

AD-A064 061

SYSTEM PLANNING CORP ARLINGTON VA
THE POTENTIAL EFFECT OF CRISIS RELOCATION ON CRISIS STABILITY. (U)
SEP 78 R J SULLIVAN, J M RANNEY, R S SOLL

F/6 15/3

DCPA01-77-C-0237

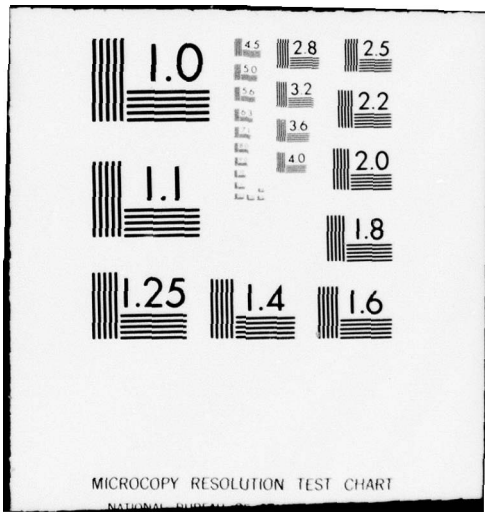
NL

UNCLASSIFIED

SPC-361

OF 2
AD A064061





MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A

DDC FILE COPY

ADA 064

LEVEL II



SYSTEM PLANNING CORPORATION

1500 Wilson Boulevard • Suite 1500 • Arlington, Virginia 22209 • (703) 841-2800

SPC LOG No. 78-2883
Copy 19

14 SPC - ~~REPORT~~ 361

6 THE POTENTIAL EFFECT OF
CRISIS RELOCATION ON CRISIS STABILITY

9 Final Report, Sep 77 - Jun 78,

11 September 1978

12 170 p.

10 by
Roger J./Sullivan,
Jeffrey M./Ranney
Richard S./Soll

15 Prepared under
DCPA 01-77-C-0237

for
Defense Civil Preparedness Agency
Washington, D.C. 20301

DDC
RECEIVED
FEB 1 1979
R
D

ACCESSION for	
DTIC	Wallo Section <input checked="" type="checkbox"/>
ONS	Staff Section <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
JUSTIFICATION	
BY	
DISTRIBUTION/AVAILABILITY CODES	
Dist.	AVAIL. RFG/DR SPECIAL
A	

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED
DCPA REVIEW NOTICE

This report has been reviewed in the Defense Civil Preparedness Agency and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Defense Civil Preparedness Agency.

406 932

mx

1

SUMMARY

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 individuals who are authorities on crisis management, civil defense, national security policy, and Soviet studies, several of whom have had experience in high-level decisionmaking during actual crises. Furthermore, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources, especially the interviews. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis, both in the presence and absence of Soviet relocation.

ABSTRACT

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 individuals who are authorities on crisis management, civil defense, national security policy, and Soviet studies, several of whom have had experience in high-level decisionmaking during actual crises. Furthermore, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources, especially the interviews. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis, both in the presence and absence of Soviet relocation.

DD Form 1473

79 01 17 049

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Report 361	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) The Potential Effect of Crisis Relocation on Crisis Stability		5. TYPE OF REPORT & PERIOD COVERED Final Report September 1977-June 1978
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Roger J. Sullivan, Jeffrey M. Ranney, and Richard S. Soll		8. CONTRACT OR GRANT NUMBER(s) DCPA01-77-C-0237 ^{kw}
9. PERFORMING ORGANIZATION NAME AND ADDRESS System Planning Corporation 1500 Wilson Boulevard, Suite 1500 Arlington, Virginia 22209		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS WU: 4222D
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Civil Preparedness Agency Washington, D.C. 20301		12. REPORT DATE September 1978
		13. NUMBER OF PAGES 179
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Crisis relocation Evacuation Crisis management Civil defense		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) See reverse side.		

CONTENTS

I.	EXECUTIVE SUMMARY	3
	A. Background and Purpose	3
	B. Approach	4
	C. Conclusions	5
II.	PROCEDURE USED IN STUDY	7
	A. Overall Procedure	7
	B. Procedure Used in Interviews of Authorities	7
III.	THE CONTEXT OF CRISIS RELOCATION	11
	A. Insight from the Literature	11
	B. Potential Soviet Perceptions	12
	C. Civil Defense and Strategic Considerations	13
IV.	POSSIBLE U.S. RESPONSES TO A SOVIET INITIATION OF CRISIS RELOCATION	19
V.	POSSIBLE CONSEQUENCES OF U.S. UNILATERAL INITIATION OF CRISIS RELOCATION	21
	A. Status of Strategic Forces	21
	B. The Type of Crisis	22
	C. The "Triggering" Event	23
	D. Public Reaction	23
	E. Spontaneous Relocation	24
	F. How Long Should the People Stay Relocated?	25
	G. Could the Soviets Make the U.S. Look Foolish?	26
	H. The U.S.'s Next Step	26
	I. Relocation as a "Tool" for Crisis Management	27

J.	The Soviet Response	29
K.	Summary: U.S. Unilateral Relocation	29
VI.	THE POTENTIAL EFFECT OF MUTUAL RELOCATION	31
	APPENDIX A: INSIGHTS FROM THE THEORETICAL LITERATURE	A-1
	APPENDIX B: CIVIL DEFENSE AND CRISIS STABILITY: EARLIER STUDIES	B-1
	APPENDIX C: THE SOVIET FACTOR IN CRISIS DECISIONMAKING	C-1
	APPENDIX D: SUMMARIES OF INTERVIEWS WITH RESPONDENTS	D-1

I. EXECUTIVE SUMMARY

A. BACKGROUND AND PURPOSE

In an intense crisis, if a strategic attack upon the United States appeared to be a serious possibility, an important option for reducing the expected number of civilian fatalities would be crisis relocation, or evacuation,¹ of the population. People would leave densely populated areas and high-risk areas, and be dispersed into rural, low-risk "host" areas. Expedient fallout protection would be necessary in the host areas.

Issues regarding crisis relocation may be summarized in the form of four broad questions: (1) Would there be time? (2) How successfully could it be accomplished? (3) How effective would it be if an attack occurred? (4) What might be the effect on the crisis? The answer to the first question can never be known unless the actual threat occurs; however, under many foreseeable scenarios, the time could be available, and crisis relocation therefore could potentially be of great benefit. The second and third questions were discussed in a recent report by System Planning Corporation (SPC) for the Defense Civil Preparedness Agency, SPC Report 342 [Ref. 13].² The report contained the conclusions that, with extensive preparations, crisis relocation could be accomplished successfully within a few days, and that once executed, crisis relocation would be highly effective for increasing the number of U.S. survivors in the event that a U.S.-U.S.S.R. strategic nuclear exchange occurred, even if the U.S.S.R. deliberately targeted people per se (which is considered to be very unlikely.)

¹Following current practice, the terms "relocation" and "evacuation" are used interchangeably throughout this report.

²References are arranged in alphabetical order by author, and are thus not cited in numerical order.

The present report addresses the fourth question listed above. It thus considers international implications of crisis relocation, and complements Report 342, which addressed domestic aspects. For the present report, the conclusions of Report 342 regarding domestic aspects of the relocation are generally treated as a "given."

B. APPROACH

The research performed by SPC entailed examination of the relevant literature on crisis relocation and the potential perceptions by the Soviet Union. The results are documented in Appendices A, B, and C. In addition, interviews were conducted with 31 individuals who are authorities on crisis management, civil defense, national security policy, and Soviet studies, several of whom have had experience in high-level decision-making during actual crises. Summaries of these interviews are presented in Appendix D. The body of the report contains a detailed discussion of the issues, based on these appendices, especially on the interviews. The authors are extremely grateful to the authorities for providing their views; however, the authors retain full responsibility for the contents of the report and for its analysis and conclusions.

The Soviet civil defense (CD) effort is several times that of the U.S. CD effort in terms of resources allocated. It is assumed throughout this report that during the 1980s the U.S.S.R. will have an effective capability for successful relocation of its population within a time of two to four days and will base its CD on this capability (i.e., not on plans for in-place sheltering). It is also assumed that crisis relocation is the only realistic alternative for U.S. CD; i.e., that a U.S. blast shelter program is not being seriously considered.¹

¹If the current Soviet shelter-construction effort should result in a highly effective Soviet nationwide blast shelter system, then crisis relocation could cease to be the optimum tactic for the U.S.S.R. If the U.S.S.R. then suddenly sheltered its population during an intense crisis and simultaneously made other major demands or moves, the U.S. might not have time for effective relocation. The solution to this problem would be a major U.S. shelter program.

C. CONCLUSIONS

If the U.S. were to establish an effective Crisis Relocation Plan, then the following conclusions would apply:

- If the U.S.S.R. ever relocates its population in a crisis, the U.S. should rapidly respond by (1) placing its strategic forces on generated alert (if this has not already been done), and, if this does not clearly induce a cessation of the Soviet relocation within two or three hours, then (2) relocating the U.S. population. This would prevent a severe asymmetry in population vulnerability and reduce the chance that the U.S. would have to yield to Soviet demands. The Soviets would almost surely not be surprised if the U.S. responded to their relocation in this manner, and the chance that the U.S. action per se would produce serious instability would be relatively low. The U.S. should remain relocated as long as the U.S.S.R. does. "De-relocation" might later occur by mutual agreement, or spontaneously.
- Unilateral U.S. crisis relocation would have a much greater chance of producing instability than U.S. relocation in response to Soviet relocation. Although one should not be dogmatic in the absence of a specific scenario, it would appear that the following conditions should hold before U.S. unilateral relocation should be ordered (except possibly for the case in which it is ordered to "channel" massive spontaneous relocation already in progress or the remote possibility that the U.S. were to obtain specific intelligence information to the effect that the U.S.S.R. was definitely planning a strategic attack against the U.S.):
 - The U.S. strategic deterrent is strong.
 - U.S. strategic forces are not highly vulnerable.
 - U.S. strategic forces are on generated alert.
 - A crisis occurs in which the U.S.S.R. initiates bold, aggressive action.
 - A specific Soviet hostile action is committed that apparently makes the probability of strategic war quite high; U.S. relocation would be in direct response to this action.
 - The President is confident that the public supports him on the crisis issue and would rather endure the rigors of relocation than have him back down in the crisis.
 - He accompanies the relocation announcement with a clear statement that the relocation is being performed primarily for prudential reasons, but also demonstrates U.S. resolve and desire to return to the status quo ante.

- He has carefully considered how long he will keep the people relocated if the Soviets do not relocate and the crisis proceeds as before, and he has carefully thought through the problems which would be caused if the Soviets relocate as he "de-relocates."
- More generally, he has carefully considered what his next step will be if the relocation apparently has little effect on the crisis, and he realizes that the Soviets may suspect that this next step will be use of strategic weapons, with the attendant possibility of Soviet preemption.
- It does not appear possible to make general statements about whether, in a crisis, mutual relocation would raise, lower, or leave essentially unchanged the probability of escalation to strategic exchange. This would depend too much on the specific crisis scenario.
- Unilateral U.S. crisis relocation would not be appropriate as a "tool" for crisis management. The appropriate tools consist primarily of diplomatic or military moves, notably a change in the alert level of strategic forces. In particular, unilateral U.S. relocation should never be used as a "bluff" in a situation where the President privately estimates the chance of strategic war to be low.

II. PROCEDURE USED IN STUDY

A. OVERALL PROCEDURE

This report contains a discussion of the impact of crisis relocation on international crisis stability. The analysis draws upon various frameworks, which are presented in Appendices A through D:

- Summaries of the relevant literature on crisis management and crisis relocation (Appendices A and B, respectively.)
- A discussion of Soviet perceptions and motivations which most likely bear upon Soviet crisis behavior (Appendix C).
- Interviews conducted with 31 authorities on crisis management, civil defense, national security policy, and Soviet studies (summarized in Appendix D).

The remainder of this report, following the present chapter, comprises the analysis of crisis relocation and crisis stability.

B. PROCEDURE USED IN INTERVIEWS OF AUTHORITIES

As stated above, interviews were conducted with 31 authorities, representing a wide spectrum of views on civil defense and strategic policy. Several of these respondents have participated in high-level decisionmaking during actual crises. Table 1 provides a list of the respondents. Following each interview, a summary was prepared and sent to the respondent, who edited and approved it for inclusion in this report. Appendix D contains these interview summaries. The authors are extremely grateful to the respondents for providing such detailed insight into the many complex issues involved.

For the interviews, the authors asked that the discussion focus on the international implications of crisis relocation and that the domestic aspects (particularly questions of relocation effectiveness) be treated

TABLE 1
AUTHORITIES INTERVIEWED

Dr. Donald Brennan, Hudson Institute

Dr. Bernard Brodie, University of California at Los Angeles

Drs. Michael Deane, Leon Goure, Mose Harvey, Foy Kohler (formerly Ambassador to the U.S.S.R.), Mark Miller, and Morris Rothenberg, University of Miami [Group discussion]

Dr. Sidney Drell, Deputy Director, Stanford Linear Accelerator Center

Dr. Lewis Dunn, Hudson Institute

Dr. Eugene Durbin, Interactive Systems Corporation (formerly of RAND Corporation)

Dr. Fritz Ermarth, RAND Corporation

General Andrew J. Goodpaster, Superintendent, U.S. Military Academy (formerly Supreme Allied Commander, Europe)

Dr. Colin Gray, Hudson Institute

Mr. T. K. Jones, RADM Joseph Russel, USN (Ret.), and Mr. Edward York, Boeing Aerospace Corporation [Group discussion]

Mr. Herman Kahn, Hudson Institute

Dr. George Kistiakowsky, Harvard University (formerly Special Assistant to the President for Science and Technology)

Dr. Charles Burton Marshall, formerly of Policy Planning Staff, Department of State and School of Advanced International Studies, Johns Hopkins University

Dr. Jiri Nehnevajsa, University of Pittsburgh

The Honorable Paul Nitze, formerly U.S. SALT Delegate, Deputy Secretary of Defense, and Secretary of the Navy

Dr. Wolfgang Panofsky, Director, Stanford Linear Accelerator Center

Dr. Richard Pipes, Harvard University

The Honorable Stuart Pittman, Shaw, Pittman, Potts, and Trowbridge (formerly Assistant Secretary of Defense [Civil Defense])

Dr. George Rathjens, Massachusetts Institute of Technology

The Honorable Donald Rumsfeld, President, G. D. Searle & Company (formerly Secretary of Defense)

The Honorable Helmut Sonnenfeldt, School of Advanced International Studies, Johns Hopkins University (formerly Counselor of the Department of State)

Dr. Edward Teller, Lawrence Livermore Laboratory

Dr. Thomas Wolfe, RAND Corporation

Dr. Oran Young, University of Maryland

as a "given" unless the respondent had explicit objections. Specifically, concerning the domestic aspects, recent analyses [Ref. 13] have led to the following conclusions:

- Assuming a 1985 large-scale Soviet nuclear attack against the U.S., with military forces, industry, and population attacked, and assuming that no more than \$500 million per year has been spent on U.S. CD during 1978-1985 (i.e., there is no nationwide blast shelter program), then crisis relocation prior to the attack, with simple fallout protection in the host areas, could be highly effective for saving people. Without crisis relocation, only 25 to 40 percent of Americans could survive. With crisis relocation, 80 to 90 percent could survive if the relocatees were not deliberately targeted, and 65 to 80 percent if they were deliberately targeted.
- In a crisis context, the American people would cooperate well with CD officials. Proper planning and training of officials would ensure that, despite local problems, the overall relocation and ensuing stay-put would be successful. (This conclusion is based in part on experience with evacuation from natural disasters.)
- The estimated percentages of U.S. risk-area population that could be relocated, versus time, are: within 24 hours, 60 to 70 percent; within 48 hours, 80 to 90 percent; and within 72 hours, more than 95 percent.

For the purposes of this discussion, the respondents were asked to assume the following:

- The time is 1985. U.S. and U.S.S.R. military forces, and Soviet civil defense are whatever the respondent considers most likely. (Note: Soviet CD presently includes plans for crisis relocation.)
- The U.S. has a fairly detailed and well-planned Crisis Relocation Plan, and the President has confidence that, if he were to order that it be implemented, it would function essentially as planned (if no attack occurred while the relocation was in progress).
- An intense crisis occurs between the U.S. and U.S.S.R. Several different types of crises may be considered, e.g.,:
 - The U.S.S.R. "steps out" with a bold move designed to gain an advantage for itself.
 - Allies of the U.S. and U.S.S.R. are in armed conflict and the U.S. and U.S.S.R. are being drawn in.
 - The U.S.S.R. perceives itself as besieged by aggressive moves of other nations (e.g., China), and the U.S. is somehow involved.

The following subjects, among others, were then discussed.

- The advisability of U.S. relocation following the beginning of Soviet relocation; the potential Soviet response.
- The advisability of U.S. relocation in the absence of Soviet relocation; the potential Soviet response.
- The potential effect of both sides relocating their populations on the probability of strategic war afterwards.
- The extent to which crisis relocation should be thought of as a "tool" for crisis management (e.g., compared with various potential moves with military forces, such as raising the readiness level of the forces).
- The potential effect of the existence of a U.S. Crisis Relocation Plan on the probability of occurrence of an intense crisis.

The rest of the body of the report contains a comprehensive discussion of the issue of crisis relocation and crisis stability, based primarily on a study of the results of the interviews. Of course, there are many points over which various respondents disagreed, as may be seen from a comparison of the individual summaries. The conclusions reached in the body of the report are solely those of the authors, who retain full responsibility for the contents of the body of the report.

III. THE CONTEXT OF CRISIS RELOCATION

A. INSIGHT FROM THE LITERATURE

The literature on crisis management, deterrence theory, and coercive bargaining contains very little discussion of civil defense per se, and even less about crisis relocation. However, as detailed in Appendix A, from the more general discussion of crises, one may infer the following with regard to potential crisis relocation plans and decisions:

- A crisis-relocation plan ought to:
 - Be amenable to Presidential control and susceptible to modifications or innovations by the President, as he considers necessary.
 - Be effective in carrying out its specific tasks.
- A decision to crisis-relocate ought to:
 - Be devised and selected in terms of its ability to establish pauses in action.
 - Provide clear and appropriate demonstration of a nation's resolve in the objectives being pursued.
 - Be coordinated with other foreign policy actions.
 - Avoid motivating the adversary to escalate the crisis or engage in more dangerous forms of escalation.
 - Avoid giving the adversary the impression that diplomatic means are being abandoned and large-scale warfare will be initiated.

Furthermore, as detailed in Appendix B, the previous discussions of crisis relocation and crisis stability which were available to the authors have pointed out that U.S. crisis relocation can be viewed either as a stabilizing or a destabilizing force in crises, depending on one's point of view.

- U.S. crisis relocation can be a stabilizing force in crises in that it can (a) strengthen U.S. credibility, (b) improve U.S. bargaining position, (c) enable the U.S. to match or deter Soviet actions, and (d) lengthen or extend the escalation ladder by providing time to ponder and reevaluate the consequences and alternatives of acting.
- Crisis relocation can be a destabilizing force in crises in that it can (a) create an urgency to act since it cannot be maintained forever, (b) raise the probability of war by signalling to the opponent that war is certain, thereby inviting a preemptive strike, and (c) add to the incentive for decisionmakers to use military actions as the means by which to resolve the crisis since population is less vulnerable to an attack. Furthermore, crisis relocation can be a destabilizing force in crises which are characterized by an acute asymmetry in evacuation capabilities.

There is virtually no explicit distinction made in this literature between U.S. relocation in response to Soviet relocation and U.S. unilateral relocation or, more generally, between U.S. and Soviet relocation. Generally, the context seems to imply unilateral U.S. relocation. Also, all of the writings cited in Appendix B were prepared during the period from 1958 to 1967, when the strategic balance was quite different from the way it is at present; i.e., when the U.S. clearly possessed strategic nuclear superiority. Thus, all of the studies cited in Appendix B are somewhat dated.

B. POTENTIAL SOVIET PERCEPTIONS

Appendix C contains a detailed discussion of the major factors influencing the way in which the Soviets would manage a crisis; a brief summary is given here.

The Russian historical experience, including Russian survival of many invasions and wars, has conditioned in the Russians the basic belief that their country is encircled by hostile neighbors and that she must, therefore, maintain strong defenses and assertive policies. In this century, this historical belief has been reinforced by the tenets of Marxism-Leninism; the hostile neighbors are now the capitalist nations, which will, in the long run, be defeated by Soviet communism. This view has led to the more specific tenets that war (including nuclear war) is

basically an extension of the class struggle, that belief in a "rational deterrent" based on the all-out destructiveness of nuclear weapons (viz., the mutual hostage relationship) is fallacious, and that in any future global war the side with higher morale and superior "correlation of forces" will defeat the other and emerge victorious.

Soviet views of reality are fundamentally different from those of Americans, and each side's conscious attempt at pragmatism may be perceived by the other as nonpragmatic and possibly irrational. Communication between leaders of the U.S. and the U.S.S.R. is, therefore, somewhat difficult at all times, and could be particularly problematic during an intense crisis. In fact, during the Cuban Missile Crisis of 1962, many basic uncertainties were not resolved, although the crisis itself was.

In any future crisis, it is imperative that U.S. leaders realize the deep ideological and historico-cultural differences between American and Russian thought processes, and not fall into the "mirror-imaging" error of expecting the U.S.S.R. to respond to a particular crisis situation the way the U.S. would.

C. CIVIL DEFENSE AND STRATEGIC CONSIDERATIONS

The U.S. and the U.S.S.R. each maintain large strategic offensive forces consisting of intercontinental ballistic missiles (ICBMs), submarine launched ballistic missiles (SLBMs), and strategic bombers. Regarding strategic defensive forces, the 1972 Antiballistic Missile (ABM) Treaty and the 1974 Protocol to it limited each side to no more than 100 ABMs, a negligible number. In two other broad areas of strategic defense--air defense and civil defense--the U.S.S.R. maintains far more extensive programs than does the U.S.¹

Informed people differ regarding the chance that leaders would actually use these strategic nuclear forces in a crisis. However, as pointed out

¹Innumerable sources are available on the state of the strategic balance; e.g., Refs. 1, 3, 6, and 8-10.

in Appendix D by the Honorable Steuart Pittman, formerly Assistant Secretary of Defense (Civil Defense) during the Kennedy Administration, the experience of the Cuban Missile Crisis shows that, in an intense crisis environment, U.S. and Soviet leaders cannot necessarily be expected to play the rational game of counting the costs in potential damage and might indeed raise the risks of nuclear war in hopes of guiding the crisis to a favorable outcome, particularly if one side perceives that it has strategic advantage over the other. Words from President Kennedy's speech of October 22, 1962 are relevant:

...it shall be the policy of this nation to regard any nuclear missile launched from Cuba against any nation in the Western Hemisphere as an attack by the Soviet Union on the United States requiring a full retaliatory response upon the Soviet Union.

The flexibility which the U.S. would have in a crisis, with respect to any major action, would depend on the strength of the U.S. strategic forces relative to those of the Soviet Union. Many respondents agreed with the published views of Paul Nitze [Refs. 8-10] that the U.S.S.R. is inexorably achieving strategic superiority and that this will make a major difference in the outcome of future potential confrontations, even if these confrontations do not escalate nearly to the level of strategic war. Crisis relocation is one potential move that would generally be easier for the U.S. to execute under strategic parity than under obvious Soviet superiority.

As many respondents emphasized, the expected outcome of any future crisis would be considerably more favorable to the U.S. if both sides have effective CD than if only the U.S.S.R. has it. If only the Soviets have effective CD, they may be more ready to protect their people and then make aggressive moves, believing that the U.S., given its much greater vulnerability, would not be willing to oppose them by risking strategic war. Therefore, CD itself can have deterrent value.

The U.S. concept of deterrence is at present based on a mutual-hostage relationship, sometimes known as "mutual assured destruction." Several respondents emphasized that, even under full, effective CD, a significant

mutual hostage relationship would still exist because neither side would want to lose its "fixed capital"; i.e., cities, homes, factories, and buildings. However, the relationship would be less effective for deterrence than it is at present. In fact, as pointed out by respondents representing a wide spectrum of viewpoints, the most important requirement for strategic stability is survivable strategic forces, thus removing from each side the incentive to attack the other.

In the unlikely event that the U.S.S.R. did decide to attack the U.S. in a crisis, would they in fact crisis-relocate first? If so, this would very likely cause the U.S. to place its strategic forces on alert, thus reducing the effectiveness of an attack. But if not, a U.S. retaliatory attack could kill far more Soviet people than would have been killed had relocation been executed, even though population per se would presumably not be the object of the targeting. The answer to this question is not clear.

The question itself may become irrelevant if the Soviet CD program becomes effective enough to protect essentially the entire population in place. In terms of allocation of resources, it is generally agreed that the Soviet CD program is at least ten times the size of the U.S. CD program. Many articles and reports have been written recently about Soviet CD [e.g., Refs. 4, 5, 7, and 12], and the subject is beyond the scope of this report. However, it is important to note that some respondents (notably the Miami and Boeing groups) said that the present Soviet shelter construction program is so extensive that, by the mid-1980s, the U.S.S.R. may have an effective national blast shelter system for its population and, therefore, may not need crisis relocation at all. If this should happen, then the U.S.S.R. would have the capability of suddenly protecting its population and making demands on the U.S. that would require a response long before the U.S. had time (two to three days) to protect its population through crisis relocation. In such a situation, the whole subject of crisis relocation and crisis stability would take on a completely new character, which is not dealt with in this report. The respondents who feel this way

also, for this reason, advocate a major U.S. blast shelter program, arguing that when the Soviets have theirs, the U.S. will probably not have time to crisis-relocate, if the need ever arises for civil protection against nuclear war.

As several respondents emphasized, a key contributor to strategic stability is the National Technical Means of Intelligence used by each side to observe the other. It would be exceedingly unfortunate if the U.S.S.R. should ever choose to attack these means and seal off all other means of communication between the two nations, including placing restraints on the press. Such an action would create innumerable problems, only one of which is within the scope of this report, viz., what if the U.S.S.R. suddenly deprived the U.S. of the means of knowing whether the U.S.S.R. was executing crisis relocation or not? The authors' answer to this question is that such an action would definitely be severe enough to warrant U.S. crisis relocation. Assuming that the crisis was somehow resolved without further escalation, the U.S. should keep its people relocated until sufficient intelligence means were restored to ensure that the Soviet population was not either in, or moving into, a relocated posture.

Some respondents posed the following question: If the Soviets began relocation and attempted to keep this information from the rest of the world, how quickly could the U.S. find out about it? A precise discussion of this issue is beyond the scope of this report. However, if the Soviets could, in principle, keep their relocation activities a secret for roughly a day, i.e., long enough to accomplish a major part of their relocation, then the U.S. could effectively be presented with a fait accompli, perhaps accompanied by other crisis moves or demands by the Soviets which could make it undesirable for the U.S. to order relocation or take other major action. The point is that, if ever the U.S.S.R. should begin crisis relocation, it would be imperative that the U.S. find out about it fast. Thus, this mission should be considered an important one for U.S. information-gathering means.

Many respondents felt that the presence of a good U.S. crisis relocation plan would lower the chance of an intense crisis. The Soviets would be less likely to start such a crisis if they perceive the U.S. as rational and willing to defend its interests. Many other respondents felt that civil defense would be a side issue in any crisis; neither side would be deliberately trying to kill civilians, and CD moves (including crisis relocation) would have a negligible effect on the central events of the crisis.

Given the extreme strain that several days of relocation would place on individuals and on the economy in general, could relocation ever be repeated after being executed once during a crisis which was subsequently resolved? Many of the respondents raised this issue. Based on their comments, the authors conclude that if the President were generally perceived to have made the right decision and if the relocation had generally been executed well, then relocation probably could be retained as a viable option for a possible future crisis. However, if the President were generally perceived to have made the wrong decision, or if the relocation had been executed badly (especially if it became chaotic), then relocation could probably not remain a viable option for the future.

IV. POSSIBLE U.S. RESPONSES TO A SOVIET INITIATION OF CRISIS RELOCATION

During an intense crisis, it is possible that the U.S.S.R. would initiate crisis relocation of its population in the absence of any such move by the U.S. In that event, as pointed out by several respondents, the following observations would seem to be warranted.

- If the relocation appeared to be prudential and solely for the purpose of protecting the Soviet people in case of further escalation, that would be of less concern to the U.S. than if such relocation appeared to be threatening to the U.S., possibly presaging a nuclear first strike against the U.S. The crisis details and the Soviets' explanation of their actions, both publicly and privately (e.g., via the hotline), would be very relevant to U.S. leaders in such a situation.
- If the Soviets attempted to relocate covertly, e.g., by beginning at nightfall and attempting to seal off communication with the West, that would be much more threatening than if they did it overtly, e.g., by announcing it to the U.S. as it began.

Nevertheless, regardless of the details, the U.S. should treat any Soviet relocation as a very serious move and should respond. First, the U.S. should immediately place all its military forces on a high state of alert and should seriously consider announcing a policy of launch-under-attack for its fixed ICBMs. If that, plus associated communication with the U.S.S.R., did not cause the U.S.S.R. to cease their relocation within about one to three hours, then the U.S. should respond with its own relocation (assuming that there would still be time to accomplish a major part of the U.S. relocation before completion of the Soviet relocation). The U.S. should do this regardless of the Soviets' stated reason for relocation, even if they say (convincingly) that their relocation is a prudential response to a third-country threat not involving the U.S. Failure of the U.S. to respond would result in much too great a vulnerability asymmetry,

which could be exploited by the Soviets by means of sudden strong demands upon the U.S. In fact, once a detailed U.S. crisis relocation plan is established, the U.S. should state that its policy is to relocate if the U.S.S.R. does so. The U.S. should then remain relocated for as long as the U.S.S.R. does. Assuming that the crisis is resolved, "de-relocation" might proceed by mutual agreement. These conclusions correspond with the views of many of the respondents, although other respondents were opposed to U.S. relocation in this circumstance, at least in the absence of a more detailed scenario (see Appendix D).

A number of other comments are relevant, based on several respondents' observations.

- A good, detailed crisis relocation capability would be an almost essential prerequisite to a successful U.S. relocation.
- Public support would be another prerequisite. However, public support would very possibly be high if the Soviets had started to relocate. In fact, a great deal of spontaneous evacuation could occur in that event. A major function of the crisis relocation plan could be to channel the spontaneous evacuation and ensure that the dispersed posture in fact resulted in substantially reduced population vulnerability, instead of redistribution with unreduced vulnerability.
- A de-relocation plan, to be executed once the crisis were resolved, would also be necessary. Again, such a plan could direct and channel spontaneous de-relocation when the crisis intensity lessened.
- The Soviets would probably not be surprised if the U.S. relocated in response to their relocation, especially if that had been stated U.S. policy all along. However, one might encounter Soviet rhetoric critical of the U.S. action.

V. POSSIBLE CONSEQUENCES OF U.S. UNILATERAL INITIATION OF CRISIS RELOCATION

The question of unilateral U.S. relocation is considerably more problematic than the question of Soviet-initiated relocation. This chapter discusses some of the problems and issues related to this question, and concludes with an overall assessment.

In Chapter IV, the possibility of Soviet unilateral relocation is treated as a "given" that must be analyzed. In this chapter, the possibility of U.S. unilateral relocation is treated as an option--the advisability of which must be evaluated for U.S. decisionmakers. The difference in approach to these two points of view is reflected in some differences in emphasis in the two chapters. The reader may ask whether, since unilateral relocation would be problematic for the U.S., it would be equally problematic for the U.S.S.R.; and should the U.S., therefore, assume that the likelihood of unilateral Soviet relocation is negligible? The authors believe that the answer to the last question is negative. Even leaving aside asymmetries in offensive and defensive components of the strategic balance (including CD), such a conclusion would represent unwise mirror-imaging.

A. STATUS OF STRATEGIC FORCES

As emphasized by several respondents, the U.S. should be generally disinclined to execute unilateral crisis relocation if (1) both the U.S. and the U.S.S.R. perceive U.S. strategic forces to be significantly inferior to those of the U.S.S.R., or (2) a major component of U.S. forces is seriously vulnerable to strategic attack. Unilateral relocation should take place, if at all, only from a position of strategic strength. A corollary

is that the U.S. should place its strategic forces on generated alert (thereby making them considerably less vulnerable) prior to any relocation, unilateral or otherwise. This would discourage initiation of a strategic exchange by the U.S.S.R.

B. THE TYPE OF CRISIS

In discussing the potential effect of crisis relocation on crisis stability, it is essential to distinguish between different types of crisis, e.g., (1) the U.S.S.R. perceives itself as "stepping out" and trying to gain an advantage, (2) allies of the U.S. and U.S.S.R. are engaged in warfare, and the "superpowers" are being drawn in, and (3) the U.S.S.R. perceives itself as besieged or even "cornered" by aggressive moves of other nations. In a crisis of the first type, it is conceivable that the U.S.S.R. would expect the U.S. to crisis-relocate, purely as a prudential move; in such a case, the U.S.S.R. would probably not regard the U.S. move as threatening. However, in a crisis of the third type, they might well regard it as threatening, possibly even a sufficient incentive for a pre-emptive strike against the U.S. The Soviets are especially sensitive about perceived threats to their homeland, because of the historical experience of several invasions of Russia by foreign powers, most notably Germany and China. Thus, if a crisis developed in which the Soviets perceived central elements of their national entity as threatened by aggressive moves of third countries, particularly if Germany or China were involved, unilateral U.S. relocation could be particularly unwise. In a crisis of the second type mentioned, the advisability of relocation would depend more on the specific details of superpower involvement. (For further comment, see interview with Andrew Goodpaster, Appendix D.)

C. THE "TRIGGERING" EVENT

Based on the remarks of many respondents, the authors conclude that, if the U.S. ever were to relocate unilaterally in a crisis, such action should be taken only in direct response to some highly provocative action by the other side; i.e., if not their relocation, then something like a major military invasion of Western Europe (e.g., involving the outbreak of tactical nuclear war in Europe), or elsewhere. Otherwise, if the relocation were executed in the absence of a major move by the other side, it could trigger an unwelcome Soviet response and escalate the crisis.

Different individual Presidents would undoubtedly have different "evacuation thresholds" for deciding whether a given move were hostile enough to warrant unilateral U.S. relocation. Most respondents felt that a Soviet invasion of Western Europe accompanied by use of theater-nuclear weapons was above their "evacuation threshold."

D. PUBLIC REACTION

Another problem with unilateral relocation would be the degree of public support and cooperation. The strong willingness of U.S. citizens to support U.S. crisis relocation decisions would be essential for carrying out an orderly and successful relocation. It is of great importance that U.S. relocation be successful, for if it resulted in chaos, this could give the U.S.S.R. great additional incentive to take advantage of the confusion and accelerate whatever aggression had prompted the crisis. Furthermore, success is essential for (1) effective protection of the population, (2) post-crisis public approval of the President's action (which would surely be very important to the President), and (3) maintaining the possibility of relocating again in some future crisis.

In SPC's previous report to DCPA [Ref. 13], Jiri Nehnevajsa reported the results of the considerable thought that was given to the question of public cooperation with a relocation order by a panel of social scientists who met during the fall of 1977. Nehnevajsa's conclusion was:

We expect overwhelming compliant action with a Presidential order to evacuate. This compliance, in turn, will be the greater:

- a. the more it is known that evacuation plans exist
- b. the more people recognize that they stand a better chance to survive if they leave major risk areas rather than stay in place
- c. the more popular and respected the President giving the order [Ref. 13, p. E-16].

Most of the respondents accepted this conclusion; however, some were highly skeptical about it. Generally, these latter respondents were concerned that any attempted U.S. relocation would result in chaos, thereby weakening the U.S.'s standing in the crisis.

Based on Appendix E of Ref. 1, the authors believe that the degree of public cooperation would depend very strongly on the degree to which the public perceived that nuclear war was a real, imminent danger. If the danger is perceived to be very real, cooperation would be great; but if the public largely perceived the President as having overreacted to the crisis, opposition could be substantial, and an ineffective relocation could result. Thus, it is essential that the President have good, solid, credible reasons for ordering the relocation. Soviet relocation would provide such a reason. In the case of unilateral U.S. relocation, a major hostile act by the other side, interpreted as producing a relatively high probability of strategic nuclear war, would probably be essential for obtaining public cooperation.

E. SPONTANEOUS RELOCATION

On the other hand, as emphasized by Fritz Ermarth (Appendix D), an intense crisis may create spontaneous relocation of such magnitude that the President may choose to order unilateral relocation primarily for the purpose of "channeling" the people into the proper dispersal areas and minimizing congestion and confusion. In such a case, he should make his reason for the order clear to the U.S.S.R., to avoid misinterpretation and miscalculation. Similarly, subsequent reduction of the crisis intensity

could cause some spontaneous "de-relocation" and a concomitant Presidential directive to "de-relocate." In either case, the spontaneous movement of people would generate an autonomous risk (see Appendix A) and make the subsequent course of the crisis more uncertain.

It has been suggested that the government actively encourage people to relocate spontaneously (according to a prepublished plan) whenever they feel that events warrant such action, and that government officials be prepared to channel this evacuation, especially as regards temporary lodging in host areas. The advantage would be that the President might avoid the necessity of a major "go/no-go" decision that might negatively affect the crisis itself. Arguments against this idea are that (1) the spontaneous relocation might itself affect the other side's crisis actions, (2) spontaneous relocation could be much harder to control than an ordered evacuation, especially since the early evacuees would tend to have fixed ideas of their destinations, and (3) the President should, in principle, not relinquish to chance, a decision that is properly his.

F. HOW LONG SHOULD THE PEOPLE STAY RELOCATED?

A major question to be answered is: How long should the U.S. population stay relocated? For Soviet-initiated relocation, the answer is relatively easy: As long as the Soviets do. However, for unilateral U.S. relocation, the question is difficult. Relocation would place virtually every American into a situation of great inconvenience, even under the best of plans. It is not difficult to imagine the crisis then continuing without either being resolved or escalating further. The President would then be faced with a greatly inconvenienced population, possibly using up stocked supplies, with most of the economy at a standstill. The U.S.S.R. would not have these problems. As has been pointed out in the literature (Appendix B), the pressure on the President could create an urgency for him to take decisive unilateral military action. Alternatively, after a few weeks, the President might decide that he had to order de-relocation. At that point, with the U.S. population weakened from the ordeal, the Soviets might

relocate and escalate the crisis, making it necessary for the President to try to relocate the American people again, possibly with unsuccessful results. These possibilities illustrate a strong argument against U.S. unilateral relocation. At a minimum, the President should have an answer to the question "how long?" before ordering such a move.

One answer could involve the possibility that the President is about to make a bold move himself and wants to relocate the people first in case the move escalates the crisis to strategic war. The answer to "how long?" would be "until the move is successfully completed." A serious disadvantage would be that the relocation would foreshadow a possible resort to nuclear war, and could possibly induce the U.S.S.R. to attempt preventive action. Because it requires two to three days to complete, crisis relocation could not easily become a part of such a bold initiative.

G. COULD THE SOVIETS MAKE THE U.S. LOOK FOOLISH?

Another related problem is that the Soviet response to unilateral U.S. relocation could be to de-escalate the crisis and try, through rhetoric, to make it appear to the American people that the President had overreacted and made a catastrophically wrong decision. This could make it far more difficult for the President ever to order relocation again and could cause many other domestic and international problems.

H. THE U.S.'S NEXT STEP

Before ordering unilateral U.S. relocation, the President should carefully consider the question: "What do I do next if, after relocation, the crisis proceeds as before?" This question is closely related to the previous "how long?" question.

It is almost impossible to address this question without a specific scenario. However, one can envision the following series of events. The U.S.S.R./Warsaw Pact forces suddenly invade West Germany, and theater

nuclear weapons are used by both sides. The NATO forces are pushed back. The President places U.S. strategic forces on alert and relocates the U.S. population, hoping (among other things) that this action will deter further Warsaw Pact aggression. However, it does not, and NATO forces continue to retreat. What next? Use of strategic nuclear weapons, possibly according to a Limited Nuclear Option?

A discussion of this question would be beyond the scope of this report. Here it is simply stated that the President should have carefully thought through his "next step" option before ordering such a move and considered the likely Soviet thought processes on the same subject and their corresponding potential response to his unilateral relocation.

I. RELOCATION AS A "TOOL" FOR CRISIS MANAGEMENT

Any crisis should be handled carefully and delicately. Prior to making a major move, U.S. leaders must carefully evaluate a range of alternatives and assess for each the probable response by the other side. Similarly, they should remember that the leaders of the other side are almost surely doing the same. Like all potential moves, major civil defense moves, particularly crisis relocation, should be carefully evaluated in this manner prior to execution.

The majority of the respondents agreed that unilateral U.S. crisis relocation would not be appropriate as a "tool" for crisis management, i.e., as a move designed primarily to deliver some message to the other side. Relocation involves far too much disruption of domestic life, is far too cumbersome, and is fraught with too many uncertainties. Rather, the more appropriate tools would be military or diplomatic, notably a change in the alert level of strategic forces. Of course, if the President is considering ordering relocation, he must estimate the effect that this would have on the crisis and take the estimate into account as he makes his decision. Furthermore, in certain cases, crisis management may be a valid secondary objective of relocation. However, the primary purpose and

justification of crisis relocation is the protection of people. Relocation should be employed only if the President believes that the alternative is a high probability of strategic nuclear attack on the U.S. with the population unprotected.

Crisis relocation should never be used unilaterally as a "bluff" to demonstrate resolve to the U.S.S.R. in a situation where the President privately estimates the chance of strategic war to be low. The reasons are:

- The American people would be subjected to extreme inconvenience for a reason that is basically dishonest.
- The Soviets might "see through" the bluff, with negative consequences for the crisis and future post-crisis U.S.-Soviet relations.
- The American people might also see through the bluff, and many would probably fail to cooperate, with negative consequences for the effectiveness of the relocation, respect for the President, and the possibility of relocation again in some future crisis.

Despite the inappropriateness of relocation as a primary tool for crisis management, several respondents advocated providing the President with a spectrum of relocation options for dealing with different contingencies. These include (1) preparation for relocation ("surge"), (2) "channeling" of spontaneous evacuees only, and (3) evacuation of counterforce areas only. The last option has the advantage that it is clearly prudential and could almost surely not be interpreted as presaging a U.S. first strike; but it also has the disadvantages that (1) it is hard to foresee a crisis scenario so "neat" and free from uncertainties that a President could realistically assess the probability of counterforce attack as high but the probability of counter-population attack as low, (2) if a counterforce-area relocation were ordered, heavy spontaneous relocation in the rest of the nation might rapidly demand a Federally-directed nationwide relocation.

J. THE SOVIET RESPONSE

Based on the comments of the respondents, the authors conclude that, regardless of the specific scenario, if the U.S. unilaterally crisis-relocates, the Soviets could be expected to follow suit rapidly with their own relocation. Beyond that, the response would depend greatly on the details, some possibilities of which have been discussed above.

K. SUMMARY: U.S. UNILATERAL RELOCATION

Unilateral U.S. crisis relocation would have a much greater chance of producing instability than U.S. relocation in response to Soviet relocation. Although one should not be dogmatic in the absence of a specific scenario, it would appear that, generally speaking, the following conditions should hold before U.S. unilateral relocation should be ordered (except possibly for the case in which it is ordered to "channel" massive spontaneous relocation already in progress, or the remote possibility that U.S. intelligence were to reveal definite Soviet plans for a strategic attack).

- The U.S. strategic deterrent is strong.
- U.S. strategic forces are not highly vulnerable.
- U.S. strategic forces are on generated alert.
- A crisis occurs in which the U.S.S.R. initiates bold, aggressive action.
- A specific Soviet hostile action is committed, which apparently makes the probability of strategic war quite high; U.S. relocation would be in direct response to this action.
- The President is confident that the public supports him on the crisis issue and would rather endure the rigors of relocation than have him back down in the crisis.
- The President accompanies the relocation announcement with a clear statement that the relocation is being performed primarily for prudential reasons, but also demonstrates U.S. resolve and desire to return to the status quo ante.
- The President has carefully considered how long he will keep the people relocated if the Soviets do not relocate and the

J. THE SOVIET RESPONSE

Based on the comments of the respondents, the authors conclude that, regardless of the specific scenario, if the U.S. unilaterally crisis-relocates, the Soviets could be expected to follow suit rapidly with their own relocation. Beyond that, the response would depend greatly on the details, some possibilities of which have been discussed above.

K. SUMMARY: U.S. UNILATERAL RELOCATION

Unilateral U.S. crisis relocation would have a much greater chance of producing instability than U.S. relocation in response to Soviet relocation. Although one should not be dogmatic in the absence of a specific scenario, it would appear that, generally speaking, the following conditions should hold before U.S. unilateral relocation should be ordered (except possibly for the case in which it is ordered to "channel" massive spontaneous relocation already in progress, or the remote possibility that U.S. intelligence were to reveal definite Soviet plans for a strategic attack).

- The U.S. strategic deterrent is strong.
- U.S. strategic forces are not highly vulnerable.
- U.S. strategic forces are on generated alert.
- A crisis occurs in which the U.S.S.R. initiates bold, aggressive action.
- A specific Soviet hostile action is committed, which apparently makes the probability of strategic war quite high; U.S. relocation would be in direct response to this action.
- The President is confident that the public supports him on the crisis issue and would rather endure the rigors of relocation than have him back down in the crisis.
- The President accompanies the relocation announcement with a clear statement that the relocation is being performed primarily for prudential reasons, but also demonstrates U.S. resolve and desire to return to the status quo ante.
- The President has carefully considered how long he will keep the people relocated if the Soviets do not relocate and the

crisis proceeds as before, and he has carefully thought through the problems which would be caused if the Soviets relocate as he "de-relocates."

- More generally, the President has carefully considered what his next step will be if the relocation apparently has little effect on the crisis, and he realizes that the Soviets may suspect that this next step will be use of strategic weapons, with the attendant possibility of Soviet preemption.

Unilateral U.S. crisis relocation would not be appropriate as a tool for crisis management. The appropriate tools consist primarily of diplomatic or military moves, notably a change in the alert level of strategic forces. In particular, unilateral U.S. relocation should never be used as a bluff in a situation where the President privately estimates the chance of strategic war to be low.

VI. THE POTENTIAL EFFECT OF MUTUAL RELOCATION

In this section, it is assumed that an intense crisis occurs, one side chooses to crisis-relocate, and the other side rapidly follows suit with its own relocation. The issue is: Generally speaking, would this tend to increase or decrease the probability that the crisis would escalate to a strategic exchange? It is assumed, as seems very likely, that the strategic forces of both sides would have been placed on a high state of alert either prior to or during the period of mutual relocation.

The respondents were quite divided on this issue. Some felt that the probability of strategic war would become less, others that it would become greater. The arguments generally went as follows:

Arguments that Probability of War Would Be Greater

- Tension would be much higher.
- With population out of the way, a "pure counterforce war" could be fought, and thus counterforce attacks would become more likely.
- Crises involve great uncertainties; trying to predict the other side's next move is very "chancy." Crises have a momentum of their own; mutual relocation would increase the momentum and uncertainty and chance of escalation to strategic exchange.
- Several respondents independently suggested that there may be an analogy between the 1914 mobilization in Europe which led inexorably to World War I, and the possibility that mutual relocation could lead inexorably to strategic war.

Arguments that Probability of War Would Be Less

- Strategic forces would be on alert, thus much less vulnerable; incentive to attack strategic targets would be reduced; capability of retaliation, and thus deterrence, would be enhanced.
- The relocation would dramatically emphasize to every American and Russian that the situation had become extremely grave and that strategic nuclear war was a very real threat. Tremendous pressure from all parts of American and Russian society would be brought to bear on the leaders (who would probably be communicating extensively on the "hotline"), urging them to resolve the crisis peacefully, de-relocate, and step back from the brink of disaster. (Corollary: Because of this same sort of effect, strategic war would be much less likely to arise from a protracted crisis than from a very sudden one where the leaders made decisions extremely fast without taking time to receive advice from broad segments of their societies.)
- The most plausible relocation scenario is that the Soviets initiate relocation in a crisis where they are being aggressive. They would hope that the U.S. would not respond by relocating; such non-response would result in a great vulnerability asymmetry, allowing the Soviets to complete their military objective without major fear that the U.S. would aggressively try to oppose them. If the U.S. did rapidly respond with relocation, this would demonstrate U.S. resolve and could deter the Soviets from proceeding further with their aggression. The U.S. move would deny "escalation dominance," or crisis control, to the U.S.S.R., increase Soviet uncertainty, and decrease the chance that the U.S.S.R. would continue its course of action.

A large number of respondents felt that the probability of strategic war would depend on so many details that one could not make substantive comments on this issue without a detailed scenario. Many respondents felt that civil defense and population protection were side issues, that the major crisis issues would concern political factors and military moves, and that CD actions would have a negligible effect. Some respondents felt that, with respect to the ensuing few days, mutual relocation would raise both the chance of strategic war and the chance of rapid peaceful resolution; the chance that the crisis would continue unchanged would be decreased. In other words, one way or the other, something would happen fairly fast--either crisis resolution or strategic war.

In the presence of so much uncertainty, the authors take the position that it is not possible to make general statements about whether, in a crisis, mutual relocation would raise or lower the probability of strategic exchange. This would depend too much on the specific details of the crisis.

REFERENCES

1. Collins, J. M. American and Soviet Armed Services, Strengths Compared, 1970-76. Congressional Record, pp. S14063-S14104, 5 August 1977.
2. Defense Civil Preparedness Agency. United States Civil Defense Programs and Activities--Current Status. 28 October 1976.
3. Drell, S. D. "Beyond SALT II-A Missile Test Quota." The Bulletin of the Atomic Scientists 33 (May 1977):33-42.
4. Gouré, L. War Survival in Soviet Strategy, USSR Civil Defense. Coral Gables, Florida: Center for Advanced International Studies, University of Miami, 1978.
5. Gouré, L. Shelters in Soviet War Survival Strategy. Coral Gables, Florida: Center for Advanced International Studies, University of Miami, 1978.
6. Hoerber, F. P., et al. Arms, Men, and Military Budgets. New York: Crane, Russak & Company, Inc., 1978.
7. Kaplan, F. M. "The Soviet Civil Defense Myth." The Bulletin of the Atomic Scientists. (March 1978):13-20.
8. Nitze, P. H. "Deterring Our Deterrent." Foreign Policy 25 (Winter 1976-77):195-210.
9. Nitze, P. H. "Assuring Strategic Stability in an Era of Détente." Foreign Affairs 54 (January 1976):207-232.
10. Nitze, P. H. "A Plea for Action." The New York Times Magazine (May 7, 1978).
11. Satchell, M. "Why the U.S. Worries About Neglected Civil Defense." Parade (May 21, 1978):8-11.
12. Shapley, D. "Soviet Civil Defense: Insiders Argue Whether Strategic Balance is Shaken." Science 194 (10 December 1976):1141-1145.
13. Sullivan, R. J., et al. Candidate U.S. Civil Defense Programs. R-342. System Planning Corporation, March 1978.

Appendix A
INSIGHTS FROM THE THEORETICAL LITERATURE

by

Jeffrey M. Ranney

Appendix A

INSIGHTS FROM THE THEORETICAL LITERATURE

A. OVERVIEW

1. Introduction

The present Appendix examines the extensive body of literature pertaining to crisis management, strategic bargaining, deterrence theory and coercive bargaining for concepts and models that are pertinent to the impact of future crisis relocation (CR) programs on an international crisis situation. Based on this literature examination, there are three fundamental issues that must be addressed in terms of designing, implementing, and assessing the impact of CR programs on future international crisis situations. The three fundamental issues are:

- Need for a crisis concept and a threshold concept
- Need to develop and extend crisis management concepts
- Need to recognize that crisis management implies nations in interaction.

2. Need for a Crisis Concept and Threshold Concept

One major conclusion of the present Appendix is that (1) there exists no significant body of literature pertaining to CR and its impact on a crisis in progress, and (2) there is no consensus among analysts and policymakers as to what are the exact causal factors underlying international crisis, or even a superpower crisis. Instead, analysts have postulated numerous factors for explaining the occurrence and possible resolution of an international crisis. This failure to arrive at a clear and acceptable crisis concept serves to hamper the development of a national consensus as to the circumstances under which CR programs are most appropriate and the possible reactions to an implemented CR program by the Soviet Union. Moreover, the

existence of these numerous factors gives support to the widely held belief that crises are context dependent and, further warrants the acceptance of a unidimensional crisis concept. A coherent and uniform crisis concept needs to be developed that will permit analysts and policymakers:

- To identify at what threshold and circumstances CR programs are most appropriate
- To provide a useful analytical tool to assess the impact of CR programs on a crisis in progress.

3. Need to Develop and Expand Crisis Management Concepts

Implicit in the crisis management literature is the inherent belief that crisis and conflict somehow can be managed. Moreover, most of the time, and equally important during crisis situations, nations are pursuing simultaneously two self-competing objectives: namely, to maximize their national objectives and to minimize their losses.

As a policy tool of crisis management, CR programs also reflect this duality. It is important to recognize that the acquisition of a CR capability serves both to enhance the survival of the American people in the event of a nuclear attack (thereby minimizing national losses), and at the same time to enhance the bargaining position of the United States in immediate and future situations (thereby maximizing national objectives). The extent to which decisionmakers can pursue one objective at the expense of the other is still unclear. What is clear is that these two aspects of CR are complementary and inseparable.

4. Need to Recognize that Crisis Management Implies Nations in Interaction

The notion that crisis management implies nations in interaction is fundamental to the crisis management literature. It implies a bargaining situation in which at least two nations are responding in an action-reaction mode, though in an imperfect environment. Thus, what a nation does--

advertently or inadvertently--has an impact--direct or indirect, positive or negative--in determining the other nation's incentive structure, set of alternatives, and set of initial images.

As one policy alternative available to crisis managers, CR programs provide an additional means for decisionmakers to determine or manipulate an opponent's incentive structure and set of alternatives by the demonstration of resolve; or equally important, to determine or manipulate an opponent's set of initial images by conveying information about intentions and perceptions. Consequently, in the event of the U.S.-U.S.S.R. crisis, a CR capability may significantly alter Soviet perceptions (e.g., images) and expectations of "winning," (e.g., incentives) and act as a deterrent to Soviet attempts to escalate the crisis or to change the nature of the stakes or issues involved (thereby limiting Soviet alternatives).

5. Policy Requirements

The present chapter identifies seven policy requirements that can serve as guidelines for developing and executing CR programs, and for assessing the impact of CR on a crisis in progress. The decision to crisis-relocate is dependent on the following:

- CR plans must be amenable to Presidential control and susceptible to modifications or innovations by the President, as he considers necessary
- CR plans must be effective in carrying out their specific tasks
- CR decisions must be devised and selected in terms of their ability to establish pauses in action
- CR decisions must provide clear and appropriate demonstration of a nation's resolve in the objectives being pursued
- CR decisions must be coordinated with other foreign policy actions
- CR decisions must avoid motivating the adversary to escalate the crisis or engage in more dangerous forms of escalation
- CR decisions must avoid giving the adversary the impression that diplomatic means are being abandoned and large-scale warfare is being initiated.

B. THE STUDY OF CRISES

1. Overview

Analysts have examined a number of different kinds of crisis situations.¹ Most research efforts have been directed at the study of a limited set of crises: Cuba [Refs. 1-3, 13, 28, 30, 48], 1914 Crisis [Refs. 24, 26, 27, 29, 47, 86, 88], Korea [Refs. 49, 50, 68, 69], the Middle East [Refs. 5, 9, 43, 44, 52, 71, 78], Berlin [Refs. 4, 16, 39-41, 64, 72, 74], and the Formosa Straits [Refs. 33, 39, 40, 65]. Research efforts on crisis also included Pearl Harbor, Laos, and the Dominican Republic [Refs. 4, 17, 83]. Despite the use of quantitative indicators, in some studies, the treatment of crises has been largely descriptive² and methodologically traditional.³ Attempts to shift away from this traditional bias are seen in the multi-case studies conducted by George, Hall, and Simon [Ref. 18], George and Smoke [Ref. 17], Bloomfield and Leiss [Ref. 8], Blechman and Kaplan [Ref. 7], and in book-length data collections compiled by Singer and Small [Ref. 66] and Butterworth [Ref. 11].

It is also useful to note the number of different factors analysts have considered to be most salient in describing, explaining, or predicting behavior in crisis situations. The earliest and most frequently examined

¹Crisis and crisis situations are used synonymously throughout the present chapter.

²Recently, there has been a proliferation of studies devoted to the issue of predicting and forecasting crises [Refs. 14, 15, 32, 36, 43].

³Traditional methodologies rely on single case-studies whereby different questions are asked from case-study to case-study. This approach retards the development of a body of knowledge, as conclusions cannot be placed into larger contexts, and replication of research findings is virtually impossible since assumptions, parameters, and factors are not explicitly defined. An alternative approach is the behavioral approach, which relies on a large number of cases, explicitly states assumptions, parameters, and factors, and examines the same factors under the same conditions across all cases. However, it is important to note that the excessive preoccupation with quantification by behavioralists has severely limited the policy relevance of this approach.

factor is perceptions, sometimes coupled with other factors such as time, threat, and surprise. Adherence to this research orientation suggests that perceptions--immediate or expected, accurate or inaccurate--contribute to stress, which, in turn, affects the ability of the decisionmaker--individual or organizational--to respond [Refs. 24-29, 43, 47, 54, 86, 88].

Another dominant research orientation is the nature of interactions between States. Advocates of this line of inquiry argue that analysts can better identify and evaluate conditions or situations that may or may not lead to crisis by examining the frequency, intensity, direction, and kinds of interactions between States [Refs. 28, 39-42, 72, 74].

In addition to examining perceptions and the nature of interactions between States, analysts also have suggested and examined the following factors as being most salient in describing, explaining, or predicting behavior in crisis situations: images [Refs. 71, 83], attitudes [Ref. 33], motives [Ref. 54], and decisionmaking [Refs. 2, 3, 21, 65, 68].

2. Definitional Problems

One finding of the present study is that there exists no uniform meaning of the word "crisis" either within the discipline or across disciplines. The lack of a uniform definition is partially attributed to the failure by analysts to define explicitly what they mean by "crisis." Analysts simply have assumed "crisis" to be self-explanatory. As one analyst has remarked: "Everybody" knows when a crisis occurs [Ref. 42, p. 183]. Subsequently, this failure to define explicitly what "crisis" means has led to a widespread and indiscriminate use of the word, which, in turn, has served further to compound the problem of definition.

When analysts do offer a definition of a crisis situation [Refs. 67, 73, 80, 81, 84], these definitions usually fall into one of two categories: procedural or substantive definitions. Procedural definitions emphasize generic traits without regard to context, while substantive definitions are context-specific [Ref. 73, p. 72]. Most definitions of

crisis situations are procedural. Weiner and Kahn [Ref. 80], for example, provide an elaborate procedural definition, enumerating 12 dimensions that may characterize a crisis situation:

- (1) Crisis is often a turning point in an unfolding sequence of events and actions.
- (2) Crisis is a situation in which the requirement for action is high in the minds of planning of participants.
- (3) Crisis is a threat to the goals and objectives of those involved.
- (4) Crisis is followed by an important outcome whose consequences and effects will shape the future of the parties to the crisis.
- (5) Crisis is a convergence of events whose combination produces a new set of circumstances.
- (6) Crisis is a period in which uncertainties about the assessment of the situation and alternatives for dealing with it increase.
- (7) Crisis is a period or situation in which control over events and their effects decreases.
- (8) Crisis is characterized by a sense of urgency, which often produces stress and anxiety among the actors.
- (9) Crisis is a circumstance or set of circumstances in which information available to participants is usually inadequate.
- (10) Crisis is characterized by increased time pressures for those involved.
- (11) Crisis is marked by changes in the relations among participants.
- And (12) Crisis increases tensions among the actors, especially in political crises involving nations.

Substantive definitions of crisis appear in smaller numbers. There are, for example, political-military crises (e.g., the Middle East, the Dominican Republic, Berlin) and economic crises (e.g., 1973 Arab Oil Embargo, the financial plight of New York City 1975-77). Kahn's 44-step escalation ladder pertaining to political-military crises [Ref. 36] and Triska and Finley's Soviet risk-taking matrix [Ref. 75] are specific examples of substantive definitions frequently cited by many analysts.

Consequently, the failure by analysts and policymakers to arrive at a consensus as to "what" constitutes a crisis situation (that is, what they are purporting to study) serves to hamper the development of a body of knowledge pertaining to crisis behavior and crisis decisionmaking. Analyses based on different definitions preclude any possible comparison that would permit knowledge about crisis behavior and crisis decisionmaking to cumulate.

3. Approaches

Despite the high propensity for analysts and policymakers to describe "everything" and "anything" as a crisis situation, it has been suggested that analysts differentiate between two kinds of crisis situations: foreign policy crisis and international crisis [Ref. 81, p. 21]. The primary difference is that the former is concerned with the effects of a crisis situation on a single government, while the latter is concerned with the effects of a crisis situation on the relationship between two or more governments. In effect, the unit of analysis is either the decision-making unit (i.e., the governmental apparatus) or the interactions between States.

Foreign policy crisis relies on decisionmaking theory and refers to a situation characterized by (1) a high threat to values or objectives central to a national society (as opposed to low threat), (2) shortness of time in which decisionmakers can respond (as opposed to extended time), and (3) surprise occurrence (as opposed to anticipated) [Refs. 19, 29].¹ On the other hand, international crisis relies on the interaction approach [Ref. 42] and refers to a situation that threatens to transform the nature of the relationship between two or more nations [Ref. 6, p. 9]. Young provides one of the best operational definitions of an international crisis:

... a crisis in international politics is a process of interaction occurring at higher levels of perceived intensity than the ordinary flow of events and characterized by: a sharp break from the ordinary flow of politics; shortness of duration; a rise in the perceived prospects that violence will break out; and significant implications for the stability of some system or subsystem (or pattern of relationships) in international politics [Ref. 84, p. 15].

¹Robinson [Ref. 58] also describes crises along three dimensions, substituting Hermann's anticipation for event origin (external or internal).

Thus, the major preoccupation of the analyst within the international crisis perspective is to ascertain the manner in which the relationship develops and the kinds of exchanges, especially the asymmetries, that take place between participants. As Williams notes: "It is not a matter of events causing problems, but of two or more States coming into direct and dramatic conflict" [Ref. 81, p. 24]. It is the potential explosiveness of an international crisis that remains the central concern of the crisis manager. This is especially seen in terms of the nature of the threat, the intensity of the crisis (high as opposed to low), the values of the objectives involved (central as opposed to peripheral), time pressures (acute as opposed to less acute), the sense of urgency to act and the realization by decisionmakers of an increased probability for miscalculation, and the impact of the potential outcome in terms of immediate and future relations and for future power and status in the global system.

C. CRISIS MANAGEMENT

Crisis management encompasses those methods, techniques, skills, and approaches that facilitate the peaceful resolution of a crisis situation while permitting a nation to both maximize its national objectives and to minimize its losses. It should not be considered a science, but rather an art in which the traditional forms of statesmanship (i.e., wisdom, diplomatic skill, and judgment) are applied. Essentially, crisis management is "concerned with the control and regulation of crises once they have occurred, and the procedures whereby a peaceful outcome can more readily be achieved" [Ref. 81, p. 15].

The dual purposes of crisis management (to maximize national objectives and to minimize losses) imply the realization that international life consists less of zero-sum games and more of mixed-motive games in which the elements of shared danger and bilateral competition, or mutual dependence

and conflict, are closely interrelated.¹ This mixed-motive character also reflects different schools of thought as to the nature of a crisis and to the selection of policy alternatives.

One school of thought stresses the need to minimize the probability of war. Policy alternatives are selected solely on the criterion that they best minimize the probability of war. Policy alternatives that fail to meet this criterion are rejected, even though they may provide a satisfying solution to the crisis. Implicit in this conceptualization of crisis is the belief that a crisis is a pathological occurrence to be ended or defused as quickly as possible. More importantly, the resolution of a crisis necessitates bi- or multi-lateral actions, as opposed to unilateral actions, as one side alone cannot sufficiently limit the probability of war. It is mutual dependence. Thus, given this perspective of crisis, crisis management aims at controlling the flow of events and maintaining the level of tension at a tolerable level by stressing the common interests and common bonds that bind all participants to a crisis.

Another school of thought stresses the idea that every crisis provides a bargaining opportunity to be fully exploited. Policy alternatives are selected on the criteria that best maximize national objectives. This conceptualization suggests that crisis situations are characterized by bi- or multi-lateral competition in which all participants attempt to maximize their interests by raising the stakes involved to a level that is unacceptable to all but one participant. Crisis situations are "competition in risk taking" [Ref. 61]. For the crisis manager, the question "Will this action increase the probability of war?" is replaced by the question "Will this action force the adversary to capitulate?"

Nevertheless, these elements of shared danger and bilateral competition represent two poles of a continuum depicting the nature of interactions

¹Zero-sum games refer to situations in which one nation gains at the expense of another nation. Mixed-motive games refer to situations in which both nations can gain or lose together [Ref. 61, p. 891].

between two or more nations in a crisis situation. The extent to which nations must coordinate policy alternatives between these two poles characterizes much of the substance of international bargaining. Moreover, the experiences of the nuclear age demonstrate that neither superpower has found it to be in its interest to focus entirely on either maximizing national objectives or minimizing disasters. In sum,

... crisis management is concerned on the one hand with the procedures for controlling and regulating a crisis so that it does not get out of hand and lead to war, and on the other with ensuring that the crisis is resolved on a satisfactory basis in which the vital interests of the State are secured and protected. The second aspect will almost invariably necessitate vigorous action carrying substantial risk. One task of crisis management, therefore, is to temper these risks, to keep them as low and as controllable as possible, while the other is to ensure that the coercive diplomacy and risk-taking tactics are as effective as possible in gaining concessions from the adversary and maintaining one's own position relatively intact [Ref. 81, p. 30].

D. CRISIS BARGAINING

1. Introduction

The central concept in crisis management is the notion of bargaining. Bargaining refers to the attempts by participants in a given situation to alter the distribution of gains and losses among them (i.e., the outcome). It borrows heavily from the game theoretical models and concepts introduced and developed by von Neumann and Morganstern, Luce and Raiffa, Schelling and Rapoport [Refs. 77, 38, 61, 62, 55, 56]. Consequently, most of the research endeavors in crisis management are concentrated entirely on those factors, induced or noninduced, that are apt to influence the outcome (i.e., the distribution of gains and losses) of a crisis or bargaining situation. Analysts of crisis management have found it useful: (1) to distinguish between types of bargaining situations (e.g., simple, strategic); (2) to identify and assess the contextual

factors of a bargaining situation; (3) to identify and assess the impact of factors deliberately used by the participants to alter the distribution of gains and losses in a desired manner (e.g., commitments, communications); and (4) to identify and assess the impact of intervening factors, external and internal, that impede efforts to alter the distribution of gains and losses (e.g., bargaining impediments, autonomous risks).

2. Simple and Strategic Bargaining

To understand the complexities of a bargaining situation, analysts have found it useful to distinguish between "simple" and "strategic" bargaining. The central distinction lies between the acceptance of a given bargaining context and attempts to alter the context as part of the bargaining process. Therefore, simple bargaining refers to:

... situations in which the activities of the participants consist primarily of: straight-forward assessments of existing bargaining positions; more or less direct procedures for exchanging information about these positions; an effort to strike a bargain on this basis [Ref. 84, p. 36].

Whereas, strategic bargaining refers to the situation in which:

... participants attempt, by various bargaining tactics, to achieve at least temporary alteration either in the dimensions of the bargaining process or in the perceptions of the other parties concerning these matters [Ref. 84, p. 37].

The importance of recognizing whether the adversary is willing to play the game out or is attempting to alter the rules of the game or the game itself is best illustrated in the tactics employed by Soviet Prime Minister Nikita Khrushchev in the 1962 Cuban Missile Crisis. The attempts by Khrushchev to link the issue of withdrawal of Soviet missiles from Cuba to the issue of Berlin or of the withdrawal of American missiles based in Italy and Turkey represent an attempt to alter the "game." If Khrushchev had succeeded, this would have resulted in different cost-benefit

calculations and would have further restricted the policy alternatives available to both the United States and the Soviet Union. This would have made the resolution of the crisis different and possibly more difficult.

3. Bargaining Setting

Bargaining setting (as the basic structure of an international crisis situation) refers to the specific context in that bargaining occurs. It serves to illuminate those factors which can influence the bargaining outcome, either by narrowing or enlarging the selection of policy alternatives. Two conceptual efforts have been made at identifying what factors comprise the bargaining setting and at examining their implications for crisis management.

Young provides the initial attempt at identifying what factors comprise the basic structure of an international crisis situation. In The Politics of Force [Ref. 84], he identifies six factors that can significantly influence the bargaining situation:

- Distribution of power
- Normative structure of international politics
- Operative arrangements for regulating power in the global system
- Contextual factors
- Nature of the power relationship between the protagonists
- Domestic-political context.

More recently, Snyder [Ref. 67] describes the basic structure of international crisis as the interaction between the systemic environment and bargaining setting.

The systemic environment consists of those factors relating to:

- General structure of the system (e.g., the number of major actors, distribution of power among them)
- Existing alliances and alignments
- Nature of military technology.

The bargaining setting comprises those factors relating to:

- Nature of the conflict
- Recent relations between the participants
- Comparative evaluation of the stakes and issues involved
- Relative military capability
- Subjective fears of war
- Pre-crisis commitments
- Geographical distance from the crisis area
- Who is the "aggressor" and who is the "defender"
- Conceptions of the "legitimacy" of the status quo or desire to change the status quo
- Pre-crisis "images" especially pertaining to the other's resolve."

Williams [Ref. 81] also adds two more factors to this formulation:

- Relative risk-propensities of the participants
- Nature of the demands (to undo an action, or to refrain from doing an action).

Given the systemic environment and bargaining setting, the basic structure of a crisis produces an incentive structure (i.e., a set of values for each possible outcome derived from the interests involved, bargaining reputations, and estimated costs); a set of alternatives for each participant; and a set of initial images of the other's incentive structure and alternatives derived from his past behavior, geographical position, military capabilities, and political-social system. According to Snyder's bargaining process, the incentive structure and the set of initial images are:

... the basic determinants of behavior in, and the outcome of, a crisis. They are implicit in any situation even if no bargaining moves are made. They are the sources of "inherent" bargaining power. Bargaining "moves" or "tactics" are designed to manipulate and change alternatives, incentives, and the other's image of them so as to shift outcome in a direction favorable to oneself [Ref. 67, p. 224].

These two formulations of crisis bargaining serve to reemphasize the widely held belief by analysts and policymakers that the resolution of a crisis is context-dependent. Equally important, the asymmetries that can occur between the above-mentioned factors, perceived or actual, determine the initial expectations and attitudes about the possible outcomes of a given situation; hence, the degree to which a nation can attempt to alter the outcome of a crisis situation. The attempts by both the initiator and respondent to exploit these asymmetries through the manipulation of contextual factors provide the only means to achieve national objectives, while at the same time facilitating the task of disaster avoidance.

The 1962 Cuban Missile Crisis provides a useful example of the role that asymmetries can play in a crisis situation. The relative success of American crisis management in the 1962 Cuban Missile Crisis is attributed to at least three asymmetries that were skewed in favor of the United States: (1) the United States possessed unquestioned strategic nuclear superiority, which would permit the United States to dominate each level of escalation (i.e., escalation dominance), (2) the United States possessed a local conventional superiority (i.e., relative military capability), and (3) Soviet national security was not directly affected (i.e., the nature of the threat). These three asymmetries were only instrumental in the success of American crisis management in the 1962 Cuban Missile Crisis. What was required--was for President Kennedy to select or develop tactics that would support or emphasize these asymmetries in order to create an outcome more favorable to the United States.

Skillful tactics can only capitalize on favorable conditions already latent in the situation; skill cannot compensate for the absence of those favorable conditions [Ref. 18, p. 230].

The need to tailor policy alternatives or tactics to the structure of the crisis situation becomes more relevant in situations characterized by partial (as opposed to perfect), inaccurate, and highly ambiguous information.

4. Attempts to Alter the Bargaining Setting

Analysts have devoted a substantial amount of attention toward identifying and assessing the impact of factors deliberately chosen by a nation to alter the outcome of a crisis situation in a desired manner. So far, analysts have focused on two approaches: attempts to modify the expectations and attitudes of the adversary regarding his opponent's intentions and behavior (commitment theory) and attempts to modify the expectations and attitudes of the adversary regarding his own benefits (coercive bargaining and communication theory).

These two approaches correspond to two basic moves in game theory: committal and communication. The central distinction between the two basic moves is that committal moves alter the basic structure of a crisis situation, while communication moves convey information about a player's incentive structure, motives, and images, without altering the basic structure of the crisis situation.

a. Need to Demonstrate Resolve--"Committal Moves"

Committal moves (commitments) are employed to demonstrate resolve, or enhance the credibility of threats. Their primary objective is to alter the expectations and attitudes of the adversary concerning a player's immediate and future behavior. This forces the adversary to recalculate the cost-benefits entailed in pursuing a particular policy alternative. Furthermore, committal moves often represent a relinquishment of the initiative, even the deliberate surrender of freedom of action. Consequently, in terms of the committing player, committal moves serve to change the incentive structure and reduce, or even eliminate, opportunities to act other than in the stated manner.

A committal move may serve to escalate the risks involved in a crisis situation. These escalatory moves consist of two forms: they can imply a straightforward increase in the risks involved (vertical escalation); or they can attempt to extend the scope of the crisis to include not only the original issue, but also several other issues or even other participants (horizontal escalation) [Ref. 81, p. 147].

Escalating moves can provide two possible repercussions: (1) shock value (the situation is becoming graver and the stakes [i.e., costs] are going up!), and (2) uncertainty regarding a participant's immediate and future behavior. The only responses left to the adversary are: (1) to raise the stakes further, (2) to match simply the level of escalation--both (1) and (2) serve to change the adversary's incentive structure, which also enters into the cost-benefit calculations of the escalating nation, or (3) to back down--in which the distribution of gains and losses is accepted. The negative utility of escalatory moves is that, while they may facilitate crisis resolution by escalating to levels of risk that are intolerable for the opponent, they may make it more difficult to retreat from such high levels of risk, as so much is at stake, or too much is emotionally invested.

As George and Smoke [Ref. 17] note regarding deterrence theory--and their comments are equally applicable here--the failure to deter the opponent from escalating requires that both the aggressor and the defender respect the "firebreaks" or the limitations derived from the situation-context. Above all, the failure to deter the aggressor from higher levels of risk-taking implies the need for escalation dominance. That is, at each successively higher level of risk-taking, the defender possesses superior military power. Without escalation dominance or respect for "firebreaks" and other limitations derived from the situation-context, escalation can only lead to mutual disaster for all participants. Consequently, escalation moves are used cautiously and discriminately, especially in crisis situations that are relatively symmetrical.

Crisis management analysts sometimes refer to commitments as employing the "rationality of irrationality" strategy. This calculated willingness to appear irrational, through the deliberate expenditure of resources or foregoing of opportunities, shifts the burden of acting to the adversary, as only he is rational enough to act. This tactic is useful if it exploits fully the asymmetries arising from a given crisis situation. Frequent methods employed by nations to appear irrational are, for example, to delegate command authority to subordinates or to form an alliance with

a less cautious nation, thereby increasing uncertainty and the possibilities for miscalculation. The adversary is left only with the need to act so as to reduce the risks to a tolerable level, and such action, preferably, would involve concessions on his part.

b. Need to Demonstrate Intent--"Communication Moves"

Communication moves are employed to alter the expectations and attitudes of the adversary concerning a player's immediate and future behavior. It does not alter the incentive structure like committal moves, but instead conveys information about the participant's moves, perceptions, and intentions.

Communication moves allow the participants' images of a crisis situation to converge, so as to become more identical. This permits all participants to have a more accurate perception as to "what is at stake" and what issues are involved. Furthermore, communication moves also permit the establishment of basic "rules of the game," that is, the types of actions that are considered to be "legitimate" and the types of actions that are specifically prohibited in a given crisis situation.

Besides conveying information as to "what is involved" and the "rules" that are to be adhered to, communication moves allow each participant to perform a more accurate assessment of the implications of each move upon the other participants, as each participant develops a greater awareness and sensitivity to the others' positions and problems. In addition, this also serves to minimize the likelihood for miscalculation. Finally, communication moves are the process by which bargaining takes place until an outcome is achieved.

5. Intervening Factors

Analysts of crisis management have identified and assessed the impact of two sets of factors that can impede the efforts of participants to alter or accept the distribution of gains and losses: bargaining

impediments and autonomous risks. These two sets of factors also contribute to the uncertainty concerning perceptions of a participant's immediate and future behavior, as well as to the increased likelihood for miscalculations.

a. Bargaining Impediments

Bargaining impediments refer to those factors internal to the decisionmaking unit that add to the confusion and ambiguity of a crisis situation. Analysts have identified at least three sources of bargaining impediments. They may emerge from the inability of participants to a crisis situation to define "what is involved." This may stem from ignorance, a lack of understanding, or the simple inability to perceive a crisis situation accurately. Bargaining impediments also may emerge from the gap between image and reality.¹ This is attributed to the numerous cognitive filters (based on organizational procedures and interests, or idiosyncratic traits) that serve to distort information about the "real" world. Finally, bargaining impediments may emerge from the deliberate attempt by participants to distort information.

b. Autonomous Risks

Autonomous risks (often referred to as the "loss of control of events") are those factors external to the decisionmaking unit resulting from the actions of other transnational, national, or subnational actors that limit policy alternatives and significantly affect the stakes involved between the protagonists.² Statesmen generally believe that maintaining the "control of events" (thereby minimizing autonomous risks) enables them

¹An excellent example of the gap between image and reality is provided by Roberta Wohlstetter's book, Pearl Harbor, Warning and Decisions [Ref. 83].

²Historical examples of events which generated autonomous risks are: The assassination of Archduke Francis Ferdinand in 1914, which led to the rapid mobilization of Russian, German, and French troops, and ultimately to World War I; the outbreak of rioting in the Dominican Republic and the subsequent American intervention; the Liberty Incident in 1967; the Pueblo Incident in 1968; and the attacks by North Korean troops in 1976 on American troops stationed in the Demilitarized Zone in Korea.

to maintain "freedom of action," to define the parameters within which bargaining is to occur, and to define the limits as to what constitutes permissible behavior.

Analysts have identified three sources of autonomous risks: the outbreak of violence--deliberate or inadvertent; the replacement of rational calculations by emotional or irrational calculations; and the severe curtailment of choice by the actual exercise of policy alternatives to the extreme limits of the situation [Refs. 61, 67, 81]. Intrinsic to all three situations is the belief that reason is replaced by an "inner logic" of automatic responses. An action-reaction process emerges, or what Clausewitz [Ref. 76] refers to as a sort of reciprocal action. In the case of the outbreak of violence, for example, Snyder [Ref. 67] notes that subordinates are required to respond to situations according to pre-set plans; the existence of rigid military plans creates a "necessity" for action; and the psychological compulsion requires response because of duty, pride, or simply to save face.

E. CRISIS MANAGEMENT IN PRACTICE

1. Overview

A review of the historical experiences of crisis management during the nuclear age (1945-1978) [infra, p. 4] reveals that there are certain behavioral norms or rules that both superpowers adhere to, and certain requirements that policy alternatives must fulfill in order to be useful in the management of crises. It is important to realize that while these behavioral norms or rules and policy requirements serve to limit State behavior in terms of what is permissible in a crisis situation, they also serve to provide useful reference points in which CR programs can be justified as beneficial by providing the decisionmaker with additional policy choices.

2. Behavioral Norms or Rules

The present section identifies five behavioral norms or rules based upon the review of historical experiences of crisis management in the nuclear age.¹ The central distinction of these five behavioral norms or rules is that they require at least tacit bilateral acceptance or observance in order to be valid. This is distinct from behavioral norms or rules adhered to by one nation; for example, the restraint on the use of force in military warfare which is applied unilaterally, and does not require compliance by the other participants. In essence, the credibility of these five behavioral norms or rules is supported solely by the willingness of both superpowers to adhere to them.

The willingness of both superpowers to adhere to these five behavioral norms is attributed by analysts to three factors: (1) it is in the interests of both superpowers; (2) the norms or rules are equitable as neither superpower gains a permanent advantage or disadvantage,² and (3) it is a rudimentary system of deterrence, whereby transgression invites transgression [Ref. 81, p. 201]. Equally important, the acceptance or adherence to these five behavioral norms or rules is a function of their visibility and symbolic importance to both superpowers.

The five behavioral norms or rules are:

a. Avoidance of Direct Military (Conventional) Conflict

Historical cases:

- 1948 Berlin Blockade. President Truman's selection of the "airlift" option, as opposed to "an armed convoy on the Autobahn to Berlin" was chosen as a means to avoid a direct military clash with the Soviet Union and to prevent the crisis from escalating further.

¹It is important to recall that the emergence of these five behavioral norms or rules initially took place during a period of history in which the correlation of forces was in favor of the United States.

²Implicit is the notion that the structure of the crisis as opposed to the rules per se determines the distribution of gains and losses among the participants in a crisis situation.

- 1950-53 Korean Conflict. President Truman's decision to order American air forces to avoid striking targets near the Chinese border and American troops not to cross the Yalu River was based on the belief that such actions would result in Chinese, even possibly, Soviet intervention into Korea.
- 1956 Hungarian Revolution. President Eisenhower's decision not to aid the Hungarian people was predicated on the fear that the Soviets would escalate the conflict into a world war if the United States were to intervene.
- 1962 Cuban Missile Crisis. President Kennedy's selection of the "blockade," as opposed to a "surgical strike" on Cuba was chosen as a means to avoid a direct military conflict with the Soviet Union and to prevent the crisis from escalating into a nuclear holocaust.
- 1967 U.S.S. Liberty Incident. The scrambling of the United States 7th Fleet Fighter Squadrons to determine who had attacked the U.S.S. Liberty stationed off the coast of Israel was coupled with considerable efforts by the United States to convey to the Soviet Union that the United States did not intend to attack the Soviet Fleet in the Mediterranean, or to become involved in the Middle East War.
- 1968 American Selective Air Strikes in Viet Nam. The selective nature of American air strikes in Viet Nam, and also along the Chinese border, was aimed at preventing the Chinese from massively entering the conflict and preventing the Soviets from intervening.
- 1968 Soviet Invasion of Czechoslovakia. The American refusal to intervene in Czechoslovakia reaffirmed Eisenhower's belief that the introduction of American or NATO forces into Soviet satellite countries could escalate into a nuclear conflict with the Soviet Union.
- 1969 Libyan Coup. The Soviet decision to interpose its Mediterranean fleet between the American 7th Fleet and the coast of Libya, as opposed to more direct means, prevented the United States from intervening in the Soviet-backed coup in Libya and avoided the precipitation of a military showdown between the United States and the Soviet Union.
- 1973 Yom Kippur War. President Nixon's decision to order a worldwide alert of American forces in response to Soviet mobilization of troops was followed by the Soviet Union's decision not to deploy its troops into the Middle East, thus avoiding a direct U.S.-Soviet military conflict.

b. Observance of a Nuclear/Conventional Threshold

Historical cases:

- 1958 Quemoy-Matsu Crisis. President Eisenhower rejected a Defense Department proposal to use nuclear weapons against the Chinese as a means to thwart Chinese attempts to regain the Islands of Quemoy and Matsu from Chinese Nationalist Forces. The Americans feared that if nuclear weapons were used the Soviets would be forced to intervene in the crisis, thereby escalating the crisis into a possible nuclear confrontation.
- 1965-75 Viet Nam Conflict. The United States again refused to adopt policy alternatives that would have required the use of nuclear weapons against the North Vietnamese. It was believed that the use of nuclear weapons in the Viet Nam conflict could result in either Chinese or Soviet intervention or Chinese or Soviet nuclear strikes against American forces.

c. Refusal To Use Nuclear Weapons Against Nth Powers

Historical cases:

- American refusal to use nuclear weapons against Nth powers is also seen in both the Korean and Viet Nam conflicts.
- There is no evidence that the Soviet Union seriously considered the use of nuclear weapons against an Nth power.
- The reluctance by both superpowers to use nuclear weapons against Nth powers stems primarily from the inappropriateness of nuclear weapons in attaining specific political objectives. Both the cases of Korea and Viet Nam indicate that what is being threatened from the perspective of the superpower is not the superpower's national survival, but how an Nth power organizes its government and way of life. The use of nuclear weapons is clearly inappropriate for resolving this type of conflict. Thus, it would appear very unlikely that either the Soviet Union or the United States would use nuclear weapons against an Nth power in the immediate or near future.

d. Refusal To Transfer Nuclear Technology or Weapons to Other Countries

Historical cases:

- The United States has been extremely reluctant to transfer nuclear technology or weapons to another nation. In those cases in which the United States has transferred nuclear technology or weapons (e.g., United Kingdom, the Netherlands, the Federal Republic of Germany), considerable negotiations and efforts were expended towards providing sufficient safeguards. Moreover, in the case of South Africa in 1977, the United States and the Soviet Union undertook extensive diplomatic activities to ensure that South Africa did not acquire an indigenous nuclear capability.
- The Soviet Union has flatly refused to transfer nuclear technology or nuclear weapons to any other nation. This is evident in the Soviet refusal to permit independent national control of nuclear weapons located in Warsaw Pact countries, and the Soviet refusal to transfer nuclear technology to Mainland China in 1956, even at the request of Mao Tse-tung.

e. Avoidance of Direct Use of Force Against Major Allies of the Adversary

Historical cases:

- 1950-53 Korean Conflict. The decision to avoid striking targets near the Chinese border and to respect the Yalu River can be viewed as an American attempt not to antagonize the Chinese, who were considered a major ally of the Soviet Union.
- 1954-1958 Formosa Straits Crises. The avoidance of direct military conflict with the Chinese throughout the Formosa Straits crises gives evidence to American desires not to antagonize the Chinese, who were still considered a major ally of the Soviet Union, thereby preventing the possibility of any Soviet intervention into the crises.
- 1973 Yom Kippur War. The attempts by the Soviet Union to create a joint Soviet-American force to intervene in the Middle East is evidence of a Soviet effort to avoid a direct attack on Israel and thereby prevent direct American intervention into the crisis.

In addition to these five behavioral norms or rules, it is also useful to note the existence of more fundamental canons of statesmanship to which nations adhere. Specifically, these are the need (1) to provide the adversary with an out without annihilation, and (2) to frame one's aspirations so as to accommodate the vital interests of the other.

The existence of these tacit rules, traditional canons, and behavioral norms provides an impetus for seeking policy options that contribute to the management of a crisis. In the context of these five behavioral norms or rules, CR programs assume an added significance, particularly in those crises that represent the upper rungs of Kahn's escalatory ladder.

3. Policy Requirements¹

In a study of coercive bargaining techniques in Laos, Cuba, and Viet Nam, George, Hall, and Simon [Ref. 18] identified seven policy requirements that military options must possess in order to be useful in the management of crises. These seven requirements are also applicable to the present study and are discussed here. The seven policy requirements provide the analyst and policymaker with guidelines for developing CR programs and criteria by which to assess their impact on an international crisis situation.

a. Presidential Control

It is important to realize that a crisis is a sequence of events that requires a careful monitoring of events and a need to improvise political and military plans. The "volatility" of a crisis situation requires that crisis relocation plans be amenable to Presidential control and, equally important, susceptible to modifications or innovations by the President as he considers necessary.

¹This section relies heavily on the work by George, Hall, and Simon [Ref. 18, pp. 9-11].

b. Establish Pauses in Action

A major demand placed upon decisionmakers in a crisis situation is the need to slow down the momentum of events. The decision to crisis relocate must be devised and selected in terms of its ability to "buy time," i.e., to force the adversary to pause and to think of the consequences. This provides the adversary with time to assess the actions he has already undertaken, to receive and interpret new information, and to recalculate the cost-benefits involved in pursuing the crisis further.

c. Clear and Appropriate Demonstration

Another requirement of CR decisions is the need to provide clear and appropriate demonstrations of a nation's resolve, and of the objectives being pursued by the nation in the crisis. This requires the transmitting of consistent signals as to the intent of a nation, and the need to eliminate those signals that may convey information which contradicts the extent of a nation's resolve and the objectives being pursued.

d. Coordination with Other Foreign Policy Actions

It should be emphasized that CR decisions represent only one of many policy alternatives available to the President. Furthermore, the selection of a CR program requires that it be coupled with--"that is, preceded, accompanied, or followed by--those political and diplomatic actions, communications, consultations and proposals that are a central part of a nation's entire strategy towards resolving a crisis" [Ref. 18, p. 10].

e. Effectiveness

Equally important, CR plans must be effective in carrying out their specific tasks. Crisis relocation programs that are ineffective may severely jeopardize American attempts to demonstrate resolve or to achieve crisis objectives.

f. Avoid Motivating the Adversary To Escalate

Crisis relocation decisions must avoid motivating the adversary to escalate the conflict as a means of avoiding or compensating for military or political damage already inflicted upon him. In addition, CR programs must also deter the adversary from engaging in more dangerous forms of escalation.

g. Avoidance of Impressions of Resort to Large-Scale Warfare

Crisis relocation decisions must be designed to avoid giving the adversary the impression that large-scale warfare is being initiated. Failure to do so will convey to the adversary that the President is abandoning efforts to resolve the dispute by diplomatic means and is relying on a military strategy to achieve his objectives [Ref. 18, p. 11].

REFERENCES

1. Abel, Elie. The Missile Crisis. Philadelphia: Lippincott, 1966.
2. Allison, Graham T. Essence of Decision: Explaining the Cuban Missile Crisis. Boston: Little, Brown and Company, 1971.
3. Allison, Graham T. "Conceptual Models and the Cuban Missile Crisis." American Political Science Review 63 (September 1969):689-718.
4. Ausland, John C., and Richardson, Col. Hugh F. "Crisis Management: Berlin, Cyprus, Laos." Foreign Affairs 44 (January 1966):291-303.
5. Azar, Edward. "Conflict Escalation and Conflict Reduction in an International Crisis: Suez 1956." Journal of Conflict Resolution 16 (June 1973):183-201.
6. Bell, Coral. The Conventions of Crisis: A Study in Diplomatic Management. London: Oxford University Press, 1976.
7. Blechman, Barry M., and Kaplan, Stephen S. The Uses of Armed Forces as a Political Instrument. Washington, D.C.: The Brookings Institute, 1976.
8. Bloomfield, Lincoln P., and Leiss, Amelia C. Controlling Small Wars: A Strategy for the 1970s. New York: Alfred Knopf, 1969.
9. Brecher, Michael. "Inputs and Decisions for War and Peace, The Israel Experience." International Studies Quarterly 18 (June 1974):131-177.
10. Buchan, Alistar. Crisis Management. Boulogne-sur-Seine, France: The Atlantic Institute, 1966.
11. Butterworth, Robert L. Managing Interstate Conflicts, 1945-1974: Data with Synopsis. Pittsburgh: University Center for International Studies, 1976.
12. Carr, E. H. The Twenty Years' Crisis 1919-1939. 2nd edition. London: MacMillan Company. 1946.
13. Chayes, Abram. The Cuban Missile Crisis. New York: Oxford University Press, 1974.

14. Choucrist, Nazli. "Forecasting in International Relations: Problems and Prospects." International Interactions 1 (1974):63-86.
15. Choucrist, Nazli and North, Robert C. Nations in Conflict. San Francisco: W. H. Freeman and Company, 1978 (forthcoming).
16. Davison, Walter P. The Berlin Blockade. Princeton: Princeton University Press, 1958.
17. George, Alexander L. and Smoke, Richard. Deterrence in American Foreign Policy: Theory and Practice. New York: Columbia University Press, 1974.
18. George, Alexander L., Hall, David K., and Simon, William R. The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam. Boston: Little, Brown and Company, 1971.
19. Hermann, Charles F. Crisis in Foreign Policy: A Simulation Analysis. Indianapolis, Indiana: Bobbs-Merrill, 1969.
20. Hermann, Charles F. "International Crisis as a Situational Variable." In International Politics and Foreign Policy, rev. ed., pp. 409-421. Edited by James N. Rosenau. New York: The Free Press, 1969.
21. Hermann, Charles F. "Some Consequences of Crisis Which Limit the Viability of Organizations." Administrative Science Quarterly 8 (1963): 61-82.
22. Hermann, Charles F. (ed.) International Crisis: Insights from Behavioral Research. New York: The Free Press, 1972.
23. Hermann, Charles F., and Brady, Linda P. "Alternative Methods of International Crisis Behavior." In International Crises: Insights from Behavioral Research, pp. 281-303. Edited by Charles F. Hermann. New York: The Free Press, 1972.
24. Holsti, Ole R. Crisis, Escalation, War. Montreal: McGill-Queens University Press, 1972.
25. Holsti, Ole R. "Individual Differences in 'Definition of the Situation'." Journal of Conflict Resolution 14 (1970):303-10.
26. Holsti, Ole R. "Perceptions of Time, Perceptions of Alternatives, and Patterns of Communication as Factors in Crisis Decision-Making." Peace Research Society Papers 3 (1965):70-120.
27. Holsti, Ole R. and North, Robert C. "Comparative Data from Content Analysis: Perceptions of Hostility and Economic Variables in the 1914 Crisis." In Comparing Nations. Edited by Richard L. Merritt and Stein Rokkan. New Haven: Yale University Press, 1966.

42. McClelland, Charles A. "The Acute International Crisis." World Politics 14 (1961):180-92.
43. McCormick, David M. Decisions, Events and Perceptions in International Crises, Vol. I.; A Decision Analysis Methodology for Evaluating International Crisis Management Choices, Vol. II. Ann Arbor: First Ann Arbor Corporation, 1975.
44. McCormick, James. "Evaluating Models of Crisis Behavior: Some Evidence from the Middle East." International Studies Quarterly 17 (March 1975): 17-45.
45. Milburn, Thomas W. "The Management of Crisis." In International Crises: Insights from Behavioral Research, pp. 259-277. Edited by Charles F. Hermann. New York: The Free Press, 1972.
46. Miller, Kurt, and Iscoe, Ira. "The Concept of Crisis." Human Organization 22 (Fall 1963):195-201.
47. North, Robert C. "Perception and Action in the 1914 Crisis." Journal of International Affairs 21 (1967):103-22.
48. Pachter, W. M. Collision Course: The Cuban Missile Crisis and Coexistence. New York: Praeger, 1963.
49. Paige, Glenn D. The Korean Decision: June 24-30, 1950. New York: The Free Press, 1968.
50. Paige, Glenn D. "Comparative Case Analysis of Crisis Decisions: Korea and Cuba." In International Crises: Insights from Behavioral Research, pp. 41-55. Edited by Charles F. Hermann. New York: The Free Press, 1972.
51. Parker, Richard W. Crisis Forecasting and Crisis: A Critical Examination of the Literature. McLean, Virginia: Decisions and Designs, Inc., 1976.
52. Perlmutter, Amos. "Crisis Management: Kissinger's Middle East Negotiations (October 1973-June 1974)." International Studies Quarterly 19 (September 1975):316-343.
53. Pruitt, Dean. "Definition of the Situation as a Determinant of International Action." In International Behavior, pp. 391-432. Edited by Herbert Kelman. New York: Holt, Rinehart and Winston, 1965.
54. Pruitt, Dean G., and Snyder, Richard. "Motives and Perceptions Underlying Entry into War." In Theory and Research as to the Causes of War, pp. 15-34. Edited by Dean G. Pruitt and Richard Snyder. Englewood Cliffs: Prentice-Hall, 1969.

55. Rapoport, Anatol. Strategy and Conscience. New York: Harper & Row, 1964.
56. Rapoport, Anatol. Fights, Games and Debates. Ann Arbor, Michigan: University of Michigan Press, 1960.
57. Robinson, James A. "Crisis: An Appraisal of Concepts and Theories." In International Crises: Insights from Behavioral Research, pp. 20-35. Edited by Charles F. Hermann. New York: The Free Press, 1970.
58. Robinson, James A. "Crisis Decisionmaking: An Inventory and Appraisal of Concepts, Theories, Hypotheses, and Techniques of Analysis." In Political Science Annual: An International Review 1969-1970, Vol. II, pp. 111-48. Edited by James A. Robinson. Indianapolis, Indiana: Bobbs-Merrill, 1970.
59. Rosecrance, Richard. Action and Reaction in World Politics. Boston: Little, Brown and Company, 1962.
60. Russett, Burce M. Power and Community in World Politics. San Francisco: W. H. Freeman and Company, 1974.
61. Schelling, Thomas C. The Strategy of Conflict. New York: Oxford University Press, 1971.
62. Schelling, Thomas C. Arms and Influence. New Haven: Yale University Press, 1966.
63. Schwartz, David C. "Decision Theories and Crisis Behavior." Orbis 1 (1967):459-490.
64. Shick, Jack. The Berlin Crises 1958-1962. Philadelphia: University of Pennsylvania Press, 1976.
65. Sigal, Leon V. "The 'Rationality Policy' Model and the Formosa Straits Crises." International Studies Quarterly 14 (June 1970):121-156.
66. Singer, J. David and Small, Melvin W. The Wages of War 1816-1965: A Statistical Handbook. New York: John Wiley & Sons, Inc., 1972.
67. Snyder, Glenn H. "Crisis Bargaining." In International Crises: Insights from Behavioral Research, pp. 217-256. Edited by Charles F. Hermann. New York: The Free Press, 1972.
68. Snyder, Richard C. and Paige, Glenn D. "The United States Decision to Resist Aggression in Korea." Administrative Science Quarterly 3 (December 1958):341-78.

69. Snyder, Richard C., Bruck, H. W., and Sapin, Burton (eds.). Foreign Policy Decisionmaking. New York: The Free Press, 1962.
70. Spanier, John. Games Nations Play, Analyzing International Politics. 2nd edition. New York: Praeger Publications, 1975.
71. Stein, Janice G. and Brecher, Michael. "Image, Advocacy, and the Analysis of Conflict: An Israeli Case-Study." The Jerusalem Journal of International Relations 1 (1976):33-58.
72. Tanter, Raymond. Modelling and Managing International Conflicts: The Berlin Crises. Beverly Hills, California: Sage Publications, 1974.
73. Tanter, Raymond. "Crisis Management: A Critical Review of Academic Literature." The Jerusalem Journal of International Relations 1 (1975): 71-101.
74. Tanter, Raymond. "International System and Foreign Policy Approaches: Implications for Conflict Modelling and Management." In Theory and Policy in International Relations, pp. 7-39. Edited by Raymond Tanter and Richard Ullman. Princeton University Press, 1972.
75. Triska, Jan F. and Finley, David D. Soviet Foreign Policy. New York: The MacMillan Company, 1968.
76. Von Clausewitz, Karl Maria. On War. New York: Barnes & Noble, 1956.
77. Von Neumann, John and Morganstern, Oskar. Theory of Games and Economic Behavior. Princeton, New Jersey: Princeton University Press, 1944.
78. Wagner, Abraham. Crisis Decision-Making: Israel's Experience in 1967 and 1973. New York: Praeger, 1974.
79. Wiegel, Thomas C. "Decision-Making in an International Crisis." International Studies Quarterly 17 (1973):295-335.
80. Wiener, Anthony J. and Kahn, Herman (eds.). Crisis and Arms Control. Harmon-on-Hudson, New York: Hudson Institute, HI-180-RR, 1962.
81. Williams, Phil. Crisis Management, Confrontation and Diplomacy in the Nuclear Age. New York: John Wiley & Sons, 1976.
82. Williams, Phil. "Crisis Management." In Contemporary Strategy: Theories and Policies. Edited by J. Baylis, K. Booth, J. Garnett and P. Williams. London: Croom-Helms, 1975.
83. Wohlstetter, Roberta. Pearl Harbor, Warning and Decisions. Stanford: Stanford University Press, 1962.

84. Young, Oran R. The Politics of Force; Bargaining During International Crises. Princeton: Princeton University Press, 1968.
85. Young, Oran R. The Intermediaries: Third Parties in International Crises. Princeton: Princeton University Press, 1967.
86. Zinnes, Dina A. "The Expression and Perception of Hostility in Prewar Crisis: 1914." In Quantitative International Politics, pp. 85-158. Edited by J. David Singer. New York: The Free Press, 1968.
87. Zinnes, Dina A. "Hostility in International Decision-Making." Journal of Conflict Resolution 6 (1962):236-43.
88. Zinnes, Dina A., Zinnes, Joseph L., and McClure, Robert D. "Hostility in Diplomatic Communication: A Study of the 1914 Crisis." In International Crises: Insights from Behavioral Research, pp. 139-162. Edited by Charles F. Hermann. New York: The Free Press, 1972.

PRECEDING PAGE BLANK

Appendix B

CIVIL DEFENSE AND CRISIS STABILITY: EARLIER STUDIES

by

Jeffrey M. Ranney

PRECEDING PAGE BLANK

Appendix B

CIVIL DEFENSE AND CRISIS STABILITY: EARLIER STUDIES

A. INTRODUCTION

Earlier studies of civil defense generally ignored any assessment of the effect that civil defense may have on crisis stability. Instead, analysts and policymakers directed their inquiries toward three other aspects of civil defense:

1. How successfully can civil defense be accomplished?
2. How effective would civil defense be if an attack occurred?
3. What is the effect of civil defense on the present and future U.S.-U.S.S.R. strategic arms balance?

Most of these efforts were directed at the issues and problems surrounding the accomplishment of civil defense programs and their effectiveness. The residual efforts that were directed at the issue of arms control can be considered as an examination of the long-term perspective of interactions between nation-states. The present study effort can be considered as an examination of the short-term perspective of interactions between nation-states, namely, crisis stability. This is not to say that previous studies have totally ignored this important issue, but that their interest has centered more on other aspects of civil defense.

The present Appendix briefly reviews some of the initial civil defense studies that do make some mention of civil defense and its potential effect on crisis stability. This review does not represent an exhaustive literature survey, but one that is at least representative of the various studies in the past.

B. LITERATURE REVIEW

One of the first and most frequently cited studies of civil defense is Herman Kahn's On Thermonuclear War [Ref. 3], published in 1960. Although Kahn's two subsequent works, Thinking About the Unthinkable (1962) [Ref. 4] and On Escalation (1965) [Ref. 5], also discuss certain aspects of civil defense, they represent only a further elaboration of the basic idea expressed in On Thermonuclear War.

On Thermonuclear War is an outgrowth of a RAND report that was published in the late 1950s [Ref. 7]. Kahn's role for civil defense--population evacuation--is narrow and specific: to reduce U.S. vulnerability and to prevent blackmail tactics from being used on the U.S. Kahn also acknowledges that population evacuation represents "burning one's bridges" [Ref. 3, p. 214]. Therefore, it can demonstrate a nation's resolve. Later, in On Escalation, Kahn suggests that population evacuation can help also to deter crises and tension situations [Ref. 5, p. 163], but only marginally.

Except for increasing our ability to withstand the post-attack blackmail tactics discussed . . . this deterrence is so small compared to the role the strictly military deterrence plays, that it seems proper to ignore it [Ref. 3, p. 115].

Today, civil defense is ineffective in contributing either to traditional military objectives or to our second main objective--avoiding war [Ref. 4, p. 81].

Kahn does assert that population evacuation can be a useful policy response in an escalating crisis. Kahn's 44-step escalation ladder has three rungs (17, 25, and 30) that allow for varying levels of population evacuation, ranging from 5 percent to 95 percent. However, Kahn states that population evacuation can have a destabilizing effect on crisis stability, especially in crises in which there is an acute asymmetry in evacuation capability. Population evacuation results in increased stakes and risks. Despite the increased likelihood that the crisis will escalate if a nation evacuates, Kahn suggests one distinct advantage:

The main advantage of having an evacuation option as a deterrent move (threat) is that it is more credible

than the mere threat of attack without evacuation, and, at the same time, if deterrence fails and evacuation takes place, the pressure on the opponent is increased while the pressure on the evacuating side may be lessened as the evacuation mitigates the effects of the war which has now become likely [Ref. 5, p. 146].

In sum, there is no explicit recognition in these three works by Kahn that crisis relocation can be considered a crisis management tool. It has a negligible impact on deterring nuclear war and is likely to be destabilizing in a crisis situation, especially where there is an acute asymmetry in evacuation capability. The utility of crisis relocation for Kahn, as presented in these three works, lies solely in reducing the number of casualties and enhancing national war survivability and recovery.

Another earlier study in civil defense was conducted at the Hudson Institute by Donald Brennan (1963) [Ref. 1.]. This study assessed the potential effect that various civil defense measures could have on arms control negotiations. Brennan argued for the adoption of a "purely prudential" view of civil defense. He concludes that civil defense "is unlikely to provide a decisive strategic advantage to a country in a crisis confrontation" [Ref. 1, p. 31]. The likelihood that no side could achieve significant advantages resulting from a decision to relocate the population leads to the study's proposal of a policy of cooperation in civil defense between the United States and the Soviet Union. As Brennan notes,

One of the important reasons why it seems wise to cultivate a purely prudential attitude to civil defense is that it seems safe to do so [Ref. 1, p. 31].

A paper by Jeremy Stone [Ref. 9] is presented in the appendix of the Hudson report. Stone states that an objective of civil defense--crisis evacuation--is to improve the bargaining position of the United States and reduce the number of U.S. casualties. The effect of civil defense on crisis stability depends on which U.S. defense strategy one selects. Stone distinguishes between "extended deterrence" and "parity" defense strategies. In the former, crisis evacuation is seen as strengthening U.S. credibility in a crisis, and, thereby, creating a stable strategic balance. In the latter

case, crisis evacuation is seen as destabilizing the strategic balance. Again, little attention in this report is directed at assessing the impact of crisis evacuation on the dynamics of crisis escalation.

A 1963 civil defense study by William Brown [Ref. 2] examines several aspects of crisis evacuation, including an evaluation of the arguments for and against crisis evacuation. Brown identifies and discusses 26 arguments for and against crisis evacuation. However, only seven correspond directly to the effects of crisis relocation on crisis stability, and these are discussed below.

The arguments for crisis relocation are fourfold. Three of these arguments had already been discussed above. They are that crisis relocation will: (1) strengthen the credibility of U.S. threats, (2) improve U.S. bargaining positions, and (3) enable the U.S. to match or deter Soviet actions. One additional argument for crisis relocation is that crisis relocation lengthens and stabilizes the escalation ladder. It buys time for both negotiations and for pondering the consequences of striking. As Brown notes:

No matter how short this period, it tends to prevent actions in anger and to encourage "moments of truth." Once the evacuation has been completed the probability of war is high but there is not a tendency for preemption that accrues to extreme vulnerability. In general then, something of a "stabilizing" nature has been placed between other rungs of the escalation ladder and the general war [Ref. 2, p. 188].

Three arguments against crisis evacuation are discussed by Brown. First, crisis evacuation increases the risks of immediate general war.

Evacuation increases the risk of war in several ways. First, it represents the escalation of the crisis to a much higher level, from which descent is harder. Second, it cannot be held indefinitely and therefore puts a sort of deadline on the solution of the crisis. Third, it decreases the hesitancy of the evacuating power to go to war, thus the expectation of losses is lower. Fourth, it increases mutually reinforcing fears of a first strike. Fifth, it encourages the evacuating leadership to refuse compromise, since gains are necessary to justify the expenses of evacuation. Sixth, it encourages destruction of empty cities [Ref. 2, p. 190].

Second, the decision to relocate the population can erode confidence about previous tacit understandings or conventional rules. For example, he states that the willingness of both the United States and the Soviet Union to expose their population to the other's weapons is the means of maintaining the strategic balance. The recognition of the importance of preserving the balance of terror amounts to a tacit understanding about what is acceptable behavior. Thus, the decision to relocate the population would be most destabilizing, as it would remove one's population from being held hostage and raise uncertainties about adherence to other norms of tacit understandings. Third, the inability of both sides to maintain an evacuated posture leads to further destabilization, and the likelihood that war will occur.

However, if both sides do evacuate and neither is willing to go to war or back down, it is not clear how the situation will end. As with other rungs of the escalation ladder, a stalemate produces an urge to move on to other rungs, in this case, war. [Ref. 2, p. 199]

Reference to civil defense and its potential effect on crisis stability can also be found in Thomas Schelling's Arms and Influence (1966) [Ref. 8]. Schelling devotes only a few pages to civil defense. In those few pages, he notes the dilemma that the decision to shelter population poses for decisionmakers. That is, the decision to shelter the population implies that war is *perceived* to be certain and signals this perception to the opponent. This adds to the incentive for the opponent to strike. If the population is not sheltered, then the vulnerability of the population to a strike remains the same, if not higher.

There is the possibility that any sheltering would be a dramatic signal that war was imminent, it would tip the scales toward war itself, and should be avoided. Equally compelling, though, is the notion that sheltering is less dramatic, less dangerously demonstrative, if it can be graduated in a crisis, so that there is no sudden all-war-shutdown of activity and a rush to the shelters. [Ref. 8, p. 241]

Furthermore, Schelling notes the problems associated with a prolonged crisis. The inability to maintain the civil defense posture during a prolonged crisis can create an urgency to go to war.

Another civil defense study conducted by James Mahar and Ernest Harvey, at Stanford Research Institute (1967) [Ref. 6] provides some useful insights into civil defense and crisis stability. The analysis relies on interviews of six prominent analysts. In terms of crisis escalation, the analysis concludes that the decision to relocate the population could either escalate or not escalate the crisis. Crisis escalation is attributed by the six analysts to Soviet *perceptions* of U.S. actions. The U.S. attempt to relocate its population would provide an additional incentive for the Soviet leaders to preempt, thereby escalating the crisis and increasing the likelihood of nuclear war. Crisis relocation also may increase the likelihood of an irrational attack by the Soviet Union as the risks and stakes become too great, and Soviet decisionmaking breaks down. Non-escalation of the crisis is attributed by the six analysts to Soviet *responses* to a U.S. decision to crisis relocate. The six analysts cite Soviet conservative and defensive foreign policy styles and the perceived devastating damage of a retaliatory strike as dampening any effects that could lead to further crisis escalation.

C. CONCLUSIONS

The review of the earlier studies shows that little attention has been paid by analysts and policymakers to the effect of civil defense on crisis stability. When analysts and policymakers do refer to civil defense and crisis stability, it has been in an abstract fashion with little interest paid to the issue of under what conditions should the U.S. implement civil defense measures. What can be inferred from this literature are the following four propositions:

- A crisis relocation capability will have a negligible impact on deterring nuclear war.
- Under all conditions, crisis relocation does represent an additional expenditure of resources and an increase in the stakes involved. The likelihood of the crisis becoming worse will be determined by the nature of the adversary relationship at the new level.
- Under conditions in which both sides possess comparable evacuation capabilities, arguments can be made on both sides of the question:

- Crisis relocation can be a stabilizing force in crises as it can (a) strengthen U.S. credibility of threats, (b) improve U.S. bargaining position, (c) enable the U.S. to match or deter Soviet actions, and (d) lengthen or extend the escalation ladder by providing time to ponder and reevaluate the consequences and alternatives of acting.
- Crisis relocation can be a destabilizing force in crises as it can (a) create an urgency to act since it cannot be maintained forever, (b) raise the probability of war by signaling to the opponent that war is certain, thereby inviting a preemptive strike, and (c) add to the incentive for decisionmakers to use military actions as the means by which to resolve the crisis since population is less vulnerable to an attack.
- Finally, under conditions in which there is an acute asymmetry in evacuation capabilities, the decision to evacuate the population will have a destabilizing effect on the crisis.

REFERENCES

1. Brennan, D. G. (ed.) Arms Control and Civil Defense. Harmon-on-Hudson, New York: Hudson Institute, Inc., HI-216-RR, December 1, 1963.
2. Brown, William M. Strategic and Tactical Aspects of Civil Defense With Special Emphasis on Crisis Situations. Harmon-on-Hudson, New York: Hudson Institute, Inc., January 7, 1963.
3. Kahn, Herman. On Thermonuclear War. Princeton, New Jersey: Princeton University Press, 1960.
4. Kahn, Herman. Thinking About the Unthinkable. New York: Horizon Press, 1962.
5. Kahn, Herman. On Escalation, Metaphors and Scenarios. New York: Frederick A. Praeger, 1965.
6. Mahar, James F., and Harvey, Ernest C. Use of Crisis Analysis to Assess the Feasibility of an Expedient Shelter Program. Menlo Park, California: Stanford Research Institute, March 1967.
7. The RAND Corporation. A Report on a Study of Non-Military Defense. Santa Monica, California: RAND Corporation, R-322-RC, July 1, 1958.
8. Schelling, Thomas C. Arms and Influence. New Haven: Yale University Press, 1966.
9. Stone, Jeremy J. "The Question of Crisis Evacuation." In Arms Control and Civil Defense, Appendix 1. Edited by D. G. Brennan. Harmon-on-Hudson, New York: Hudson Institute, Inc., HI-216-RR, December 2, 1963.



THE SOVIET FACTOR IN C

A. THE NECESSITY FOR A PROPER U.S. D
U.S.S.R.

The rapidity with which events un
the inherent potential for catastrophe
calculation regarding the adversary be
plished, however, since the natural ter
values and motives to another. The re
centrism usually is the mistaken notion
line of reasoning: "Any sane, or rati
this situation. My opponent is a sane
do thus and so." When the opponent fa
is then dismissed as irrational and in
but his behavior was incorrect."

In a superpower crisis which thre
nuclear war, there may be no second ch
adversary response proves to have been
another in one's own image carries wit

The authors of the present study
tion upon international crisis stabili
would, in the event of crisis, underst
motivational context and thus be able
to U.S. actions prudently; simply stat
fully, would not mirror their Soviet c
following discussion addresses pertine
made available to the U.S. actors.

C
SIS DECISIONMAKING

. So11

B. THE ROLE OF IDEOLOGY AND HISTORICO-CULTURAL EXPERIENCE

1. The Role of Ideology

According to official Soviet explanation, Marxist-Leninist ideology provides the guidance and the rational framework for the conduct of all personal and governmental affairs in the Soviet Union. While this represents an idealized view from the Soviet leaders' perspective, the role of ideology nonetheless cannot be ignored in attempts to assess or predict Soviet behavior.

The Soviet political-military elite, present and future, has been inculcated with the tenets of Marxism-Leninism since childhood. Standards of ethics (good-bad, right-wrong) and epistemology (true-false, real-unreal) emanate partly from this body of doctrine in the same way that Western values and views of reality stem from a basic Judeo-Christian framework. Therefore, even in the case where a Soviet leader consciously ignores the ideology in order to act "pragmatically," his pragmatism is determined by his basic belief system.

Ideology and pragmatism are essentially complementary, and it is impossible to distinguish the discrete contribution of each to Soviet behavior, the Soviet motivations and rationale for invading Czechoslovakia in 1968 being a case in point. Factors which play a major role in conditioning this belief system, in addition to ideology, are national character, historico-cultural experience and personal experience. In the case of the Soviet leadership, however, ideology plays not only this conditioning role, but also provides both a legitimizing and rationalizing function. According to Zbigniew Brzezinski and Samuel Huntington,

Ideology gives the Soviet leaders a framework for organizing their vision of political developments; it sets limits on the options open to them as policy makers; it defines immediate priorities and longer-range goals; and it shapes the methods through which problems are handled. [Ref. 4, p. 56]

Political and military doctrine and strategy are thus couched in ideological terms which do not necessarily correspond to the language and ideas of non-Soviets.

Western skeptics often regard language infused with ideological jargon and logic as simply the ritualistic paying of lip service to Marxism-Leninism, and ipso facto devoid of substance. Soviet assertions regarding "just" versus "unjust" wars and war survival, for instance, are discounted, and belief in the concept of mutual assured destruction is ascribed--incorrectly--to the Soviet leadership. As will be demonstrated below, the Soviet Union interprets and practices the concept of deterrence quite differently from the United States, since in the Soviet case deterrence and warfighting are viewed to exist in a dialectical unity. A proper understanding of these distinctions has a vital role not only in day-to-day matters such as SALT and force posture planning, but particularly during time-urgent, crisis situations.

2. The Soviet Historico-Cultural Experience

In conjunction with ideology, uniquely Russian/Soviet phenomena condition the Soviet leaders' perception and behavior, just as the American experience and nationalistic traits contribute to the perceptual and behavioral make-up of U.S. leaders. Marxism-Leninism, in fact, is in many ways different from the antecedent Marx-Engels doctrine, since the latter has been filtered through the Russian mind set.

The Soviet belief in war survival, for instance, stems both from the Marxist-Leninist tenet of inevitable worldwide communist victory and from the fact that Russia has undergone and survived numerous invasions and wars. Even the large-scale Russian territorial expansion of the tsarist years satisfied both offensive and defensive needs--a dialecticism which predated even Hegel--and was justified to a great extent by a Russian perception of perennially being encircled by hostile neighbors. The tribulations of the Bolshevik Revolution and the subsequent Civil War reinforced the Kremlin leaders' feeling that Russia was somehow unique and was being singled out by the major powers of the world as an inimical force. The concept of "capitalist encirclement" of the Soviet Union thus dominated the Soviet self-image until the advent of Soviet nuclear and space capabilities in the post-World War II period. The Soviet military buildup, characterized

by a tremendous allocation of resources and a heavy national emphasis on military and paramilitary matters, is a reflection of these same historico-cultural phenomena.

For the past thousand years, the perception of a hostile world and the requirement for governing newly acquired territory, along with strictly internal factors, have resulted in authoritarian rule which, except for a few short-lived interludes of attempted liberalization, has characterized the Russian/Soviet system.

Incumbent Soviet leaders have survived in a political system unlike anything existing in the West; they are the fittest species in a Darwinian system. The volume of infighting, purges and massacres which occurred during the Stalin era has a unique place in history, and the current Soviet leadership entered politics during or immediately after this period. While U.S. political processes are often ruthless and require a great deal of careful maneuvering, two important distinctions vis-a-vis the U.S.S.R. should be noted: (1) losers and members of the opposition in U.S. politics are not customarily imprisoned, executed or banished from the country, and (2) there exists a private sector as an alternative to politics. In addition, the Soviet polity lacks the concept of loyal opposition, and the existence and impact of organized pressure groups in the Soviet Union (although they do exist) are not acknowledged. These characteristics of the Soviet political system, as distinguished from U.S. political phenomena, will have a bearing upon Soviet crisis behavior, and U.S. leaders should bear these differences in mind.

C. PROBLEMS OF COMMUNICATION OF INTENT

The ideological and historico-cultural divergences identified above--not to mention linguistic and semantic differences--most likely would hinder U.S.-Soviet attempts to communicate intent in a crisis. Decision-makers must be able to assess as accurately as possible their adversaries' objectives, perceptions of both sides, and likely behavioral responses. In addition, they must be able to elicit the desired perception and response from the adversary by choice of the appropriate words and deeds. What is

perceived as important to one side may be regarded as trivial to the other, and vice versa. Miscalculation may be catastrophic.

A salient example of the difficulty involved in the crisis reckoning process is presented in Graham Allison's analysis of the Cuban Missile Crisis [Ref. 1, pp. 40-56]. At the beginning of that crisis, U.S. decision-makers were unsure of what motivated the Soviets to emplace offensive missiles in Cuba and therefore were in a quandary over what the appropriate U.S. response should be. Once a set of hypotheses regarding Soviet motivation and a range of alternative U.S. responses were formulated, the major uncertainty involved the likely Soviet response in each case. The fact that the outcome of the crisis was favorable from the U.S. point of view was not a consequence of the basic uncertainties having been resolved, since throughout the course of the crisis they never were.

It is assumed that in a future U.S.-Soviet crisis the balance of military forces will not be lopsided, as it was in 1962. The correctness of mutual perception and the accuracy of communication--through either verbal or non-verbal means--will be the deciding factors. If either side ascribes to crisis relocation a purpose other than the saving of people--e.g., as a means for communicating resolve or denying the opponent a relative advantage--these considerations assume a vital role.

D. SOVIET VIEWS ON WAR, DETERRENCE AND ESCALATION

As was mentioned previously, Soviet views on war and related phenomena are notably different from Western views; while the former may appear illogical, naive or insane from the non-Soviet perspective, they nonetheless reflect the Soviet belief system and have a logic of their own.

In the Soviet view, war is a complex socio-political phenomenon which mirrors the contradictions and antagonisms between classes and states. War, therefore, is said to have a class (i.e., bourgeois or proletarian) nature, since the actions of states are representative of the classes ruling the respective states [see, Refs. 10 and 6]. Wars (intranational or international) waged in behalf of bourgeois interests are regarded as

"unjust," and those waged by and for the proletariat are "just." This dichotomy is further complicated by the qualification that a given war can have both just and unjust aspects, when viewed from the perspective of different belligerents--e.g., the Soviet effort in World War II was "just," while the actions of the other parties were not--and that a war can shift from a just to unjust conflict, or the reverse, depending upon the shifting class character of the warring parties.

In essence, this defining of war within the context of the class struggle leads Marxist-Leninists to acceptance of the dictum enunciated by the nineteenth-century dialectician, Karl von Clausewitz, that "war is simply the continuation of politics by other [i.e., violent] means." Moreover, Soviet doctrine affirms that even nuclear war is not excluded from this basic communist law:

Therefore, no matter what war we take, even a possible thermonuclear one, as regards essence, they all were and will be a continuation of politics by means of armed force. [Ref. 10, p. 28]

Consistent with this line of reasoning is the conclusion that, while nuclear war is by no means desirable, it is nonetheless acceptable and can constitute a just means for pursuing communist objectives:

The social, class content of rocket-nuclear war and its objectives will be determined by politics. The new world war will be, on one [i.e., the capitalist] side, the continuation, weapon, and instrument of criminal imperialist policy which is being realized with rocket-nuclear means. On the other [i.e., socialist] side, it will be the lawful and just opposition to aggression, and the natural right and sacred duty of progressive mankind to destroy its bitterest enemy, the source of destructive wars--imperialism. [Ref. 10, p. 36; Ref. 11]

In the Soviet view, if nuclear war "should be allowed to happen, victory will be with the countries of the world socialist system," and this prophecy is based upon "the balance of forces between the two systems, the logic of history, and the objective laws" of history [Ref. 10, p. 37]. Ideology and morale figure prominently in the Soviet prediction of victory. They are said to be as important as military, political and economic factors,

and, additionally, contribute significantly to the strength of these latter factors. Soviet spokesmen claim that in the event of general war, the country whose population (including armed forces) has the highest morale--by definition, the U.S.S.R.--will have, ceteris paribus, a decided advantage, and that such phenomena as civil defense, political indoctrination and love for the homeland enhance the morale.

The Soviet perspective on the nature and consequences of thermonuclear war constitutes an adamant denial of the concept which underlies the U.S. deterrent--mutual assured destruction (MAD). The MAD concept entails the belief that there will be no victors in a general war and that as long as both the United States and the Soviet Union continue to recognize the validity of this belief, they will both be deterred from engaging in general warfare. The 1972 SALT I ABM Treaty is regarded by many in the United States as having codified the MAD concept for both sides; Soviet officials, however, refuse to accept that interpretation, since acceptance of MAD requires a rejection of the Marxist-Leninist view of war. Soviet willingness to sign the ABM agreement most likely reflected the Soviet failure to develop a viable ABM system, and does not demonstrate a Soviet shift towards accepting the MAD doctrine. Furthermore, there is no evidence that the lack of Soviet ballistic missile defenses since 1972 has brought about any change in Soviet thinking concerning MAD.*

By Soviet definition, the United States and other imperialist countries are capable of committing irrational acts at any time, and, thus, no rational deterrent can safely be counted on to prevent a crisis from degenerating into total war. While civil defense, in the Soviet mind, does serve a deterrent function by denying the West some of the advantage which could be gained by launching an attack upon the U.S.S.R., its primary purpose is protection of industry and population in the event the West fails

*Any possible upgrading of the 10,000-12,000 Soviet SAMs in the Air Defense Forces to permit an ABM capability would be a further reflection of the Soviet denial of MAD, as well as serve to reinforce the war survival concept.

to be deterred [Ref. 5, pp. 47-57]. Likewise, Soviet offensive forces are said to satisfy the dual roles of providing deterrence and, in the event deterrence fails, to be able to destroy preemptively Western forces which are judged to be readying an offensive strike.

Inasmuch as the war-fighting and deterrent aspects of Soviet military forces are, in the Soviet view, united dialectically and therefore undifferentiated, one would expect the Soviet concept of escalation to be different in many ways from the Western concept. Throughout the 1950s and the first half of the 1960s, the Soviet image of escalatory linkage--particularly between tactical and strategic nuclear weapons--was repeatedly enunciated. The Soviet Defense Minister wrote in 1962 that "no matter where a 'tactical' nuclear weapon might be employed against us, it would trigger a crushing counterblow" [Ref. 9, p. 39].

In later years, however, the Soviet concept of escalation became less categorical and more ambiguous, as evidenced by a 1968 article in the restricted Soviet military-theoretical journal, Military Thought:

... the possibility is not excluded of wars occurring with the use of conventional weapons, as well as the limited use of nuclear means in one or several theaters of military operations, or of a relatively protracted nuclear war with the use of capabilities of all types of armed forces. [Ref. 12, p. 37]

The current Soviet view of escalation is difficult to determine and may, in fact, not have yet been resolved in the minds of Soviet military theoreticians. Given the unique logic of Soviet concepts of war and deterrence, however, it is unlikely that Soviet views of escalation mirror those held in the West, particularly in light of the differing perceptions of the stakes over which a crisis or war would be waged. Moreover, Soviet spokesmen regard the Western concept of the role of escalation and the threat of escalation in crisis bargaining as erroneously assuming mutual acquiescence to certain "rules of the game":

Moreover, almost all the works dealing with escalation are based on one rather disputable position, i.e., that in the course of any controllable war there may be achieved a certain tacit agreement between the combatants

as to possible courses of action, aims which can be pursued, weapons which can be used, and even methods of armed conflicts. With the existence of multi-megaton nuclear and thermonuclear weapons and perfected means of delivering them to targets, along with the state of extreme nervous tension during modern armed conflict, especially conflict between nuclear powers, such a "return to a knightly tournament" is either a fantasy, or an attempt to mask the true state of affairs, i.e., to conceal the inability and the impossibility of U.S. "nuclear strategists" to find ways of implementing the strategy of "protracted conflict" with a minimum degree of risk. [Ref. 7, p. 26; Ref. 2, p. 46]

Soviet political and military doctrine and strategy, particularly the latter, are constantly being revised, in order to reflect changes in technology, the global correlation of forces, and resource availability. The basic tenets from which Soviet political-military thought emanates, however, generally are immutable and help form the rational framework for the more timely doctrine and strategy. Decisionmakers in the United States should recognize that regardless of the precise Soviet view of war, deterrence, and escalation at a particular moment, their Soviet counterparts are likely to perceive, act upon and justify crisis behavior in surprising--and often in seemingly irrational--ways. "Rational" and "prudent" acts on the part of the United States, likewise, may be interpreted differently--i.e., misperceived--in the Soviet Union and may lead to precisely that outcome which was to be avoided in the first place.

E. SOVIET ADVANTAGES AND VULNERABILITIES

Soviet crisis behavior may be affected by a variety of factors which the Soviet leadership might perceive either as advantages or vulnerabilities vis-a-vis the United States. These factors are dynamic, in that their characterization as assets or liabilities, as well as their role in the managing and outcome of the crisis, can change at any time.

A principal factor which helps form the backdrop for Soviet decision-making is the Soviet perception of the relative correlation of forces between the U.S.S.R. and an adversary (e.g., the United States). The correlation of forces is a paradigm by means of which each side's relative

advantage or disadvantage in military, political, economic, social, scientific-technological, psychological and ideological areas is aggregated. In the Soviet view, this correlation discerns long-term trends and not merely isolated events.

It is apparent that Soviet crisis behavior in the 1950s and 1960s was conditioned to a very great extent by a perception of U.S. advantage in the correlation of forces. By 1969, however, with the advent of strategic missile parity, Soviet spokesmen were beginning to proclaim that the correlation--in all areas, not only military--had shifted irreversibly to the Soviet side. The U.S. acceptance of the Soviet principles of peaceful coexistence in 1972 and U.S. willingness to enter into a SALT agreement with the Soviet Union in the same year have been used by Soviet officials as evidence of this perceived shift. The Soviet propensity for taking risks might, therefore, be higher in the future than has been demonstrated historically. Furthermore, it is virtually impossible to determine the precise way in which the calculation is made and its consequent impact upon Soviet perception and behavior.

The Soviet civil defense program is viewed by the Soviet leadership as helping to insure the country's war-survival objective. It serves, therefore, as a positive factor in this correlation, from the Soviet perspective, especially in light of Western civil defense capabilities. According to a Soviet pamphlet published in 1970,

Despite certain, and at times even significant, achievements in the solution of separate tasks, the state of civil defense in the leading capitalist countries, as admitted by Western specialists themselves, remains as yet unsatisfactory and is far from corresponding to the level of requirements of a modern missile-nuclear war. In many respects it does not even assure the solution of tasks under conditions of a conventional war, conducted without the use of nuclear weapons. One of the basic reasons for this--the unpopularity of civil defense among the wide masses of the population. [Ref. 8, p. 56]

This asymmetry is further magnified, in the Soviet view, by the deterrent aspect of Soviet civil defense and, by implication, the probable impact upon U.S. crisis behavior. In the words of one Soviet spokesman, "no

country can set itself the aim of defeating the enemy at the cost of its own destruction" [Ref. 3, p. 48]. Even if the United States and Soviet Union had comparable crisis relocation capabilities, Soviet decisionmakers' perceptions of inherent asymmetries in morale and ideology would nevertheless give them a self-perceived advantage over the United States.

Despite this Soviet belief in the ideological and spiritual superiority of the Soviet system and the concomitant belief that crisis or war would exacerbate the dissidence and anomie always present among the people of the capitalist countries, the Soviet leadership most likely questions the prospects for the cohesion of Soviet society in the event of superpower conflict. A breakdown in central communications and control, particularly with regard to the growing ethnic minorities, could widen existing social cleavages between Moscow and the non-Russian nationalities. While it would be unwarranted for U.S. decisionmakers to regard this situation as a potential Soviet vulnerability and thus to exploit it during a crisis, it looms as a major uncertainty. The willingness of the Soviet leadership to remain in a crisis relocation posture for an extended length of time would be questionable if internally generated threats to the integrity of the Soviet social system were to emerge.

In sum, the purpose of this discussion has been to demonstrate that U.S. and Soviet decisionmakers operate from different perceptual and logical bases; that U.S. and Soviet crisis behavior will reflect these divergent frameworks; and that the danger of each side's misreading of the other's intent is great. Mutual recognition of these basic points may be the only means for helping to ensure that a crisis does not degenerate into total war.

REFERENCES

1. Allison, Graham T. Essence of Decision: Explaining the Cuban Missile Crisis. Boston: Little, Brown and Company, 1971.
2. Arbatov, G. A. "The Blind Alleys of Power Politics." Problemy Mira i Sotsializma (Problems of Peace and Socialism), 2 (February 1974).
3. Arbatov, G. A. "Strength-Policy Impasse." Soviet Military Review, 1 (January 1975). Cited in Ref. 5.
4. Brzezinski, Zbigniew and Huntington, Samuel P. Political Power: USA/USSR. New York: The Viking Press, 1970.
5. Goure, Leon. War Survival in Soviet Strategy: USSR Civil Defense. Coral Gables, Florida: Center for Advanced International Studies, University of Miami, 1976.
6. Goure, Leon; Kohler, Foy D.; and Harvey, Mose L. The Role of Nuclear Forces in Current Soviet Strategy. Coral Gables, Florida: Center for Advanced International Studies, University of Miami, 1974.
7. Kvitnitskiy, A., Captain 1st Rank, and Nepodayev, Yu., Reserve Captain. "The Theory of the Escalation of War." Voyennaya Mysl', 9 (September 1965). Translated in CIA Foreign Documents Division #952, 2 March 1966 (declassified in 1976 by U.S. Government).
8. Korzun, L. I., Colonel. Grazhdanskaya Oborona v Kapitalisticheskikh Stranakh (Civil Defense in Capitalist Countries). Moscow: Grazhdanskaya Oborona SSSR, 1970. Cited in Ref. 5.
9. Malinovskiy, R. Ya., Marshal of the Soviet Union. Bditel'no Stoyat' na Strazhe Mira (Vigilantly Stand Guard over Peace). Moscow: Voenizdat, 1962.
10. Marksizm-Leninizm o Voyne i Armii (Marxism-Leninism on War and Army), 5th edition. Moscow: Voenizdat, 1968.
11. Rybkin, Ye., Colonel. "The 25th CPSU Congress and the Problem of Peaceful Coexistence between Socialism and Capitalism." Voyenno-Istoricheskiy Zhurnal (Military-Historical Journal), 1 (January 1977).

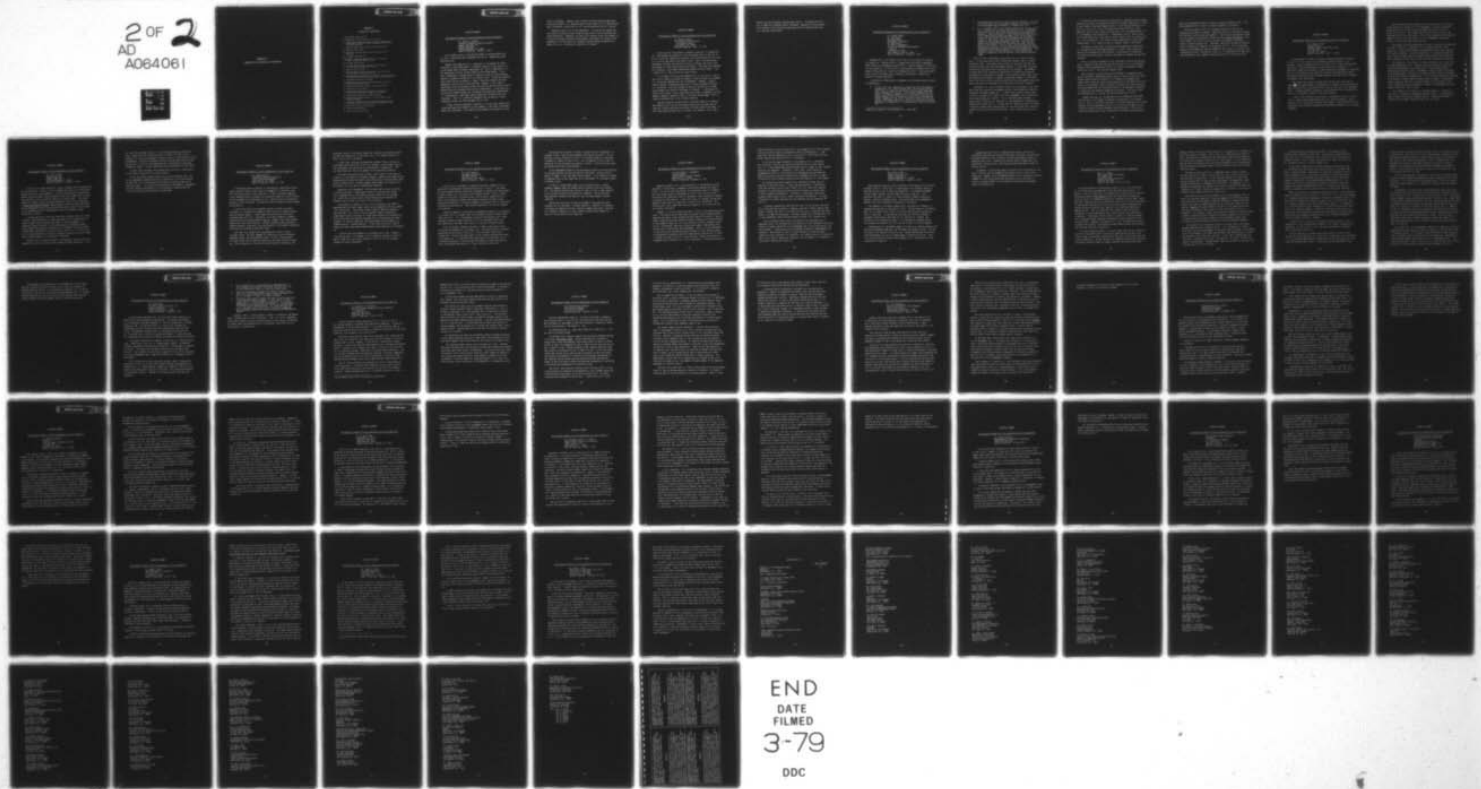
12. Sokolovskiy, V., Marshal of the Soviet Union, and Cherednichenko, M., Major General. "Military Strategy and Its Problems." Voyennaya Mysl' (Military Thought), 10 (October 1968). Translated in Foreign Press Digest #0084/69, 4 September 1969 (declassified in 1976 by U.S. Government).

AD-A064 061

SYSTEM PLANNING CORP ARLINGTON VA F/G 15/3
THE POTENTIAL EFFECT OF CRISIS RELOCATION ON CRISIS STABILITY.(U)
SEP 78 R J SULLIVAN, J M RANNEY, R S SOLL DCPA01-77-C-0237
SPC-361 NL

UNCLASSIFIED

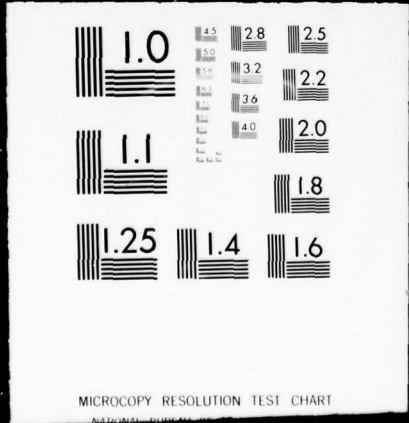
2 OF 2
AD
A064061



END
DATE
FILMED
3-79
DDC

2 OF 2
AD

A064061



Appendix D

SUMMARIES OF INTERVIEWS WITH RESPONDENTS

Appendix D

AUTHORITIES INTERVIEWED

- Dr. Donald Brennan, Hudson Institute
- Dr. Bernard Brodie, University of California at Los Angeles
- Urs. Michael Deane, Leon Goure, Mose Harvey, Foy Kohler (formerly Ambassador to the U.S.S.R.), Mark Miller, and Morris Rothenberg, University of Miami [Group discussion]
- Dr. Sidney Drell, Deputy Director, Stanford Linear Accelerator Center
- Dr. Lewis Dunn, Hudson Institute
- Dr. Eugene Durbin, Interactive Systems Corporation (formerly of RAND Corporation)
- Dr. Fritz Ermarth, RAND Corporation
- General Andrew J. Goodpaster, Superintendent, U.S. Military Academy (formerly Supreme Allied Commander, Europe)
- Dr. Colin Gray, Hudson Institute
- Mr. T. K. Jones, RADM Joseph Russel, USN (Ret.), and Mr. Edward York, Boeing Aerospace Corporation [Group discussion]
- Mr. Herman Kahn, Hudson Institute
- Dr. George Kistiakowsky, Harvard University (formerly Special Assistant to the President for Science and Technology)
- Dr. Charles Burton Marshall, formerly of Policy Planning Staff, Department of State and School of Advanced International Studies, Johns Hopkins University
- Dr. Jiri Nehnevajsa, University of Pittsburgh
- The Honorable Paul Nitze, formerly U.S. SALT Delegate, Deputy Secretary of Defense, and Secretary of the Navy
- Dr. Wolfgang Panofsky, Director, Stanford Linear Accelerator Center
- Dr. Richard Pipes, Harvard University
- The Honorable Steuart Pittman, Shaw, Pittman, Potts, and Trowbridge (formerly Assistant Secretary of Defense [Civil Defense])
- Dr. George Rathjens, Massachusetts Institute of Technology
- The Honorable Donald Rumsfeld, President, G. D. Searle & Company (formerly Secretary of Defense)
- The Honorable Helmut Sonnenfeldt, School of Advanced International Studies, Johns Hopkins University (formerly Counselor of the Department of State)
- Dr. Edward Teller, Lawrence Livermore Laboratory
- Dr. Thomas Wolfe, RAND Corporation
- Dr. Oran Young, University of Maryland

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Donald G. Brennan
Director of National Security Studies
Hudson Institute, Inc.
Quaker Ridge Road
Croton-on-Hudson, NY 10520
Date of Interview: January 3, 1978

In an intense crisis, if the Soviets began to relocate before the U.S. did, I would definitely recommend that the U.S. immediately begin relocation also.

However, the question of U.S. relocation in the absence of Soviet relocation is more complicated. It depends centrally on the quality of, to use Herman Kahn's original terminology, our "Type I" deterrence, i.e., our deterrence of direct nuclear attack on the United States. If our Type I deterrence is strong, which it should be, then we could certainly execute a prudential relocation in an intense crisis. The Soviet response would surely not be to attack us; rather, they would probably relocate themselves, and the crisis would continue. However, if our "Type I" deterrence is not sufficiently strong, the decision would be more difficult because the Soviet response would be less predictable. If they were preparing for an attack anyway, our relocation could definitely precipitate it. Alternatively, they might simply respond by initiating their own relocation. Thus, it is centrally important that we keep our "Type I" deterrence strong, and avoid dilemmas such as this.

If both sides had completed relocation, it is not clear whether that alone would make the probability of war greater or less than it had been before the relocation. This question would depend on the details of the

crisis in progress. However, such a mutual relocation would be much more politically stable (i.e., against either Soviet attack or U.S. capitulation) than a situation in which the U.S.S.R. had relocated but the U.S. had not.

Regarding "tools" for crisis management: it would be far simpler and less costly to place military forces on alert than to crisis-relocate the entire population. Generally, we should not relocate unless the probability of Soviet-initiated strategic attack becomes significant, or unless we are prepared to initiate use of our strategic nuclear weapons ourselves in a deep crisis, e.g., relating to a major war in Europe.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Bernard Brodie
University of California at
Los Angeles (UCLA)
Los Angeles, CA 90032
Date of Interview: April 13, 1978

I think that the likelihood of strategic nuclear war is exceedingly low. The presence or absence of crisis relocation plans in the U.S. or U.S.S.R. would not change this situation, nor would execution of the plans in a crisis by one side or the other or both. Even if relocation were implemented, neither side would be willing to tolerate the loss of the huge amount of fixed capital which would remain. Thus even with elaborate civil defense, a real mutual destruction capability would remain. Such a capability is a new situation in world history.

If an intense crisis occurred between the U.S. and U.S.S.R., and if the U.S.S.R. began to relocate its people, I might or might not recommend U.S. relocation, depending on the circumstances. However, I cannot readily foresee circumstances under which I would recommend unilateral U.S. relocation. Even the outbreak of tactical nuclear war in Europe would probably not make the likelihood of strategic war high enough to justify such a move. Crisis relocation would cause a tremendous, serious domestic upheaval; because of this, it can only be done once. Thus, it should be executed only in an ultimate extremity.

One must carefully consider public attitudes toward civil defense. Most people do not like to think about nuclear war, and many have an emotional feeling that they do not want a fallout shelter near them. In fact, many people believe that if we have civil defense, it will make

nuclear war more thinkable and thus more likely. I disagree with this, but it remains an important public sentiment. Because of such attitudes, civil defense on any large and conspicuous scale is something that the U.S. must get along without.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability *

Dr. Michael Deane
Dr. Leon Gouré
Dr. Mose Harvey
Ambassador Foy Kohler
Dr. Mark Miller
Dr. Morris Rothenberg
Center for Advanced International
Studies
University of Miami
Coral Gables, Florida 33124
Date of Interview: January 9, 1978

Suppose that, in an intense crisis, the U.S.S.R. begins to relocate its population. Although the U.S. response would be scenario-dependent, under almost any foreseeable scenario the U.S. should respond by initiating its own relocation. Failure to do so would create an asymmetry which would greatly hinder the U.S.'s ability to manage the crisis. The Soviets would almost surely not regard such a responsive relocation as signalling a desire for further escalation.

In addition to these general statements, the following specific points are appropriate.

- If the crisis was a potentially nuclear one involving Communist nations only, e.g., Russia versus China, and the Soviets relocated, the U.S. should be relatively cautious about responding with a relocation of its own. In this case, depending on the details, it might be better for us to let the U.S.S.R. pay the large economic costs of relocation, without incurring them ourselves. However, if the crisis involved a Soviet invasion into Europe or the Middle East (e.g., Iran) plus relocation of Soviet population, a responsive U.S. relocation would clearly be advisable.

*Approved on behalf of the attendees by Dr. Leon Gouré.

- Our perception of the Soviet intent would be important: are they relocating primarily as a prudential measure, or primarily as a crisis-management move designed to intimidate the U.S.?
- If it so wished, the U.S.S.R. might be able to get as much as 24 hours' "head start" on relocation without the U.S.'s knowledge, thus maximizing in their favor the ensuing crisis-bargaining asymmetry. One can conceive of their beginning by creating artificial demonstrations among the people, then citing these as a pretext for sealing off the American embassy and consulates, along with the foreign press, then beginning the relocation at sundown to take maximum advantage of darkness. One can even imagine their neutralizing our electronic and other technical means of intelligence. Such a covert relocation would be much more ominous than, say, an overt relocation accompanied by public statements proclaiming the purpose to be purely prudential. This possibility points up the need for U.S. intelligence means capable of detecting crisis relocation in the earliest possible stage.

There are also circumstances under which the U.S. should relocate first. If the Warsaw Pact forces invaded West Germany, the U.S. should relocate at once. This would clearly signal to the other side that the risks were higher than they had perhaps thought; it could help to achieve an early war termination and a possible Soviet withdrawal. Furthermore, we should definitely relocate our population if we were giving serious consideration to employing a strategic Limited Nuclear Option (LNO), which we probably would consider if Western Europe were invaded. On the other hand, the risk of further escalation would definitely be present, and would have to be carefully evaluated in the context of the overall scenario.

Unilateral U.S. crisis relocation should only be ordered if the President views the situation as extremely serious, with substantial chance of leading to strategic nuclear war. It should not be used at lower levels of crisis, primarily as a "tool" for crisis management; and it should certainly not be used as a "bluff"! If U.S. relocation were ordered, it would signal to the U.S.S.R. that the U.S. was prepared for strategic war, should we be forced into it. In fact, the U.S. should not order unilateral relocation without having decided what its next move would be if the relocation failed to deter the Soviet actions. Such a step could well be an LNO.

At the rate things are going, the Soviets will apparently have strategic superiority by 1985, as compared with American strategic superiority in 1962. If such a Soviet advantage indeed prevails, it will make any decisive U.S. move in a crisis, e.g., crisis relocation, much more difficult. More generally, the U.S. must retain its capability, will, and determination, if it is to manage crises successfully. Furthermore, the U.S. should place its military forces on a high level of alert, either prior to or during any U.S. crisis-relocation. This should include preparation to launch ICBMs "under attack," i.e., launch as soon as strategic attack is confirmed.

The effect of both sides' relocating would probably be stabilizing. U.S. relocation would have demonstrated U.S. resolve. Each side would realize the seriousness of the situation. The pressure to resolve the crisis would be much greater, and the likelihood of strategic war would be lessened.

The U.S. should be prepared to stay relocated as long as the Soviets could. Otherwise, when the time came near for the U.S. to "un-relocate," pressure could be generated for the U.S. to launch a pre-emptive attack versus the U.S.S.R. This would be destabilizing.

Many "signals" are available to the President for managing crises, and for providing intermediate options short of the use of military force. Another signal directly related to civil defense, but somewhat less drastic than relocation, would be the declaration by the President of the need for a nationwide "surge" to prepare the nation for attack, possibly including preparation for relocation (should it be necessary), hardening of industries, and expedient upgrading of shelters. This action could also demonstrate U.S. resolve, and possibly stabilize a crisis.

Suppose that the U.S. did not have a Crisis Relocation Plan (CRP), and that the U.S.S.R. began to relocate its population in an intense crisis. The U.S. could fear that the U.S.S.R. was preparing for an attack. Pressure could be generated for the U.S. to launch a pre-emptive first strike or give way to Soviet demands; both are possible. Thus the U.S. should definitely have a CRP, to provide the President with the proper

option for responding to Soviet relocation without triggering a war. This same argument holds for plans to protect leadership and industry.

During the 1960s, Soviet civil defense placed first priority on evacuation and second on shelters. Now these priorities have been reversed, with shelters receiving the most emphasis. The Soviet long-range goal seems to be to prepare to withstand an attack in-place, without relocating. Thus, by the 1980s, the U.S.S.R. may not consider it necessary to relocate in order to survive strategic war. Therefore, they might not need to relocate prior to launching a strategic strike against the U.S. This is important because of the element of surprise needed for the success of a Soviet first counterforce strike. Although not likely, it is conceivable that they could take advantage of this capability and strike the U.S. "out of the blue."

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Sidney D. Drell
Deputy Director
Stanford Linear Accelerator Center
P.O. Box 4349
Stanford, CA 94305
Date of Interview: April 11, 1978

I would regard initiation of massive nationwide population-relocation by the U.S.S.R. in a crisis as an extremely provocative move. If it occurred, I would recommend placing U.S. forces on full alert and announcing that the U.S. would be prepared to launch-on-warning if attacked. In addition to these military moves, I might conceivably recommend U.S. relocation; but it is not possible to say definitely without a more detailed scenario. Relocation should only be the ultimate response--the final step if strategic war appears to be unavoidable.

The Soviets would have to contend with the fact that a decision on their part to evacuate people in preparation to launch a first strike against the U.S. would give us warning and time to put our forces on fully generated alert. I cannot presently foresee an "out-of-the-blue" crisis relocation by the U.S.S.R. without a pattern of escalating tensions.

I find it very difficult to envisage a circumstance or crisis in which the U.S. would relocate populations prior to a Soviet evacuation. But if, during a crisis, both sides relocated their people, I do not think that this would make much difference regarding the subsequent probability of a strategic exchange.

A decision-maker should prepare for crises by having at his disposal a wide spectrum of options for crisis management. Decisions regarding which option to use at which time must depend on the whole train of events of the crisis. The primary option should be the varying of the readiness level of military forces. Full crisis-relocation of the American people would be a very poor option for crisis management; among other things, it could not be done more than once.

The present Soviet CD program does not seem to increase the likelihood of crises; similarly, a comparable U.S. CD program would not. More generally, I think that the Soviet CD program would not be very effective in a nuclear exchange. It does not negate the U.S. deterrent capability. Now if we saw a major effort to disperse Soviet industry and to exercise their evacuation system, then we might take their program more seriously.

The present U.S. CD program is not very effective, and I would agree with some improvement of it. However, even with improved CD and crisis-relocation preparations, the uncertainties in effectiveness against a nuclear attack would be large. Furthermore, a major purpose of CD should be to protect people in the event of natural disaster, nuclear terrorism, or other event short of strategic war. The U.S. should thus have a spectrum of CD options, oriented toward different types of threat. The spectrum should include an option for evacuating people only from areas at risk from a counterforce attack; generally, a heavier CD commitment should be made to those areas than to others.

Civil defense is not central to strategic stability. The key to stability is relatively invulnerable strategic forces. I have explained this in detail in my article "Beyond SALT II: A Missile-Test Quota" (Bulletin of the Atomic Scientists, May 1977, pp. 34-42).

INTERVIEW SUMMARY:

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Lewis A. Dunn
Hudson Institute
Quaker Ridge Road
Croton-on-Hudson, NY 10520
Date of Interview: January 3, 1978

If the U.S.S.R. began relocation, I would recommend that we respond with our own relocation. Failure to do so probably would put us in a much worse bargaining position than otherwise. If we did not relocate, our decision-makers would feel great pressure because of the Soviet capability to attack our population, and our relative inability to attack theirs. This could induce our leaders to make too many concessions in the crisis bargaining. In Deterrence Before Hiroshima, George Quester points out that the British had an exaggerated idea of how many fatalities would result from an attack by the Luftwaffe, and this contributed to their willingness to make concessions at Munich.

I would expect that, after both sides had relocated, the crisis would continue. More specifically, I would not expect it to lead directly to either extreme--either strategic warfare or a quick settlement. An important question would be: Which side could stay relocated longer? I would suspect that the public pressure to "un-relocate" could be greater, and much more significant in the U.S. than in the U.S.S.R. In fact, fear by U.S. decision-makers of such public pressure probably would be a strong factor tending against a U.S. decision to relocate.

Whether the U.S. should relocate in the absence of Soviet relocation depends partly on which side has the stronger strategic deterrent. If the

U.S. had this advantage, then U.S. first-relocation would be relatively safe. However, the way things are going, it looks as if the U.S.S.R. probably will have this advantage, in which case U.S. first-relocation could be dangerous. The Soviet response could be to execute some local military actions; but it could also be something else, not necessarily excluding pre-emptive attack. It would depend entirely on the details of the crisis.

If both sides relocated, this probably would not have a large effect on the chance of escalation to nuclear warfare.

Crisis relocation probably would not be a very effective "tool" for crisis management, compared with other alternatives of a military nature. We should do it only if we perceive the chance of nuclear attack to be relatively high. I also would be concerned about the domestic consequences and costs (broadly construed) of crisis relocation, assuming that the crisis were resolved and the people returned home.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Eugene Durbin
Interactive Systems Corporation
1526 Cloverfield Boulevard
Santa Monica, CA 90404
Date of Interview: April 13, 1978

If the Soviets began relocation in the absence of some obvious third-country threat to them, I would tend to recommend U.S. relocation, and I think the Soviets would not be surprised. If their relocation appeared to be a defensive move in response to a potential threat by a third country, I would recommend full preparation for U.S. relocation but not necessarily execution of the relocation. The decision would be complex and would depend on the details.

A crisis would have to be extremely serious in order to warrant unilateral U.S. relocation, although a Soviet invasion of Western Europe might be serious enough. I would expect the Soviets not to be overly concerned about such a U.S. relocation, since their potential strategic targets would not include population per se. However, they would probably respond with their own relocation. Soviet relocation plans distinguish between dispersal of the work force and dispersal of the general population; they might do the former without the latter.

They might also respond with some generation (alert) of their strategic forces. One must remember the important distinction between generated (alert) and non-generated forces. A crisis severe enough to induce either side to retaliate would also be severe enough to induce each side to generate its forces, which would make the forces much less

vulnerable, which in turn would reduce the incentive for strategic attack and make the probability of such attack low. Civil defense would be a minor issue in such a situation.

If both sides relocated and generated strategic forces, and two or three weeks went by with the crisis still present, I would expect significant spontaneous "un-relocation" and spontaneous "un-generation." The two sides might well reach an agreement to do these things mutually.

The mutual relocation would not have a major effect on the level of intensity, or the chance of strategic exchange. However, the probability of exchange would probably be slightly less under mutual relocation than under Soviet relocation only. Greater symmetry would reduce the incentive for the Soviets to try to gain an advantage by attacking.

Regarding crisis-management, the President ought to have a spectrum of options available. These would primarily involve military forces, but a graduated set of civil-defense options should also be included, e.g., declaring a "surge" period, redistributing food to prepare for evacuees, and so forth, up to full crisis relocation.

The presence or absence of a U.S. crisis relocation plan (CRP) in peacetime would not have a major effect on the probability that an intense crisis would occur. The Soviets are well aware of American ingenuity. They know that, in a crisis, we could probably develop extensive CD preparations during a few days of "surge" even without prior preparation. On the other hand, the Soviets view Americans as inconsistent and unpredictable. If we had a good CRP, they would regard us more soberly, as somewhat more of a "known quantity." I think that this would slightly reduce the chance that some misunderstanding would escalate up to strategic war.

I believe that the probability of strategic war is low. However, I also believe that, if it happens, it will continue, possibly for days or weeks, either until one side surrenders or until all of the strategic weapons are used or destroyed.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Fritz Ermarth
The RAND Corporation
1700 Main Street
Santa Monica, CA 90405
Date of Interview: April 21, 1978

If the U.S.S.R. relocated its population during an intense crisis, a great deal of spontaneous relocation would occur in the U.S. This would be true no matter how much the Soviets attempted to downplay the significance of their action, e.g., by citing a third-country threat. The U.S. should establish a good crisis relocation plan; and one major responsibility of such a plan would be to channel spontaneous relocation to make it more orderly and successful. The Soviet response to such use of a U.S. relocation plan would be non-surprise. They would be perplexed if we did not respond by relocating.

I would be generally disinclined to recommend unilateral U.S. evacuation in a serious crisis, although there are two possible types of events which might justify it: (1) if spontaneous evacuation were getting out of hand and were in need of orderly direction, (2) if an extremely hostile act was committed by the other side, such as an invasion of Western Europe.

Crisis relocation, whether unilateral or mutual, would have little to do with the probability of strategic war. The latter would be ultimately determined by the issues of the crisis. Force balances alone do not produce wars. Mutual relocation might in fact slightly decrease the chance of strategic war. It would make both sides aware of how bad the crisis situation had become; it would increase the chance of a more rational outcome, and decrease the chance of a "crazy" action by either side.

The Soviets do not think in terms of "signalling" and "bargaining" to "manage" crises. They are very pragmatic and they do not bluff. Thus it would be a serious mistake for the U.S. to relocate primarily in the hope of sending a "signal" to the U.S.S.R. This is especially true if the U.S. perceived its own relocation as actually a "bluff." A bluff would not work; the Soviets would easily see through it.

Crisis-management capability and warfighting capability are two portions of the same spectrum, and must be mutually consistent. We must think of what will happen if the "end game" must be played. If we choose to relocate, an important part of the reason must be to save people if a strategic attack ultimately occurs.

If the U.S. established a good crisis relocation plan, it would probably somewhat lower the chances both of serious crisis and strategic war. The Soviets would be less likely to start a crisis if they perceive us as rational and willing to defend our interests. The Soviets have many equities to defend, and they will not risk them without a strong incentive.

Soviet doctrine calls for them to pre-empt if they perceive that strategic war is inevitable. The most stable U.S. posture is to maintain survivable and responsive forces, effective command and control, and good civil defense, adding up to a very credible second strike capability. Thus U.S. CD can add to crisis stability.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Lt. Gen. Andrew J. Goodpaster
Superintendent
United States Military Academy
West Point, NY 10996
Date of Interview: December 27, 1977

Regarding potential U.S. crisis relocation in the absence of Soviet relocation, I would draw a fundamental distinction between two types of crisis: (1) one in which the Soviet Union perceived itself as "stepping out" and trying to gain an advantage for itself; and (2) one in which the Soviet Union perceived itself as besieged or even "cornered" by aggressive moves of other nations. In the first case, if strategic nuclear war appeared likely, the U.S. might well initiate crisis relocation. The Soviets would likely regard this move as prudential, not surprising, and not strongly escalatory.

However, it is quite conceivable that a crisis of the second type could occur. The Soviets are far more sensitive about crises threatening their homeland than about crises threatening other areas of the world. They are deeply concerned about any potential threat to Russia as a national entity, to the Communist authority, or to the survival of their strategic nuclear forces. Furthermore, they have a particularly deep, long-standing fear and distrust of the Chinese and the Germans. Thus if a crisis developed in which the Soviets perceived central elements of their national entity as threatened by aggressive moves of other nations, particularly if China or Germany (as well as the U.S.) were involved, I would be reluctant to recommend the initiating of U.S. crisis relocation. It could very possibly

cause the Soviets to believe that the U.S. was preparing for a first strategic strike, and could trigger a pre-emptive strike by them against us. They might feel that the opportunity for striking the U.S. would never again be better than during that period of U.S. relocation.

If the Soviets began relocation in the absence of U.S. relocation, this might well indicate that they were preparing for an attack against the U.S. If they completed relocation before the U.S. began it, the situation would be very dangerous. Therefore, in this case, I would weight my recommendation heavily in the direction of safeguarding as many American people as possible, and would almost surely recommend that the U.S. begin relocating as soon as Soviet relocation were confirmed by U.S. intelligence.

An analogy exists here between crisis relocation and the level of readiness of military forces. I have long believed that, if the Soviets raise the readiness level of their forces, the U.S. should do likewise, although in a controlled and possibly selective manner; we should avoid a large "readiness differential." Similarly, if they begin relocating, we should match them to avoid a large "relocation differential." A large differential of either type could be very destabilizing and dangerous for the U.S.

I strongly disagree with those who say that, in such crises, the risks are so high that the situation is hopeless, and that it hardly matters what we do. Granted, the level of risk would be high, but it could get very much higher if we made the wrong move. One must consider such "differential risk" as one contemplates these different potential moves in an intense crisis.

Just as strong military forces are essential for deterrence and, if deterrence fails, for warfighting; so an effective Crisis Relocation Plan would provide a valuable option for crisis management and, if an attack occurs, for saving people. In both cases the two purposes are mutually complementary and essential. More generally, the U.S. should maintain a strong strategic capability across the board. An effective civil defense could be a significant part of this overall capability, leading in turn to greater U.S. credibility and greater international stability.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Colin S. Gray
Hudson Institute, Inc.
Quaker Ridge Road
Croton-on-Hudson, NY 10520
Date of Interview: January 3, 1978

One should only discuss crisis relocation in the context of the overall strategic picture. First, the U.S. should design its strategic forces so that they do not invite an attack on themselves. A vulnerable MINUTEMAN invites attack, whereas a mobile ICBM, such as MX, does not. It is essential that the U.S. reduce its fixed strategic targets and deny the Soviets a sensible strategic option. This would make crisis management in general, and crisis relocation in particular, much safer.

The asymmetry in strategic capabilities, including civil defense, is becoming more and more in the Soviets' favor. Thus the chance is increasing that, in an intense crisis, the U.S.S.R. would be willing to escalate but the U.S. would not. If they believe that they can survive a strategic exchange, and we do not, then they will win the crisis! However, the ability to crisis-relocate can give a U.S. President an important option for standing his ground in a crisis, and not giving in to Soviet demands.

Although the U.S. Government adheres to a policy of "assured destruction," the Soviet government does not, and this makes the concept invalid. Killing civilians is not sensible militarily, and I cannot believe that the Soviets would deliberately try to kill large numbers of American civilians. Thus, I do not think that the Soviets would respond to U.S. relocation by trying to prevent or disrupt it.

Suppose that the U.S.S.R. invades Western Europe, and that U.S. conventional and tactical nuclear forces cannot stop them. At that point we should prepare to use a strategic Limited Nuclear Option (LNO), by evacuating our cities. Hopefully the Soviets would be deterred by this action; but if they are not, the relocation would have made us ready to execute the LNO.

In general, if the Soviets begin relocation first, we should do likewise, to avoid a serious asymmetry which would hurt us in the crisis bargaining. However, as we contemplate mutual crisis-relocation, we should remember the 1914 mobilization that essentially led to World War I, and try to prevent mutual crisis relocation from having the analogous effect on strategic war.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Mr. T. K. Jones
RADM Joseph Russel, USN (Ret.)
Mr. Edward York
Boeing Aerospace Corporation
Seattle, WA 98124
Date of Interview: April 10, 1978

The whole question of the potential effect of U.S. crisis relocation on crisis stability may become moot within the next several years. The reason is that the Soviet Union is systematically establishing an effective nationwide system of blast shelters (with very high fallout protection factors), which will probably be essentially complete by about 1985. After that time, there may be little incentive for the U.S.S.R. to crisis-relocate. If they decide to escalate a crisis to the near-strategic-exchange level, they may be able to shelter their people in a few hours and make their demands quickly. The U.S. might then feel unable to take the time for relocation, or might legitimately fear a Soviet attack while relocation is in progress. The correct solution would be a major U.S. shelter program. Even a slanting program (shelters incorporated in new construction) would be very helpful. However, an effective U.S. crisis relocation plan would be better than nothing, since there are some scenarios under which we would have time and incentive to execute it.

If Soviet relocation began, it is quite likely that the U.S. would not learn of it and confirm that it was really happening for at least a day. History shows that messages containing bad news take a relatively long time to gain credibility. By the time the U.S. leadership realized the situation, the Soviet relocation might be largely complete; the Soviets could then

execute a major bold military step; and the U.S., because of its vulnerability, could feel unable to respond. In this case, U.S. relocation would come too late. This possibility underscores the importance of making early detection of relocation an important mission for U.S. intelligence. It also emphasizes the fact that an evacuation which the Soviet government tries to keep secret would be much more threatening than a similar evacuation which was performed relatively openly.

Although the term "stability" is sometimes used in several contexts, the most important of these is crisis stability since it bears directly on the avoidance of nuclear war. A crisis would be unstable if either side were to perceive that it would be more advantageous to preemptively attack instead of permitting its opponent to strike first. An asymmetry in civil defense may exacerbate such instability and make it even more one sided, but it does not, of itself, create the instability, since that is a function of offensive force capabilities and survivabilities.

One should not place too much emphasis on a Soviet attack on the U.S. Equally or even more important is that the threat of such an attack, made from a position of both superior offensive forces and a superior defensive posture (including a protected population and significant industrial protection), negates the nuclear umbrella of the U.S. and leaves the Soviets the choice of other military options in NATO, the Mid-East, Africa, or elsewhere. For instance, a more likely possibility would be a surprise attack on NATO, including the use of nuclear and chemical weapons, while the U.S. is coerced from using nuclear weapons on Soviet homeland targets (even military) through the threat of retaliation on our unprotected homeland.

The possibility of relocation points up a serious flaw in the mutual-hostage deterrence which presently exists. It is analogous to a "game" in which each side holds some members of the other side as hostages, and threatens to kill the hostages if the other side performs some undesired act, but where the hostages are not physically confined. If one side's hostages begin to "walk away," what does the side do? Let them go? Kill them? Either alternative is unacceptable. "Hostage games" where the hostages are not physically confined lead to no-win situations.

The whole issue of relocation and stability also depends on the strategic force strengths of both sides. As our group's recent work has shown, the U.S.S.R. is now moving into a position of clear superiority in strategic forces. This will make it much easier for them, and harder for us, to control events in a future intense crisis.

If, during an intense crisis, the Soviets begin relocation and the U.S. recognizes this well before the Soviet relocation is complete, then the U.S. should relocate. Balanced civil protection would make a Soviet attack considerably less likely than it would be for unilateral (Soviet) civil protection, and furthermore balanced protection would reduce the numbers of fatalities if the exchange should nevertheless occur. The Soviets would not be surprised by our responsive relocation, and would probably not counter-respond specifically to it (except with rhetoric). Generally speaking, the crisis would continue with both sides relocated.

There are definitely circumstances under which the U.S. could reasonably choose to relocate first in a crisis. First of all, in a crisis that serious, U.S. strategic forces would undoubtedly already be on generated alert. This would greatly decrease the incentive of the U.S.S.R. to strike first, and U.S. relocation would not nullify this decreased incentive. Furthermore, a U.S. "first-relocation" would represent a U.S. reaction to the crisis which the U.S.S.R. had not expected. It would increase Soviet uncertainty concerning the crisis and would increase Soviet reluctance to escalate further. The Soviets would probably de-escalate the crisis, although undoubtedly with an increase of anti-U.S. rhetoric.

If the U.S.S.R. is firm in its intention to attack the U.S., the U.S. relocation will not dissuade them, although it will greatly reduce the U.S. casualties. If the U.S.S.R. is not firm, then relocation will motivate them to de-escalate the crisis.

One can conceive of a scenario where the Soviets initiate military action, say, over Middle East oil, and the U.S. unilaterally crisis-relocates. If the Soviets were determined to pursue their action, they would also relocate, and continue their action. If they were not that determined, they

would cease their aggression and not relocate, while at the same time trying to make the U.S. look foolish for having "over-reacted," to generate resentment among the American people for the disruption, and to try to ensure that the U.S. could never relocate again. This is a danger which a U.S. President must carefully weigh before ordering unilateral relocation. Whether or not relocation could be effectively repeated would depend on whether it was perceived by the American people as having been the right or wrong decision the first time.

If both sides relocated, the chance of escalation to intercontinental nuclear war would probably be somewhat less than it had been prior to the relocation. U.S. forces would be on generated alert. The U.S.S.R. would perceive a greater chance of U.S. retaliation, and they would be thereby dissuaded.

The probability of escalation to intercontinental nuclear war would be considered most carefully by the side considering an escalatory step which might start such a war. Whether the initiator continues with his escalatory actions depends on how much escalation-control he feels he has. Specifically, if the Soviets relocated and the U.S. did not, they would perceive that they had dominant escalation-control; and they would pursue their actions, possibly even leading to a strategic first-strike against the U.S. However, if the U.S. responded with its own relocation, the Soviets would perceive that they did not have dominant escalation-control; and they would be more uncertain and less ready to continue their actions. Also, of course, if deterrence failed and a strategic exchange occurred, the number of U.S. fatalities would be much less if relocation had been previously executed, than if it had not.

As a "tool" for crisis management, relocation is generally inefficient compared with military moves, particularly changes in the readiness level of strategic forces. It is clearly a much more difficult move to execute since it directly involves the entire civilian population. Nevertheless, a decisionmaker needs a whole spectrum of crisis-management tools. One uses the less drastic "tools" first; but it is possible that a crisis could escalate to the point where relocation would be needed as a "tool."

In the absence of an extensive U.S. CD program, the U.S.S.R. would have more incentive to start a serious crisis, since U.S. options for response would be limited. In the presence of extensive U.S. CD, Soviet incentive for starting a crisis would be correspondingly less. If neither side had extensive CD, this conclusion might be altered; but given the present extensive Soviet CD program, the U.S. definitely needs one!

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Mr. Herman Kahn
Director, Hudson Institute, Inc.
Quaker Ridge Road
Croton-on-Hudson, NY 10520
Date of Interview: January 6, 1978

If the Soviets relocated first, we should match them; otherwise, we would be at a severe bargaining disadvantage. The Soviets would expect us to reciprocate, and would probably not view our relocation as a further escalatory step. On the other hand, in a real crisis, we might not reciprocate, for fear of causing too much consternation among our NATO allies. Furthermore, although such U.S. relocation might inspire the U.S. to be more firm in the crisis bargaining process, it might also make U.S. leadership more scared and confused, and weaken our bargaining position.

I can readily conceive of a scenario in which the U.S. should relocate first. Specifically, the U.S.S.R. invades Western Europe. We threaten strategic retaliation, and they are not deterred. Then we begin to evacuate our cities: this might convince them we were serious, and deter their invasion. This scenario also provides an example of using crisis relocation as a crisis-management move, rather than primarily as a prudential move to save people.

Crisis relocation by both sides would probably sharply increase the probability of war, but it would also sharply increase the probability of compromise; i.e., it would sharply increase the probability that the crisis would be resolved quickly, one way or the other. The outcome would depend on the specific scenario. However, the following points would be very important.

- Crisis relocation is an extraordinarily important part of civil defense, and essential for saving the majority of the civilian population, should a large-scale attack come.
- Even with the people evacuated, the relatively empty cities would still be of great value to both nations and would still act as "hostages" to deter a strategic exchange.
- Relocation would surely increase the level of tension and fear of war among the American people. In this sense, it could weaken the U.S.'s crisis-bargaining approach. It could make appeasement more acceptable to our people; cf. the attitude of the British at the time of Munich. It is even possible that a U.S. president could order crisis relocation in order to make appeasement seem the preferable alternative to the American people.

In general, the U.S. should prepare a series of alternative contingency plans, including one for crisis relocation. Then, in a crisis, depending on the exact scenario, actions should be taken in such a way as to maximize the chance that the outcome would be a satisfactory resolution--not U.S. capitulation or strategic war.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. George B. Kistiakowsky
Abbott and James Lawrence Professor Chemistry
Emeritus
Harvard University
Cambridge, MA 02138
Date of Interview: June 22, 1978

I am very skeptical about evacuation of U.S. cities in a crisis. I have serious doubts as to whether the people would cooperate. If they did, disturbance* of society would be great. If an attack occurred, many of those who survived the initial attack, by relocation, would die of starvation, epidemics, lack of medical care, and so forth.

The Soviets would have the same sort of problems, and I cannot believe that, even in an intense crisis, they would ever be so unwise as to try to evacuate their cities. However, if they did so, I would have to regard the move as a plain hint that they were preparing for a pre-emptive strategic attack. Evacuation of our people could then, in principle, be called for; but, as previously stated, I doubt that it could be done successfully. The U.S. military response would be much more important. We should immediately put our strategic forces on full alert, and prepare to launch our ICBMs upon definite confirmation that Soviet ICBMs had been launched against us.

The U.S. should certainly not evacuate its cities in the absence of Soviet evacuation. The Soviets would interpret it as a threat, and the crisis would escalate greatly, very possibly to the level of strategic exchange. Another argument against U.S. unilateral evacuation is that it

*By philandering and arson, by those who stayed behind.

probably would result in social chaos; this would be evident to the Soviets, and the U.S.'s crisis-bargaining ability would be weakened. It obviously follows that unilateral U.S. evacuation should not be considered as a crisis-management "tool."

If both sides somehow achieved some degree of success in evacuating their people, the crisis would become intensified and the possibility of strategic war would come much closer.

The Soviets are tough, but also extremely cautious about potential disaster, largely because of their casualties in World War II. This is evident in many ways, e.g., the permitted level of radiation for workers is considerably lower in the U.S.S.R. than in the U.S. I am convinced that the Soviets will never launch a pre-emptive strategic attack in the absence of any other ongoing nuclear warfare. I am also convinced that the U.S. will never do this. I am much more worried about proliferation of nuclear weapons, and the possibility of nuclear war starting, say, in the Mid-East (which I consider much more likely than initiation of tactical nuclear war in Europe).

An evacuation plan could not be effected without elaborate exercises. A plan without exercises would be a "paper plan"; the existence of such a plan would probably have little effect on the course of an intense crisis.

The foregoing remarks concern full evacuation of cities. Although that would not make sense, an evacuation of areas near counterforce targets would make sense under certain circumstances. It would be much more likely to succeed, since it would involve relatively small numbers of people at risk, moving out toward relatively large numbers of people not at risk. Furthermore it would be defensive, conducted because of U.S. fears of a Soviet attack, and not indicative of an impending U.S. pre-emptive strike.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Charles Burton Marshall
1500 Wilson Boulevard
Arlington, VA 22209
Date of Interview: January 18, 1978

The first hypothetical question I am asked to consider is whether I could imagine myself, in the role of a policy-advisor, ever advising the decision-makers in government to take the initiative in ordering a relocation of the population. The answer is: yes.

The second question is: under what conditions I might do so. I can only give an abstract answer.

Let me begin with a general proposition laid down by Geoffrey Blainey in his book, The Causes of War. Blainey disagrees with Clausewitz's concept that, since the aggressor would always prefer to prevail without having to fight, the aggressed-on side is always the one that must opt for war if there is a war. Blainey contends to the contrary that both sides must exercise a preference for war if there is a war. In his view, peace breaks down and war occurs when the decision-makers on each side prefer the perceived consequences of fighting to the perceived consequences of not fighting; and war breaks down and peace ensues when the decision-makers on each side come to prefer the perceived consequences of desisting to the perceived consequences of continuing the war.

Now similar logic applies to making a war-like move--that is to say, a move charged with potential for heightening a crisis between states and therefore moving them nearer to the brink of hostilities. To order a relocation would probably be such a move. I would have to be in favor

of such an action, nevertheless, if I should perceive the probable consequences of not making it to be more dangerous and unfavorable than the probable consequences of making the move. It is difficult to predefine such conditions, but I shall attempt some clarification.

Let us suppose the following. A line of endeavor being pressed by the Soviet Union in Central and Western Europe is such as will, if permitted to be carried to conclusion, irreparably damage the North Atlantic Treaty and leave the United States itself exposed to unacceptable dangers. The United States, must, if it can, dissuade the Soviet Union from persisting, even though opposing the Soviet line of action involves a risk of incurring war. The calculable danger of that result is very high. Those in charge of U.S. policy cannot afford to face that eventuality without first sheltering the populace so as to mitigate the effects of a Soviet nuclear attack. So it is necessary to order a relocation even at the price of presumptively adding to the immediate chance of war.

Yet another aspect must be considered. It may be that the Soviet Union is encouraged to persist in its line of action by a feeling of high assurance that at the critical juncture the U.S. will acquiesce rather than risk war. Ordering a relocation would be one way of warning the Soviet Union back from a dangerous error--a less provocative one than making a strictly military response would be. To classify the same action both as tending to heighten danger and tending to alleviate it may sound paradoxical, but reality is full of such ambiguities. Hegel put the idea abstractly in observing that resolution occurs at the point of highest contradiction. That is simply a way of expressing the idea of there being on a fever chart a point where the patient either dies or starts recovering. One experiences a similar reality in undertaking on a highway to pass a car driven by an unsafe driver: the moment of highest danger is the immediate antecedent to regaining safety.

Obviously the Soviet Union is likely to take alarm at the United States' resort to such an extreme measure as ordering a relocation. Its sense of alarm may have an inciting effect or a cautionary effect. There is no way

of telling for sure in the abstract which effect is more likely, and even in a concrete situation the question may be speculative.

A relocation publicly announced is probably less provocative and dangerous in respect of heightening the danger of war than one which the authorities ordering it attempt to conceal. Here one must distinguish between deterrence and surprise. Deterrence requires publicity--the very opposite of surprise. In view of the nature of American society, it is probably impossible to organize for and carry out a secret relocation. It is conceivable that the Soviet Union, in contrast, might be able to organize for a secret relocation, though it is problematic whether it would succeed in keeping the undertaking concealed. A relocation on the Soviet Union's part attempted under the cloak of secrecy would be more alarming than one carried out with full disclosure because it would be more clearly indicative of an intention to initiate an attack.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Jiri Nehnevajsa
University Center for Urban Research
249 N. Craig Street
Pittsburgh, Pennsylvania 15260
Date of Interview: March 2, 1978

Assume a major and acute crisis between the U.S. and the U.S.S.R. If the Soviets initiated population relocation under such circumstances, and if there were further evidence of Soviet mobilization, I would consider relocation of our own population to be one of the viable, if not highest-priority, options.

How a decision might be made (what decisive criteria would be operative) and when and how it might be carried out would, however, depend very much on the detailed evaluation of the situation so that I cannot adequately comment on this in the absence of a more detailed scenario.

Should the U.S. begin population relocation in response to a parallel and antecedent Soviet evacuation of cities, I would expect the U.S.S.R. to use strong public rhetoric to label the U.S. action as escalatory, bellicose, aggressive and so forth. In private, the Soviet leaders would understand the U.S. response (to their relocation) and would be probably surprised if we did not act in this prudent manner. I am also assuming that the President would be in private, hotline and other, contact with the Soviet leaders to question them about their reasons for relocation and their intentions as well as to explain the defensive and prudential character of our own countermeasure so that it should not be viewed as a threat to the U.S.S.R.

There are also some possible, though much less likely, circumstances under which U.S. relocation might be considered, and even carried out, in the absence of Soviet move of this kind. Robust evidence of preparations for a preemptive attack might be one such situation. A war between American and Soviet forces, for instance in Europe, might also provide sufficient grounds for the President to consider, and decide for, relocation. However, I believe that almost any realistic NATO-Pact war in Europe would tend to escalate fairly directly into a strategic nuclear war mainly because I have every reason to conclude that a non-nuclear conflict in Europe would place the Soviets at an unacceptable advantage vis-a-vis the U.S. and NATO-Pact nations.

Once both sides (the U.S.S.R. and the U.S.) were in the relocated posture, I doubt that the relocation itself would have an overriding, even major, effect on the trajectory of the crisis. The factors which prompted the relocation to begin with (thus those out of which the respective crisis escalated toward the relocation movement) would, of course, have an escalatory effect, especially in the period during which relocation would be taking place. At a minimum, to repeat a previous point, the intensity of hostile rhetoric would tend to become sharply increased.

At the same time, I definitely do not view crisis relocation as a "crisis management tool." This means that relocation, if it were not to have a significant objective effect to accentuate the crisis, would definitely not have much of an effect to cool off the crisis (since its occurrence would be grounded in factors other than the relocation anyway). Furthermore, the serious economic consequences of relocation, especially were the crisis to subside, would argue against the consideration of relocation for "crisis management" purposes.

The existence of a credible U.S. Crisis Relocation Plan might marginally lower the probability that the Soviets would initiate relocation (in that they would come to expect U.S. counterresponse), or that they would be tempted to engage in possible "nuclear blackmail." But in the probable weapons environment of the 1980s, even this effect (to lower Soviet

relocation probabilities and also to lower probabilities of nuclear blackmail) is likely to be relatively modest.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

The Honorable Paul H. Nitze
1500 Wilson Boulevard
Arlington, VA 22209
Date of Interview: 19 December 1977

There certainly exist circumstances under which I would recommend that the U.S. relocate in the absence of Soviet relocation. It is difficult to generalize about such circumstances; but, broadly speaking, if I felt that the probability of avoiding war were high, I would not recommend relocation; whereas if I thought that it were low (say around 0.3 or less), I would tend to recommend relocation. I would expect the Soviet response to be reciprocal, i.e., relocation of their populated areas. I doubt very much that our relocation by itself would induce them to attack.

Clearly, if the U.S.S.R. began relocation, I would recommend immediate U.S. relocation.

I believe that such crisis relocation by both sides would be more apt to stabilize a crisis than to escalate it, because both sides would realize that a war, if it came, would be more apt to be drawn out and inconclusive than if there had been no crisis relocation. They would therefore feel more pressure to reach a peaceful resolution.

An important related question is whether U.S. military forces are placed on alert. Generally, in an intense crisis, U.S. forces should be placed on alert and should be ready to launch from under attack. Placing forces on alert could be as serious a move as crisis relocation, because it would have a dramatic effect on the level of surviving military forces: roughly a

100 percent increase in surviving bombers (compared with the case for no alert), a 25 percent increase in surviving SLBMs, and a much larger percentage increase in surviving ICBMs if they are launched from under attack.

I don't agree with the argument that getting most of the people out of the battle area would make war more palatable and thus more likely. The Soviets are likely to implement their civil defense programs in any case; relocation of U.S. population would be essential to maintain any hope of peaceful accommodation if it is not our intention to surrender.

Incidentally, it is quite conceivable that the strategic situation could reach the point where extreme Soviet pressure against the U.S. became highly likely. Suppose that the present trend towards Soviet superiority continues for several more years. Then suppose that the U.S. decides to build up its forces rapidly to achieve parity or superiority. The Soviets might very likely induce a crisis at that point to take advantage of their superiority and prevent the U.S. from catching up. Unless the U.S. abjectly backs down, such a crisis could indeed lead to nuclear war.

What the strategic forces will be like in the mid-1980s depends very strongly on what happens with SALT. Furthermore, if present trends simply continue, the force ratios, particularly in prompt counterforce capability, will become very adverse to the U.S. The U.S. could reverse this trend by establishing an "Alternate Launch Point System" (ALPS), which would involve several alternate silos for every silo which contained a real missile, and thus reduce the U.S.S.R.'s effective counterforce capability.

U.S. confidence in relocation in a crisis would be enhanced if our strategic forces were relatively invulnerable and not significantly inferior to those of the U.S.S.R.; otherwise, in an intense crisis, we might consider it wiser to yield to Soviet demands than to relocate.

The peacetime existence of an effective U.S. crisis relocation plan would make the chance of an intense crisis significantly less. The U.S.S.R. would be less likely to start such a crisis, since they would see that we could better answer any Soviet initiative.

I was closely involved in many of the deliberations at the time of the Cuba missile crisis. During those days, our approach was to analyze the potential maximum and minimum extent of Soviet motives, objectives, and tactics; and concurrently to evaluate the pros, cons, and interrelations of various possible U.S. moves, including air strikes against the missiles or the SA-2 sites, direct invasion, blockade or quarantine (which was eventually chosen as the initial tactical move), and possible Soviet moves in other parts of the world (Turkey, England, Italy, Berlin). In a future intense crisis, it would be vital to consider carefully all such potential actions. The ability to crisis-relocate would provide a valuable additional potential move, which would have to be carefully evaluated in the specific scenario which developed.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Wolfgang Panofsky
Director
Stanford Linear Accelerator Center
P.O. Box 4349
Stanford, CA 94305
Date of Interview: April 11, 1978

In an intense crisis, if the U.S.S.R. began to evacuate its cities, whether or not I would recommend U.S. evacuation in response would depend on the context. If the Soviets appeared to be reacting prudentially to some demonstrated threat to them, then I would be opposed to U.S. evacuation. However, if there was no evidence of a threat to them and their purpose appeared to be to blunt the effect of a U.S. retaliatory strike, then I would probably be in favor of U.S. evacuation.

In the absence of Soviet evacuation, I would, in general, be opposed to U.S. evacuation, although there are some conceivable hostile Soviet actions, such as a Soviet invasion of Western Europe, which, depending on the details, might persuade some to call for U.S. evacuation. More generally, everyone who considers these matters must have an "evacuation threshold" pertaining to how hostile an adversary's action would have to be in order to trigger U.S. evacuation. My "evacuation threshold" would be relatively high. It is hard to foresee circumstances appropriate for U.S. "first-evacuation" other than an outbreak of tactical nuclear war in Europe.

Assuming that the relocation worked well (which is a highly questionable assumption), then I believe that if both sides relocated during a crisis, the probability of war afterwards would be slightly greater than before.

The potential collateral effects of a counterforce exchange would be lessened, and therefore, the temptation to engage in a counterforce exchange would become greater.

Crisis relocation is not appropriate for use as a crisis-management "tool." It would be very cumbersome and relatively irreversible, and should be used only in a real extremity. The primary "tool" should be a variation in the readiness level of military forces.

I do not think that the present level of Soviet civil defense would be very effective, nor do I think that it is presently affecting the probability of an intense crisis. By the same token, the U.S. could adopt a comparable civil defense program, including comparable preparations for crisis relocation, without noticeably changing the chances of an intense crisis.

I do not agree that the generally successful results of evacuation from natural disasters imply that a nationwide evacuation in preparation for a nuclear disaster would work well. A natural disaster is an island of disaster surrounded by a region of non-disaster, whereas a nuclear disaster would be far more widespread. Social scientists argue this issue both ways. One has to emphasize the great uncertainties.

If crisis relocation were executed once, and then the crisis were resolved and the people returned home, whether relocation could be performed again would depend on how it had gone the first time. If it went well the first time, it might be easier the second time; but if it had not, then it would be harder the second time.

The Soviet CD program is roughly an order of magnitude greater than the U.S. program. Nevertheless, the U.S. retaliatory threat is still highly credible. There is no evidence that the Soviets can successfully execute nationwide crisis relocation. The Soviets cannot get people to move as efficiently as the U.S. can. The Soviets have been considerably less successful than has the U.S. in effective management of tasks involving many people (e.g., quality control, mass production, etc.). "Microdiscipline," i.e., discipline on a local scale, is poorer there than here. Across the board, the Soviets cannot do things as well as we can, except when they give them the

highest priority, which they have not done with civil defense. Demographically the Soviet Union is, if anything, more vulnerable than the U.S. There is no lessening of industrial vulnerability as a result of decisions on siting or design of industry. Of course, the most important aspect of Soviet civil defense is the extent to which the Soviet leaders believe that they can rely on it to save a large fraction of the Soviet people in a nuclear exchange. I am quite sure that the Soviet leaders could not have such confidence in the present Soviet CD program.

In my article, "The Mutual-Hostage Relationship Between America and Russia" (Foreign Affairs, October 1973, pp. 109-118), I took the point of view, not that the mutual-hostage relationship is desirable, but that it is a fact of life which we must deal with. The present Soviet CD program and any foreseeable U.S. CD program will not eliminate the mutual-hostage relationship, because (1) great uncertainties prevail regarding CD, (2) even with good CD, many millions would be killed in a nuclear exchange, (3) even if CD programs became very extensive, a nuclear attack could still easily destroy most of either nation's above-ground buildings, facilities, and cities. If there could be a really effective "defense stability," based on a reliable active-passive strategic defense, with mutual limits on strategic offensive forces, that would be better than the present "offense stability" based on the mutual-hostage relationship. However, I believe that strategic defense can not work well enough technically for it to be the basis of stability; thus we are back to the mutual-hostage relationship.

I think that the U.S. CD program should be more than "window-dressing." I would agree that if U.S. CD were improved, we should emphasize the dual nature of CD for protecting against natural disasters as well as possible nuclear war.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Richard Pipes
Department of History
Harvard University
Cambridge, MA 02138
Date of Interview: February 17, 1978

If the U.S.S.R. begins evacuation, the first U.S. step should be to determine the meaning and extent of the Soviet evacuation. The U.S. should, at the same time, convey to the Soviets the gravity with which it views the Soviet action. We should alert our strategic forces for a possible launch-on-warning, as well as alert our civil defense authorities. If the Soviets pursue their evacuation, we should begin our own crisis relocation immediately.

In the absence of Soviet evacuation, we should begin crisis relocation if there is unmistakable evidence that Soviet nuclear forces are going to a high state of readiness which might presage a preemptive strike on the United States. It might be desirable for the U.S. to take partial crisis relocation measures, such as evacuating the population from areas near military installations (i.e., Soviet counterforce targets). The Soviet response, of course, depends upon the total crisis environment, and it should be assumed that the U.S. and Soviet leaders are in contact with each other. A U.S. evacuation should not, in and of itself, precipitate a Soviet attack, since a Soviet first-strike would be primarily counterforce and would not be intended to kill people, per se.

If both sides relocated, on the whole I think that this would likely help stabilize the crisis, since the U.S. evacuation would deprive the U.S.S.R. of its 3rd-strike advantage. The chance of U.S. retaliation, given a Soviet

first-strike, would increase; thus the chance of Soviet first-strike would decrease.

I am not a believer in crisis management as a psychological instrument. Crisis relocation can be a crisis management device, but only as a by-product of an earnest program which is directed at saving people's lives.

If the United States had a good crisis relocation plan, the Soviets might consider this in their equation and be deterred from precipitating a crisis. But, I repeat, it must be a serious and credible program. A "make-believe" civil defense for public relations purposes would be totally useless. If the U.S. does not take its own program seriously, the Soviets certainly will not!

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

The Honorable Steuart L. Pittman
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D.C. 20036
Date of Interview: March 3, 1978

Assuming an intense crisis in which the U.S.S.R. began relocating its population, I can conceive both of circumstances under which we should evacuate our people and of circumstances under which we should not. Much would depend on whether we viewed their evacuation as aggressive or defensive. If we thought their motive was aggressive (e.g., preparing or bluffing a first strike), we would probably respond with our own evacuation. The Soviets would probably expect this responsive evacuation and it would not necessarily be provocative. However, if we perceived their purposes as primarily defensive, a responsive evacuation by us could seem aggressive to them, and risk unwanted escalation of the crisis. In either event, our plans must include the possibility of no counter-evacuation by us. If we decided not to respond with an evacuation, we must have a credible capability to survive a Soviet strategic attack as a badly crippled nation, but still a recoverable society. Thus we need a civil defense program which includes, as an option, in-place protection, i.e., shelter for the great majority of the population against fallout and fringe blast and heat.

There are also circumstances under which I would expect that it might be useful and responsible for the U.S. to use crisis-relocation in the

absence of Soviet relocation. Assume that the Soviet Union decides to risk aggressive military action in Europe or some area vital to the U.S. The U.S. would need a flexible spectrum of possible crisis moves, in order to enhance the chances of restraining the aggression and stabilizing the crisis. Unilateral U.S. relocation may be viewed as a type of mobilization--an extreme type. It would deliver a powerful signal to the Soviets, particularly if associated with other moves hopefully checking the escalative crisis and causing them to stop their aggression. It could be one of the most effective of the available crisis options. The Soviets would have to assume that the U.S. viewed the situation extremely seriously and would not so disturb their people in our kind of society for bluffing purposes.

The spectrum of U.S. crisis-relocation options should include more than one option. Crisis relocation planning should include an option to evacuate only those areas at risk from a counterforce attack (both blast and fallout). The President might want to create the impression that the U.S. was prepared to sustain a counterforce attack rather than back down in the crisis, independent of his estimate of the probability that a counterforce attack would actually occur.

In this connection, it is interesting that President Kennedy personally raised the civil defense question during the Cuba crisis. He was considering conventional military action against Cuba to knock out the missile sites. I understand he was the only one of the "Committee" to raise the issue of civil defense, which tells us something. He asked whether it would be practical to evacuate Miami and other coastal cities in Florida to meet the possibility of a conventional weapons Cuban response. I was called into the marathon crisis meeting and had to tell him that it would not be practical; we did not have any significant evacuation plans and had painfully redirected local civil defense away from such plans of the '50s towards in-place community fallout shelter. Furthermore, I said that such a move would trigger widespread, spontaneous evacuation throughout the rest of the nation. I said that any evacuation would have to extend at least to those people in all areas of concentrated population within range of the

IRBMs in Cuba in view of the President's televised threat to treat any attack from Cuba as an attack from the Soviets. We would do better to accelerate nationwide shelter preparations. The President dropped the idea, but shortly after the crisis was over, his personal concern over his limited civil defense options led him to sign a memorandum directing a significant speedup in U.S. civil defense preparations.

My experience in the Cuba crisis persuades me that in an intense crisis environment, U.S. leaders cannot be expected to play the rational game of counting the costs in potential damage and would indeed raise the risks of nuclear war in hopes of guiding the crisis to a favorable outcome. This means provocative evacuation could be used by the U.S., if available.

In a crisis, if both sides relocated, the probability of escalation to a strategic nuclear exchange might be reduced. All segments of the populations of both nations would be undergoing a frightening experience. Pressures on the leaders of both sides might surface from many quarters to avoid strategic war by settling the crisis. I assume the "Hot Line" would be available. I believe that mutual relocation might well raise the chance of successful negotiation and resolution of the crisis. More generally, the probability of a decision to initiate strategic nuclear war might be lessened by multiple escalating steps involving public participation or awareness.

It is conceivable that the life-saving motive and the crisis-management motive of crisis relocation could tend to conflict with each other. A President might feel that strategic nuclear war was likely and feel a moral obligation to protect the American people, while simultaneously believing that ordering relocation would increase that likelihood. If there were an in-place shelter system, he would probably avoid relocating.

For the U.S.S.R. and not the U.S. to have a crisis relocation capability is destabilizing, to use the jargon. The Soviets might be willing to take the "long view" and risk World War II-level losses and a 10-year recovery, as a price for resolving favorably a vital conflict with the U.S. If, however, both sides had a crisis relocation capability, the U.S. would

appear to be less likely to back down and war, if it came, would be less decisive. The chances would be less that the Soviets would make such a drastic decision in a crisis if it, the Kremlin, believed that the President had some confidence in a U.S. relocation capability and was prepared to use it in the right circumstances, e.g., a Soviet city evacuation.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. George Rathjens
Massachusetts Institute of Technology
Cambridge, MA 02139
Date of Interview: 23 June 1978

I do not think that evacuation of cities would work well in the U.S. or the U.S.S.R. However, it might work fairly well in a country like Sweden, where plans are extensive, the cities are smaller and transportation capabilities, both public and private, are particularly good.

I question whether the U.S. could successfully recover from a large-scale nuclear attack, whether or not the attack had been preceded by some form of U.S. evacuation.

I think that the probability of a full Soviet evacuation in a crisis is vanishingly small. The scenario is so unlikely that I do not think it very useful to speculate on whether the U.S. should respond with its own evacuation. However, I cannot imagine a general U.S. evacuation in response to a Soviet evacuation (or in response to anything else).

It would be infeasible to use evacuation as a crisis-management "tool," at least in the United States, and unwise to attempt it in either country.

If a crisis somehow ever did become so intense that both sides attempted to evacuate their people, I would imagine that the chance of escalation to strategic war would depend on the central events of the crisis, and that there would not be a strong causal relationship between the evacuation and the chance of strategic war. Discussion of this brings to mind the 1914 mobilization and the difficulty of turning back from war, once

mobilization was well underway. However, it does not seem to me that that experience is very pertinent to the question of impact of evacuation on the likelihood of nuclear war.

U.S. evacuation preparations which do not involve participation by the general population (i.e., relocation of a few key people which, I believe, might be effected) would not significantly affect the probability or outcome of an intense crisis.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

The Honorable Donald Rumsfeld
President
G. D. Searle and Company
P.O. Box 1045
Skokie, IL 60076
Date of Interview: April 18, 1978

In an intense crisis, decision-makers must carefully consider the range of options available, and execute those actions which, in their estimation, have the greatest likelihood of bringing the crisis to an acceptable conclusion. Crisis relocation could be a valuable option.

The absence of a measurable U.S. crisis relocation capability could provide options and alternatives to the U.S.S.R. which could increase the likelihood that they would initiate a crisis in the given situation. However, the existence of such a U.S. capability could, in a given situation, reduce the probability that the U.S.S.R. would initiate a crisis.

If the U.S.S.R. began relocation, it is likely that it would be useful to be able to order a U.S. relocation in response, although one would have to posit a detailed scenario before being definite about this. If the U.S. did respond this way, the Soviets would not likely be surprised. Of course, this assumes a good U.S. relocation plan and, as a result of a declatory policy, an awareness of such a U.S. plan by the U.S.S.R. In the absence of such a plan, the U.S. probably should not try to relocate.

The relocation option, if available, would likely be considered by decision-makers in crises during which the U.S.S.R. has not begun to relocate. Circumstances might occur which would make it advisable for

the U.S. to execute the relocation option. Such a decision would require an estimate of whether such action would be stabilizing or destabilizing under the specific circumstances. It is difficult to discuss Soviet responses in such general terms, except to say that their response would be drawn from their range of options.

If U.S. crisis relocation were ordered, it should be done primarily for prudential reasons, with "crisis-management" reasons secondary. The President should order crisis relocation only if he estimates the risk of war to be high; he should not use it under other circumstances as a "tool" for crisis management.

Assume that crisis relocation were ordered and executed, and then the crisis were resolved and people returned home. Whether relocation remained as a viable option for future crises would depend on how well it had gone the first time. If the people sensed that it had been planned, explained, and executed well, then it probably could be done again. If the evacuation had not gone well, even though the crisis resolution was successful, then it would be difficult to execute the evacuation a second time.

Given the present trend toward greater Soviet military strength relative to that of the U.S., and given the asymmetry, in the Soviet's favor, of numbers of people on each side who would be expected to survive a large-scale nuclear attack, the U.S. would benefit from having a solid crisis relocation plan as an option.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

The Honorable Helmut Sonnenfeldt
School of Advanced International
Studies

Johns Hopkins University
1740 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Date of Interview: 9 March 1978

I do not believe that the existence of a U.S. crisis relocation plan (CRP) itself would intensify the crisis. A great deal would depend, of course, on whether the Soviets perceived the plan to be effective and executable, as well as on the total crisis environment. A U.S. President would only be emboldened marginally by the existence of a CRP. He and his Soviet counterpart would be concerned primarily with getting out of the crisis successfully (from each side's perspective) while at the same time avoiding strategic war.

If the U.S.S.R. began to relocate its population, the U.S. should not react immediately with its own relocation. We would have to look at a variety of factors--the total crisis picture. The U.S.S.R. might have relocated purely as a defensive measure, because they feared an American attack. We might respond first by putting our armed forces on higher alert. The Soviets would want a favorable crisis outcome, not general war, and leaving our population in the cities might in itself conceivably deter them from attacking.

I would probably not recommend a U.S. crisis relocation in the absence of Soviet relocation under foreseeable circumstances, but, again, a final decision would have to depend upon the total situation.

My primary concern with regard to crisis relocation is not over its impact upon crisis stability or escalation as such; I do not feel that these would be particularly sensitive to relocation. Rather, my concern is over the disruption to U.S. society and possible adverse impact on our Government's decision processes which crisis relocation would cause. Relocation probably could not be sustained for more than a few days if no attack occurs. People might begin to trickle back into the cities; friction would develop between "hosts" and "guests." One point to think about is that if relocation is implemented, the free press as we know it might have to be suspended, and the American people will be operating only on government-provided information.

I doubt that crisis relocation can be an effective crisis-management tool. More generally, it is difficult to isolate one factor and judge its impact on a crisis in which both sides will be trying to avoid general war. If implemented at all, relocation should have the purpose only of saving people.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Edward Teller
Lawrence-Livermore Laboratory
P.O. Box 808
Livermore, CA 94550
Date of Interview: 14 April 1978

Even in an intense crisis, I do not think that it would be feasible for the U.S. to initiate evacuation in the absence of Soviet evacuation or some exceedingly hostile act by the Soviet Union. Our people would not cooperate. On the other hand, if the U.S.S.R. initiated evacuation, it would be necessary for the U.S. to evacuate also. Basically, we should have a good Crisis Relocation Plan but not use it until and unless we see the beginning of Soviet evacuation, or some extremely hostile act by the Soviet Union.

The effectiveness of U.S. evacuation should be analyzed under a variety of conditions. The costs of storing and distributing medicines and food is appreciable. Traffic control should be studied carefully.

If both sides relocated their populations, the crisis would probably go away. Neither side would wish to escalate further, since each would perceive that the other would fight rather than back down. A compromise would most likely be reached.

An evacuation in the U.S.S.R. is obligatory for the general population. However, in this country, we should make it voluntary.

A good Crisis Relocation Plan would not only be important for protecting people if an intense crisis occurred, but a CRP would also decrease the

probability that the crisis could occur in the first place. Specifically, if the Soviets know that we can relocate, the chance that they will do so in a specific situation will be much less than otherwise. If we have a good Crisis Relocation Plan, we will probably never need to use it.

An important question is: can the U.S. execute crisis relocation more than once? If the relocation went very well and Americans generally perceived that an attack had been prevented, our people might adopt a much more positive attitude toward CD and defense in general. On the other hand, if the relocation went badly or was perceived to have been ordered at the wrong time, it might become essentially impossible ever to relocate the American people again.

If the Soviets begin to evacuate, it is crucially important that we be able to detect this quickly. However, it would be far more difficult to do this if the Soviets simultaneously destroyed our National Technical Means of intelligence. We should be highly concerned about this possibility. If such an action were ever to occur, the U.S. should consider that a state of war exists between the U.S. and the aggressor.

As I have been emphasizing for years, the U.S. should release the data that is received from the National Technical Means, and make it all available to the press and the public. In this way, the American people would come to understand the importance of these intelligence-gathering means, and would be properly enraged if these means were deliberately attacked. At present, our people do not understand the importance of these means; if they were attacked, the people might not give the President enough support to counter the aggressor properly. Another advantage of releasing the data is that the public would understand much better the large extent of Soviet preparations for defense, including civil defense.

Yet another advantage is that, if in a crisis the President decided to order relocation, he could candidly discuss the evidence of Soviet action (e.g., evacuation) which prompted his decision. The people would already be familiar with the nature, importance, and reliability of the intelligence-gathering means. The President's credibility would be maintained, and as a result the likelihood of a successful relocation would be greatly enhanced.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Thomas W. Wolfe
The RAND Corporation
2100 M Street, N.W.
Washington, D.C. 20037
Date of Interview: February 21, 1978

In the event of a Soviet evacuation, there are initial steps which the U.S. could take, such as recourse to diplomatic channels, informing the U.S. public of the situation, and preparing for a U.S. evacuation (which also serves to signal the Soviet leaders). The U.S. should determine the purpose of the Soviet behavior, e.g., (1) to put political pressure on the U.S., (2) to prepare in case the U.S. attacks, (3) to prepare for a first-strike against the U.S. In the last case, the Soviets might preempt sooner than planned if the U.S. evacuates, although one could argue just as convincingly that the Soviets might be deterred from attacking, since the U.S. evacuation would deny them of some of the benefits of attacking.* Although historical precedent points to the Soviets' being cautious in crisis situations, an important factor is their perception of the relative Soviet-U.S. correlation of forces. The changes which they believe have occurred in the past several years with regard to this correlation could make them more willing to take risks in a crisis. I think that desired U.S. actions and likely Soviet responses would be greatly scenario-dependent, and it is therefore difficult to predict them without a precise scenario context.

* It is assumed that, among other things, the Soviets would target population.

The U.S. would be expected to take a conservative stand in the absence of a Soviet evacuation, and, therefore, if the U.S. were to evacuate prior to a Soviet evacuation, the message would be received in the Kremlin very loud and clear. If the Soviets were in a relatively favorable position with regard to the correlation of forces, the U.S. evacuation might precipitate a Soviet preemptive attack; if the correlation were unfavorable to the U.S.S.R., the crisis might stabilize. A U.S. evacuation might be perceived in the U.S.S.R. as the precursor to a U.S. preemptive strike upon the U.S.S.R. While the U.S. does not have a preemptive doctrine today, these questions refer to the mid-1980s; if we were to adopt such a doctrine, any action which gave the Soviets warning would not make good sense.

Crisis relocation should be primarily a means for saving people; its use as a signal or as a crisis-management "tool" should be incidental. In any case, crisis relocation should be one of the options available to the U.S.

If both sides were to evacuate, the probability of strategic war could become higher, since a positive military decision could be made by either party without the fear of destroying its own population. On the other hand, evacuation on both sides could give the respective leaderships additional "breathing space" and possibly avert a war.

In all, I think that the U.S. should have a good Crisis Relocation Plan, so that we could better control crisis situations.

INTERVIEW SUMMARY

The Potential Effect of Crisis Relocation on Crisis Stability

Dr. Oran R. Young
Department of Government & Politics
University of Maryland
College Park, MD 20742
Date of Interview: February 28, 1978

In the event of an intense crisis in which the Soviets had begun to relocate, I would recommend that the U.S. relocate its population only as a final recourse. I cannot imagine a situation in which a U.S. first use of crisis relocation would be advantageous.

Crises are interaction processes. They have a momentum of their own; there is a force-of-events phenomenon that occurs. The evolution of a crisis should not be seen as a consequence of deliberate, self-conscious, well-defined decisions, but as a development that occurs in an action-reaction process, pushed forward by the momentum of the situation. In crises, decisionmakers usually find themselves in situations which they have not deliberately intended to create. Given this conceptualization of crisis, the presence or absence of a crisis relocation plan would not be a critical influence on this sort of process.

With respect to the decision of whether to crisis relocate or not, an important contextual factor is the probability of war escalating into a homeland-to-homeland war rather than the probability of war per se. The probability of war escalating into a homeland-to-homeland war is a function of two factors: (1) the force-of-events phenomenon, and (2) conventions of crisis (e.g., conventional/tactical nuclear war, peripheral/homeland war, etc.). If the probability of war extending to the homelands is low, one

would have little incentive to relocate for defensive reasons. Furthermore, one should be concerned about the extent to which crisis relocation would signal a belief that the next threshold (i.e., convention of crisis) is about to be breached. That is, crisis relocation may signal to the other side that you expect the conflict to escalate.

The extent to which one side (or even both sides) perceives that the other side is preparing to breach the next threshold may lead to a self-fulfilling prophecy. Hence, I would be very reluctant to recommend crisis relocation under these circumstances.

If the probability of war extending to the homelands was high and the observed threshold was about to be breached in any case, I would recommend crisis relocation. In this case, it would be time to worry less about conventions of crisis and keeping thresholds intact, and more about saving as many people as we think we can.

The situation in which both sides have crisis relocated would be a volatile and unstable situation. Important to the outcome of the situation would be the extent to which both sides could maintain their evacuated posture. Thus, a situation in which both sides lay eyeing each other over the brink in their war-ready posture, each knowing that the other couldn't hold onto that position indefinitely, would seem to me a very volatile and unstable situation.

As for its potential as a "tool" of crisis management, it is no doubt possible to imagine a set of circumstances in which crisis relocation could be used as such a tool. However, the thrust of my argument is that it is a particularly tricky and dangerous sort of tool, and one that should be used, if at all, with extreme caution and care. It tends to undermine, or symbolize an erosion of, conventions of crisis, and it adds to the volatility of a situation, in that you introduce a powerful pressure to do things-- a pressure of the sort that contributes to a heightening of the force-of-events phenomenon.

DISTRIBUTION LIST

	<u>No. of Copies</u>
Defense Civil Preparedness Agency Research Washington, D.C. 20301 Attn: Administrative Officer	30
Assistant Secretary of the Army (R&D) Washington, D.C. 20301 Attn: Assistant for Research	1
Chief of Naval Research Washington, D.C. 20360	1
Commander, Naval Supply Systems Command (0421G) Department of the Navy Washington, D.C. 20376	1
Commander Naval Facilities Engineering Command Research and Development (Code 0322C) Department of the Navy Washington, D.C. 20390	1
Defense Documentation Center Cameron Station Alexandria, VA 22314	12
Civil Defense Research Project Oak Ridge National Laboratory Post Office Box X Oak Ridge, TN 37830 Attn: Librarian	1
Chief, Command and Control Technical Center (Code B210) The Pentagon Washington, D.C. 20310	1

National Academy of Sciences National Research Council 2101 Constitution Avenue Washington, D.C. 20418 Attn: Research Council Committee on Fire Research	1
The Dikewood Corporation 1009 Bradbury Drive, S.E. University Research Park Albuquerque, NM 87106	1
URS Research Company 155 Bovet Road San Mateo, CA 94402	1
Dr. Benson D. Adams OSD(AE) Room 3C128, The Pentagon Washington, D.C. 20301	1
Ms. Janet Andres SRI International 1611 North Kent Street Arlington, VA 22209	1
LTC Peter R. Bankson OSD/NA Room 3A930, The Pentagon Washington, D.C. 20301	1
Mr. Harold Bergan Division of Emergency Government Room 99A, 4802 Sheboygan Avenue Madison, WI 53702	1
Dr. John Billheimer Systan, Inc. 343 Second Street Post Office Box U Los Altos, CA 94022	1
Mr. John A. Blaylock OUSDR&E Room 3C125, The Pentagon Washington, D.C. 20301	1

Dr. Elrey B. Block
Science Applications, Inc.
2109 West Clention Avenue, Suite 800
Huntsville, AL 35805

1

Dr. Joe Bohlen
217 East Hall
Iowa State University
Ames, IA 50010

1

Dr. Donald G. Brennan
Hudson Institute
Quaker Ridge Road
Croton-on-Hudson, NY 10520

1

Dr. Bernard Brodie
University of California at
Los Angeles
Los Angeles, CA 90032

1

Dr. William Brown
Hudson Institute
Quaker Ridge Road
Croton-on-Hudson, NY 10520

1

Dr. James Brownell
Kappa Systems, Inc.
1501 Wilson Boulevard
Arlington, VA 22209

1

Mr. Edmund D. Brunner, Jr.
The RAND Corporation
1700 Main Street
Santa Monica, CA 90405

1

Dr. William W. Chenault
Human Sciences Research, Inc.
7710 Old Springhouse Road
McLean, VA 22101

1

Dr. Conrad V. Chester
Oak Ridge National Laboratory
Building 4500-S, Room S-240
Post Office Box E
Oak Ridge, TN 37830

1

Dr. John R. Christiansen
Department of Sociology
183 Faculty Office Building
Brigham Young University
Provo, UT 84601

1

Mr. Daniel Costello Office of Management and Budget Room 10002 New Executive Office Building Washington, D.C. 20503	1
LTC A. F. Czajkowski General Research Corporation 7655 Old Springhouse Road McLean, VA 22102	1
Mr. Peter K. Dai, R1/2170 TRW Defense & Space Systems Group One Space Park Redondo Beach, CA 90278	1
Dr. Lynn Davis OSD/ISA Room 4E820, The Pentagon Washington, D.C. 20301	1
Dr. Paul K. Davis OASD (PA&E) Room 2E279, The Pentagon Washington, D.C. 20301	1
Dr. Michael Deane Center for Advanced International Studies University of Miami Coral Gables, FL 33124	1
Dr. Ira Deutsch Institute for Defense Analysis 400 Army-Navy Drive Arlington, VA 22202	1
Dr. Sidney D. Drell Stanford Linear Accelerator Center Post Office Box 4349 Stanford, CA 94305	1
Dr. Lewis A. Dunn Hudson Institute Quaker Ridge Road Croton-on-Hudson, NY 10520	1
Mr. Thomas P. Dunne Federal Disaster Assistance Administration Room B-133, Department of HUD 451 7th Street, S.W. Washington, D.C. 20410	1

Dr. Eugene Durbin Interactive Systems Corporation 1526 Cloverfield Boulevard Santa Monica, CA 90404	1
Dr. Russell Dynes American Sociological Association 1722 N Street, N.W. Washington, D.C. 20036	1
Dr. John A. Eisele OASD (PA&E) Room 2E286, The Pentagon Washington, D.C. 20301	1
Dr. John Eley Federal Preparedness Agency EGC Room 4229 18th and F Streets, N.W. Washington, D.C. 20405	1
Dr. Fritz Ermarth The RAND Corporation 1700 Main Street Santa Monica, CA 90405	1
Mr. John Fielding Delta Research Corporation 1401 Wilson Boulevard, Suite 600 Arlington, VA 22209	1
Mr. Gordon Frew DoD SALT Task Force Room 5A662, The Pentagon Washington, D.C. 20301	1
Dr. Robert Galiano Decision Science and Analysis 1500 Wilson Boulevard Suite 800 Arlington, VA 22209	1
Mr. Hubert A. Gallagher The Council of State Governments 1150 17th Street, N.W., Suite 305 Washington, D.C. 20418	1

Dr. Richard Garwin IBM Fellow Post Office Box 218 Yorktown Heights, NY 10598	1
LTGEN Andrew J. Goodpaster Superintendent United States Military Academy West Point, NY 10996	1
Mrs. Maria Gore Central Intelligence Agency Washington, D.C. 20505	1
Dr. Leon Goure Advanced International Studies, Inc. 4330 East-West Highway Bethesda, MD 20014	1
Dr. Colin S. Gray Hudson Institute, Inc. Quaker Ridge Road Croton-on-Hudson, NY 10520	1
CAPT Robert H. Grose, USN Department of State 2201 C Street, N.W. Washington, D.C. 20520	1
Dr. Carsten M. Haaland Oak Ridge National Laboratory Post Office Box X Oak Ridge, TN 37830	1
Dr. Peter H. Haas Defense Nuclear Agency Washington, D.C. 20305	1
MAJ John Hampton Central Intelligence Agency OSR/SE/F, Room 2G22 Washington, D.C. 20505	1
Dr. Mose Harvey Advanced International Studies, Inc. 4330 East-West Highway Bethesda, MD 20014	1

Mr. Clark Henderson 1
Stanford Research Institute
Menlo Park, CA 94025

Mr. Frank Hoerber 1
Consultant
5151 Williamsburg Boulevard
Arlington, VA 22207

Mr. Robert W. Hubenette 1
Center for Planning & Research, Inc.
750 Welch Road
Palo Alto, CA 94304

Dr. Don Johnston 1
Research Triangle Institute
Post Office Box 12194
Research Triangle Park, NC 27709

Mr. T. K. Jones 1
Boeing Aerospace Corporation
Post Office Box 3999
Seattle, WA 98124

Mr. Herman Kahn 1
Director, Hudson Institute
Quaker Ridge Road
Croton-on-Hudson, NY 15020

Dr. F. X. Kane 1
Defense and Space Systems Group
TRW, Inc.
One Space Park
Redondo Beach, CA 90278

Mr. Cresson H. Kearny 1
Oak Ridge National Laboratory
Post Office Box 195
Oak Ridge, TN 37830

Mr. Mike Kevaney 1
System Development Corporation
5827 Columbia Pike
Falls Church, VA 22041

The Honorable Henry A. Kissinger 1
Suite 520
1800 K Street, N.W.
Washington, D.C. 20006

Dr. George B. Kistiakowsky Department of Chemistry Harvard University Cambridge, MA 02138	1
Dr. Gerald Klonglan Department of Sociology and Anthropology Iowa State University Ames, IA 50010	1
Ambassador Foy Kohler Center for Advanced International Studies University of Miami Coral Gables, FL 33124	1
Mr. Eugene Kopf Defense Advanced Research Projects Agency 1400 Wilson Boulevard Arlington, VA 22209	1
LTC Ronald L. Kronz Joint Chiefs of Staff (SAGA) Room 1D942, The Pentagon Washington, D.C. 20301	1
Mr. Dalimil Kybal Federal Preparedness Agency 18th and F Streets, N.W. Washington, D.C. 20405	1
Mr. Vernard Lanphier Office of Strategic Research Central Intelligence Agency Washington, D.C. 20502	1
Mr. Richard Laurino Center for Planning & Research, Inc. 750 Welch Road Palo Alto, CA 94304	1
COL David A. Lerps Joint Chiefs of Staff Room 1E965, The Pentagon Washington, D.C. 20301	1
Dr. Alfred Lieberman Arms Control and Disarmament Agency Department of State Building Washington, D.C. 20451	1

Mr. Wayne Lumsden C3/12, CCTC/DCA Room BE685, The Pentagon Washington, D.C. 20301	1
Mr. Bruce W. MacDonald Department of State 2201 C Street, N.W. Washington, D.C. 20520	1
Dr. Charles Burton Marshall 1500 Wilson Boulevard Arlington, VA 22209	1
Dr. Donald Marshall Consultant c/o OSD OATSD (AE) Room 3D1065, The Pentagon Washington, D.C. 20301	1
Mr. Ralph Mason C3/12, CCTC/DCA Room BE685, The Pentagon Washington, D.C. 20301	1
Dr. Roger Molander National Security Council Room 476, Old Executive Office Building Washington, D.C. 20506	1
LTC Michael Murray AFIS/INC, Building 520 Bolling Air Force Base Washington, D.C. 20332	1
Mr. Gordon Negus Defense Intelligence Agency Department of Defense Washington, D.C. 20301	1
Dr. Jiri Nehnevajsa University Center for Urban Research 249 North Craig Street Pittsburgh, PA 15060	1
The Honorable Paul H. Nitze 1500 Wilson Boulevard Arlington, VA 22209	1

Dr. Peter J. Nordlie
Human Sciences Research, Inc.
7710 Old Springhouse Road
McLean, VA 22101

1

COL William E. Odum
National Security Council
West Wing, White House
Washington, D.C. 20500

1

Dr. Wolfgang Panofsky
Stanford Linear Accelerator Center
Post Office Box 4349
Stanford, CA 94305

1

Dr. Richard Pipes
Department of History
Harvard University
Cambridge, MA 02138

1

The Honorable Steuart L. Pittman
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D.C. 20036

1

Dr. E. L. Quantarelli
Ohio State University
Disaster Research Center
127-129 West 10th Avenue
Columbus, OH 43201

1

Dr. George Rathjens
Massachusetts Institute of Technology
Cambridge, MA 02139

1

Mr. Ren F. Read
225 Mohawk Drive
Boulder, CO 80303

1

Mr. Joel Resnick
Intelligence Community Staff
C-PAD Division
BW-09, Community HQ Building
Washington, VA 20505

1

Dr. Morris Rothenberg
Advanced International Studies, Inc.
4330 East-West Highway
Bethesda, MD 20014

1

The Honorable Donald Rumsfeld 1
President
G. D. Searle and Company
Post Office Box 1045
Skokie, IL 60076

RADM Joseph Russel, USN (Ret.) 1
Boeing Aerospace Corporation
Post Office Box 3999
Seattle, WA 98124

Mr. Harvey G. Ryland 1
Mission Research Corporation
Post Office Box 719
Santa Barbara, CA 93102

Dr. Leo A. Schmidt 1
Institute for Defense Analysis
400 Army-Navy Drive
Arlington, VA 22202

Dr. Leon Sloss 1
Director, Nuclear Targeting
OASD/ISA
Room 3D777, The Pentagon
Washington, D.C. 20301

The Honorable Helmut Sonnenfeldt 1
School of Advanced International Studies
Johns Hopkins University
1740 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Dr. Louis V. Spencer 1
Radiation Theory Section
National Bureau of Standards
Room C-313, Building 246
Washington, D.C. 20235

Mr. Tony Stigliano 1
Far West Laboratory
1855 Fulsom Street
San Francisco, CA 94103

Mr. Walmer Strobe 1
3410 Mansfield Road
Falls Church, VA 22041

Mr. John F. Sullivan Former Regional Director, OEP Region 1 61 Glezen Lane Wayland, MA 01778	1
Dr. Dirk Swain Central Intelligence Agency Washington, D.C. 20505	1
Dr. Edward Teller Lawrence-Livermore Laboratory Post Office Box 808 Livermore, CA 94550	1
Mr. Carlton Thorne Arms Control and Disarmament Agency Department of State Building Washington, D.C. 20451	1
Mr. Robert Volland Office of Management and Budget Room 3203, New Executive Office Building 17th and Pennsylvania Avenue, N.W. Washington, D.C. 20503	1
Dr. James P. Wade, Jr. Assistant for Analysis OUSDRE Room 3C125, The Pentagon Washington, D.C. 20301	1
LTC Sam Westbrook National Security Council Old Executive Office Building Washington, D.C. 20506	1
Dr. Eugene Wigner 8 Ober Road Princeton University Princeton, NJ 08540	1
Professor Albert Wohlstetter 2805 Woodstock Road Los Angeles, CA 20046	1
Dr. Thomas W. Wolfe The RAND Corporation 2100 M Street, N.W. Washington, D.C. 20037	1

Mr. Edward York
Boeing Aerospace Corporation
Post Office Box 3999
Seattle, WA 98124

1

Dr. Oran R. Young
Department of Government & Politics
University of Maryland
College Park, MD 20742

1

CAPT John Zawila
Defense Nuclear Agency
Washington, D.C. 20305

1

System Planning Corporation
1500 Wilson Boulevard
Arlington, VA 22209

9

Attn: Ms. D. Altman
Mr. J. Ballantine
Dr. T. Battle
Mr. D. Goure
Ms. A. Hoeber
Dr. M. Miller
Mr. J. Ranney
Mr. R. Soll

The Potential Effect of Crisis Relocation on Crisis Stability, by Roger J. Sullivan, Jeffrey M. Ranney and Richard S. Soil. (SPC Report 361), UNCLASSIFIED, System Planning Corporation, Arlington, Virginia, 22209, September 1978, 179 pages, (Contract DCPA01-77-C-0237, Work Unit 4222D).

Abstract

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 authorities on crisis management and civil defense. Also, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis.

The Potential Effect of Crisis Relocation on Crisis Stability, by Roger J. Sullivan, Jeffrey M. Ranney and Richard S. Soil. (SPC Report 361), UNCLASSIFIED, System Planning Corporation, Arlington, Virginia, 22209, September 1978, 179 pages, (Contract DCPA01-77-C-0237, Work Unit 4222D).

Abstract

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 authorities on crisis management and civil defense. Also, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis.

The Potential Effect of Crisis Relocation on Crisis Stability, by Roger J. Sullivan, Jeffrey M. Ranney and Richard S. Soil. (SPC Report 361), UNCLASSIFIED, System Planning Corporation, Arlington, Virginia, 22209, September 1978, 179 pages, (Contract DCPA01-77-C-0237, Work Unit 4222D).

Abstract

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 authorities on crisis management and civil defense. Also, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis.

The Potential Effect of Crisis Relocation on Crisis Stability, by Roger J. Sullivan, Jeffrey M. Ranney and Richard S. Soil. (SPC Report 361), UNCLASSIFIED, System Planning Corporation, Arlington, Virginia, 22209, September 1978, 179 pages, (Contract DCPA01-77-C-0237, Work Unit 4222D).

Abstract

Interviews concerning the potential effect of crisis relocation (or evacuation) on crisis stability were conducted with over 30 authorities on crisis management and civil defense. Also, an examination was performed of the literature relevant to crisis relocation, and on the potential perceptions by the Soviet Union. The report contains a detailed discussion of the issue, based on these sources. Conclusions are drawn regarding the advisability of U.S. relocation in an intense crisis.