

DECLASSIFIED UNDER AUTHORITY OF THE INTERAGENCY
SECURITY CLASSIFICATION APPEALS PANEL.
E.O. 13526, SECTION 5.3(b)(3)
ISCAP No. 2009-028, document 1 ~~TOP SECRET~~

I-35303/76
Ref I-35270/76

THE SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

30 November 1976

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Results of Simulations of Strategic Nuclear Exchange

The Chairman of the JCS has prepared the attached paper comparing the results of SIOP/RISOP strategic nuclear exchange simulations over a ten-year period.

Such simulations give useful indications of trends in the capabilities of the US and Soviet systems - directed at each other from a fully generated posture - to destroy major categories of the opponent's target base.

381

D. R. [Signature]

Upon removal of attachments
this document becomes

~~confidential~~

Declassify on:
Date: 16 NOV 2007
Class: Confidential/Secret

Secretary of Defense
CLASSIFIED BY: [redacted]
SUBJECT: [redacted]
EXEMPT FROM: [redacted]
AT TWO: [redacted] 31Dec82

~~TOP SECRET~~

I-35303/76
SEC DEF CONTR No. X-3369
08-M-0676-A1



~~TOP SECRET~~

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

13 NOV 1976 10 07

OFFICE OF THE
SECRETARY OF DEFENSE

CM-1199-76
12 November 1976

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Nuclear Exchange Simulations (U)

1. (U) On 30 September 1976, you requested a brief analysis of previous nuclear exchange simulation results and the identification of any apparent trends in the comparative assessments over the last ten years. This has been accomplished. Force totals relevant to each of the simulations examined are provided at Enclosure A. Specific damage and fatality results are summarized at Enclosure B.

2. (S) On the basis of the data presented, several general trend related observations may be made:

a. Despite the steady increase in the number of SIOP weapons delivered in the USSR, total megatonnage has continued to decrease. This, together with insufficient offsetting accuracy improvements in US delivery systems, may account for some of the decline in damage expectancy against the Soviet nuclear threat.

b. Against softer conventional military targets, the proliferation of SIOP weapons has permitted some improvement in damage expectancies.

c. [REDACTED]

d. Expected fatalities in the United States have almost doubled since 1966 while the totals in the USSR have remained relatively constant. The increase in the United

E.O. 13526, section 3.3(b)(4)(5)

E.O. 13526, section 3.3(b)(6)

Declassified to General
Date: 16 Nov 2007
Chief, Declassification Division, DOD

~~Classified by Director, Joint Staff~~
~~SUBJECT TO GENERAL DECLASSIFICATION~~
~~SCHEDULE OF EXECUTIVE ORDER 11652~~
~~AUTOMATICALLY DOWNGRADED AT TWO~~
~~YEAR INTERVALS~~
~~DECLASSIFY ON 31 DECEMBER 1986~~

15A Re...
of...
WB

OSD Roy No. 8


~~TOP SECRET~~

See Def Cont Nr. X-3220 2/11/80 A

~~TOP SECRET~~

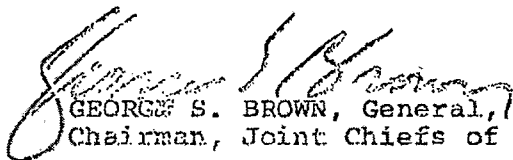
E.O. 13526, section 3.3(b)(4)(5)

E.O. 13526, section 3.3(b)(6)

States is a product of both the two-fold increase in Soviet megatonnage and the way it is employed in the RISOP. 

However, even without such restraints, increases comparable to those in the United States would not be expected due primarily to the demography of the Soviet Union.

e. The 1972 SALT agreement has had no perceptible effect on simulation results.


GEORGE S. BROWN, General, USAF
Chairman, Joint Chiefs of Staff

Attachments
a/s

~~TOP SECRET~~

~~TOP SECRET~~








~~TOP SECRET~~

ENCLOSURE A

E.O. 13526, section 3.3(b)(4)(5)

FORCE TOTALS

E.O. 13526, section 3.3(b)(6)

| <u>YEAR</u> | <u>SIOP</u> <u>Weapons/Megatons*</u> | <u>RISOP</u> <u>Weapons/Megatons*</u> |
|-------------|---|--|
| 1966 |  | 751 / 3320 |
| 1968 |  | 1407 / 5605 |
| 1969 |  | 1337 / 5207 |
| 1971 |  | 1323 / 6793 |
| 1972 |  | 1442 / 7903 |
| 1974 |  | 1534 / 8209 |
| 1975 |  | 1548 / 7844 |

* Totals indicate weapons which actually arrive and detonate on targets in the US and the USSR.

~~CLASSIFIED BY DIRECTOR, JOINT STAFF
SUBJECT TO GENERAL DECLASSIFICATION
SCHEDULE OF EXECUTIVE ORDER 11652
AUTOMATICALLY DOWNGRADED AT TWO
YEAR INTERVALS
DECLASSIFIED ON 31 DECEMBER 1986~~

~~TOP SECRET~~

~~TOP SECRET~~

Enclosure A

~~TOP SECRET~~

~~TOP SECRET~~

ENCLOSURE B

SUMMARY

DYNAMIC NUCLEAR SIMULATIONS

1966-1976

Introduction: The data provided below represent the results of the dynamic simulations conducted annually between the effective versions of the SIOP and the Red Integrated Strategic Offensive Plan (RISOP). To facilitate comparison, a single standard scenario has been used.

Scenario: Both the United States and the USSR are in a fully generated posture following a 30 day period of tension. The USSR launches a preemptive large scale attack against US and allied nuclear offensive capabilities, C³ facilities, and other high priority military and urban/industrial targets. The US retaliates with the most severe SIOP response available against a comparable range of Soviet targets.

Simulation Results:

| <u>Year</u> | <u>Damage</u> | | | | | | <u>Fatalities</u> | |
|-------------|-----------------------|-------------|------------------------------|-------------|-------------------------|-------------|-------------------|-------------|
| | <u>Nuclear Threat</u> | | <u>Conventional Military</u> | | <u>Urban/Industrial</u> | | <u>US</u> | <u>USSR</u> |
| | <u>US</u> | <u>USSR</u> | <u>US</u> | <u>USSR</u> | <u>US</u> | <u>USSR</u> | | |
| 1966 | | | | | | | | |
| 1968 | | | | | | | | |
| 1969 | | | | | | | | |
| 1971 | | | | | | | | |
| 1972 | | | | | | | | |
| 1974 | | | | | | | | |
| 1975 | | | | | | | | |

E.O. 13526, section 3.3(b)(4)(5)

E.O. 13526, section 3.3(b)(6)

CLASSIFIED BY DIRECTOR, JOINT STAFF
SUBJECT TO GENERAL DECLASSIFICATION
SCHEDULE OF EXECUTIVE ORDER 11652
AUTOMATICALLY DOWNGRADED AT TWO
YEAR INTERVALS
DECLASSIFIED ON 31 DECEMBER 1986

~~TOP SECRET~~

~~TOP SECRET~~

Enclosure B

~~TOP SECRET~~

| OASD/ISA REFERRAL SLIP | | | | | | | | SUSPENSE | |
|--|--------|------|------|--------------------------------|--------|----------------------|------|--------------------------|---------------------------------------|
| SUBJECT <i>Results of Simulations of Strategic Nuclear Exchange</i> | | | | | | | | I-35303 | |
| FROM <i>Dumbfries - 150</i> | | | | OSD CONTROL NO. <i>3369</i> | | DATE <i>12/11</i> | | | |
| CLASS | | | | FILE DESG | | COPIES | | | |
| DIR/OFC | ACTION | ASST | INFO | DIR/OFC | ACTION | ASST | INFO | COORD WITH | REMARKS |
| AD | | | | AO | | | | STATE | <i>attachment</i> <i>I-35390/7</i> |
| BD | | | | DT | | | | OJCS | |
| IT | | | | IF | | | | C | |
| PW | | | | LS | | | | DDR&E | |
| ED | | | | TB | | | | GC | |
| IA | | | | S | | | ✓ | I&L | |
| NE | | | | D | | | | LA | |
| NA | | | | A | | | | M&RA | |
| PD | | | ✓ | B | | | | PA | |
| PN | | | | E | | | | PA&E | |
| FF | | | | N | | | | | |
| T | | | | P | | | ✓ | | |
| TO | | | | XO | | | | | |
| ACTION REQUIRED | | | | | | | | | |
| Rep for SecDef Signature | | | | | | | | Direct Reply | |
| Rep for Mil Asst Signature | | | | | | | | Appropriate Action | |
| Rep for DepSec Signature | | | | | | | | Info and Retention | |
| Rep for Mil Asst Signature | | | | | | | | Comments/Recommendations | |
| Rep for ASD/ISA Signature | | | | | | | | Other: | |
| Rep for XO Signature | | | | | | | | | |

SD FORM 473

~~TOP SECRET~~

This form is classified "TOP SECRET" when separated from unclassified documents.

~~TOP SECRET~~ INFORMATION COVER SHEET

| | | |
|---|------------------------------------|------------|
| OFFICE OF THE SECRETARY OF DEFENSE TOP SECRET INFORMATION COVER SHEET | CONTROL NUMBER 5) <i>D35303</i> | ENCLOSURES |
|---|------------------------------------|------------|

The attached ~~TOP SECRET~~ information contains data the security aspect of which is paramount, and unauthorized disclosure of which would cause **EXCEPTIONAL GRAVE DANGER TO THE NATION**. Special care in the handling, custody, and storage of the attached information must be exercised in accordance with the security regulations. This cover sheet is **NOT A RECEIPT** but a record of persons who have read all or any part of the document(s) identified by number above.

Each person receiving the attached ~~TOP SECRET~~ information shall sign and fill in the information required below.

| # | NAME | DATE | | REMARKS <small>(Indicate portions and all of documents read)</small> |
|----|--------------------|----------------|----------|---|
| | | RECEIVED | RELEASED | |
| 1 | <i>Larry Myers</i> | <i>12/1/76</i> | | <i>Processed</i> |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |