	MS	Conversion of 45-in.
Texas A&M	Proposed	≥100p*	1000	100	99	224	19	3	56	5	17	13.2	2000	1, 180	3.8	8-24	650	150	MP	Copy of LRL 88-in.	
Urbana	1958, in use	≤15p*	500	50	47	111	14	4	tan <sup>-1</sup> .13r	1	5	15.7	98	1, 180	3.8	9-18.5	100	180	MS	Conversion of 50-in.	

\* Also other ions,  
MS Movable shims  
MP Movable panels  
FF Frequency fixed.

DECLASSIFIED  
Authority NLS-032.025-002/18  
By JC, NARA, Date 6/26/12

~~CONFIDENTIAL~~

54



OFFICE OF THE DEAN

SCHOOL OF SCIENCE

CAMBRIDGE, MASSACHUSETTS 02139

February 24, 1965

The President  
The White House  
Washington, D.C.

*India nuclear*

Mr. President:

As you know, I recently went to India to identify scientific activities which might have sufficient significance to offset in part, the impact of the Chinese nuclear explosion. I talked with many government officials, including Prime Minister Shastri and with many scientists. I also had an opportunity to visit several scientific institutions, including the nuclear development at Trombay near Bombay.

The general mood of the Indians I talked with was disquieting. The Chinese invasion and nuclear explosion have badly shaken their self confidence, and they are seriously questioning the wisdom of their decision not to make nuclear weapons. The government is under considerable pressure, both from within and from outside, to undertake the development of a nuclear device. While most of the people in the responsible ministries realize that India does not have the resources to make an effective deterrent system, many of the Congress party politicians and the general public do not understand this. Even people who realize that it is not possible to make an effective weapons system think that just setting off a nuclear explosion would help regain the prestige that India has lost throughout Asia and Africa.

The Shastri government has apparently decided not to go forward with the development of a nuclear weapon at this time, but it may be that some preliminary work has been authorized. I believe that pressure to develop a bomb will become too great to resist when the Chinese have carried out a few more explosions, and the Indian Government has not, in the meantime, produced an acceptable alternative course of action that re-establishes confidence in Indian democracy.

~~CONFIDENTIAL~~

DECLASSIFIED

E.O. 13292, Sec. 3.4

By jc, NARA, Date 5-5-04

S&T Cont. No. 0305

~~CONFIDENTIAL~~

SCHOOL OF SCIENCE  
OFFICE OF THE DEAN

Mr. President

-2-

February 24, 1965

The Indians do have the capability to produce a primitive nuclear weapon in two to three years, with an expenditure of about fifty million dollars. They would need to purchase a modest amount of equipment and parts overseas, but not necessarily from us. Indian choice of the nuclear path would certainly increase the stimulus to many other smaller nations to make the same choice and our hope of halting the spread of nuclear weapons would disappear.

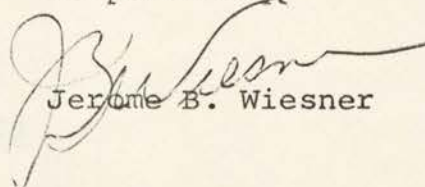
I was not able to find any simple technical spectacular which would have sufficient psychological advantage to offset the effect of the Chinese nuclear explosion. There are, however, many things which would be constructive and would serve to draw the Indian and American scientific communities closer together. Some of these are being explored now by the State Department, the A.E.C. and N.A.S.A. I suggest that you urge more energetic efforts on their part, to provide a program that could be offered to Shastri, when he comes here.

While much of the present preoccupation with nuclear weapons comes from a fear of Chinese political advantage in Asia and Africa, some of it is caused by a real fear of Chinese nuclear aggression. This fear could be calmed by restating the declaration you made last October.

The lag in Indian economic growth is another important source of the widespread feelings of frustration, which is underlined by the comparison with Pakistan. I gather that the greater rate of progress in Pakistan is due in some measure to the considerably higher capita aid input there. Here again is an area in which we could take action.

It is my impression that the situation is precarious but not immediately desperate. There is time for us to make a determined effort to ward off the Indian nuclear decision and re-invigorate their economic development program. It is clear that if India were to get into much more serious trouble, the communists would have a major opportunity in Asia, both within the country and elsewhere, and the costs to us of denying that opportunity to them would increase incalculably.

Respectfully,

  
Jerome B. Wiesner

~~CONFIDENTIAL~~

Miss  
Votaw  
(2)  
Miss  
Votaw

RECEIVED

Mar 1 3 02 PM '65

OFFICE OF SCIENCE  
AND TECHNOLOGY

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.

Second paragraph of faint, illegible text.

Third paragraph of faint, illegible text.

Fourth paragraph of faint, illegible text.

Fifth paragraph of faint, illegible text.

Sixth paragraph of faint, illegible text.

Handwritten signature or initials.

CONFIDENTIAL

~~DECLASSIFIED~~

This document consists of 3 pages  
No. SECRET of 55 Copies, series a.

NEA:SOA:DTSchneider:bt  
(Drafting Office and Officer)

DEPARTMENT OF STATE

55 958

Approved in U  
3/8/65

Memorandum of Conversation

3100

DATE: February 22, 1965

*India file*

SUBJECT: Indian Nuclear Energy Program

- 1. Komer
- 2. C Johnson
- 3. Keeny
- 4. Ret - BKS

PARTICIPANTS: His Excellency B. K. Nehru, Ambassador of India  
 Dr. Homi Bhabha, Secretary of the Department of Atomic Energy,  
 Government of India  
 Mr. Ball, Under Secretary of State  
 Robert Anderson, U  
 David T. Schneider, NEA/SOA

COPIES TO:

- |           |        |                     |
|-----------|--------|---------------------|
| S/S       | FE     | CIA                 |
| G         | AF     | White House         |
| S/P       | INR/OD | Amembassy NEW DELHI |
| NEA       | SCI    |                     |
| NEA/SOA-2 | AEC    |                     |

DECLASSIFIED

Authority FRUS 64-68 vol 25-88  
By JL NARA. Date 4-27-04

Calling at his own request, Dr. Bhabha opened the conversation with a description of India's nuclear power reactor program. Analyzing the economics of nuclear power plants he concluded that although capital costs were somewhat high, in areas where hydroelectric power potential was fully exploited or did not exist and where the sources of coal were remote, nuclear power was very much less expensive in India than coal power.

Dr. Bhabha then directed the conversation to what he called the dilemma India faced regarding what to do to counteract the "noise" of Communist China's nuclear explosion. He explained that India needed to make some dramatic "peaceful" achievement to offset the prestige gained by Communist China among Africans and Asians. Mr. Ball noted however that African opinion on the Communist Chinese detonation was divided. The Africans had been impressed but they were also disturbed regarding the possible effects of fallout. Dr. Bhabha granted that this may be so but said very few Africans had been willing to join in criticism of Communist China. He believed that if any of these countries could secure nuclear weapons they would. Mr. Ball replied that the problem was to get the major non-nuclear countries to agree to forego nuclear weapons; then the way would be clear for other nations to follow. Dr. Bhabha said that in order to do this a way must be found so that a nation will gain as much by not going for nuclear weapons as it might by developing them. It was not helpful to differentiate between members of the "nuclear club" and non-nuclear nations. Mr. Ball agreed and said that we want to prevent countries from gaining status by developing nuclear weapons.

Dr. Bhabha

FORM DS-1254  
3-61

~~SECRET~~

GROUP 3

Downgraded at 12- year intervals;  
not automatically declassified.

GPO 908992

PRESERVATION COPY

MAR 9 1965

~~SECRET~~

Dr. Bhabha then examined India's accomplishments in the area of nuclear energy and contrasted them with those of China. He noted there were really only two nuclear powers in the world, the United States and the USSR. Britain and France were on quite a different level; still at a much lower level was Communist China. India could quite easily have achieved China's capability.

Dr. Bhabha explained that the Chinese were greatly indebted to the USSR for helping them on their weapons program. At the end of the five-year period of Soviet assistance (about 1959 or 1960) the Soviets had been putting up a diffusion plant, which was not completed, however. The Chinese had asked for a model nuclear bomb but the Soviets had refused; the Chinese had then alleged that the Soviets were backing out of an agreement with them. The Soviet Union must nevertheless have left the blueprints for a nuclear device with Communist China.

Dr. Bhabha explained that if India went all out, it could produce a device in 18 months; with a U.S. blueprint it could do the job in six months. It was clear from this analysis how the Chinese gained time because of the Soviet help. In fact the Chinese in 1958 had admitted to the Indians that their first nuclear reactor was Soviet-built and that only the Soviets were fully acquainted with its operation. When Chou En-lai had visited the Indian Atomic Energy establishment at Trombay some years ago, he had said it would take China 15 years to accomplish what India had. Dr. Bhabha noted that even if this was exaggerated, China at that time was at least three years behind India.

Dr. Bhabha noted that even today we do not know if all of the U-235 used in the Chinese device was produced in China. He said that an Indonesian representative at the recent inauguration of the Indian plutonium separation plant at Bombay had said she had learned in Peiping recently that the Chinese reactor there was operated only when VIP's visited it. "What other reason except shortage of fuel could there be for this?" asked Dr. Bhabha.

Dr. Bhabha explained that if India is to maintain its prestige relative to the Chinese in the fields of science and technology two things should be done: (1) ways must be found for it to demonstrate to other Asian and African countries India's scientific achievements, (2) a greater awareness of Chinese indebtedness to the Soviet Union for its nuclear achievements must be created. Mr. Ball responded that the Department should look into what could be done about it.

Concluding

~~SECRET~~

~~SECRET~~

Concluding his presentation, Dr. Bhabha said that during the next four or five years there were very few countries which had the capability of developing a nuclear device. Even Japan and Germany had no plutonium separation plants and so were some four years away from being able to produce a device. In fact India was much the closest. India's plutonium separation plant is quite large, large enough to process all of the plutonium from the reactors India is now building. In five years India could produce 100 nuclear bombs per year.

Dr. Bhabha stated that it was the policy of his government, with which he agreed, not to seek nuclear weapons. If his government is to justify this policy, however, ways must be found by which his country can gain at least as much by sticking to peaceful uses as it could by embarking on a weapons program.

NEA:SOA:DTSchneider:bts 2/25/65

~~SECRET~~

Excerpt from AEC  
biweekly Report  
the President 2/9/65

Mr. Komer

56



India  
nuclear

-2-

3. Dedication of Indian Reprocessing Plant

At the dedication of India's first plutonium extraction plant at Trombay on January 22, 1965, Prime Minister Shastri reiterated India's determination to use atomic power only for peaceful purposes. Dr. Homi J. Bhabha, Chairman of the Indian AEC, took the occasion to announce that India would be willing to reprocess fuel elements for developing countries and the IAEA on the condition that the plutonium would be used for peaceful purposes. He also announced that a second reactor for the Rajasthan power station and two reactors for the Madras power station will be built in India by Indians. Commissioner Palfrey represented the United States at the ceremony.

Komer

DECLASSIFIED  
Authority AEC 032-25-3-18  
By JDL WARA Date 2-13-18

PRESERVATION COPY

57

SOUTH ASIA

*India  
nuclear*

3. India's Plans Regarding Development of Nuclear Weapons

25X1C

India has decided to move toward developing nuclear weapons,



Prime Minister Shastri reportedly has authorized India's atomic energy chief, Homi Bhabha, to go ahead with 12 of the 18 months of work Bhabha calculates will be necessary to produce a nuclear device. This decision was made on the basis of Bhabha's assurance that during the first year the work would be identical with a program for "peaceful use" of nuclear power.

At the end of the 12-month period, India would decide whether or not to undertake further steps. One major consideration at that time might be the degree of suc-

cess New Delhi had achieved in promoting a nuclear "shield" for powers, like India, which from choice or necessity do not yet have nuclear weapons. India's prestige needs at the time of review and the state of Indian public opinion before the 1967 elections would also be factors.

The decision reportedly taken is clearly a compromise. Opponents of a weapons program can claim to have maintained India's public position against nuclear proliferation, while those who advocate building a bomb presumably feel they have assurance that the coming year will not be "lost" in terms of weapons development. (~~SECRET~~ NO FOREIGN DISSEM)

SANITIZED

Authority NLJ-032-025-3-2

By je NARA, Date 5-5-01

NEAR EAST - AFRICA

4. Assassination Attempt Against  
Iranian Prime Minister

The attempt on the life of Iranian Prime Minister Hasan Ali Mansur on 21 January will probably lead to repressive measures against the Shah's opponents.

The youthful assailant, now in custody, says he is an admirer of recently exiled religious leader Ayatollah Khomeini and the extremist leaders of the Freedom Movement of Iran, Mehdi Bazargan and Mahmud Taleqani. Initial indications are that his action stemmed from religious fanaticism, but security officials are looking

for other possible motives. The only tenuous link officials have found to the possibility of an organized plot is that his employer was a member of a disbanded fanatical religious organization. Both the employer and other associates of the assailant have also been arrested.

Mansur is believed out of danger unless complications develop. Minister of Finance Hoveida, a moving spirit in the Mansur government, has been named acting prime minister.  
(~~SECRET~~ NO FOREIGN DISSEM)