ENCLOSURE "E"

THE RELATIONSHIP TO PUBLIC MORALE OF INFORMATION ABOUT
THE EFFECTS OF NUCLEAR WARFARE

Enclosure "E"
WSEG Report No. 42
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THE EFFECTS OF NUCLEAR WARFARE

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THE RELATIONSHIP TO PUBLIC MORALE OF INFORMATION ABOUT
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STATEMENT OF THE PROBLEM

1. To suggest some principles of public information which, if
applied to the problem of the public understanding of the effects
of nuclear warfare, would improve the prospects of desirable
public morale in a nuclear war environment.

SCOPE

2. This Enclosure discusses:

a. The general problem of the effect of information about
the effects of nuclear warfare upon the morale of the U.S.
civil population.

b. Present trends in public opinion in the U.S. with
respect to the use and effects of nuclear weapons in general
war.

c. The requisites of an effective public information
program concerning weapons systems.

3. This Enclosure is concerned primarily with the special prob-
lems of morale associated with the prospect of extensive devasta-
tion of the U.S. that could result if the U.S. became involved in
a general nuclear war with the USSR. The central concern is with
the relationships between information about weapons and associated
effects and strategies on the one hand, and public morale as it
might affect our pursuit of agreed national objectives on the other
hand. There is no attempt to cover informational requirements of other subjects, nor other aspects of weapons and strategies. This Enclosure is in general concerned, in a time sense, with information that is effective now and before a war occurs, as distinct from information that may be given out or become effective after war breaks out. It is also addressed to the problem of the effect of such information upon the stability of our deterrence posture, and the effects of alternative information policies about weapons in a pre-war period upon prospective civilian morale in time of crisis or during a general nuclear war.

ASSUMPTIONS

4. It is assumed that for the next few years the present world of weapons systems and political relationships is not changed except to the extent of trends and developments now evident and officially recognized. More specifically, it is assumed that we continue for the indefinite future to live under the threat of general nuclear war.

5. It is assumed that desirable morale will be characterized, in periods short of general nuclear war, by disciplined, united and uncowed public behavior in times of nuclear crisis or threat, and that military and other measures necessary to the pursuit of agreed national objectives will be given strong and substantially united support by the population at large. It is further assumed that, in the event general nuclear war actually comes, a major measure of good morale would be ability to apply maximum civilian energies that are physically available to the pursuit of national objectives, unavoidable physical damage considered, and that the characteristic of this desired behavior would be a resolute will to survive, resist, recover, and win.
DISCUSSION

INTRODUCTION - TOTAL PUBLIC PARTICIPATION IN MODERN WAR

6. It is now two centuries since Frederick the Great, in his Political Testament, remarked that when he was engaged in war, the civilian population should not be aware that a state of war existed. In an evolution that reflects not only changes in the customs of warfare and advances in technology, but alterations in the basic structure of society itself, the pendulum has now swung almost to the opposite extreme. The trend toward total war reached a point in World War II in which the home fronts of several nations became the object of major offensive operations. It is generally presumed that in a third world war between the U.S. and its allies and the USSR and its satellites, the offensives against the homelands of the major antagonists would be much more destructive than the bombing campaigns of World War II.

7. In World War II Japan suffered a quarter as many civilian casualties resulting from bombing as she did among her armed forces from military operations. In Germany, Russia, Poland, Holland, and the UK, civilian casualties constituted a lesser but still significant fraction of all casualties sustained during the course of the war. Tables I and II summarize population losses of selected nations engaged in World War I and World War II. Total military and civilian casualties in World War I in no case exceeded four per cent of the pre-war population; in World War II the three most heavily damaged nations -- Japan, Germany, and Russia -- suffered total casualties of 3 per cent, 6 per cent and 7 per cent, respectively.

8. The U.S. experience of wartime devastation is largely limited to the Civil War. The U.S. has never suffered casualties in any of its wars, including the total of both North and South in the Civil War, that amounted to as much as 2 per cent of its total population. For a summary of U.S. casualty experience in past wars, see Table III.
# TABLE I

## WORLD WAR I POPULATION LOSSES OF SELECTED NATIONS

<table>
<thead>
<tr>
<th>Country</th>
<th>1914 Population (Millions)</th>
<th>Military Losses (Millions)</th>
<th>Military Loss as Fraction of Pre-War Population</th>
<th>Excess of Civilian Deaths Over Normal, Due to War (Millions)</th>
<th>Total Military Plus Civilian Deaths (Millions)</th>
<th>Total Military and Civilian Death as Fraction of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>40</td>
<td>1.3</td>
<td>.03</td>
<td>.24</td>
<td>1.54</td>
<td>.04</td>
</tr>
<tr>
<td>Germany</td>
<td>68</td>
<td>2.0</td>
<td>.03</td>
<td>.74</td>
<td>2.74</td>
<td>.04</td>
</tr>
<tr>
<td>U.K.</td>
<td>46</td>
<td>.74</td>
<td>.02</td>
<td>.40</td>
<td>1.14</td>
<td>.02</td>
</tr>
<tr>
<td>Austria-Hungary</td>
<td>53</td>
<td>1.1</td>
<td>.02</td>
<td>.96</td>
<td>2.06</td>
<td>.04</td>
</tr>
<tr>
<td>Belgium</td>
<td>7.6</td>
<td>.04</td>
<td>.005</td>
<td>.10</td>
<td>.14</td>
<td>.02</td>
</tr>
<tr>
<td>Italy</td>
<td>36</td>
<td>.70</td>
<td>.02</td>
<td>.80</td>
<td>1.50</td>
<td>.04</td>
</tr>
<tr>
<td>Russia</td>
<td>140</td>
<td>1.5</td>
<td>.01</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

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All figures are taken from Frank W. Notestein et al., *The Future Population of Europe and the Soviet Union* (League of Nations, Geneva, 1944), Table 3, and text pp. 75-82. It should be understood that most of the estimated civilian losses are indirectly caused deaths, and therefore considerably in excess of those that would be accounted for by an estimate of those killed outright and directly by enemy actions only.
### TABLE II

WORLD WAR II POPULATION LOSSES OF SELECTED NATIONS

<table>
<thead>
<tr>
<th></th>
<th>Population at Beginning of War (Millions)</th>
<th>Total Military Killed and Missing (Millions)</th>
<th>Total Military and Civilians Killed and Missing (Millions)</th>
<th>Civilians Killed as Fraction of Total Population</th>
<th>Total Military and Civilians Killed and Missing as Fraction of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>69</td>
<td>.7</td>
<td>3.5</td>
<td>4.2</td>
<td>.01</td>
</tr>
<tr>
<td>Japan</td>
<td>73</td>
<td>.3</td>
<td>1.9</td>
<td>2.2</td>
<td>.004</td>
</tr>
<tr>
<td>USSR</td>
<td>200</td>
<td>4.4</td>
<td>10.0</td>
<td>14.4</td>
<td>.022</td>
</tr>
</tbody>
</table>

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A/ Basic figures for Germany are taken from Gregory Frankin, Population Changes in Europe Since 1939, (London, 1951); those for USSR were supplied by Division of Foreign Manpower and Population Research, the Bureau of the Census. The figures on military casualties are taken from Irene Taeuber, The Population of Japan. Civilian casualty figures for Japan are from U.S.S.R. The figure for Japanese civilians killed by bombing is one of several estimates prepared by different divisions of U.S.S.R., the lowest being about 300,000, the highest 900,000. The figure for civilians killed by violence associated with the war, including but not limited to death from bombing, is an estimate of all civilian deaths due to forms of unusual violence associated with the war. The figures for Japan are bombing casualties only, so there is not strict comparability, although other violent casualties would probably have been small since there were no ground combat actions there. The Bureau of the Census estimates of USSR population losses used here are at the lower range of several differing estimates that have been compiled by reputable students or organizations. For a wider range of these estimates, see Appendix "A" to Enclosure "F".
<table>
<thead>
<tr>
<th>War</th>
<th>Total Population (Thousands)</th>
<th>Combat Deaths (Thousands)</th>
<th>Other Military Deaths (Thousands)</th>
<th>Total Deaths (Thousands)</th>
<th>Total Deaths as Fraction of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolutionary War 1775-83</td>
<td>3,900</td>
<td>4.4</td>
<td>NA</td>
<td>4.4</td>
<td>.001</td>
</tr>
<tr>
<td>War of 1812 1812-15</td>
<td>7,700</td>
<td>2.3</td>
<td>NA</td>
<td>2.3</td>
<td>.0003</td>
</tr>
<tr>
<td>Mexican War 1846-48</td>
<td>20,100</td>
<td>1.7</td>
<td>11.6</td>
<td>13.3</td>
<td>.0007</td>
</tr>
<tr>
<td>Civil War</td>
<td>32,100</td>
<td>(Union) 13.04</td>
<td>(Confed.) 72.0</td>
<td>557.4</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Total) 25.4</td>
<td>332.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish-American War</td>
<td>73,300</td>
<td>.4</td>
<td>2.1</td>
<td>2.5</td>
<td>.00003</td>
</tr>
<tr>
<td>World War I 6 April 1917 to November 1918</td>
<td>101,600</td>
<td>53.4</td>
<td>63.0</td>
<td>116.4</td>
<td>.001</td>
</tr>
<tr>
<td>World War II 7 December 1941 to 14 August 1945</td>
<td>133,500</td>
<td>291.5</td>
<td>113.8</td>
<td>405.3</td>
<td>.003</td>
</tr>
<tr>
<td>Korean War 25 June 1950 to 27 July 1953</td>
<td>150,600</td>
<td>33.6</td>
<td>20.6</td>
<td>54.2</td>
<td>.0003</td>
</tr>
</tbody>
</table>

Figures not available on non-military deaths due to war activities.
9. This experience is to be contrasted with the expectation of what might be suffered by the civilian populations of this and of other countries in a general war waged with nuclear weapons according to present concepts of the way that war might be fought. Estimates of total casualties that would be inflicted upon the USSR by our strategic air offensive, if general war came, now generally range upwards from 50 per cent. The estimates for the U.S. are generally not quite as high, but as Soviet capabilities increase, are becoming comparable. Estimates intended to be applicable to the year 1959 and later suggest the prospect of civilian casualties ranging from one quarter to three quarters of the total population of the country, the lowest of the estimates being far above the highest levels of loss sustained by any nation, defeated or otherwise, in World War II. (For a summary of informed estimates of civilian casualties expected in a general nuclear war, see Enclosure "F".)

10. At present, even when we are not engaged in overt military conflict, we devote about 9 per cent of our GNP to defense purposes as compared to about 1 per cent a quarter of a century ago. The USSR is estimated to expend about 25 per cent of their GNP for military purposes. Military policies and expenditures impose financial and other costs upon the public. The rewards from these sacrifices are not always apparent, as in the case where war is deterred by the existence of military forces. Meeting such costs requires public consent. The Soviets do not face as acute a problem as we in these matters. The Soviet leadership is less inhibited by public opinion from pushing crash programs, or compelling sacrifices, although even they cannot disregard their public. In a democracy, the success of a necessary but costly

\^\ For analysis of the degree of dependence and independence of the Soviet regime upon public opinion, see Alex Inkeles, Public Opinion in Soviet Russia (1950), and Nathan Leites, A Study of Bolsheivism (1953), Chapter XI.

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defense policy will depend, in the long run, upon public support, and it is difficult to imagine continuing support, in a period when costs are mounting beyond the bounds of all experience, without an effective understanding of the need for weapons, and of the nature of the weapons as they affect the public.

11. In addition to the increasing totality of war which is dependent primarily upon technological and economic factors, the Communists have given new and unprecedented emphasis to political warfare. They have thus extended the conflict into new aspects of life and into institutions and situations previously and traditionally free from involvement in such conflict. The civil populations of the Free World have been made the primary target of major efforts to subvert and to deceive. Thus, in this modern age, the civilian population will not only be subject to the most extreme physical violence, but also both before and during such conflict they will be a target of extensive and desperate efforts to mislead and to subvert. Force is the ultimate sanction of the struggle, and it is inherent in the nature of the struggle that a principal objective of Communist political warfare will be to weaken our ultimate military strength by measures directed at our general public. Weaknesses or deficiencies of public understanding of weapons, or of our need for military strength, will almost certainly be exploited by our enemies. (This is discussed in more detail in Enclosure "A".)

12. The present situation is complicated by still other factors than the increase in totality of warfare. In the past, technological change in weapons, and consequent changes in strategies and in final effect of war upon peoples at large, were generally slow enough to allow lore and traditions to grow up around them. A traditional and popular knowledge of them, based upon experience, came into being. There was established lore, and a cluster of
agreed understandings and expectations surrounding them. Very few people were expert, but enough had a practical knowledge of warfare so that, if war came, it involved no immense surprises. All that a new war might bring had already been experienced in similar form. There have of course been changes in the past, but they have been much more slowly adopted and far less comprehensive in respect to what and whom they might affect. Thus, at that time when the general public has become more deeply affected then ever before -- called upon to pay more for defense in peacetime, and participate and suffer more if indeed war comes, and at all times to be the object of skillful enemy attempts to mislead it about such matters -- the difficulties of attaining a public understanding, of knowing what to expect if war does come, have been vastly increased.

13. Ever since the French Revolution, there has been official recognition in all modern states of the high importance of public morale as necessary support for military forces and operations in time of war. All modern nations engaged in war have made special propaganda efforts, once war has begun, to enlist popular support and enthusiasm. But the same compression of the time element that has occurred in other factors has had its effects on information. It is highly unlikely that in a future general war there will be time, once the irrevocable decision has been taken, to prepare the nation in understanding any more than to prepare it in armaments. The only understanding of weapons, and of the consequences of their use, that the public can have in a future war or a future crisis is the understanding that it had prior to that time, plus the quick impressions that are supplied at that moment of extremity.

14. There can be little confidence in the stability of public morale if the first full public appreciation of the destructive
consequences of general nuclear war comes at a moment of crisis when, also for the first time, there appears to be a real prospect that such a war is imminent. Unless substantial and influential segments of the public have previously had a realistic knowledge of the facts, and a stabilized appreciation of the significance and consequences of these facts has developed through long periods of public discussion, sudden revelation in the emotional heat of crisis might readily produce sharp divisions of opinion among leaders of opinion. These divisions of opinion among leadership groups would almost certainly produce confusion and conflicting views among the public at large. The national leadership, with full power and responsibility to decide and to act, would not thereby be deprived of either responsibility or power. But the domestic political risks of any action not immediately justifiable in popular terms, or that involved unusual costs or sacrifices, would be dramatically evident. And in addition to the task of carrying out a difficult course of action with respect to our foreign interests, the leadership would be obliged to undertake the task of winning full national support for policies that had already been committed to political controversy. Finally, the enemy might be given grounds for believing that our national determination was wavering, whether in fact it were or not.

PUBLIC INFORMATION ACTIVITIES ARE PART OF DETERRENCE

15. Effective deterrent weapons systems must be shaped by political and psychological considerations as well as military effectiveness. They should be reasonably proof against undesired misinterpretation of maneuvers with them; they should be secure against accidental flushing and inadvertent detonation, yet not fatally slow to respond. They should combine just the right balance -- and it can be a very subtle balance -- of threat and
assurance. What deters is not the capabilities and intentions we have, but the capabilities and intentions the enemy thinks we have. The central objective of a deterrent weapons system is, thus, psychological. The mission is persuasion. Dissemination of information is therefore an inherent and important part of the weapons system. But there is always the complication that most of the information that is given out carries a message both to the enemy and to the U.S. public, and since the kind of impression that is desired is often not the same for both of them, a message that serves one purpose well may serve the other poorly, or not at all. The fact that there are many publics for most subjects of information -- publics whose interpretation of a single given fact is likely to be quite different, as well as publics upon which it may be desirable to give different informational emphasis -- is very often the greatest difficulty in an information program.

16. Planning of a deterrent system requires consideration of and planning for the information functions necessary to make it effective. For example, it may be very important to have public opinion committed in advance to the defense of specified foreign areas, if indeed we wish to use our deterrent to defend those areas. The enemy will judge from reading the press and from intelligence sources whether or not the public feels unambiguously, that an attack on a particular ally would induce a reaction similar to an attack on the U.S., or whether the public mood is that such an attack issue is not worth a war. The enemy is likely to be deterred or not deterred, accordingly. For such reasons our deterrence is currently much more effective against a Soviet attack on England than against a Chinese attack on Quemoy. Our bargaining potential depends on the solidity of public backing for our military stance. Weapons systems in themselves tell only part of the necessary story. Deterrent defense plans must include an information program to make them effective.
THE PRESENT STATE OF U.S. PUBLIC OPINION

17. Surveys have established that the U.S. public has information about some of the technical facts on nuclear weapons which is no worse than its information on other subjects of comparable technical difficulty. The information is not accurate by the standards of experts, but it is reasonably good by the standards of what the general public usually knows. Over the years there has come through to the public, or at least the more alert and active one third of it, a clear verbal notion of the approximate destructiveness of H-bombs, and a knowledge that an ICBM H-bomb attack is hypothetically possible. A question of interest is why this awareness has not led to greater concern for these dangers.

18. Disbelief in Russian power has been a factor, but not the major one. There has always been a minority that refused to believe Russia really had the weapons she claimed. Surveys in March 1954 indicated the public believed by about two to one that Russia had the H-bomb, and in November 1957 by a slightly larger ratio credited Russia with having ICBM's. A more important factor has been a conviction in the superiority of America's offensive and defensive weapons. In 1954, according to surveys, only a small proportion of the public thought that many planes would get through. The survey evidence suggests that the public did not expect the Russians to resort to early war against us, and accordingly its estimate of any immediate prospect of war declined year by year. This trend in the direction of considering the prospect of war more remote has been quite marked in opinion surveys, and is perhaps a major explanation of the general lack of intense public concern with the problems of nuclear war and civil defense. The proportion of survey respondents who in 1950 thought there would be a world war within two years was cut in half.
in 1957, and those who thought there might be such a war within ten years was reduced about one third in the same time period.

19. There is reason to believe that the American belief in remoteness of world war may change. One of the signs of this is the growth of active and sometimes alarmed interest in the prospects of general nuclear war by groups of leading and influential citizens, individual writers and newspapermen, and others. The polls show that immediately after Sputnik, American fear of imminent war went up. In the past two years, for the first time in a century and a half, the prospect of enemy attack upon the U.S. mainland has become a realistic one. In that respect the American perspective on events of the last two years differs from the European where the prospect of physical attack on the homeland is a perennial one. In Europe, the evolution of nuclear parity between Russia and the United States is most often interpreted to mean mutual deterrence, and for that reason a declining rather than increasing probability of war. From the point of view of the American people, whatever has happened to the abstract probability of war, the probability that war, if it occurs, will involve attack on our own territory, has sharply risen and it is that fact which could conceivably increase the level of public interest in matters of defense. We are perhaps entering a new period in this country in which public opinion may become much

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The crucial question is not the abstract question, "How likely is it that there will be another world war?" (Replies to that question do not show a trend.) People who believe that war is human nature assert that there will be a war "sometime," but that does not make it meaningful for daily planning. The revealing question concerns the imminence of war: "If war does come, do you think it's likely to happen in the next six months, next year or two, when?"

<table>
<thead>
<tr>
<th>Response</th>
<th>Year of Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1950</td>
</tr>
<tr>
<td>Two years or less</td>
<td>49%</td>
</tr>
<tr>
<td>Ten years or less</td>
<td>65%</td>
</tr>
</tbody>
</table>

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more attentive to defense matters, in which the seeking out for reassurance may mean that if solid information is not provided by those in authority there will be a chasing after rumors and shibboleths. But there may also be much more responsiveness to defense programs than in the past.

THE REQUISITES OF AN EFFECTIVE PUBLIC INFORMATION POLICY

20. The preceding discussion has centered upon some rather general concerns relating to the importance of public opinion to military effectiveness. It is now possible to turn to a more specific set of questions; namely, what is needed for a successful program of information concerning weapons effects and strategies. A great deal of research has been done in recent years on the mechanisms of persuasion and information. From what is known about these processes it is possible to identify four requisites for a public information policy designed to achieve the kind of alert and committed public that the effective defense of a democracy requires. These four requisites are:

a. The crucial facts must be in the public domain.

b. There must be extensive dissemination of those facts.

c. The members of the public must feel that knowing these facts is relevant to activities that are feasible to them and are of personal importance to them.

d. Leaders respected by the public, must, by their own activities -- activities, not just words -- provide the public with the model of appropriate behavior in the light of these facts.

AVAILABILITY OF CRUCIAL FACTS

21. On the whole, the crucial facts regarding major weapons systems and military policies exist in the public domain. Despite widespread criticisms of the Armed Services for over-stressing secrecy, they have not failed to release the information

the public needs. Some important facts, it is true, initially leak out inadvertently. But whatever the mechanism, the facts needed for intelligent democratic discussion of weapons and weapons effects are in the public domain in the sense that they are available to anyone with the will to seek them out.

DISSEMINATION OF THE FACTS

22. But there is a crucially important difference between information available, and information disseminated. Information may be present in the public domain, yet still unassimilated into the public consciousness, and not related to the issues and concerns that make it a vital determinant of public conduct. Although detailed facts about the capabilities of nuclear weapons and the character of destruction which a nuclear attack would produce are available, few persons are seeking these facts, few are reporting them, and few are listening.

23. Facts on such topics, while present in technical media, are infrequently picked up for popular repetition in the mass media. Since 1947 only 26 books have been listed in the Book Review.

Among ready sources for information on nuclear weapons are the hearings before the subcommittee on military affairs of the House of Representatives Committee on Government Operations, both in 1957 and 1959, and hearings before the Joint Congressional Committee on Atomic Energy, the National Planning Association report on 1970 Without Arms Control, the Rockefeller brothers report, Leaks on the Daftner report, and numerous AEC and OCM publications. As a test of information availability, an MIT student with no access to classified information was asked to do a paper on the likely effects of a Soviet attack on the U.S. He came up with the detailed set of casualty estimates, which though less well worked out than most classified estimates, are strikingly similar to many in conclusions.
Digest under the heading of atomic warfare -- a rate of less than three a year.

24. From the standpoint of public education, the most important readers of books are not the general public, but rather they are those who spread the content of books in more popular media such as magazines, newspapers and broadcasts. Reference works and technical reports never get wide circulation. Their importance may be measured not by the number of persons who read them but by the extent to which they are used as source materials by professional communicators whose writings get wider circulation. With regard to the most serious problems of nuclear warfare, this process has not worked. Popular newspapers and magazines have given only thin treatment of American defense and the issues and dangers of nuclear warfare. New York Times index entries under the heading of Civil Defense show a marked decline in attention to this subject matter since a peak in 1955. Substantial stories containing facts about the nature and problems of atomic warfare, and defense against it, are relatively few in number. They

A closer examination of these books shows that only a few of these deal directly with the subjects with which we are concerned. In the period until 1950 the bulk of the books tend either to deal with the history of the first A-bombs (Hiroshima, Dawn Over Zero, We of Nagasaki, We Dropped the A-Bomb) or to discuss the power of atomic weapons as an argument in a case for world government or world organization (There Will Be No Time, One World or None). Thus, there were only a few books that dealt in a factual way with the strategic problems of atomic warfare and atomic defense. The burden of these few was to underline the horror aspects. (Fear, War and the Bomb, How to Survive an Atom Bomb, No Place to Hide.)

From 1950 to 1956, as the prospects of Soviet nuclear capabilities become more realistic, books on atomic strategy and defense become more plentiful: James Gavin, War, Peace and the Space Age, 1958; Ralph Lapp, The New Force, 1953; Elmer Davis, Two Minutes to Midnight, 1955; Arthur Compton, The Atomic Quest, 1956; George Kennan, Russian, The Atom and the West, 1957; Henry Kissinger, Nuclear Weapons and Foreign Policy, 1957; Albert Schweitzer, Peace or Atomic War, 1958. Anyone who reads all these books could be very well informed indeed, but it is still too short a list to provide the duplication and repetition that is necessary for effective public dissemination.
occurred, by years, as follows:

- 1953 - 1
- 1954 - 2
- 1955 - 22
- 1956 - 13
- 1957 - 22
- 1958 - 12

Thus, even a reader of the New York Times who read it every day and never missed a story would at the most have come across information on atomic weapons and defense against them only once every two to four weeks. Among periodicals, the highly specialized Bulletin of Atomic Scientists contained 74 articles between 1949 and 1959 informing the reader of the character of atomic warfare. Seven articles appeared in Foreign Affairs, five in World Politics, four in Time, six in the Readers Digest, nine in the Saturday Evening Post, and eleven in Life during this period. In this latter group, this constitutes less than 1/2 of 1 percent of published articles.

25. Furthermore, the contents of what has appeared in the mass media would leave a confused impression on anyone with no other sources. There is a confusing diversity of facts and judgments not seeming in full agreement. One 1954 article said that our continental defense was good and that evacuation in case of attack would be unnecessary. However, another 1954 article said that Russia had enough bombs to destroy us. In 1950, Life stated that in two years Russia could destroy us if we did not prepare; a 1953 article predicted 400 Russian bombs by 1955, and a 1953 Post article stated that 400 bombs could force a United States surrender, and another in 1953 said that our continental defense could intercept only 20-30 per cent of the striking force; and in 1953, Life warned that Russia was capable of an atomic attack upon us. However, in 1955, it was stated in Life that Russia did not have the capability of a full-scale attack. Six 1958 articles in the Bulletin of the Atomic Scientists estimated casualties from a Soviet attack. The figures of American dead ranged from 10 millions to over 100 million.
26. To the reader aware that there is much classified information to which he does not have access, the confusion and contradictions in what he reads in the public media are likely to suggest that the correct answers are a carefully guarded secret. It is easier for persons familiar with both classified and unclassified information to recognize that the basic facts are in the public domain, and that whatever differences of opinion there are, are simply a function of the incompleteness of scientific and political knowledge and of the difficulty of forecasting the future. It is hard, however, for someone who knows only the unclassified information to believe that he really does have all the facts that he needs when presumably knowledgeable sources render ambiguous, confused, or contradictory judgments. He has good reason to conclude that critical information and judgments are being withheld, and that there is no point to concerning himself with a problem about which he lacks the essential information. It has been experimentally demonstrated that a feeling of ignorance is one of the prime causes of apathy. People pay less attention to a field if they have no feeling of competence in it. They will not devote psychic energy to matters regarding which they feel uninformed or unqualified and regarding which they feel that someone else with access to better information is a better judge.

27. While the general public withholds attention from writings on weapons problems because of their own sense of incompetence, their direct reaction is reinforced because the writers whose products they read avoid the subject for the same reasons. Writers hesitate to stake a reputation on books or articles concerning matters on which they suspect that there are other people privy to secrets who are far more expert than they.


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28. Since information about weapons is both necessary and inevitable, it is highly important that when such information is released it be clearly authoritative both in fact and in form. Some of the major government releases in the field of atomic energy have met this criterion. But what is significant in determining public attitudes toward these weapons is not abstract knowledge of their physical effects, but an understanding of the consequences of their use, in war, to the existing interests and concerns of the individuals who comprise the nation. And on this score the record is less clear. High officials have tended not to be the spokesmen for releases except concerning our own advances and plans. While there are obvious good reasons for this practice, it should be always kept in mind that authoritative backing is important if weapons information is to be confidently accepted.

29. In several different years (1950, 1951, 1954, 1957) the Survey Research Center of the University of Michigan conducted studies of public knowledge of nuclear weapons effects and civil defense. The questions the public could answer best were factual items about weapons which had been in the news. Eighty-one percent in 1954 knew about the H-bomb. Among these 81 percent, estimates of "how far away from where it fell do you think almost everyone would be killed" had a median in the 10 to 20 mile range. Everyone had heard of the A-bomb, and the median estimate of its lethality was in the one to five mile range. Considering

| ESTIMATES OF ATOMIC AND H-BOMB MORTALITY RADIUS BEFORE AND AFTER NEWS OF PACIFIC TESTS: |
|---------------------------------|---------------------------------|
|                                | A-Bomb                          | H-Bomb                          |
|                                | Before News | After | Before News | After |
| One-fourth to one mile         | 25%          | 17%   | 28%          | 18%   |
| One to five miles              | 29%          | 29%   | 12%          | 9%    |
| Five to ten miles              | 17%          | 15%   | 12%          | 9%    |
| Ten to twenty miles            | 15%          | 20%   | 15%          | 13%   |
| Twenty and over                | *            | *     | *            | 27%   |
| "Don't Know" or No Answer      | 17%          | 19%   | 28%          | 24%   |
| Had not heard bomb             | 100%         | 100%  | 100%         | 100%  |

* Included in 10 to 20 miles.

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general vagueness of most persons about figures, these are reasonably good responses.

30. These responses are based upon the psychological impact of news events. The message had first been carried by news of Hiroshima and Nagasaki, and later by news of weapons tests, and was remembered principally in association with these events. There is a cliche in the public opinion field that deeds not words are what communicate. This cliche can be misleading, but it has an element of truth. 3/ Those words which present themselves to the reader or listener as simply an expression of attitude or opinion have little impact, while those that report an interesting event tend to leave much impact. Dissemination of weapons information has indeed been most effective, for good or ill, when it has been the by-product of news of military action or other event of evident importance. The Carte Blanche exercises, the Marshall Island fallout, Sputnik are all cases in point. General information in didactic statements is almost useless by comparison.

31. If the American public has behaved as if it were but little convinced of the imminence of great danger from weapons whose characteristics it knows in part, this was a reflection of the way events have appeared to it through the eyes of the American mass media. Until recently, there were no major news events about Soviet military moves which presented direct threats to the continental United States. News events about Soviet activities were part of the political news, while news events about weapons developments until recently were part of the American scientific news. Since it was what was in the news events, not what was in the relatively abstract discussion on strategic problems, which

3/ For experimental evidence see C. Hovland, A. Lumsadaine, and F. Sheffield, Experiments in Mass Communication on the differences in reactions to factual and attitudinal items.
got through to the public, weapons information did not produce widespread concern. A sense of problems and dangers of nuclear warfare was suggested only by warning statements, not by the events and acts. Until Sputnik, the tangible facts and dramatic events emphasized in the news suggested American security and strength.

**INFORMATION MUST BE RELEVANT TO PERSONAL INTEREST TO SUGGEST ACTIONS THAT ARE FEASIBLE**

32. A third requisite of an effective information program is that the facts given the public must be placed in a context which makes them seem relevant to important personal activities, and the desired action response to this information must be feasible to the individuals who should undertake it.

33. Two points need be noted: (1) Activities and uses may include talking; in some contexts, words are deeds. The man who is going to a meeting at which he may discuss military matters will remember a fact about fallout for example, which he would forget without the stimulus provided by the meeting. He will remember it because he has a use for it. When he talks in an informed way he will be respected. Any such personally valuable use for knowing a fact will increase attention and retention of it. (2) The context in which a fact is received can, therefore, massively affect interest in it. In the case just noted, the fact about fallout was important to a person because of its role in his group activities. The same fact might be evaluated by someone else as an aid to survival in an attack, by someone else as an argument to win an election, by someone else as a moral

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2/ Experimental evidence of this phenomenon and some measurement of it are contained in Claire Zimmermann or Raymond A. Bauer, "The Effect of an Audience on What is Remembered," Public Opinion Quarterly XX No. 1. See also Carl Hovland, Irving Janis, or Harold Kelley, Communication and Persuasion, New Haven, 1953, Chapter V.

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problem and by someone else as preparation for a school examination. To each of these persons it would be a fact of personal utility, and its importance could be a function of the importance to them of that activity in which it was to be used.

34. Survival in a nuclear attack might seem to provide a most compelling motivation for attention and retention, but it will not be until a significant probability is attached to it. Prospect of minor use of information that can very probably be utilized carries a more compelling incentive to attention and memory than prospect of highly important use that seems to have low probability of ever being put to use. It is easier to be concerned about a likely prospect of a toothache today than about the hypothetical possibility of annihilation at some uncertain time in the distant future.

35. Finally, the actions that the individual is expected to take must be part of a national program, and that national program must make sense to the individual in terms of the facts that surround it and the goals it proposes to attain. It is difficult or impossible to induce individuals to make sacrifices or to adopt unusual practices of behavior unless there is assurance that others are making the same or comparable sacrifices or that others are doing the same unusual things. Such things have to be part of a program that regularizes, justifies, and gives status. Moreover, in the long run, that program must evidently and realistically come to grips with the problems. If not, those who resent the unusual sacrifices or demands will convince others, and finally the mass, that the program is useless.

LEADERS MUST PROVIDE MODELS OF CONDUCT

36. Even when information of obvious utility is widely and effectively disseminated, there remains at least one further
requisite to be fulfilled before it can be expected to be effective. Respected leaders must provide, by their own reactions to the information, models to the public of how to handle the information. One of the most striking of all historical examples is perhaps that of Churchill in World War II. He made of himself a symbol of how to handle the facts of retreat and partial defeat. Had he simply exhorted people to fight on by persuasive arguments, but had himself shown nervousness and indecision, he would almost certainly have failed. But by the model which Churchill gave of how to react to the known facts, he provided an example for the nation to follow. He was even able to turn a disastrous military defeat – Dunkirk – into the psychological equivalent of victory insofar as inspiring the British people to continued and heroic resistance was concerned. Churchill's conduct was effectively exemplary not only because he demonstrated personal courage (e.g., visiting Coventry), but because he acted adequately in an official capacity.

37. Effective models of leadership may often be provided by persons or groups who do not necessarily occupy high or exalted positions of leadership, but whose position is interpretable as providing inside or superior information. An illustration of this may be found in the problem of handling funds in Berlin. To individual Berliners the facts concerning the security of their savings are of great importance. To Berlin as a city, it is very important that a flight of capital does not occur. The

10/ This variable in the opinion process has been identified and analyzed by E. Kris and N.C. Leites in "Trends in 20th Century Propaganda" in Psychoanalysis and the Social Sciences, New York, 1947. The basic theory derives from S. Freud, Group Psychology and the Analysis of the Ego, 1921, as further developed in Fritz Redl, "Group Emotion and Leadership," Psychiatry, November 1942.

11/ The role of external information and leadership in Berlin has been subjected to research in W. P. Davison, The Berlin Blockade, Princeton, 1952.
public does pay close attention to all arguments that are given by the communications media as to why funds are secure in Berlin or are not, but arguments alone are inconclusive. The crucial influence in determining the financial behavior of Berliners is the model provided by leading business interests from outside, who are considered to have a better perspective on the long time security of investments in Berlin. The building of a Hilton hotel provides a model to the Berliners of how to evaluate and respond to the information being given. Without the model, exhortation would have little effect.

JUDGMENT OF EFFECTIVENESS OF PAST INFORMATION PROGRAMS

32. The essential facts are available in the public domain. But they have not been disseminated widely enough to be assimilated into a broad area of public thinking, nor have the facts been put into contexts meaningful to most citizens. Most important, it has been too little recognized that the daily conduct of public leaders is the most important part of our public information policy, and not enough effective models of conduct have been provided.

39. It is clear that other functions and responsibilities than those of the Armed Forces and the Department of Defense are involved. There are overlapping responsibilities in which the effectiveness of our military posture may be influenced by actions or policies beyond the scope of DOD, as well as ways whereby military effectiveness may be enhanced by means such as effective information programs. Much that can be done to repair present deficiencies must be done outside of the Armed Forces or the DOD, and for that reason must be accomplished by joint and cooperative effort. But there are also specific measures and programs which fall directly within the competence and authority
of the military establishment under presently existing arrangements.

40. A head of government such as Churchill, or the President of the United States, is in the perfect position to provide behavior models, as suggested in paragraph 36. But all leaders, civil or military, can have influence upon limited publics. Anyone with sufficient prestige to have his behavior observed with respect provides a model of behavior. With regard to conventional military virtues, this is a truism in any respectable officer corps. It is a principle that has had very distinguished practitioners among the political leaders of this, and perhaps of every age. So far as the major issues of survival in a nuclear war are concerned, it would be difficult to conclude, from the acts and behavior of leadership anywhere, that general nuclear war was a real possibility. Very few act -- base their conduct -- on an evident assumption that we are in serious and imminent danger of being involved in a highly destructive nuclear war.

41. The messages that are convincing concerning what official views are, consist of such things as lengthened office hours, flying trips to the spot, cancellation of normal activities, or, on the other side, their relaxed and leisurely opposites. It is such acts, not just words, that signal or deny crises. But even these acts, unless accompanied by substantive actions (such as raising a defense budget, or committing military forces to some area or mission) may soon be judged to be merely "rhetorical" -- something done solely on the impression it creates, not for what it accomplishes. The conduct and official acts of the leadership of the nation will invariably be interpreted, by both press and public, as a better indication of the seriousness of a situation, and of the kind of behavior that the public itself should adopt, than any statements that are issued.
42. The unreality to the general public of discussions of nuclear warfarce and defense against it is almost a mirror image of the behavior model in respect to it that has been presented to the public by most of the leadership elements. For the most part, throughout the Western Alliance the national and military leaderships have not lived their lives in the way they would have if they expected a thermonuclear attack at any time. It is difficult to generate in the public a different sense of urgency or a greater readiness to take desired actions than that which the public has observed to prevail in their leaderships.

43. Models of behavior can be admirably suited to certain purposes, while less well suited to others. The conduct of leadership can prevent alarm and convey a sense of confidence in the future. But, by the same token, this conduct is likely to be unsuited for preventing complacency. Systematic unwillingness to respond to world news with crisis-type actions, to undertake crash programs, or to have our press portray our leaders as excited, can lead to an over-confident, relaxed, and pacific public opinion and corresponding public image of America. Worldwide confidence in America's peaceful intentions, as shown by USIA polls, has grown rapidly in recent years (since about 1954). At the same time, public alertness about military affairs has not been aroused.

44. Clearly, it is not possible to achieve all desirable goals or to provide behavioral models suitable to all desirable ends. Choices must be made, and no choice is all good or all evil. However, the choices made in leadership conduct determine what kind of public information policy will be effective. It has not always been realized that verbal information intended to convey
one kind of message to the world could not succeed in its purpose unless the personal behavior of the national leadership attested to the validity of what was said. The public's reaction to messages is substantially determined by the leaders' manifest conduct. This is true of both the American public, and the public of our friends and enemies abroad.

THE STRATEGICALLY LOCATED MIDDLEMEN IN PUBLIC INFORMATION

45. The preceding discussion of the requisites of an effective public information policy has not taken up one important matter of method. This is the matter of utilizing the strategically located middlemen in the public information process, sometimes called the "opinion leaders," or the "social relay points" of information. It is scarcely possible to give information to children, on a nation-wide basis, without the cooperation of their teachers. No program such as how to cope with radiation hazards can succeed without the cooperation of doctors and various other specialized groups. Therefore, an effective program must include at the beginning a concentrated effort to identify and inform these key groups. Various associations and organizations are obvious points of reference in many quarters. But there are a great many informal and inter-personal networks, and local and community leaders of opinion, that are very important to the process and that often carry no formal title that identifies them. But there is a growing body of knowledge concerning these processes and these leadership groups that can be tapped and utilized. 12/

THE IMPORTANCE OF CONTEXT

46. A basic principle to be emphasized is that single facts or deeds have the potentiality of a wide variety of meanings, and

12/ One example of such a study is Alfred O. Hero, Opinion Leaders in American Communities, which is Vol. VI of Studies in Citizen Participation in International Relations (World Peace Foundation, Boston 1959).
will be responded to variously, depending upon the context in which they are placed. There is no uniform and invariable significance to be attached to a single act, nor a uniform and invariable response to be expected in reaction to it. Because of this, actions that are strategically desirable can generally be given the particular kind of interpretation that is desired, provided sufficient care and effort are expended to place them in the proper context. Effective information policy will accordingly be concerned primarily with developing the context in which those things that are most advantageous or necessary are given the desired meaning. To do this may involve policy decisions beyond the realm of information policy, per se. Changes in the context necessary to effect changes in the meaning of a single act or policy may amount to changes in policy, not just changes in presentation. But seldom does a single public significance unalterably attach to a given act or policy, and an act or policy necessary for military purposes should not be abandoned or watered down for fear of adverse public reaction without considering how that reaction might be influenced by possible alterations of context.

47. Under one set of circumstances, the public will face up to danger, and under another, it will run from it. It may be warlike or pacific, favor shelters, and missile sites, or oppose them; be interested in them or be indifferent to them; regard a demonstration as reassuring or disquieting. It is invalid to argue that the effect of an American shelter program, for example, would be to panic the American public and demoralize NATO. It might or might not have these effects, depending on how it was done.

48. The four requirements of information listed in paragraph 20 which determine how the public will react to weapons disclosures, did not include among them the character of the facts
disclosed. The news items which the public receives and assimilates include the full range of events from windfall to disaster. Whether the public reaction to such events is civically constructive or not depends on the various factors listed, but not on whether the news, per se, is good or bad. Democratic communities in the past have been able to cope effectively and resolutely with epidemics, floods, depressions, wars, bombing, and invasions. An intelligent public will not take the facts about thermonuclear warfare with equanimity, for they do not deserve to be taken with equanimity. But if the public rushes into irrational or defeatist policies it will reflect, not just the facts, but also the way these facts are presented. In general, it is irrelevant to ask what the uniform effect on morale of any given action will be, for there is no uniform consequence of any action on morale. The sensible question is to ask what contextual circumstances will lead a particular action to have one effect on morale rather than another.

49. This question may be asked, for instance, with regard to giving NATO countries atomic warheads. Done in one way that act could reinforce and extend fear that now exists in some quarters that this would mainly provide weapons for German militarism and French colonialism and irresponsibility. Done another way it could be primarily evidence of the genuineness of the American commitment to collective security, and of a desire to bring the danger of atomic war under international control. Both reactions would inevitably be produced, but the dominant impression conveyed could be affected by information policy. No statement by the President, or by anyone else, could alone determine the world reaction. The only public information program which could affect the interpretation of turning over of atomic warheads would be one consisting of planned, simultaneous, major actions to set the
context in which the event would occur. Associated political events, such as changes in the form of the NATO alliance, would signal this act as either representing a strengthening or weakening of international military cooperation and controls over the irresponsibility of single nations.

50. Facts do not talk for themselves. The meaning that they convey depends both on the audience which receives them and on how they are presented. Several years ago, an important insight came through to American information strategists: namely, that deeds counted more than words. Our previous information programs had been strident in words, but ineffective. The new doctrine recognized that it was the news stories about what American foreign policy actually did which counted, not our protestations. While research on propaganda has demonstrated that the possibilities of persuasion are very limited and resistance to persuasion very strong, it has been hard for the public to disabuse itself of the myth of the omnipotence of propaganda. Thus, the recognition of the importance of deeds as against words went too far when it came. It came to be assumed in government circles that deeds spoke for themselves, and it was not recognized, as systematic research has made clear, that actions had to be organized and structured with an eye to their psychological impact. Impact is circumstantial, and effective public information depends upon careful structuring of a complex of acts, and words about acts, and personal behavior of leaders who are models of public conduct, to give to actions taken the meaning that is desired.

13/ An extended account of the new insights and how they came about, will be found in the previously cited work of Howland, Janis and Kelley on Communication and Persuasion.
14/ The National Opinion Research Center of Chicago has been one of the groups producing notable work in this field. One of their studies in this area is Information and Civil Defense, Nov. 1950.

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51. The newsbreak kind of message (the Sputnik story, for example) carries far more weight than abstract advice or exhortations. In that sense, it is true that it is deeds, not words, that count; a more accurate statement is that it is words about deeds rather than words about words that are listened to. But even newsbreak messages (or deeds if one wishes to call them that) are not self-explanatory. Their meaning is elucidated to the public by other messages (preferably also newsbreaks) which set the context of the event and tell how respected model individuals are reacting to it. Information policy, therefore, consists primarily of planning the political context in which an event is to be perceived.

CONCLUSIONS

52. The United States is seriously vulnerable today because the U.S. public is not sufficiently prepared, in its psychological expectations, to accept the consequences of the use of weapons systems intended for its defense.

53. Effective military policy in a democracy requires that substantial and influential segments of the public have a realistic knowledge of military and strategic matters, and that public views upon these subjects have been stabilized by lengthy periods of discussion. If there is an absence of such stabilized, well-informed public opinion:

a. Political bodies may hesitate to vote necessary taxes and appropriations, to impose arduous military or civil defense service or to demand other civilian sacrifices;

b. The enemy is presented with opportunities, which he would not otherwise have, to create confusion in the U.S. public mind, and this, in turn, might result in seriously impairing the freedom of action of our national leadership.
c. There is significant risk that a period of crisis might induce, for the first time, a wide sense of serious concern for undeniable but previously unassimilated facts, resulting in public debates that could lead to indecision and uncertainty at precisely the time when resolute and decisive acts were most necessary.

54. In general, public support can be won for truly desirable and highly important military policies if they are presented to the public properly. The public will give attention to such information largely in proportion:

a. As it comes to them in terms of news about events or deeds;

b. As it appears to relate to established interests and problems;

c. As they feel competent to understand or to judge;

d. As the personal courses of action implied by the information seem possible for them to accomplish.

The public will generally interpret the information:

a. According to the context of other acts or events, or the general situation, rather than accept it literally or in isolation from other aspects of the general set of circumstances of which it is a part;

b. In evaluation of the models of behavior in response to this information that are provided by their highest leadership or by others who are believed to be in a superior position to evaluate it.

54. The most important things to stress in information programs concerning weapons and strategy are:

a. The planning and programming of acts and releases to establish the proper context in which highly important weapons or strategies are interpreted;
b. Assurance that the public is provided effective models of behavior, in response to this information, by leaders whom the public respects and credits with being in the best position to judge what kind of behavior should be stimulated by that information;

c. Concentration, at the beginning of the program, in informing, and winning the support, of local and special interest leaders of opinion.
APPENDIX TO ENCLOSED "E"

THE BROADER IMPLICATIONS OF THE PRESENT STATE OF AMERICAN PUBLIC EXPECTATIONS CONCERNING NUCLEAR WARFARE

1. An earlier draft of this Enclosure was submitted for comment and criticism to Dr. Rensis Likert, Director of the Institute for Social Research at the University of Michigan. Dr. Likert is uniquely qualified professionally to offer comment on this subject. He has long been recognized as one of the nation's foremost students of American attitudes and public opinion, and of public information theory. He was the director of the studies of German morale of the United States Strategic Bombing Survey. The principal current studies of American public attitudes toward nuclear warfare, civilian defense, and associated matters are those that have been conducted for federal agencies concerned with civil defense by the Survey Research Center, which is a part of the Institute for Social Research which he directs.

2. Dr. Likert's comments follow below. Dr. Likert's views, and the facts and reasoning behind them, were made more extensively available in informal consultations after the comments were written.

3. Dr. Likert's suggestion, that it would be profitable to treat the subject with greater emphasis upon some of the broader aspects, is accepted as correct. There is some question of how appropriate it might be, in this study, to explore all such aspects, however. The central point emphasized by Dr. Likert is that the U.S. public today is clearly not prepared, psychologically, to accept the consequences of nuclear war and that if such war occurred the public almost surely would react with hostility and bitterness toward the established leadership. This point was made, though without such strong emphasis, both in this Enclosure and in another Enclosure of this study.
4. Dr. Likert's own written comments, although brief, accomplish the purpose of emphasis. It seems appropriate to present them separately in this manner as an Appendix. From here they are drawn upon directly in the conclusions of this Enclosure, and in the discussion in the main report.

"1. The need for constructive, positive action by top governmental officials has perhaps not been made sufficiently clear in the present draft.

   a. There is serious vulnerability in the present situation.
      1) There is not sufficient understanding and support of action needed now.

   b. The really serious vulnerability, however, arises from the probable public reaction and behavior in the event of a major nuclear attack.
      1) The public generally has confidence that the military and the government are taking or have taken the steps needed to protect them reasonably well.
      2) In the event of an all-out attack, the public would find that its experience was far worse than its expectations and that steps that could be taken to protect it had not been taken. This would lead to bitter, hostile reactions against the government and its leaders. This would affect very seriously the capacity of military and governmental officials to function in the post-attack period.
      3) In every country in World War II where the civilian population was bombed, the public blamed its government for lack of protection and did not blame the enemy for the attack. At times this resentment toward its own government reached very serious proportions and adversely affected military and civilian war-supporting activity.
      4) This point is mentioned but is not adequately stressed. It clearly indicates the urgent need for the kinds of behavior by top government officials called for by Enclosure "E".

2. It is probably desirable to put the very serious problems dealt with in a broader perspective.

   a. The trend in estimates of casualties from nuclear weapons indicates the problems faced are likely to be greater five and ten years hence than now. This trend might well be pointed to as part of the problems needing the kind of discussion and understanding called for in Enclosure "E".
b. A better understanding and acceptance of the proposed action is likely to be facilitated by looking at the problems with a broader perspective of the international consequences of any action taken or not taken.

1) The key government officials whose behavior is important very likely view these problems in this broader aspect. Their understanding and acceptance of the information principles and recommendations in Enclosure "E" is likely to be increased by discussing the problems from their broader point of view.

3. Finally, I suspect that to achieve the "extensive dissemination and shared acceptance of the fact," etc., called for, it will be necessary to suggest some relatively new, possible attacks and courses of activity. These should be as broad in scope as are the problems and the action required and as adaptive as possible to the current and projected situations. Such steps are extremely difficult to conceive but, I believe, are necessary. One small step, for example, might be dinner meetings, at the invitation of the President, of carefully picked groups of opinion leaders from business, government, labor, education, mass media authors, etc. At these dinner meetings the President and key government officials might state the problems faced by the United States, point to the facts in the public domain, and urge their discussion and consideration, including possible courses of action. The courses of action considered should be as broad as the problems and include issues of foreign policy, U.N. action as well as programs and policies of military and civilian defense."