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# An Evaluation of Some Feasible 1969 U.S. Strategic Force Compositions



## INTRODUCTION

Predicted improvements in the reliability, yield, and accuracy of ICBM's, in the performance of bombers as represented by the B-70, and in the effectiveness of future air defense systems raise difficult questions in connection with the composition of future strategic forces. Recent considerations of the importance of residual forces to seek out and destroy enemy capability remaining after the initial nuclear exchange, indicate the importance of strike reconnaissance, probably requiring manned systems, and raise the question of maintaining a mixed bomber-missile force even if a pure missile force proved to be superior to the mixed force in the initial exchange. Unfortunately, the residual force role of the strategic force is not spelled out clearly enough to permit quantitative analysis at this time. However, techniques have been developed whereby the initial exchange can be war gamed. The results, when considered in their proper context, can provide an important ingredient to the over-all considerations required to establish the composition of a strategic force which can meet all of the requirements laid on it.

This report is the result of a study directed to the problem of establishing the required size of the B-70 force in relation to the total strategic posture projected for the 1970 time period. In attempting to provide the required information, a more important question was considered, i.e., for a given cost, what is the composition of the most effective U.S. strategic force in the counterattack role? Actually, the results of the cost effectiveness study which was performed provide a better answer to this question than to the original problem, but it does appear that our strategic force will be better balanced with some 200 B-70's and additional missiles than with some 400 B-70's and no additional missiles.

The study compares the capabilities of several possible future strategic forces to survive a Soviet intercontinental ballistic missile (ICBM) attack on the U.S. under conditions of 15 minutes' tactical warning and to carry out a counterattack campaign against the Soviet Union. The measures of effectiveness developed are target complexes and point targets destroyed and bomber survival. Two budget levels are considered for both the U.S. and the USSR. The time period is 1969.

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U.S. STRATEGIC FORCES

The various force compositions studied were constructed by combining various equal-cost, alternative add-on forces with a reference force which includes those weapon systems and numbers to which we now appear to be committed from a procurement standpoint. The composition of this reference force for the odd-numbered years through 1969 is given in Table 1.

In developing the equal-cost, alternative systems to be added to the reference force, two constant budget levels for the period FY 61 through FY 70 were considered. The first approximated our present budget in the strategic area. Under this budget, it was assumed that the reference force could be built up and supported and that, in addition, eight billion dollars would be available for additional procurement and support during this period. The equal cost alternative systems which could be added to the reference force under this budget are given in Table 2. An additional reason for the equality of the B-70 and B-52H buys is that the B-52H's achieve an earlier operational date than the B-70's and hence accrue higher operating costs in the time period. The DROMEDARY is a long endurance, chemically powered aircraft carrying missiles on an airborne alert.

A high budget situation was studied which was 1.6 billion dollars per year above the current budget in the strategic area. Half of this amount was assumed for weapon system procurement, making a total of 16 billion dollars available for this purpose. The remaining eight billion dollars under this budget was assumed to be required for the development of more advanced systems than those studied here. Table 3 shows the high budget, equal cost alternatives studied.

The weapon loads assumed for each delivery system are shown in Table 4.

The operational plan assumed provided that all missiles surviving the initial Soviet ICBM attack be launched immediately. The B-52 force was dispersed to strategic wing level, with one-third on ground alert and able to launch within 15 minutes. A high ground alert posture, achieved through seven-day, 24-hour maintenance and a crew-to-aircraft ratio of four to one, was assumed for the B-70. Through these means, it appears that 70 per cent of the force could be maintained on ground alert. By proper planning and aircraft configuration, it was assumed that, from the aircraft in the air on pro-

ficiency training missions, another five per cent of the force could be added to the available striking force. By providing crews for aircraft in maintenance, it was estimated that 50 per cent of the aircraft in maintenance could launch within 15 minutes.

## SOVIET UNION FORCES

Various compositions for the strategic and air defense forces of the Soviet Union were developed under two budget levels equivalent to those studied for the U.S. Cost information supplied by The RAND Corporation on the Soviet strategic and air defense forces estimated by ACS/Intelligence for 1959, together with the RAND estimate that Soviet GNP increased by six per cent from 1958 to 1959, indicated that 14 billion dollars was a reasonable estimate of the FY 1961 budget for such forces. It was also assumed that this budget would increase at the average rate of four per cent per year over the period FY 1961-1970. The high budget studied assumed a 20 per cent increase in the current budget. The resulting budgets for the first and last years of the cost period in billions of dollars were as follows:

| | FY 1961 | FY 1970 |
|---|---|---|
| Current Budget | 14 | 21 |
| High Budget | 17 | 26 |

Available intelligence information regarding the capabilities of present and future Soviet weapon systems was used but the compositions of their strategic and air defense forces were specifically tailored from the weapon systems listed in Table 5 to counter the particular US force being studied.

This important characteristic of the study is illustrated clearly in Table 6, which indicates the five major components of the alternative equal-cost Soviet forces considered. For example, note the substantial M.3 fighter and improved surface-to-air-missile programs when the B-70 is included in the force, but complete cancellation of these programs in favor of bigger buys of ICBM's, AICBM systems and lower performance fighters if MINUTEMEN are added instead of B-70's. The M.2 fighter buy is increased because of its capability against B-52's penetrating at either high or low altitudes.

The Soviet ICBM was assumed to have a yield of nine megatons, a CEP of one n.m., an in-commission rate of 0.9 and a reliability factor of 0.75. Ninety per cent of the total ICBM force was assumed to be in a launch status.

US FORCE SURVIVAL

The Soviet attack involved an initial salvo of the maximum possible number of ICBM's. One hundred of these were directed against the air defense system. Fifty were directed against military control centers, and the balance were directed against SAC bomber bases and ICBM sites. The objective of the attack was to minimize the capability of the surviving forces to damage the Soviet Union. To achieve this objective, bomber bases, Atlas and Titan Sites were targeted with higher priority than were Minuteman Sites. Bomber bases with a sizeable number of non-alert bombers remaining, each capable of carrying bombs having a total yield of many megatons, constituted essential and relatively soft targets. Atlas and Titan Sites were relatively high priority targets because of their large yield warheads. Minuteman sites carried a lower priority because, being hard, a considerable effort was required to destroy a single missile which carried a relatively small warhead. The objective was achieved by assigning sufficient missiles to each base or site such that the product of the damage potential and the survival probability of every base or site is equal.

The ICBM attack was followed by manned bomber and submarine-launched missile attacks. The results of these attacks were not analyzed. All alert bombers were launched before the arrival of the ICBM attack and all the missiles which survived this attack were launched before the arrival of the follow-on manned bombers. Submarine launched missiles were not directed against ICBM sites.

US Force survival are given in Table 7 for four of the cases studied. The number of B-70's surviving includes the aircraft on alert plus those in maintenance which were able to launch within the 15-minute warning time. The large numbers of MINUTEMEN surviving results from the limited number of missiles available to the Soviets and the criterion used for target assignment as discussed earlier.

US COUNTERATTACK

The effectiveness of the various US strategic forces was studied in terms of an attack on Western Russia. Out of a list of 250 strategic target complexes in the Soviet Union and China as furnished by ACS/Intelligence, 116 were located

in the region attacked. In addition, between 200 and 220 point targets of the categories shown in Table 8 were in the region, the number varying according to the extent to which air defense bases were targeted. Many surface-to-air missile sites in the region were also targeted, with the number varying considerably from case to case. The target complexes are collections of points of military and industrial values so located that a single weapon can do damage to more than one target point. For analysis purposes, an aggregated average target complex as established by AFCIN was used. The point targets included all value points of the categories listed in Table 8 which appear in the Target Data Inventory for the area under attack and which are not located in any of the 116 complexes.

Short range missiles, light bomber bases, their military controls, and other types of targets of particular concern to allied and US tactical forces were not targeted and the attack by these forces was not analyzed. Thus the possible complementary effects of this attack on the penetration capability of strategic bombers was not considered. Possible contributions of the Polaris weapon system in this connection were disregarded also. As a matter of fact, Polaris may serve its most effective role as a member of the residual force.

Considering that 41 of the first 50 target complexes as listed by priority and the majority of the important point targets lie in the area considered, it was estimated that approximately 60 per cent of the target system, in terms of value, was involved. As a result, 60 per cent of the US counterattack effort was directed to this area.

Target assignments were based on considerations of the specific capabilities of each available weapon system and the pattern given in Table 9 was evolved. In the high budget, reference force plus B-70 and MINUTEMAN case, for example, a feasible assignment which tends to maximize force effectiveness is given in Table 10.

The bombers penetrated along the four corridors shown in Figure 1. The two long corridors cover the Leningrad to Moscow route and the Murmansk to the Urals route. The other two corridors involve relatively shallow penetrations. B-52's penetrated and attacked at low altitude except where penetrations to deep targets required high altitude flight for obtaining range. B-70's penetrated at Mach 3 and 70,000 feet.

The attack sequences and the interactions considered in the analysis of the counterattack are worthy of note. First in the sequence of attacks was the ICBM attack on both defenses and prime targets. The consequences calculated included target destruction, direct defense destruction by blast and defense degradation due to fallout. Hand computation methods were used. B-70's, when a component of the force, comprised the second element of the attack, lagging the ICBM attack by approximately three hours. The B-52 force arrived approximately nine hours after the ICBM attack. Generally, these elements attacked primary targets only but they did make indirect contributions, through both blast and fallout, to the degradation of the defenses for follow-on elements. The consequences of the manned bomber attacks were calculated using a highly aggregated penetration model which was programmed for the IBM 709 and 7090 computers. In addition to target destruction and defense degradation calculations, bomber weapons delivered and bomber survival were computed.

The penetration model used in the study divides space into geographical zones and time into periods. An individual air battle is fought in each zone for each time period. The participants in each battle are drawn from the survivors of earlier battles. The model is an expected value model.

RESULTS

Among the eight equal-cost composite forces studied under the current budget level for both sides, Table 11 shows that the force with B-70's equalled or exceeded the level of target damage achieved by any alternative. By this criterion, the MINUTEMAN case provided nearly equal achievement; the B-52H case was third. In considering the significance of the results, it is important to keep in mind that the values shown are not absolute measures of effectiveness. The relative standings, are real, however, and, for lower value of effectiveness, the differences would increase in significance.

The primary objective of the force is, of course, target destruction. However, bomber survival for residual force purposes is becoming an increasingly important consideration. It is thus of interest to rank the various cases in terms of bomber survival as well as in terms of targets destroyed. On applying the fractional survival numbers of Table 11 to the portion of the alert force used to attack the western part

of the Soviet Union, it is found that the B-70 case ranks first with a total of 93 survivors, 46 being B-70's (0.56 survival) and 47 being B-52's (0.54 survival). The B-52H case ranks second with 75 surviving B-52's (0.64 survival), and the Minuteman third with 53 surviving B-52's (0.61 survival). Bear in mind that these are the numbers of bombers surviving to withdrawal from Soviet territory. Before they can become effective components of the residual force, they must return to the US. Many, if not most of them, will require a post-strike staging base to accomplish this. The probabilities that such bases will survive or, given survival, that the aircraft will, in fact, effect their return to the US may be quite small.

Among the five equal-cost, high budget forces studied, the greatest target destruction was achieved by a force containing both B-70's and added MINUTEMEN, as shown in Table 12. The interaction effect which may be achieved by a mixed and properly balanced bomber-missile force is clearly illustrated here. When 24 squadrons of B-70's were added, the missile force was so small that it was virtually eliminated by the Soviet missile attack. Soviet defenses suffered no damage prior to the arrival of the bombers and overall US force achievement was degraded, particularly with regard to bombers surviving. Target destruction remained reasonably high because of the multiple-bomb carrying capability of the bombers. When a mix of B-70's and missiles was added, both target destruction and bomber survival increased significantly.

Ranking the forces according to bombers surviving to the withdrawal point, the combination buy of B-70's and MINUTEMAN is still first with 106 survivors, compared with only 57 survivors in the pure B-70 buy.

In deriving the results shown previously, the bombers were assumed to carry ECM equipment of moderate effectiveness. Further, a deliberate attempt was made not to over-estimate the effect of combat conditions, including such factors as broken communication links, radars and control centers accidentally or deliberately destroyed, psychological effects on personnel, etc., on the real as contrasted with the theoretical capabilities of the defenses. In this connection, it should be noted that the effect of fallout were treated separately and specifically. It played an important role in aiding B-52 penetration but not B-70 penetration, principally because of the difference in HHCL arrival times. The absolute levels of ECM and combat effectiveness are impossible to predict

and, unlike the situation in World War II, we will be unable to test the defenses and develop specific counters if shortcomings are discovered. For these reasons, the sensitivity of the results to these assumptions was tested. The results given earlier for the B-70 case were based on a defense degradation factor of 0.8, covering ECM effects and combat factors. The 0.8 value of the degradation factor corresponds to situations in which ECM achieves a moderate level of effectiveness. Both higher and lower values of the degradation factor were studied. The results are given in Table 13 for the current budget, strategic force with B-70's. Note that bomber survival depended much more strongly on the particular assumption made than did target damage. A comparison of the results for the 0.8 and 0.4 factors shows that, even though B-70 survival was reduced by nearly 60 per cent, the effectiveness of the force was reduced only 16 per cent. The reason for this is, of course, the multiple bomb carrying capability of the manned bomber. In this study, each B-70 carried eight bombs. Only in exceptional cases were bombers destroyed with a full load of bombs. Many delivered all of their bombs. This fact is illustrated most clearly by the 0.4 case in the table. Only one-fourth of the B-70's survived but one-half of the bombs carried by the B-70's were delivered.

A major factor contributing to the high effectiveness achieved by the bomber forces was the employment of MINUTEMAN in a defense busting role. Both air defense bases and individual surface-to-air missile sites were targeted. In fact, in most of the cases studied, all MINUTEMEN were targeted against defenses. The effect of not targeting defenses with MINUTEMAN was studied in the current budget B-70 case for two combat degradation factors. The results are indicated in Table 14. Again, bomber survival depends more strongly on the targeting of defenses than does force effectiveness. However, note that assigning MINUTEMEN to SAM's can provide important insurance against the eventuality that our estimate of the effectiveness of ECM and/or combat degradation factor was in serious error.

Among 13 different composite forces studied in 34 campaigns, the forces which showed the best strike effectiveness contained the B-70. This fact is doubly important. The additional unevaluated capabilities of the bomber, such as flexibility of

operation, reconnaissance, destruction of poorly located or mobile targets, restrike, and residual force, would improve further the achievement of the primary objectives of the strategic force.

Only two B-70 buys were studied, 12 squadrons and 24 squadrons. As a result, the question regarding optimum force size cannot be answered specifically. However, it appears that a total buy greater than 12 squadrons might be desirable - with 12 squadrons on 75 per cent ground plus air alert it was not feasible to assign B-70's to pertinent targets in the entire area studied. Residual force considerations may further increase the total number of B-70's required. On the other hand, the results of the high budget comparisons clearly indicate that, at the level studied, a combination buy of additional missiles and fewer than 24 squadrons of B-70's provided the greatest force effectiveness.

As by-products of the study, the payoffs to be derived from using missiles in a defense busting role and carrying multiple weapons on bombers were clearly indicated.

FIGURE 1

DESCRIPTION OF ATTACKS

116 Strategic Complexes

210 Point Targets

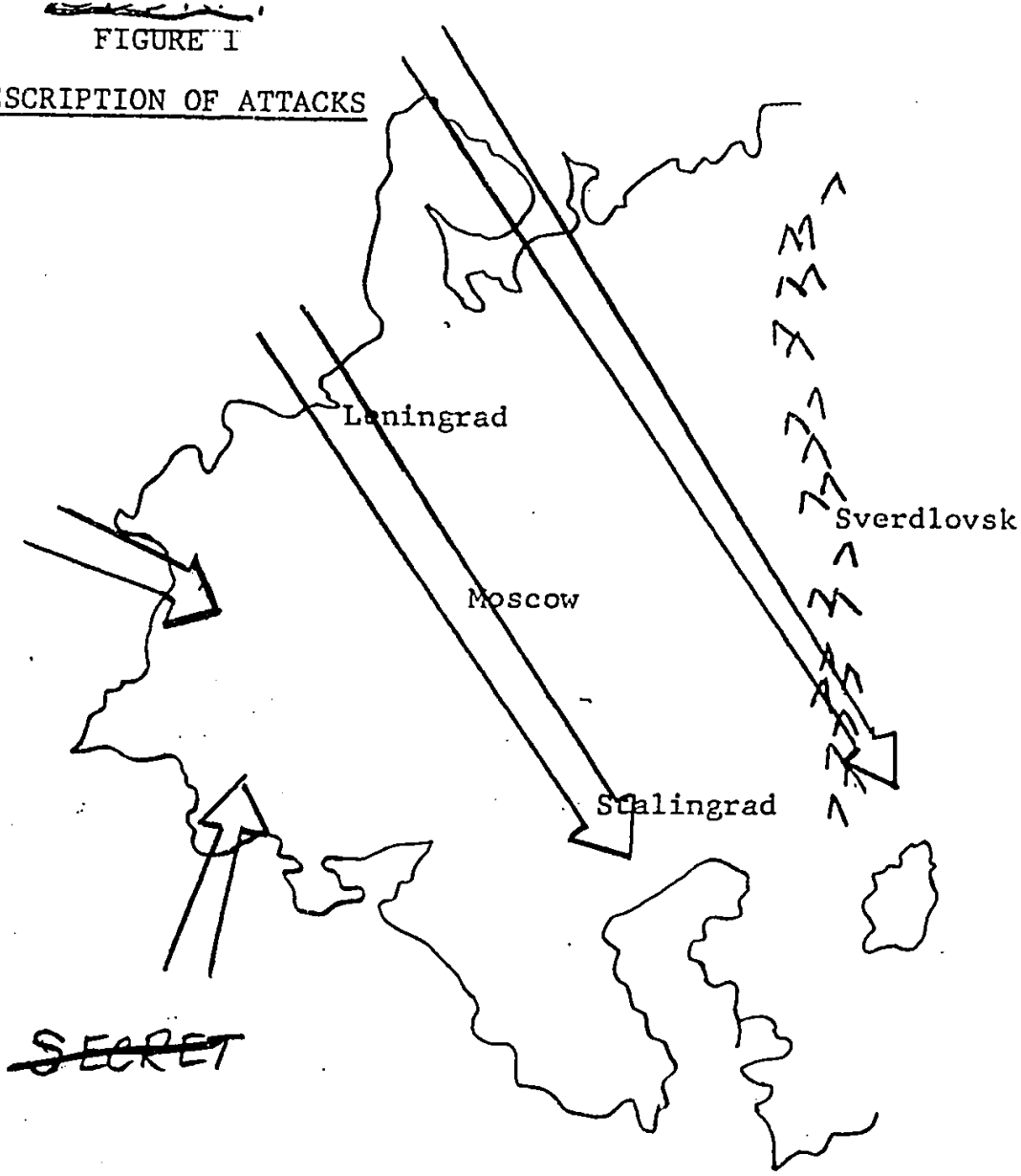


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TABLE 1

US REFERENCE FORCE

| Weapon System | Sq. U. E. | No. of Squadrons - End FY | | | |
|---|---|---|---|---|---|
| | | 63 | 65 | 67 | 69 |
| B-52 | 15 | 42 | 42 | 36 | 29 |
| B-47 | 11 | 64 | 16 | 0 | 0 |
| B-58 | 9 | 4 | 4 | 4 | 0 |
| GAM-72 | 28 | 14 | 14 | 14 | 14 |
| GAM-77 | 23 | 29 | 29 | 13 | 6 |
| GAM-87 | 46 | 0 | 10 | 23 | 23 |
| KC-97 | 20 | 20 | 6 | 0 | 0 |
| KC-135 | 20 | 16 | 19 | 17 | 14 |
| KC-135 | 10 | 22 | 25 | 21 | 16 |
| SM-62 | 30 | 1 | 0 | 0 | 0 |
| SM-65 | 10 | 7 | 7 | 5 | 0 |
| SM-65 | 13 | 6 | 6 | 6 | 6 |
| SM-68 (3 per site) | 10 | 6 | 6 | 6 | 6 |
| SM-68 (1 per site) | 10 | 3 | 8 | 8 | 8 |
| SM-80 Fixed | 50 | 2 | 13 | 13 | 10 |
| SM-80 Mobile | 30 | 0 | 5 | 5 | 5 |
| RB-47 | 15 | 0 | 3 | 0 | 0 |
| RC-135 | 23 | 3 | 0 | 1 | 1 |
| SAMOS | 15 | 0 | 1 | 1 | 1 |
| MIDAS | 12 | 0 | 1 | 1 | 1 |

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TABLE 2

US Strategic Force Equal Cost* Choices - Current Budget

| Weapon System | Sq. U. E. | No. of Sq. |
|---|---|---|
| B-70 | 15 | 12 |
| B-52H ** | 15 | 12 |
| SM-68 | 10 | 34 |
| SM-80 Fixed | 50 | 37 |
| B-52 ** + SM-68 | 15<br>10 | 6<br>15 |
| B-52H ** + SM-80 Fixed | 15<br>50 | 6<br>16 |
| SM-68 + SM-80 Fixed | 10<br>50 | 15<br>17 |
| DROMEDARY | 10 | 33 |

* Cost = RDT and E + Proc. + O and M (FY 61-70) = $ 8 billion

** Including additional KC-135's and GAM 87's and improved ECM equipment for entire force.

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TABLE 3

US Strategic Force Equal Cost* Choices - High Budget

| Weapon System | Sq. U. E. | No. of Sq. |
|---|---|---|
| B-70 | 15 | 24 ** |
| SM-68 | 10 | 66 |
| B-70 + | 15 | 12 |
| SM-68 | 10 | 34 |
| B-70+ | 15 | 12 |
| SM-80 Fixed | 50 | 37 |
| B-70 + | 15 | 12 |
| DROMEDARY | 10 | 33 |

* Cost = RDT and E + Proc. + O and M (FY 61-70) = $16 billion

** Assumes establishment of 2nd production line to meet 1969 availability.

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TABLE 4

US Strategic Force Weapon Loads

| Weapon System | No. of Bombs or Warheads/Carrier | Warhead Yield-MT | CEP (nm) |
|---|---|---|---|
| B-70 | 8 | 3 | 0.5 |
| B-52 (Bomb) | 4 | 3 | 0.5 |
| (GAM-87) | 4 | 3 | 1.0 |
| SM-65 | 1 | 5 | 1.0 |
| SM-68-I | 1 | 5 | 1.0 |
| SM-68-II | 1 | 10 | 1.0 |
| SM-80 Fixed | 1 | 1 | 1.0 |
| SM-80 Mobile | 1 | 1 | 1.6 |
| DROMEDARY (GAM-87) | 6 | 1 | 1.6 |

TABLE 5

SOVIET WEAPON SYSTEMS

| Weapon System | To Counter |
|---|---|
| SA-5 | ICBM |
| SA-2 Improved | B-70 |
| SA-2 | B-52 (high) |
| SA-3 | B-52 (low) |
| M.3 Fighter | B-70 |
| M.2 Fighter | B-52 (high or low) |

Plus
ICBM's and manned bombers as counterforce weapons
Lower performance fighters
Anti-aircraft guns

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TABLE 6

SOVIET UNION STRATEGIC AND AIR DEFENSE FORCE

NUMBER OF

| US Force-Reference Plus | ICBM's | SA-5 Sites | SA-2 Imp Sites | M.3 Fighters | M.2 Fighters |
|---|---|---|---|---|---|
| | | | CURRENT BUDGET | | |
| B-70 | 2000 | 25 | 320 | 600 | 700 |
| B-52H | 2500 | 50 | 0 | 0 | 2800 |
| SM-68 | 2150 | 120 | 0 | 0 | 2000 |
| SM-80 | 2150 | 120 | 0 | 0 | 2000 |
| B-52H + SM-68 | 2650 | 100 | 0 | 0 | 2400 |
| B-52H + SM-80 | 2650 | 100 | 0 | 0 | 2400 |
| SM-68 + SM-80 | 2150 | 120 | 0 | 0 | 2000 |
| DROMEDARY | 2000 | 120 | 0 | 0 | 2000 |
| | | | HIGH BUDGET | | |
| B-70 | 3000 | 120 | 520 | 600 | 700 |
| B-70 + SM-68 | 2500 | 150 | 320 | 600 | 700 |
| B-70 + SM-80 | 2500 | 150 | 320 | 600 | 700 |
| SM-68 | 3000 | 180 | 0 | 0 | 2000 |
| B-70 + DROMEDARY | 3000 | 150 | 400 | 600 | 700 |

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TABLE 7

US Force Survival - Four Cases

| Weapon System | US Reference Force Plus | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | B-70 | | MINUTEMAN | | B-52H | | B-70+MINUTEMAN | |
| | Orig. No. | No. Surv. | Orig. No. | No. Surv. | Orig. No. | No. Surv. | Orig. No. | No. Surv. |
| B-70 | 198 | 160 | -- | -- | -- | -- | 198 | 164 |
| B-52 | 435 | 145 | 435 | 146 | 585 | 196 | 435 | 145 |
| SM-65 | 72 | 14 | 72 | 16 | 72 | 13 | 72 | 15 |
| SM-68-I | 54 | 5 | 54 | 5 | 54 | 4 | 54 | 6 |
| SM-68-II | 72 | 15 | 72 | 14 | 72 | 12 | 72 | 15 |
| SM-80 Fixed | 500 | 424 | 2500 | 2382 | 500 | 369 | 2500 | 2320 |
| SM-80 Mobile | 150 | 90 | 150 | 90 | 150 | 87 | 150 | 90 |
| | ----------Current Budget---------- | | | | | | --High Budget-- | |

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TABLE 9

TARGET ASSIGNMENTS

| | |
|---|---|
| MINUTEMAN | Defense Busting |
| | Complex Destruction |
| ATLAS, TITAN | Complex Destruction |
| B-70, B-52 | Hard Targets |
| | Weapon Storage Sites |
| | Control Centers |
| | Soft Targets |
| | Bomber Bases |
| | Weapon Production |
| | Poorly Located Targets |
| | Complex Destruction |

TABLE 10

TARGET ASSIGNMENTS - HIGH BUDGET B-70 + MM Case

| TARGET | No. of Aircraft/Missiles Assigned | | | |
|---|---|---|---|---|
| | B-70 | B-52 | MM | ATLAS, TITAN |
| Complexes (116) | 48 | 63 | 85 | 22 |
| Point Targets | | | | |
| Hard (90) | 18 | 15 | | |
| Soft (17) | 3 | 3 | 48 | |
| Poorly Located (70) | 17 | 6 | | |
| Air Defense Bases (34) | | | 102 | |
| SAM Sites (896) | | | 1212 | |

TABLE 11

US ATTACK OUTCOMES - CURRENT US AND SOVIET BUDGETS

| Equal Cost US Reference Force Plus | Fraction of Target Complexes Destroyed | Fraction of Point Targets Destroyed | B-70 Survival | B-52 Survival |
|---|---|---|---|---|
| B-70, 12 Sq. | .95 | .91 | .56 | .54 |
| SM-80; 37 Sq. | .95 | .90 | - | .61 |
| SM-68, 34 Sq. | .71 | .66 | - | .47 |
| B-52H, 12 Sq. | .88 | .85 | - | .64 |
| Dromedary, 33 Sq. | .78 | .82 | - | .58 |
| B-52H, 6 Sq. + SM-68, 15 Sq. | .82 | .81 | - | .53 |
| B-52H, 6 Sq. + SM-80, 17 Sq. | .90 | .81 | - | .54 |
| SM-68, 15 Sq. + SM-80, 17 Sq. | .88 | .81 | - | .53 |

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TABLE 12

US ATTACK OUTCOMES

(High US and Soviet Budgets)

| Equal Cost US Reference Force Plus | Fraction of Target Complexes Destroyed | Fraction of Point Targets Destroyed | B-70 Survival | B-52 Survival |
|---|---|---|---|---|
| B-70, 24 Sq. | .98 | .71 | .18 | .32 |
| SM-68, 66 Sq. | .80 | .80 | - | .55 |
| B-70, 12 Sq. + SM-68, 34 Sq. | .97 | .89 | .35 | .57 |
| B-70, 12 Sq. + SM-80, 37 Sq. | .98 | .95 | .54 | .71 |
| B-70, 12 Sq. + Dromedary, 33 Sq.) | .92 | .83 | .27 | .36 |

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TABLE 13

EFFECT OF COMBAT-DEGRADATION PLUS B-70 ECM FACTOR

(Current Budget Force with B-70's)

| Defense Degradation Factors | Fraction of Target Complexes Destroyed | Fraction of Point Targets Destroyed | B-70 Survival | B-70 Bombs Delivered |
|---|---|---|---|---|
| .4 | .85 | .56 | .25 | .51 |
| .7 | .91 | .66 | .47 | .68 |
| .8 | .93 | .70 | .59 | .75 |
| .94 | .95 | .80 | .85 | .92 |

TOTAL COMPLEXES TARGETED = 116

TOTAL POINTS TARGETED = 210

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TABLE 14

EFFECT OF TARGETING SAM DEFENSES

(Current Budget Force with B-70's)

| SAM Defenses | Fraction of Target Complexes Destroyed | Fraction of Point Targets Destroyed | B-70 Survival | Defense Degradation Factor |
|---|---|---|---|---|
| Not targeted | .78 | .44 | .03 | .4 |
| Targeted | .85 | .56 | .25 | .4 |
| Not targeted | .85 | .60 | .20 | .8 |
| Targeted | .93 | .70 | .59 | .8 |

TOTAL NUMBER OF COMPLEXES = 116

TOTAL NUMBER OF POINT TARGETS = 210

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