19388

JS

[redacted]

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

JCSM-312-67

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Air Operations Against NVN (U)

1. (U) Reference is made to:

a. Your memorandum, dated 20 May 1967, subject as above.

b. JCSM-288-67, dated 20 May 1967.

c. JCSM-286-67, dated 20 May 1967.

2. [redacted] This memorandum provides the views of the Joint Chiefs of Staff on the conduct of the air campaign in North Vietnam (NVN). The alternatives proposed in reference 1a, and the views of the Joint Chiefs of Staff reflected in references 1b and 1c and an additional alternative have been evaluated on the basis of criteria contained in your memorandum. However, in addition to these criteria, other factors have been considered in order to reach a better assessment of the bombing campaign in the North upon the war in the South. The campaign against the North, in addition to reducing the flow of men and materiel to the South, must bring about a deterioration in the enemy's total environment so as to curtail his over-all efforts to support the war. This can be achieved by causing increasing expenditures of time and effort manifested by drains on the enemy's materiel resources, management skills, human energy, and morale. When this curtailment is achieved, the turbulence in the South can be reduced more rapidly by military forces to a level where internal political action can effectively maintain stability. Therefore, in addition to the criteria specified in your memorandum, additional factors considered in the following analysis are the impact of NVN import capability, the diversion of NVN national resources to maintenance of his logistic structure, the contribution toward attainment of over-all US objectives in Southeast Asia, and the impact on the morale of US and Free World fighting forces throughout Southeast Asia.

OATSD(PA)DFOISR 54
TOP SECRET CONTROL
Copy No. 12
Case No. 94-F-0532
T.S. No. 94-75-041
Document No. 12

Declassified by Joint Staff
Date 31 Oct 94
70 FR 4025

Automatically Downgraded at 12 year intervals; not automatically declassified

[redacted]

#671

941103-222

3. (TS) The analysis of the campaign in NVN together with salient facts and estimates applicable to each of the suggested campaign alternatives is contained in the Appendix hereto.

ALTERNATIVE I

4. (TS) Execution of Alternative I would not appreciably reduce the flow of men and materiel into the South below current levels. The reduction in the distances over which the enemy LOCs are exposed to attack decreases the effectiveness of interdiction and attrition of supplies. Granting the enemy relatively free and rapid access to Thanh Hoa would decrease the time, rolling stock requirements, pipeline assets, and man-hours necessary to move supplies to the South and would more than offset the effect achieved by increased US air and naval efforts in the southern packages. In addition, it would release for use in the lower route packages sizable enemy resources currently devoted to LOC support and defense in Route Packages IV, V, and VI. Finally, it would decrease the burden that NVN must bear for support of the war in the South.

5. (TS) Curtailment of air operations in Route Packages IV, V, and VI, except those required to maintain the destruction of important fixed targets or to attack new military activities would initially reduce US losses. During any period of time that his northern LOCs are free from air attack, the enemy could accelerate with greater ease the importation of weapons and munitions. He could also reposition existing weapons from the northern areas and create greater density of air defenses in the NVN Panhandle area. Therefore, withdrawal of air operations from the northern LOCs should reduce aircraft losses but only for a limited time, and, dependent on enemy initiative, could eventually increase them.

6. (TS) Selection of this alternative would not increase the risk of greater military or political pressures from the Soviet Union or Red China. An action of this nature would probably be interpreted as yielding to the pressures of those (including the communists) who oppose US actions against North Vietnam and as a weakening of US resolve. Circumstances suggest that such an action would only serve the communists' interest. The communists would probably claim a victory and might be encouraged to press for greater concessions. As a result, NVN's apparent resolve to continue the war would probably be stiffened.

941103-223

ALTERNATIVE II (PORTS OPEN)

7. (TS) The adoption of Alternative II, without strikes on the ports but with attacks on the major airfields, while continuing to punish Northern NVN to a degree, allows NVN to absorb the damage and accommodate to the attacks. Even if attacks on land LOCs from China were highly successful, existing port capacities are sufficient to absorb necessary tonnage requirements. For an interdiction campaign to be effective, all elements of the import system in NVN must be attacked concurrently and on a sustained basis.

8. (S) This alternative would probably make it more difficult to reverse recent aircraft and crew loss trends. The future effectiveness of the enemy air defense system would be largely enemy controlled in that he could continue to incorporate quantitative and qualitative improvements imported from Russia and China. Under these circumstances, US loss rates could only be controlled at the expense of attack effectiveness.

9. (TS) This alternative does not entail the risk of increased pressure from the Soviet Union and Red China.

ALTERNATIVE II (PORTS CLOSED)

10. (TS) Alternative II (Ports Closed), although authorizing attacks on all LOCs, possesses the disadvantages of not maintaining present levels of damage on enemy installations and industry, or attacking new military targets.

11. (TS) This alternative would make it militarily profitable to mount a sustained attack on the roads and railroads from China, which, combined with attacks on the ports, would result in the enemy being faced with increasing difficulties such as frequent interruptions on his LOCs, use of alternative means of transport, and additional diversion of leadership, management, and labor resources.

12. (TS) Losses of US aircraft, after initial increases due to the increased sorties against the enemy's intensely defended targets, are expected to decline when only sustaining attacks are required and as the enemy air defense system is degraded through impairment of his over-all logistic system.

13. (S) The reaction from communist countries would be stronger than in the case of the other alternatives. The Chinese communists would probably provide increased logistic support, antiaircraft, and engineer units, but avoid any action which they believe would increase the possibility of US military action against China. At some point, the USSR would create an atmosphere of heightened tension with the United States and would take certain actions designed to bolster North Vietnam, such as increased aid and possibly the introduction of new or improved weapons. The Soviets could take other actions designed to serve as a warning to the United States without leading to a serious confrontation. These might include provision of volunteers or crews for defense equipment. They might also suspend current diplomatic negotiations with the United States on certain subjects. However, it is believed that the Soviets are not willing to resort to strong and direct threats of general war as a means to protect North Vietnam. Also, there would be a good chance that at some juncture they would exert strong efforts toward a political solution.

ALTERNATIVE III

14. (S) The Joint Chiefs of Staff have also considered an additional alternative which simultaneously expands the bombing of significant war-supporting fixed targets and the armed reconnaissance operations in Route Packages VIa and VIb by authorizing strikes on all LOCs, excepting only those within an eight NM radius of the center of Hanoi and a 2 NM radius of the center of Haiphong. This program will require continuous strikes against MIG aircraft on all airfields. Further, every effort will continue to be made to deny importations from the sea except that strikes will not be made in the immediate vicinity of the Haiphong commercial wharf (Chamber of Commerce Docks) and mines will not be laid in the deep water approaches to the maritime ports north of 20° N, or in waters contiguous to commercial wharves. Targets whose destruction will have a far-reaching effect on the NVN capability to fight have been identified. Excluding only the wharf area in Haiphong, densely populated areas, and mineable approaches these targets are:

a. Facilities directly associated with LOCs in the vicinity of Haiphong, Hon Gai, and Cam Pha including distribution and transshipment points, warehouse areas, shipyards, and machine shops.

941103-225

b. LOCs and associated facilities including vehicle, locomotive, and railroad car repair shops, railroad classification yards, railroad and highway bridges (including JCS #12, Hanoi Railroad and Highway Bridge over the Red River), and facilities engaged in the fabrication of barges, rolling stock, and repair equipment.

c. Inland waterways. Selective mining will be extended from 20° N to the Chinese communist buffer zone as shallow water mines become available.

d. Electric powerplants as necessary to maintain the desired level of damage.

e. Airfields and key elements of the NVN air defense system including control centers and SAM support facilities.

f. Military complexes including supply depots, barracks, and new military activities.

15. ([redacted] The adoption of this Alternative would improve operations over the current status. While it would fall short of the effectiveness of programs that include attacks upon the ports, the additional operational flexibility and more comprehensive targeting authority favor it over Alternative II (Ports Open). This course of action, with restrike option, would allow a comprehensive and coordinated air campaign. Increased military pressure would be placed on the enemy's internal war-supporting resources and his capability of distributing materiel.

16. ([redacted] Losses of US aircraft under this alternative would be similar to those under Alternative II (Ports Closed).

17. ([redacted] Under Alternative III, military and political pressures from Soviet Russia and Red China would be very similar to those of the present. However, as operations gained in effectiveness, the communists could be expected to increase their aid to North Vietnam and their propaganda against the United States.

941103-226

SUMMARY

18. (S) Alternative I is not a desirable course of action for the following reasons:

a. It will not appreciably reduce the flow of men and materiel to the south.

b. It will permit increased enemy freedom of action in the north and allow him to increase the density of his air defenses in the Panhandle.

c. It will not, in the long term, appreciably reduce US losses and will indicate a weakening of our resolve to the detriment of our goals and achievement of our objectives.

19. (TS) Alternative II (Ports Open) is not desirable for the reasons cited in subparagraphs 18a and 18c, above, and in addition, it will not effectively degrade the enemy's warmaking capability because:

a. It does not provide for attacking all elements of the import system.

b. It eliminates strikes against important fixed targets.

20. (TS) Alternative II (Ports Closed). This alternative will make it militarily profitable to initiate sustained attacks on land LOCs leading from China. It will permit attacks on all modes of enemy transport and will reduce enemy imports, the basic source of NVN's war-supporting materiel. However, it fails to provide for exerting simultaneous military pressures on NVN internal resources through attacks on important fixed targets and new military targets.

21. (S) Alternative III would improve operations over the present program. It would allow a comprehensive and coordinated air campaign. However, it falls short as do the other suggested alternatives of applying sufficient pressure against all elements of the import system and important NVN internal resources.

941103-227

22. (S) The discussion and summarization are supported by an analysis contained in the Appendix hereto. The Joint Chiefs of Staff consider that these programs will be militarily effective in the following order: (1) JCS course of action (references 1b and 1c, above), (2) Alternative II (Ports Closed), (3) Alternative III, (4) the current status, (5) Alternative II (Ports Open), and (6) Alternative I.

CONCLUSION

23. (TS) The Joint Chiefs of Staff have studied the alternatives and have reviewed the air and naval campaign recommended in JCSM-288-67, dated 20 May 1967, and JCSM-286-67, dated 20 May 1967, references 1b and 1c, above, in the light of these alternatives. The analysis provided in the Appendix supports the conclusion that the recommendations submitted to you on 20 May 1967 represent the most effective way to prosecute successfully the air and naval campaign against North Vietnam. Such a campaign would exert appropriate military pressures on North Vietnamese internal resources while substantially reducing the importation of the external resources that support their war effort and could be accomplished at risks and costs no greater than those associated with the most desirable of the suggested alternatives, Alternative II (Ports Closed). Although the Joint Chiefs of Staff recognize and appreciate the necessity for continuing review, they believe that the campaign selected and recommended to you, together with expanded efforts to increase the destruction and enemy consumption of war materiels in South Vietnam, would have a far-reaching detrimental effect on the North Vietnamese capability to support and direct the aggression against South Vietnam.

For the Joint Chiefs of Staff:

Signed EARLE G. W[illegible]
Chairman
Joint Chiefs of Staff

Attachments

941103-22

APPENDIX

1. (U) This Appendix presents an analysis of the campaign in NVN as recommended by the Joint Chiefs of Staff in JCSM-286-67 and JCSM-288-67, the alternatives suggested in a memorandum by the Secretary of Defense, dated 20 May 1967, and an additional alternative.

2. (U) It should be recognized that this problem could be analyzed in several ways. The methodology used in this analysis examines those elements considered salient by the Joint Chiefs of Staff -- costs, benefits, and risks to the United States. The various factors selected to measure these elements were quantified, to the extent possible, and evaluated by use of operational analysis techniques. In quantifying these factors, data base derived information or valid Defense Intelligence Agency estimates were used where available.

3. (S) The factors selected to measure the cost to the United States are aircraft and aircrew attrition. The factors selected to measure the benefit to the United States are degradation of the enemy's ability to continue aggression in terms of manpower, installations, weapons, munitions, and construction materials; and degradation of enemy capability to move men and materiel in terms of LOC capacity, POL stocks, and transport inventory. Factors selected to measure the risk to the United States are those represented in NIEs and an evaluation of the effect on the morale of US fighting men in South Vietnam.

4. (S) The salient elements are addressed using the methodology and data inputs indicated:

GROUP 3
DOWNGRADED AT 12 YEAR INTERVALS
NOT AUTOMATICALLY DECLASSIFIED

941103-229

a. Direct cost to the United States is measured in aircraft and crew attrition. For purposes of this analysis, it is assumed that benefits to the United States are direct costs to the enemy. The methodology employed is to consider the major enemy target systems exposed by each alternative. Cost is then determined by: (1) applying currently authorized sortie numbers and strike/support ratios and munitions; (2) considering sortie distribution and appropriate targets for the alternatives and the campaign recommended by the Joint Chiefs of Staff; and, (3) adapting historical loss rates for aircraft and aircrews modified to indicate the predicted rate of loss for both initial and sustained operations. For this analysis, the initial effects are those that will occur within about 90 days from initiation. The sustained effects are those which could be expected after operations have been conducted over an extended period of time allowing reaction or accommodation to take place.

b. In this analysis, benefits to the United States are measured for each course of action in two separate areas: (1) Degradation of enemy ability to move men and materiel into and within North Vietnam, in terms of interdiction of rails, roads, waterways, air transport, imports, reduction in the inventory of rolling stock, and POL stockpile; (2) Increase the price to NVN for continued support and direction of the aggression in SVN in terms of manpower dislocation, electrical power facilities, reduction of enemy weapons, munitions, and construction equipment and material.

941103-230

c. The degree of risk to the United States is determined relative to that associated with current operations. Therefore, risk is either greater, similar to, or less than that of today, and provides a basis upon which the acceptability of an alternative may be judged. The factors considered relate to the effect upon the Hanoi Government, Red China, Soviet Russia, US Allies, and US fighting forces in South Vietnam. Concerning the Hanoi Government, it is important to determine if US actions are likely to cause the collapse of the government thereby creating an undesirable void or, conversely, are likely to bolster the resolve of that government thereby prolonging the confrontation in South Vietnam. Consideration of possible US actions with reference to Red China and Soviet Russia must include the political and military aspects of risk which could vary from propaganda and military support to the likelihood of headlong confrontation in the case of Red China. In addition, the resolve and morale, and therefore support, of US Allies and the morale of US fighting forces in South Vietnam are matters of importance and concern to the United States and could vary widely in response to US actions.

5. ([redacted]) Methods of Analysis

a. The relative facts involved in the alternatives are extensive in number and most of them are not directly quantifiable. However, a confident analysis of the relative worth of the alternatives is possible through the employment of a systematic method wherein relative numerical values, based on logical judgments, are assigned to the elements under each alternative. This is a

941103-231

fundamental application of the utility theory and the theory of decision making under uncertainty. The values assigned are termed nonparametric statistics.

b. The first step in this analysis involves the establishment of the elements of the decision matrix of relative values (See Annex hereto). The cost, benefit, and risk items described above were selected as the row elements and the initial and sustained effects under each alternative were selected as the column elements.

c. Analysts examined each of the elements of the costs, benefits, and risks under the impact of the five differing courses of action. They made their estimates of the situation in terms of the initial as well as sustained effects.

d. Each of these sets of appraisals was then evaluated in the following manner:

(1) A K-factor was determined from a variable scale 0 to 100 to represent a value judgment of the element in terms of current operations. The lower limit, zero, represents the worst possible status and 100 represents the best status of the element from the point of view of the United States.

(2) Each of the four appraisals was then evaluated to determine the relative value, 0 to 100, applicable under each course of action. The value assigned reflects an improved status if it is greater than the K-factor. In effect, this procedure applies relative weights to each element of the rows of the matrix within the three categories of costs, benefits, and risks.

941103-232

(3) The columns were then summed and averaged by major category. These values represent a systematic development of decision criteria which may be used to compare different alternatives and also may be evaluated in terms of operational experience and judgment in determining military effectiveness.

These weighted-average values represent a systematic development of decision criteria.

6. (U) Conclusion. The courses of action are ranked by their sustained average values in the three major categories as follows:

Costs	Benefits	Risks	Ranking
I and Current Status	JCS	JCS	1
	II (Ports Closed)	II (Ports Closed)	2
JCS and II (Ports Closed)	III	III & Current Status	3
	II (Ports Open)		4
III	Current Status	II (Port Open)	5
II (Ports Open)	I	I	6

941103-273

This means that the execution of either Alternative I or maintaining the Current Status is the most favorable to the United States in terms of costs while the execution of the JCS Recommendation is the most favorable in both the benefits accrued and the risks encountered. The risks under the sustained effect of the JCS Recommendation or Alternative II (Ports Closed) is slightly more favorable than the risk of Alternative II (Ports Open) because of the relative military values assigned to the intelligence appraisal of the combined NVN-Chinese-Russian move toward political solution over the long haul in spite of their initial increased military and political pressures to mobilize world opinion against the United States. In addition, the military evaluation places a high value on the intelligence estimate of the enhanced US posture in the eyes of the South Vietnam Government and our other Asian allies.

c. The long term costs in aircraft and aircrews are slightly less favorable in the JCS Recommendation than in Alternative I and at present (Current Status). On the other hand, the initial risks are slightly less favorable in the JCS Recommendation than in Alternative II (Ports Open) or Alternative III. However, it is advantageous to select the JCS Recommendation on the basis of the sustained effects which give high returns in benefits and produce the most acceptable risks in the long term.

941103-234

[redacted] Favorable + to K

unfavorable neg -

0 - 100

DECISION MATRIX OF RELATIVE VALUES

OF COSTS, BENEFITS, AND RISKS

CATEGORY	CURRENT STATUS	SecDef Memorandum of 20 May 1967						
		ALTERNATIVE I Effect		ALTERNATIVE II Ports Open Effect		ALTERNATIVE II Ports Closed Effect		ALTE E
	K	Initial	Sustained	Initial	Sustained	Initial	Sustained	Initia
1. COSTS								
a. Aircraft Losses	40.0	50.0	30.0	30.0	20.0	15.0	40.0	15.0
b. Aircrew Losses	40.0	60.0	50.0	40.0	20.0	12.0	32.0	12.0
Total	80.0	110.0	80.0	70.0	40.0	27.0	72.0	27.0
Average	40.0	55.0	40.0	35.0	20.0	13.5	36.0	13.5
2. BENEFITS								
a. Degradation of enemy ability to move man and material into and within NVN								
(1) Interdiction of rail LOCs NVN	30.0	40.0	25.0	55.0	40.0	55.0	60.0	55.0
(2) Interdiction of road LOCs	30.0	35.0	35.0	40.0	35.0	40.0	50.0	40.0
(3) Interdiction of Waterways	20.0	20.0	25.0	22.0	25.0	22.0	30.0	35.0
(4) Interdiction of Air Transport	30.0	30.0	30.0	65.0	85.0	65.0	85.0	66.0
(5) Interdiction of Imports	10.0	00.0	00.0	35.0	15.0	40.0	55.0	35.0
(6) Reduction of Inventory of NVN Rail Rolling Stock	20.0	20.0	20.0	30.0	40.0	40.0	40.0	35.0
(7) Inventory of NVN Road Vehicles vs. Rqmts	20.0	20.0	20.0	25.0	25.0	40.0	30.0	30.0
(8) Reduction of POL Stockpile and Movement	25.0	25.0	25.0	30.0	45.0	45.0	80.0	30.0
b. Increased price to NVN for continued support and direction of the aggression in SVN								
(1) Manpower Dislocation	40.0	40.0	25.0	40.0	50.0	60.0	75.0	50.0
(2) Damage to Electrical Power Facilities	86.0	86.0	86.0	65.0	10.0	65.0	35.0	86.0
(3) Reduction of Enemy Weapons	20.0	20.0	20.0	30.0	20.0	30.0	70.0	30.0
(4) Reduction of Enemy Munitions	20.0	25.0	20.0	30.0	35.0	35.0	50.0	32.0
(5) Reduction of Construction Equipment and Materiel	35.0	35.0	25.0	35.0	35.0	40.0	75.0	35.0
(6) Operation of Port Facilities	10.0	10.0	10.0	10.0	10.0	55.0	45.0	25.0
Total	396.0	406.0	366.0	512.0	470.0	632.0	780.0	584.0
Average	28.3	29.0	26.1	36.6	33.6	45.1	55.7	41.
3. RISKS								
a. Threat from China	70.0	70.0	70.0	65.0	65.0	55.0	60.0	60.
b. Threat from Soviets	65.0	55.0	50.0	55.0	50.0	40.0	50.0	50.
c. NVN Resolve	50.0	40.0	40.0	50.0	50.0	40.0	60.0	50.
d. Loss of Allied Support	40.0	35.0	30.0	40.0	40.0	50.0	60.0	45.
e. Morale Loss to US and Free World Forces in SVN	50.0	20.0	30.0	60.0	55.0	70.0	60.0	60.
Total	275.0	220.0	220.0	270.0	260.0	255.0	290.0	265.
Average	55.0	44.0	44.0	54.0	52.0	51.0	58.0	53.

[redacted]

941103-235

ALTERNATIVE I

1. (S) Costs. As a basis for costs, a sortie level of 8000 attack sorties per month throughout NVN has been selected. This figure represents the average strike level of effort flown against NVN during the period 1 April 1966 - 30 April 1967. Combat support and other special sorties have accounted for the remainder of sorties flown during the historical reference period. Forecasting aircraft losses in this analysis is a function of attack sorties and application of cumulative aircraft loss rates. Aircrew losses have been calculated to be 1.25 times aircraft losses, reflecting multi-placed aircraft downed during the reference period. Application of these aircraft and aircrew recovery rates have provided the numerical basis for these cost forecasts. It should be noted that on a month-to-month basis losses fluctuate widely; however, over the sustained period, average losses are expected to be similar to those forecast.

a. Aircraft Losses.

(1) Initially, the combined US attack loss rate in Route Packages I-III should approximate the present of 1.54/1000 sorties. Allowing 10 percent, about 800, of the monthly sorties for restrike of important fixed targets in the upper route packages would place the over-all loss rate at about 2.1/1000 sorties. As the North Vietnamese discern the shift in our strike effort, a countering shift in enemy defenses may be expected. Route Packages I-III currently contain about 20 percent of the enemy AAA-AOB which are concentrated at logistic hubs and LOC choke points. Dependent on the amount and time phasing of the enemy shift of defense posture to the south, the attack loss rate in Route Packages I-III should rise to at least the present over-all NVN attack loss rate of 2.55/1000 sorties and could become as high as 4.62/1000, a factor of three. The shift in enemy defenses from Route Packages IV-VI to Route Packages I-III would be gradual

941103-236

initially but would afford a higher density of AAA than that experienced to date and could possible approximate the average present gun density of Route Packages V and VI.

(2) We should not be mislead by present high and low loss rate regions. Shifting the emphasis of our attacks to lower loss rate areas could be accommodated by the NVN defense system without a reduction in the formidable defenses around the important targets in northern NVN. It is most likely a new loss rate pattern would appear within three to six months.

b. Aircrew Losses. The present overall recovery rate in NVN is about 37 percent and for combined Route Packages I-III is about 52 percent. Under Alternative I, with more sorties flown in a more permissive environment, a combination of the proximity of safe ejection areas and more rapid response possible by rescue forces should initially improve overall NVN recovery rates. However, as operations are sustained beyond the initial period, aircrew loss rates could be expected to rise.

941103-237

2. [redacted] Benefits

a. Ability to Move Men and Materiel.

(1) Rail

With the bombing effort concentrated in Route Packages I, II, and III initial and sustained degradation of the present 900 MT rail throughput capacity can be anticipated in these areas. However, the net loss in the total throughput capacity of all LOCs would be negligible in the longrun. It would last only until the reduction resulting from the loss of the present limited rail capacity is absorbed by other modes of transport.

Cessation of bombing in the north initially will allow unrestricted use of the 5,200 MT capacity of the rail lines from the China border and in the longer run will permit restoration to the uninterdicted capacity of about 7,000 MT for the two rail lines from China. Additionally, it will permit unrestricted use of the 2,500 MT Hanoi-Haiphong line to move imports from the Haiphong area. In effect it will allow a total of 7,700 MT a day rail capacity to serve the Hanoi area from China and Haiphong. About 2,500 MT of this capacity could be used to serve Nam Dinh and 900 MT capacity would extend to Phu Ly.

(2) Highway. The portion of the NVN highway network located within the regions of Route Packages I, II, and III comprises approximately 25 percent of the 8,000 miles of motorable roads in the country. It is expected that concentration on the LOCs in the Panhandle would result in frequent temporary

941103-238

disruption of the motorable highways. However, since the highway net provides a very flexible transportation system which is difficult to interdict for sustained periods, the percentages of total capacity would be reduced up to one-third from the current potential throughput capacity of 2,500 metric tons per day even under a heavy interdiction program.

(3) Waterways. Perennial north-south waterway capacity in Route Packages I, II, and III is about 225 metric tons per day via inland routes and about 450 metric tons per day via coastal routes. East-west waterways range in capacity to 1,800 MTPD. These routes are primarily natural streams; locks and other navigational aids are rare and, for the most part, already inoperative. Adequate manpower is available to clear streams of sunken hulks or other hazards to navigation. The current mining program has proved to be unable to stop small craft activity although the introduction of a different type mine designed for use in shallow water may prove considerably more successful. Barring this latter possibility, attacks on waterways per se would not noticeably affect their capacity in this area.

(4) Air Transport

This alternative would virtually permit an uninterrupted airlift into NVN airfields since MIG air defense operations from these fields would be reduced.

In an airlift into North Vietnam, the Soviet Union could employ both military and civil transports. Aircraft committed could include the CUBs (AN-12) in Military Transport Aviation (VTA) and half of the civil air fleet (Aeroflot). In an all-out effort, assuming VTA furnishes 720 aircraft and Aeroflot 470 aircraft, there would be a total of 1,190 aircraft

941103-239

deployed. Based on aircraft availability, maintenance and use factors, a daily airlift capability, Irkutsk to North Vietnam, would be 297 aircraft that could tranport 27,113 passengers/troops or 2,680 MT of cargo daily.

In an airlift into North Vietnam, the Chinese communists could employ both military (CCAF) and civil transports (CAAF). Because of the proximity of Hanoi to the Chinese border, transport aircraft would be available for more than one sortie each over the short distances from South China airbases to the Hanoi-Haiphong complexes. Even if the major airfields in NVN such as Phuc Yen and Kep could not fully support transport operations because of air defense commitments, the remaining airbases in the complex -- Cat Bi and Kien An in the Haiphong area and Gia Lam and Bac Mi in the Hanoi area - - are considered capable of handling any airlift operation the Chinese could muster. Based on two sorties per day per available aircraft using degradation factors, it is estimated that the following daily sustained rate of supply could be achieved:

254 sorties carrying 865 MT.

For a period of sustained operations exceeding 30 days, the effort would be further reduced as follows:

223 sorties carrying 607 MT.

941103-240

(5) Interdiction of Imports. Initially imports would remain at about the same levels if bombing were largely restricted to the Panhandle. The sustained effect would be to permit additional import requirements to be met as the existing port congestion is reduced and LOCs are improved in the northeastern areas. Most imported commodities are used in the north, and only relatively small quantities of ammunition and weapons are moved on to the south. Although destruction of materials within the NVN Panhandle could be increased by concentration of the interdiction effort, these losses probably would be offset by the increased ease of importation into the country.

(6) Rail Rolling Stock Inventory. Intensification of bombing in Route Packages I, II, and III could result in a further reduction in the number of freight cars and locomotives operating on the rail lines in those areas, which at present is estimated to be less than 20 percent of the total inventory. There are severe restrictions to capacity operations by the lack of rolling stock in these areas. In Route Package VI all major rail operations could continue. This has, in the recent past, required an estimated 70 percent of the inventory of rolling stock and locomotives. This equipment would be free from attack and could operate with impunity.

(7) Vehicle Inventory. At least 25 percent of the cargo vehicle fleet would still be subject to direct attrition through the conduct of bombing and armed reconnaissance within Route Packages I, II, and III.

941103-241

While approximately 2,500 trucks are believed deployed in the Panhandle are at present, an increase in strike effort there may require stationing of more trucks on shorter shuttle routes to maintain adequate forward movement of esential supplies. A sustained high sortie level could force a rise in the number of trucks within the region to as many as 4,000. This would cause a major shift in motor transport utilization in the remainder of the country unless imports of trucks were significantly enlarged to augment the present estimated total inventory of 10,000 trucks of 1 ton cargo capacity or larger. A total of at least 175 trucks per month have been lost by the enemy as a result of strikes within this region. This rate of loss might be increased to about 250 under sustained attack. However, this additional loss could be offset partly by more efficient use of vehicles in uninterdicted areas and by imports of replacement transport.

(8) POL Stockpile and Movement. Concentration of the bombing on the LOCs in the NVN Panhandle can be expected to hinder the flow of POL into and through the area. Initially, some reduction in the flow would probably occur as rerouting is induced, storage and refueling points are realigned, and carrier requirements are adjusted. Modest increased consumption would also occur in this area as the efficiency of motorized transport is reduced and additional carriers are required to circumvent interdicted routes. Reserve levels maintained in the Panhandle are not believed to be extensive and the probable increase in POL losses

941103-242

at dispersed storage installations and enroute along the LOCs in the Panhandle would induce heavier calls on reserves in the area. Although some of these effects can be compensated for by diversions from civilian consumers, increased use of non-motorized transport, and rationing, the storage and distribution of POL in the Panhandle area would require greater effort through increased manpower and vehicular resources as long as this bombing pattern is continued. The restoration of the original storage facilities in the North is considered improbable despite any limitation on bombing as the dispersed system has proven to be an effective, yet considerably less vulnerable, alternative.

b. Ability to continue aggression in SVN.

(1) Manpower

a. About 200,000 full-time and 100,000 part-time workers have been diverted to repair, reconstruction and dispersal programs in NVN; of these, at least 50,000 full-time and 50,000 part-time laborers are believed to be engaged in LOC restoration in the Panhandle area. Concentration of the bombing program in Route Packages I, II, and III with a concomitant increase of up to 30 percent in the strikes in this area, would initially require an additional 15,000 to 25,000 more regular workers plus those needed for logistical support. Quotas for involuntary support to the government, which reportedly have been decreased by as much as 20 to 25 percent to cope with bomb damage, would have to be heavily increased in this area. The increased diversion of this local force, if

941103-243

maintained, would reduce the capability for agricultural production within the region, increasing its dependence on the northern areas for food supplies.

b. However, over a sustained period the over-all manpower requirements would be considerably reduced as the repair personnel in the northern areas completed the restoration of damaged LOCs in that area. Some scarce skilled labor in the field of transport repair and maintenance could also be concentrated in the south to contend more effectively with the increased destruction.

(2) Electric Power. Fourteen powerplants, having a total capacity of 165,000 kilowatts or 86 percent of the national capacity have been rendered inoperative. All of these are located in the north, except four, which have an aggregate capacity of about 16,000 kilowatts or only 8 percent of the total.

(3) Reduction of Enemy Weapons. There is an estimated total of about 6,500 individual AA weapons of various calibers in NVN of which about 20 percent are positioned in the Panhandle. The initial additional losses of AA weapons resulting from increased US air operations in this area would probably be replaced from the large inventory in the north. Moreover, it is likely that the enemy, after determining the limitation on US actions to this area, would redeploy additional weapons from the north to meet the threat while importing additional weapons via uninterdicted LOCs entering from China. Over the long-term, as the

941103-244

restriction on US air activities became apparent, the enemy would probably risk redeployment of up to 30 to 40 percent of his ground air defense forces, thus partly offsetting the initial US advantage of reduced losses from restricting operations to this area.

Small arms and artillery/mortar/rocket pieces required to replace or augment weapons in SVN would continue to be transported through the Panhandle or moved through Laos by existing LOCs or by more primitive transport means. Strikes on LOCs in the southern part of NVN would not prevent the bulk of additional weapons from reaching combat forces in the South.

(4) Reduction of Enemy Munitions

Ammunition reserves in NVN are estimated to amount to about 45,000 MT of which about 40,000 MT are for antiaircraft artillery. This amount roughly equates to a 90-day supply based upon current monthly expenditure estimates. It is believed that all munitions enter NVN from China by land LOCs and limiting airstirkes to Route Packages I, II, and III would permit the unopposed import of munitions. Although increased strikes in the Panhandle area might initially reduce the amount of munitions reaching the DMZ area and SVN slightly, under a sustained increase of air attacks the enemy could be expected to resort to more primitive means to move supplies through the Panhandle. Use of these means would delay

941103-245

but not materially curtail the transportation of supplies earmarked for units in the DMZ area and forces in the South. If delays became lengthy and local shortages developed, it might force the enemy to tap existing but unlocated stockpiles or cause him to adjust the number of combat engagements in the South to the flow received.

(5) Reduction of Enemy Construction Equipment and Materials

As soon as NVN realized that Route Package VI was almost exempt from bombing, repair and reconstruction of bomb damaged transportation and industrial facilities would be increased and construction of new facilities probably would begin. NVN has continued to make contracts with other communist countries for equipment, machinery, and materials to construct new transportation and industrial factories. These could be supplied and NVN probably would proceed with their construction. Except for a few indigenous minerals such as sand and gravel, NVN must obtain all its construction equipment and materials from foreign sources; and most of these are seaborne. The effects of recent bombing of the Haiphong cement plant, the only producer of cement in NVN, would soon be neutralized either by imports of cement or by receipt of foreign equipment or materials required to restore the cement plant.

941103-246

(6) Ports

There has been no appreciable degradation in the total NVN estimated maritime port capacity of some 6,000 metric tons per day to date. Termination of strikes in the North would allow NVN to utilize a greater portion of this capacity, in that cargo operations would no longer be interrupted by air raids, power failures, etc., and clearance problems caused by aerial interdiction against other modes of transportation would be eased. In addition, NVN could undertake to improve port capacity by additional construction, dredging, restoration of destroyed POL off-loading devices, etc.

3. ([redacted]) Risks

a. Communist China. The concentration of bombing on the LOCs in the North Vietnam Panhandle might be interpreted by the Chinese as a sign of deescalation. They might also believe it to be a sign that the United States wants to signal its intention to avoid bombing areas close to China, thus lowering the risk of possible miscalculations. In view of the increased tempo of the war over the past year, Peiping is likely to view a reduction of the bombing in northern North Vietnam as a sign of US weakness. However, the Chinese leaders would closely watch developments in the Vietnamese situation to determine whether such a move was a forerunner to other US actions to increase pressures elsewhere. Regardless of the interpretation, Peiping would continue its propaganda blasts against bombing and maintain a steady flow of military aid to North Vietnam to assist in bomb damage repair. Commitment of Chinese ground combat forces, the Chinese air force, or naval forces, in reaction to this program would be unlikely.

94103-247

b. Soviet. The Soviets would regard a bombing program under Alternative I as a major military and political victory. They could state that the prime reason that the bombing had shifted to the Panhandle was because of the excellent air defense system that the Soviets had supplied the North Vietnamese. As a consequence, Soviet prestige would probably be considerably enhanced and its influence might be increased.

c. North Vietnam. Hanoi would regard the restriction of bombing to the Panhandle area as an indication of the success of the antibombing pressures in the United States and a weakening of the United States resolve to pursue the war. It would also convince them of the correctness of their policy of not entering negotiations until the United States had complied with their conditions and this could result in a renewed effort to increase the infiltration of men and supplies into SVN and might even result in lengthening the war.

d. Allied. Apprehension and some slackening of support could be expected from our Asian allies at the first sign of what would appear to them a US retreat.

ALTERNATIVE II
(Ports Open)

1. [redacted] Costs. The rationale used to forecast aircraft and aircrew losses in Alternative I is applicable to this course of action.

a. Aircraft Losses

(1) In this course of action, approximately 2,000 sorties per month could be required in Route Packages V-VI. Aircraft loss rates in Route Package V are 5.16/1000 sorties and in Route Package VI are 11.04/1000 sorties. Because of the location of LOC targets, a combined Route Packages V-VI loss rate was established as 9.57/1000 sorties, derived from a weight of 3:1, Route Package VI: Route Package V. The increase in the over-all NVN aircraft loss rate expected is from 2.55/1000 sorties to 3.55/1000 sorties as a result. With the increased exposure in Route Package VI attrition of attack aircraft could be expected to increase initially based on the rate of 11.04/1000 sorties in Route Package VI.

(2) On a sustained basis, the suspension of attacks not associated with the LOCs would permit repositioning of air defense assets to concentrate for LOC protection. This, together with no restriction on imports by sea, would provide an increasingly concentrated air defense in Route Packages V and VI. Thus, it would probably require increasing sorties in a more hostile environment to effectively interdict the LOCs in the north. The increased emphasis on armed reconnaissance which exposes the aircraft for longer periods per sortie could result in an increase in aircraft loss rate to about 4.55/1000 in the sustained program.

b. Aircrew Losses. With the significantly lower crew recovery rate that could be expected in Route Packages V and VI, the increased effort in the north could result in a decrease in the current over-all crew recovery rate of 37 percent down to about 32 percent.

941103-249

2. (TS) Benefits

a. Ability to Move Men and Materiel

(1) Rail. Increased attacks on LOCs, particularly in the northeast, would result in continued reduction of present railroad capacity. The rail lines carry imports essential to the support of NVN's military operations. Some of the most significant rail targets are located on these lines and opportunities exist for attacks or destruction of rolling stock and supplies. About 70 percent of NVN's limited rolling stock is normally used on these lines and the interdiction of the dual-guage and new railroad construction in the northeast would reduce use of Chinese communist rolling stock to supplement NVN inventories. The interdiction program would continue to be constrained by the lack of access to the major Hanoi-Haiphong and China border yards where the largest concentrations of rolling stock are normally found. These would continue to provide sanctuaries from which trains could move at night when attacks are less effective.

(2) Highway. Approximately 95 percent of the total mileage of motorable road net, exclusive of the sanctuary areas designated around Hanoi, Haipong, and along the China border would be subject to interdiction. Emphasis on the LOCs in the northern areas would probably cause temporary dislocations at enough individual points to reduce the rate of truckborne movements.

(3) Waterways. Waterway LOCs in Route Packages VIA and VIB range to 7,200 metric tons per day. Strikes against waterways have had limited effectiveness because they are not readily susceptible to interdiction by bombing. Only one NVN water route of any significance

941103-250

is canalized; even if it were breached, enough water would remain to allow continued navigation. Even assuming that all structures susceptible to aerial interdiction (locks, inland ports, etc.) were destroyed, overall average waterway capacities would be reduced less than 30 percent. Waterways could probably continue to handle tonnages nearly equivalent to current operating capacities during both initial and sustained periods.

(4) Air Transport. Attacks on NVN airfields under this alternative would eliminate an effective airlift capability by the Soviets or Chinese. It is not anticipated that the communists would resort to extensive airdrop operations or air landings on unprepared fields except for the most critical items of supply.

(5) Interdiction of Imports. The initial military and economic effects of increased concentration of air attacks on land LOCs from Communist China and from the open port of Haiphong would be the dislocation in the flow of imports. Emphasis on a heavy armed reconnaissance program in the northeast could result in increased destruction of munitions and other combat materiel transported over the northeast rail line. However, in the longer-term the major impact would probably be in the reduction of civilian supplies. Some measures to assure conservation of these items would probably occur as seaborne shipments, including food, fertilizer, petroleum, and military/economic items, are curtailed by increased disruption of the LOCs from Haiphong.

(6) Rolling Stock Inventory. Approximately 70 percent of NVN's rolling stock normally operates in the northern areas, and an increased concentration of the bombing effort and armed reconnaissance in this area would provide access to some of the largest concentrations of rolling stock and to some important marshalling yards. However,

the recent dual- and standard-guage railroad construction in the northeast will permit utilization of China's standard-guage rolling stock, thus materially reducing the vulnerability of this LOC. Moreover, the lack of access to the major yards in Hanoi and Haipong, where the largest concentrations of rolling stock are normally found, would continue to limit the destruction of NVN's inventory; it also provides sanctuaries from which trains can move at night or under cloud cover when attacks are less effective or entirely restricted by weather.

(7) Vehicle Inventory. Increased emphasis on strikes against motor transport could initially reduce the motor vehicle inventory by about 10 percent to approximately 9,000 trucks. However, over a sustained period the additional trucks required to offset this loss could be imported by sea through the open port of Haiphong or by additional imports from China.

(8) POL Stockpile and Movement. Termination of the bombing of fixed targets and expansion of the effort against LOCs in the North could have a considerable effect on the NVN POL distribution system and on available reserves, despite the effectiveness of the dispersal program. As virtually all POL storage and distribution points are along the major LOCs, a concentrated attack program could reduce stockpiles and inhibit the shipment of bulk quantities southward. The current reliance on rail shipments for the initial distribution of POL tends to concentrate large amounts on a limited number of routes. Extensive interdiction of the Haiphong to Hanoi rail line could induce the rerouting of up to 40 percent of the country's total monthly supply, while a similar disruption of the Dong Dang line from the Chinese border to Hanoi would affect the flow of critical aviation fuels and lubricants which are believed to be imported solely

along this route. As with Alternative I, extensive rerouting, increased handling difficulties, higher consumption, and decreased efficiency would probably result from concentrated air operations against the LOCs.

b. Ability to Continue Aggression in SVN

(1) Manpower Dislocation. No significant change in manpower requirements would occur from the present estimated diversion of 200,000 full-time and 100,000 part-time laborers for repair and dispersal programs. Quotas for involuntary support would remain high in all areas and initially would probably be moderately increased in the northern areas as a result of increased sortie rates against LOC targets in this area. The restriction on strikes against fixed targets might, in fact, over the long term, result in additional manpower problems as efforts might be undertaken to restore some high value economic installations when it became apparent that they were no longer subject to attack.

(2) Electric Power. There would be no strikes against electric power targets conducted under this alternative. Within 60 days, one-fifth of the damaged capacity in the North could be repaired without major reconstruction, resulting in partial operation of the Hanoi, Haiphong West, Viet Tri, and Bac Giang powerplants which are sufficient to cover the most essential military and industrial needs. Power could be restored to military facilities. Industrial plants presently out of operation, such as the chemical plants in the vicinity of Viet Tri and Bac Giang, and key manufacturing plants in Hanoi and Haiphong could also resume production. Within 6 months, an additional 35 percent of the damaged capacity could be recovered, including full restoration of Viet Tri, Bac Giang, and Thai Nguyen steel powerplants and partial repair to Thai Nguyen Uong Bi and Hon Gai powerplants. In approximately one

941103-253

year, the balance of the damaged capacity could be restored to full operation unless restrikes were authorized. Within 6 months, all priority military and industrial installations could obtain adequate electricity for uninterrupted production and, in about one year, the supply of electric power would be restored to about the pre-strike level, furnishing sufficient power to meet all military and industrial requirements.

(3) Reduction of Enemy Weapons

(a) Continued air operations throughout the country, with increased emphasis on LOCs in the northeast, would probably result in a slightly increased loss of AA weapons because of the heavier concentration of air defenses in this area and additional flak suppression missions. However, this reduction would not initially reduce AA defense capabilities in any Route Package since it is believed that adequate ammunition is available and the enemy would continue deploying his in-country strength to defense positions essential for the protection of vital LOCs. Soviet and Chinese weapons are believed to be imported largely by land LOC from China. A reduced capacity resulting from concentration on LOCs in the northeast would slow the importation of weapons but would probably not effectively reduce the number of weapons available, since they would almost certainly continue to be a high priority import. Moreover, if major routes leading from China were thoroughly interdicted it is likely that NVN would import some weapons through existing open port facilities.

94103-254

(b) Combat weapons destined for units in the South would probably continue to move the length of the country in sufficient quantities but at a somewhat reduced rate.

(4) Reduction of Enemy Munitions. Initially, munitions expenditures could be expected to remain at approximately the same rate as at present. Increased interdiction of LOCs might cause an eventual reduction of present land imports; however, any significant overall reduction would be unlikely since the continued importation of munitions could be accomplished through the open ports. Over the longer term, if it became necessary because of local shortages resulting from increased effort against the LOCs, the enemy could limit high expenditure rates in AA fire by adopting tactics that would achieve the best results for the amount of ammunition expended. He could cease barrage AA fire and concentrate solely on accuracy, expending only when targets were within effective gun range.

(5) Reduction of enemy construction equipment and materials. Most construction equipment and materials are imported by sea. Attacks on LOCs out of Haiphong would probably impede the movement of such equipment and materials to their destination. Initially, not much adverse effect could be expected from loss of these imports, but the sustained effects would be more pronounced. The reconstruction of bomb-damaged transportation power and industrial facilities would be retarded.

(6) Ports. There would be no reduction of existing NVN port capacity unless the increased interdiction of other transport modes further inhibited the clearance of cargo

941103-255

from the port area, creating congestion and thereby slowing the discharge of cargo. Total NVN estimated maritime port capacity would remain at about 6,000 metric tons per day.

3. Risks

a. Communist China. It is unlikely that the Chinese response to Alternative II without closure of the ports would go beyond propaganda blasts, increased logistic support, and possibly some provision of some additional engineering and air defense units. The current domestic political struggle has not changed Chinese objectives in Southeast Asia or decreased Chinese combat capabilities. The possibility that the Cultural Revolution could be turned outward against a foreign enemy and thus become a unifying force for a foreign adventure cannot be discounted.

b. Soviet. Intensified bombing of the LOCs in the northeast sector might accelerate Soviet delivery of weapons and equipment, including perhaps some new types. In general, it is believed that the types of weaponry the Soviets are likely to supply during the coming months will be intended to strengthen the air and coastal defenses of North Vietnam and to increase the firepower of both the regular North Vietnamese forces and the communist forces fighting in the South The North Vietnamese would probably at some point press the Soviets for more sophisticated equipment and this would pose a serious problem for the Soviets. They might believe they had to respond to such pressure, especially if hard pressed by North Vietnam and if no break appeared on the political horizon. They might provide nonnuclear weapons with additional range and firepower, hoping that the new military situation this created would bring about a change in US position. The Soviets would also be concerned that the introduction of new types of weapons and especially their use in South Vietnam would provoke further US retaliation

94103-256

which they would like to avoid, or even create a situation which would invite a US invasion of North Vietnam. Nevertheless, it is believed that there is a good chance that they would provide some of these weapons systems. Beyond supplying equipment, the Soviets could take certain other actions to bolster the North Vietnamese and warn the United States. They might believe, for example, that the provision of limited numbers of volunteers, or of crews for defense equipment or possibly aircraft, would serve as a warning without leading to a serious confrontation.

c. North Vietnam. The chances for the continuation of a viable NVN Government would be similar to present conditions. It could be anticipated that the Government would continue to carry out the essential functions to permit present level of infiltration and support to VC/NVA in SVN. The NVN would probably at some point press the Soviets for more sophisticated equipment.

d. Allied. There would be little effect on allied support and attitude as a result of adopting this alternative.

941103-257

ALTERNATIVE II
(Ports Closed)

1. [redacted] Costs. The rationale used to forecast aircraft and aircrew losses in Alternative I is applicable to this course of action.

a. Aircraft Losses.

(1) In this course of action, an initial surge of upward to 2500 attack sorties per month could be required to maximize effect and take advantage of favorable flying weather. Initially, a marked increase in the loss rate to approximately the current RP-VI loss rate of 11.04/1000 sorties would occur, but should decrease to about 4.50/1000 sorties. Additionally, a reduction to an average of 2000 sorties in the northern packages should cause downward trend toward an overall loss rate of 3.00/1000 sorties.

(2) Since the NVN Air Defense System is totally dependent on external logistic support, an effective interdiction campaign against all elements of the import system would result in significant degradation of air defense effectiveness. Thus, on a sustained basis a significant decrease in aircraft loss rates could be expected, with an over-all rate of approximately 2.55/1000.

b. Aircrew Losses. Initially, due to the increased exposure in RP-V and VI, an increased number of crews would be downed in a hostile environment, with a resultant decrease in over-all aircrew recovery rates to about 30 percent. On a sustained basis, with a reduction in the effectiveness of the air defense system, an environmental improvement would allow greater opportunity for recovery attempts and should provide an improvement in the over-all recovery rate.

941103-258

2. Benefits

a. Ability to Move Men and Material.

(1) Rail. No significant change from Alternative II (Ports Open) except the capacity of the Haiphong line would be dependent on available clearance facilities from transshipment points developed to provide ship-to-shore movement of cargo in the event Haiphong is rendered unserviceable.

(2) Highway. Conditions described under Alternative II (Ports Open) would be applicable.

(3) Waterways. The majority of NVN watercraft are located in Route Packages VIA and VIB. Additional strike activity in this area would increase water craft attrition. Moreover, the increased requirements for lighters and other small crafts for unloading operations would impose a further burden on NVN water transport capability. New construction and imports would help offset vessel losses, but losses would probably force a shift to smaller, less economical carriers over a sustained period. Hard-to-replace vessels such as dredges, large lighters, etc., would probably remain within the sanctuary areas. Immediate and sustained effects of the increased strike activities would probably cause only a limited reduction in the effectiveness of the waterway system.

(4) Air Transport. There would be no substantial change from the situation described under Alternative II (Ports Open).

(5) Interdiction of Imports. The initial and sustained effects would be greater than under Alternative II (Ports Open) because of the greater potential

for curtailing seaborne imports. In particular, the economic effects would be accentuated, since foreign shipments of some food and fertilizer likely would be curtailed or delayed. A reduction or delay in the large quantities of fertilizer imports would adversely affect the rice crop to be planted in July and harvested in October. Seaborne shipments of other civil items consisting of metal products, construction equipment, industrial equipment, and material would further curtail production and repair and reconstruction of damaged facilities.

(6) Rail Rolling Stock Inventory. There would be no significant change from Alternative II (Ports Open).

(7) Vehicle Inventory. There would be no substantial change from the situation described under Alternative II (Ports Open), with the exception that importation of trucks through NVN ports would be severely curtailed.

(8) POL Stockpile and Movement. Intensification of the effort against LOCs and the closure of the major ports would have a critical initial effect on the NVN POL storage and distribution system. Closure of the port of Haiphong would require NVN to establish an alternate system for the receipt of 95 percent of its POL supply, the amount now received through that port. Such closure possibly could require that the overland routes from China temporarily absorb a portion of the approximately 20,000 metric tons per month to maintain NVN POL supplies at their current levels. This action would require close cooperation between the Soviet Union, the source of supply, and China to establish schedules and augment carrier inventories. However,

941103-260

following initial delays resulting from closure of the port, the sustained effect would be less severe in that lighterage and over-the-beach unloading operations would probably meet NVN's import requirements.

b. Ability to Continue Aggression in SVN

(1) Manpower Dislocation. Continued diversion of about 200,000 full-time and 100,000 part-time workers for repair, reconstruction, and dispersal programs would be required. An additional unknown number would be required to off-load on over-the-beach and lighterage operations. Involuntary civilian labor quotas would probably be materially raised in the northeast and along coastal areas. Additional management problems would also tend to degrade the enemy's logistic support system.

(2) Electric Power. There would be no strikes against electric power targets conducted under this alternative. No change from conditions described under Alternative II (Ports Open) would be anticipated unless restrikes were authorized.

(3) Reduction of Enemy Weapons. For this alternative the effects for Alternative II (Ports Open) apply except that the use of ports to import weapons is not considered likely; however, NVN could continue to import weapons by small coastal craft if land LOCs from China were severely curtailed.

(4) Reduction of Enemy Munitions. Benefits noted in Alternative II (Ports Open) apply except that additional delays and possibly more severe but localized shortages of ammunition could occur. This would, in large part, be due to attrition of some vehicles used to move supplies, coupled with a reduction or slowdown in the receipt of supplies.

911103-261

(5) Reduction of Enemy Construction Equipment and Materials. Supplies of non-essential construction equipment and materials probably would be substantially reduced. Shipping priority would probably be given to more essential commodities.

(6) Ports. The effects of this alternative are directly related to the effectiveness with which the ports are closed. Current mining plans of the Joint Chiefs of Staff would prohibit ocean going vessels from entering the port at Haiphong but would not prevent them from anchoring to seaward of the mines. They could then offload their cargo into lighters which would then transit one of the many unmined alternate channels leading to Haiphong or other NVN ports. Shallow water mines would be used to obstruct these alternate channels, and they would be used in large quantities because of the many alternate routes available. (The most effective shallow water mine is not yet available in quantities). The lighters, moreover, would be subject to aerial attack between the anchorage and sanctuary areas under present rules of engagement. Aerial attacks against port facilities within sanctuary areas would force NVN to resort to the use of numerous dispersal transshipment sites to offload the lighters. This type of over-the-beach operation would be considerably more difficult and time consuming than along-side discharge methods, especially for heavy, large-type cargo. Furthermore, operations at transshipment sites and accumulations of cargo awaiting transshipment would be subject to

941103-262

air attack. Over a sustained period it is unlikely that NVN could recover their full maritime receiving capabilities; however, that will be a direct function of the efficacy of the shallow water mines laid and of the intensity and effectiveness of airstrikes conducted.

3. ([redacted]) Risks

a. Communist China

(1) The Chinese reactions to this alternative almost certainly would include attempts to increase the level of logistic support in an effort to compensate for restrictions imposed on seaborne supply by the closure of the ports and the interdiction of mainland routes. Chinese efforts to improve the overland supply routes to North Vietnam would be increased. The Chinese might also furnish additional antiaircraft weapons and possibly more Chinese AAA units to bolster North Vietnam's air defenses, in particular those along the major land LOCs from the border south to Hanoi. Additional Army railway-engineer units might be deployed into northern North Vietnam to assist in railroad and route repair. However, it is unlikely that the Chinese would commit their air force to the defense

94[redacted]3-263

of North Vietnam, although South China airbases might become refuge havens for North Vietnamese aircraft.

(2) Within China itself there would be a greater tendency to increase its war footing, and civil defense measures may be emphasized once more. South China defenses would probably be strengthened by the deployment of additional AA units and possibly ground forces to strengthen the defensive posture along the border. The maximum effort to halt sea shipments into North Vietnam would probably also require Peiping to review its position vis-a-vis the Soviets on aid shipments to North Vietnam. Soviet ships could offload in some Chinese ports, such as Canton or Fort Bayard for transshipment to North Vietnam. Such increased US pressure may lead Peiping to delineate more clearly its supposed intentions.

b. Soviet

(1) It is believed that the Soviets would, at some point, suspend various negotiations and contacts with the United States and perhaps certain agreements of recent months. At a minimum, they would try to mobilize world opinion against the United States on this issue and, depending on the attitude of NVN, would consider taking the matter to the United Nations.

(2) There is little that the Soviets could do on the scene if confronted with this kind of situation. They do not have the strength in the area to confront the United States with a major military challenge, and it is not believed they would wish to run large risks simply in order to harass US forces or gain temporary respite. In the case of mining, for example, the Soviets could try to reopen shipping

941103-264

routes by bringing in minesweepers, other naval ships for protection, and air cover from North Vietnam. But this would be a hazardous venture since the United States could continue to sow mines by air and the Soviets could not prevent it unless they were prepared to begin a major naval and air war. It is believed that they would not risk their shipping in mined waters but would attempt the necessary supply by other means; e.g., through China or by lighterage. Most important, it is not thought that the Soviets are prepared to resort to strong and direct threats of general war as a means to protect North Vietnam or to preserve Soviet face.

(3) Regardless of the precise action taken by the United States, the Soviets might at some point exert pressures on the United States outside of Southeast Asia. Heightened tensions in Korea and new troubles in the Middle East are possibilities, but Berlin is the most plausible pressure point; US interests there are directly engaged and vulnerable, and the USSR could be surer of controlling the action. They might consider that only minor pressure on access routes would be enough to create the impression of an impending crisis; however, it is thought to be unlikely that the Soviets would want to take the risk of provoking by such pressures a major and generalized crisis which would not only undercut their policies in Western Europe but could also lead to a US/Soviet confrontation.

(4) There would be a good chance that the Soviets would at some juncture exert strong efforts toward a political solution of the Vietnam problem. They would have to weigh the risks of some level of

941103-265

confrontation with the United States against their reluctance to put real pressure on Hanoi for such a solution. They would almost certainly urge the course of negotiation more vigorously than they have heretofore, but they would probably not be willing to make Hanoi's acceptance of talks an explicit condition of continued material support. If negotiations did get underway they would, of course, still bend every effort to obtain terms which gave Hanoi hope of eventually achieving its aims.

c. North Vietnam. Initial condemnation of the war escalation could be anticipated. This would probably result in a request for additional aid from both Red China and the USSR. Initially there would be a stiffening of the will to resist on the part of high officials as well as the populace; however, the sustained effects would result in a gradual degradation of the will and morale of the populace. The risk of degrading the viability of the NVN governmental processes would be increased under the conditions of this alternative. Sustained effects would make it increasingly difficult for the Government of North Vietnam to carry out necessary governmental functions at present levels. This degradation would not be to a degree that would threaten the full collapse of the NVN Government.

d. Allied. Additional support from our Asian Allies could be expected under the conditions of this alternative. The increased US resolve indicated by these actions would jointly increase the commitment of the United States and our Asian Allies; however, some concern would be expressed over this apparent escalation.

94103-266

ALTERNATIVE III

1. [redacted] Costs. The rationale used to forecast aircraft and aircrew losses in Alternative I is applicable to this course of action.

a. Aircraft Losses

(1) In this course of action, an initial surge of upward to 2,500 attack sorties per month could possibly be required to maximize effect and take advantage of favorable flying weather. Initially, a marked increase in the loss rate to approximately the current Route Package VI loss rate of 11.04/1000 sorties would occur similar to that forecasted for Alternative II (Ports Closed), but should decrease to about 4.50/1000 sorties. Additionally, a reduction to an average of 2,000 attack sorties in the northern packages should cause a downward trend toward an overall loss rate of 3.00/1000 sorties.

(2) Since the NVN Air Defense System is totally dependent on external logistic support, an effective interdiction campaign that would certainly destroy imports at the periphery of the port areas should allow for slight degradation of air defense effectiveness. Thus, on a sustained basis a loss rate of 3.00/1000 sorties is expected to be maintained, with a possibility that it might be further reduced to approximately 2.55/1000 sorties.

b. Aircrew Losses. Initially, due to the increased exposure in Route Packages V and VI, an increased number of crews would be downed in a hostile environment with a resultant decrease in over-all aircrew recovery rates to approximately 30 percent.

94103-267

2. [redacted] Benefits

a. Ability to move men and material

(1) Rail. Essentially the same benefits would be obtained and results achieved as under Alternative II (Ports Open); however, access to the major Hanoi-Haiphong yards in fixed target strikes, would disrupt terminal operations, loading, delivery and scheduling, and thus impose additional delays and contribute to congestion of the distribution system.

(2) Highway. Benefits obtained and results achieved would be essentially the same as under Alternative II (Ports Open); except that destruction of fixed LOC targets within the Hanoi-Haiphong area would further delay and disrupt scheduled movement from these main import and base areas.

(3) Waterways. Benefits obtained and results achieved would be greater than under Alternative II (Ports Open), because of the introduction of a mining program in the estuaries and inland waterways above 20° N thereby increasing the attrition of watercraft and disrupting movement over this medium. In addition, emphasis on an armed recce program against LOCs in the Hanoi-Haiphong environs (but outside the restricted areas) would further increase the watercraft attrition, contribute to congestion in the port area, and over the sustained period, probably force a shift to smaller less economical carriers.

(4) Air Transport. As under Alternative II (Port Open or Closed), attacks on NVN airfields under this alternative could eliminate a significant airlift capability by the Soviets or Chinese.

(5) Interdiction of Imports. The initial and sustained effects would be about the same as Alternative II (Ports Open). However, with strikes authorized on fixed targets, some additional imports of military and civil commodities would be required. Eventually, with traffic on the northeast rail line and out of Haiphong impeded, choices would have to be made on which commodities would be moved to their destination. Priorities would probably be given to military shipments with resultant increased dislocations in the civilian economy.

(6) Rolling Stock Inventory. The results obtained under Alternative II (Ports Open) also would be achieved under this Alternative. However, in addition, an increased armed recce program in the northeast and access to the major yards in Hanoi and Haiphong, where the largest concentrations of rolling stock are normally found, would result in increased attrition of NVN's rolling stock inventory, the most vulnerable element of the rail transport system.

(7) Vehicle Inventory. The effects of an increased emphasis on armed recce in the northeast would be essentially the same as under Alternative II (Ports Open); however, the motor vehicle attrition rate would probably rise. Although additional trucks to offset this loss could be imported by sea or from China, the initial disruption to essential transportation requirements in the Hanoi-Haiphong area would be severe until such time as additional imports could be scheduled. Over the sustained period the continued harassment would impose increased strains on limited maintenance skills and facilities.

941103-269

(8) POL Stockpile and Movement

(a) Continued bombing of fixed targets and concentration of the effort against LOCs in the north, excluding operations against the ports, would have a considerable effect on the NVN POL distribution system and on available reserves, despite the effectiveness of the dispersal program.

(b) As indicated under Alternative II (Ports Open), extensive interdiction of the Haiphong to Hanoi rail line could induce the rerouting of up to 40 percent of the country's total monthly supply, while a similar disruption of the Dong Dang line from the Chinese border to Hanoi would effect the flow of critical aviation fuels and lubricants which are believed to be imported primarily along this route.

(c) Extensive rerouting, increased handling difficulties, higher consumption and decreased efficiency would probably result from the air operations under this alternative.

b. Ability to Continue Aggression in SVN

(1) Manpower. Some additional manpower dislocations would occur over those indicated under Alternative II (Ports Open). The effect would be felt more heavily in the Haiphong-Hanoi area where efforts to clear port and distribution center congestion could result in higher labor quotas. Authorization of strikes on significant fixed targets in these areas would further dislocate the population through renewed government effort to evacuate nonessential persons.

(2) Electric Power. Strikes against electric power targets conducted under this alternative would have approximately the same benefits as in JCS recommended action.

94[illegible]3-270

(3) Reduction of Enemy Weapons. Benefits obtained and results achieved would be somewhat greater than under Alternative II (Ports Open).

(4) Reduction of Enemy Munitions. Benefits obtained and results achieved would be approximately the same or slightly greater than under Alternative II (Ports Open).

(5) Reduction of Enemy Construction Equipment and materials. Benefits obtained and results achieved would be somewhat greater than under Alternative II (Ports Open).

(6) Operation of Port Facilities. Benefits obtained and results achieved would be increased over Alternative II (Ports Open), as a result of increased congestion in and adjacent to ports and disruption of transshipment facilities.

3. (TS) Risks

a. Communist China. It is probable that the Chinese response to this alternative would be to provide increased logistic support, and additional engineering and air defense units. The extent of the increased support would be influenced by the degree of disruption and damage inflicted on the principal land LOCs with China. The Chinese reaction to this alternative thus would be somewhat greater than in the case of Alternative II without closure of the ports but the risk would be less than if the ports were closed under Alternative II. They would recognize this alternative as an increase over the present level of bombing but falling short of a maximum effort.

b. Soviet. This alternative would be viewed by the Soviets as an intensification of the present bombing program which continued to include constraints to preclude direct confrontation

941103-271

between the United States and the Soviet Union. Soviet delivery of weapons and equipment, including perhaps some new types might be accelerated. The types of weaponry the Soviets might supply would be intended to strengthen the air and coastal defenses of North Vietnam and to increase the firepower of both the regular North Vietnamese forces and the communist forces fighting in the South. Beyond supplying equipment, the Soviets could take certain other actions to bolster the North Vietnamese and warn the United States. They might believe, for example, that the provision of limited numbers of volunteers, or of crews for defense equipment or possibly aircraft, would serve as a warning without leading to a serious confrontation. Other Soviet responses would probably be similar to those of Alternative II (Ports Open).

c. North Vietnam. The chances for the continuation of a viable NVN Government under this alternative would be degraded somewhat when compared to present conditions. It could be anticipated that the Government would continue its efforts to maintain the present level of infiltration and support to VC/NVA in SVN. NVN would probably request some additional Chinese communist support in the logistical, engineering and AA categories, to be stationed along major LOC's in the northeast sector.

d. Allied. There would be little effect on allied support and attitude as a result of adopting this alternative. However, the adoption of a more intensive campaign against NVN would be a clear signal of US resolve and thereby have a heartening effect, particularly on SVN and other FWMAF nations.

941103-272

JCS RECOMMENDED ACTION

1. [redacted] Costs. The rationale used to forecast aircraft and aircrew losses in Alternative I is applicable to this course of action. Both aircraft and aircrew attrition are expected to be similiar to Alternative II (Ports Closed).

2. [redacted] Benefits

a. Ability to move men and materiel

(1) Rail. No significant change in effects from Alternative II (Ports Closed).

(2) Highway. Conditions described under Alternative II (Ports Closed) are applicable.*

(3) Waterways. Conditions described under Alternative II (Ports Closed) would be applicable.

(4) Air Transport. There would be no substantial change from the situation described under conditions of Alternative II (Ports Open or Closed)

(5) Interdiction of Imports. The military and economic effects would be approximately the same as described under Alternative II (Ports Closed).

(6) Rail Rolling Stock Inventory. No significant change in effects from Alternative II (Ports Closed).

(7) Vehicle Inventory. There would be no substantial change from the situation described under Alternative II (Ports Closed).

(8) POL Stockpile and Movement. Essentially the same effects as discussed under Alternative II (Ports Closed). However, with strikes authorized against fixed POL facilities, additional losses of storage capacity or inventory levels could induce major reductions in both military and general economic activity.

b. Ability to Continue Aggression in SVN

* EXCEPT that the expansion of the mining program above 20° N would increase the attrition rate of watercraft, the most vulnerable factor in this transportation medium.

941103-273

(1) Manpower Dislocation. No significant change in manpower dislocations could be expected from conditions under Alternative II (Ports Closed).

(2) Electric Power. This alternative would continue to severely restrict availability of commercial electricity to military and industrial installations. Vital military functions, including operations of radar, SAM sites, and communications, would be entirely dependent on small diesel stations, resulting in considerably reduced reliability over extended periods of use and excessive breakdowns of power supply due to increased maintenance requirements. Industrial production would be reduced by as much as 70 percent as a consequence of lack of electric power, particularly significant items such as chemicals, cement, other construction materials, food products, and consumer goods.

(3) Reduction of Enemy Weapons. The effects listed for Alternative II (Ports Closed) would prevail.

(4) Reduction of Enemy Munitions. For this alternative the effects listed for Alternative II (Ports Closed) would prevail.

(5) Reduction of Enemy Construction Equipment and Materials. No significant change in effects from Alternative II (Ports Closed).

(6) Ports. Conditions described under Alternative II (Ports Closed) would prevail.

941103-274

3. [redacted] Risks

a. Communist China. The risks of this alternative are roughly equivalent to Alternative II (Ports Closed).

b. USSR. The risks of this alternative are roughly equivalent to Alternative II (Ports Closed).

c. North Vietnam. The risk under this alternative would be roughly the same as the Alternative II (Ports Closed); however, the rate of degradation of the will and morale of the populace might increase. It is anticipated that the Government of North Vietnam could continue to function without the interference of Communist China in governmental processes; however, the likelihood that the NVN Government would consider negotiation as a solution to their problem at some point would substantially be enhanced. Historically, the communists, when confronted with an inevitable military defeat, have retreated to a political solution.

d. Allied. A continuation of the trend cited under Alternative II (Ports Closed) could be anticipated.

94103-275