Joint Chiefs of Staff - Notes

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NOTES ON JCS PAPER

7/25/96

(Signature of person making the change)

Verified by W. Heckrotte

(Signature of person verifying this is the correct document)

Introduction or Cover Letter

As written, this implies that it was through developing a response to ACDA that the JCS arrived at its present assessment of the specific needs of nuclear weapon tests. If so, it seems like ACDA played a valuable role!

The cover letter should actually be a summary statement of the paper -- a better written paragraph 2 is needed.

Summary of JCS Paper

The purpose of the paper is to state the rationale upon which the JCS bases its opposition to further extension of the LTBT.

The argumentation of the paper is hinged primarily on the contention that the USSR is ahead of the US in nuclear weapon technology. Accordingly, there is much for the US to do, so that the Soviets do not, primarily through the deployment of an ABM system, alter the strategic balance. Accordingly, the US should not agree to further restrictions on testing which would prevent the US from correcting the deficiencies of its strategic deterrent systems and making developments necessary for a Nike-Zeus warhead.

General Faults with Paper

1) Overstatement of USSR superiority in nuclear weapons technology. (Note, however, in paragraph 12 they state only there is an "even chance" of Soviet development of warm X-ray warheads.) Overstatements of this kind will deflect argument from the essential point to whether or not the Soviets have something. An "even chance", which is documented, is sufficient to sustain a well presented argument that continued testing is needed.

2) It is not clear at times what they're arguing for or complaining about; it sounds in part like a complaint that not enough is being done. If so, say so, and in just what respect. But this should not, however, be

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allowed to detract from the principle point of stating the basis of opposition to extensions of the LTBT.

3) The paper is poorly organized. There is a fair amount of repetition and jumping from one point to another and back. A more structured presentation would shorten and sharpen the paper.

Possible Summary Outline (The number in parenthesis refers to paragraph in JCS paper, though not necessarily agreeing with choice of words or other details.)

I. Historical

- A) Reasons for considering test bans. Present official positions. (1).
- B) LTBT (2).
 - a) Reasons advanced for it (2).
 - b) Principle military uncertainty centered around ABM's; why doubts put aside (4).

II Events since '63 which cause JCS to oppose extensions of LTBT. (3).

- A) Increased appreciation of enhanced effects.
 - a) Effect on strategic deterrent system (6) (7) (10).
 - b) Effect on ABM (8).
- B) This has led to reassessment of Soviet technology; can conclude
 - a) "Even chance" Soviets have developed this technology, and
 - b) In combination with ABM which they may be deploying, poses risk that strategic balance could be shifted in their favor (5) (12) (14).

III. Steps needed to be taken

- A) Hardening - need of tests and types (7) (13).
- B) ABM warhead development (8) (9).

IV. In light of this assessment, US should not accept more restrictive test bans

- A) CTBT would at time prevent assessment and corrections as stated in III.
- B) TTBT allows some of III-A; prevent III-B.
Need III-B for sophisticated ABM (I would give at most passing reference to IDA suggestion - Paragraph 9 -).

- C) Realize possible benefits of other nature from test bans but appears nebulous compared to real military risks that would be incurred (11).
- D) Problem of verification - put into perspective (15)...

V. Concluding Statement (16)

In the 3 years, since the LTBT, there have been significant developments in nuclear weapon technology. A greater understanding and appreciation has been achieved of enhanced output (x-rays, γ -rays, neutrons) from nuclear weapon explosions and their effect. Specific outputs can be "enhanced" many fold over conventional warheads although the best methods and the degree of tailoring to purpose still needs further developing. The "effects" of these outputs, though known for a long time, has become of increased importance with the development of the enhanced output nuclear weapon. There is still much to be learned of these effects, and their optimal manipulation which in many situations could be more important than the conventional effect of blast and thermal destruction.

Concomitantly with this increased understanding, a reassessment of the Soviet nuclear technology based on their '61-'62 atmospheric tests has led to the conclusion that there is an "even chance" that the Soviets had developed a "warm x-ray warhead". Such an enhanced x-ray warhead, possibly improved in the intervening years, used in an ABM system, which it appears the Soviets may be deploying, would pose a severe threat to the effectiveness of the U.S. strategic nuclear force unless corrective actions are taken.

Thus, a continued test program is needed to pursue the study of weapon effects and take proper corrective actions in the U.S. strategic nuclear force. Furthermore, the continued development of enhanced output nuclear warhead is needed not only for a possible deployment in the US ABM system but also to achieve a direct knowledge under experimental conditions of the effects of a high yield enhanced output nuclear warhead. Parenthetically, we note that although presently developed warheads could be modified for a high-yield ABM warhead, this could severely compromise the flexibility of the system, possibly preventing appropriate modifications in the future when increased understanding may dictate changes in the system.

It is in the light of these considerations that we must oppose further extensions of the limited test ban treaty as unacceptable risks to national security.

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