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CENTRAL INTELLIGENCE AGENCY Directorate of Intelligence 29 April 1968

INTELLIGENCE MEMORANDUM

# Evaluation of the Rolling Thunder Campaign as Presently Restricted

### Summary

This memorandum analyzes the effects of the self-imposed US bombing restriction in North Vietnam, which began on 31 March 1968, to targets below the 19th Parallel. It also considers, as a separate matter, the importance of North Vietnamese facilities lying between the 19th and 20th Parallels.

In the areas north of the 19th Parallel, which contain the main industrial and transportation centers of North Vietnam, we have noted the following during April:

- 1. Port activity at Haiphong continued at a high level, with exports up sharply and imports down only slightly. The turnaround time for vessels in port decreased significantly, probably as a direct result of the bombing halt.
- 2. The restoration of damaged key generating plants in the electric power system and of the Haiphong cement plant also continued. This restoration work began earlier, and no reconstruction of other industries has been identified as having started after 31 March. JCS review completed.

Note: This memorandum was produced solely by CIA. It was prepared by the Office of Economic Research and the Office of Current Intelligence and was coordinated with the Director's Special Assistant for Vietnamese Affairs.

- 3. Key rail/highway bridges in the Hanoi and Haiphong areas are being repaired. Aerial photography, although limited, shows that the North Vietnamese are taking full advantage of the bombing restrictions to restore these key lines of communication.
- 4. Manpower allocations appear to be unchanged. We have no firm evidence that additional workers are being reassigned from the north to help make repairs south of the 19th Parallel. The preparation of air raid shelters in Hanoi continues, and the city remains partially evacuated.

South of the 19th Parallel, which is the North Vietnamese Panhandle, an average of 218 Rolling Thunder attack sorties were flown daily during 1-23 April against Route Packages I, II, and the southern one-third of III. This was a substantial increase over the first quarter attack rate. During April, the following significant developments have been identified:

1. A substantially heavier movement of materiel into and through the Panhandle has taken place, despite the heavier bombing attacks. This has been a continuation of a trend in evidence since early this year.

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estimates based on one road watch team place April truck traffic moving into Laos as much as 40 percent above March.

2. An increase in the number of antiaircraft guns in the Panhandle has been reported by a number of sources. However, there has been no redeployment south of SAM battalions or jet aircraft.

3. The infiltration of personnel continued an upward trend in evidence since January. From 31 March through 26 April an estimated 23,000 men have been noted

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Political reactions to the US self-imposed restriction on bombing have varied, with the following highlights:

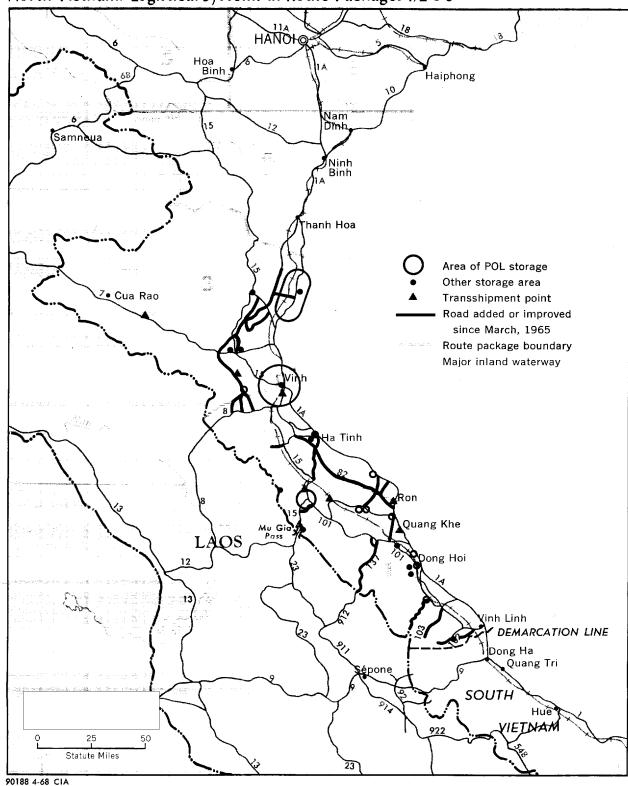
- Hanoi has followed a dual political strategy. It has attempted to assure the continuation of the restrictions while it presses for an end to all the raids. Its desire to see the restrictions continued can be viewed in its cautious handling of the diplomatic exchanges on selection of a site for "contacts" with the United States. In this diplomacy, it has taken a stance which it apparently hopes is sufficiently flexible to dissuade the United States from renewing full-country air assaults. Meanwhile, North Vietnamese propaganda has been alleging that the United States is conducting indiscriminate terrorist raids against the populace south of the 20th Parallel in an attempt to build pressure for a complete US bombing cessation. Domestically, Hanoi has tried to prevent a general letdown by urging continued preparedness and cautioning against the hope of an early end to the war.
- 2. Communist China has publicly characterized the reduction in bombing as a "fraud" designed to "get from the conference table what the United States cannot get on the battlefield." However, privately the Chinese have preserved some flexibility on the negotiating issue, and Peking, while advising against

negotiations, has also stated its full diplomatic support, if Hanoi decides to negotiate.

- 3. The USSR's leaders are certainly pleased with the bombing limitation and Hanoi's response, since they have long been seeking a de-escalation. There is no indication of the advice that Moscow has been giving Hanoi in private in recent weeks. Publicly, the USSR has been urging a full halt to the bombing.
- 4. The general reaction of non-Communist Asia and of Western European governments has been favorable. French reaction, while initially favorable, was tempered by De Gaulle's reminder that the pause, while important, was "neither general nor unconditional." The official position of France has been a hope that preliminary talks would lead to a total and unconditional cessation of the bombing and then to negotiations. On the other hand, Singapore and Malaysia expressed some apprehension about their future as a result of the US limitation.

A change in the bombing program to move the cut-off up to the 20th Parallel from the 19th would not add major target opportunities at this time. There are 80 miles of rail lines and more than 150 miles of primary roads which contain about a dozen bridges of target significance. Thanh Hoa is the most important transshipment point and staging base in the area, and more active use of its facilities may now be under way, although we have no hard evidence of this. If evidence does show Hanoi to be making use of the Thanh Hoa and other facilities just over the 19th Parallel as a major bomb-free staging area, this region would then present lucrative targets.

# North Vietnam: Logistical Systems in Route Packages 1, 2 & 3



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### I. Activities North of the 19th Parallel

## A. Haiphong Shipping

Preliminary data for April do not show any significant change in the level of seaborne trade to North Vietnam. A decline of 8 percent in ship arrivals and a decline of 4 percent in imports, below the monthly averages for the first quarter of 1968, took place. A drop of 76 percent in imports of fertilizer and an increase of 36 percent in petroleum represented changes of ship loadings that were decided upon well before 31 March.

Seaborne Imports to North Vietnam

	Thousand Met	ric Tons
Commodity	Monthly Average First Quarter 1968	Preliminary April 1968
Total	152.7	146.5
Foodstuffs Fertilizer POL Timber	46.7 18.3 33.7 2.7	39.8 4.3 45.7
Miscellaneous and general	51.3	56.7

Exports in April increased substantially over the level of the first quarter of 1968. Coal exports were up 51 percent, probably as a result of reduced congestion at the coal ports of Cam Pha and Hon Gai.

Average layover times of ships departing Haiphong improved considerably in April, dropping to 23 days from 28 days in March. This improvement probably is due to a decrease in unloading interruptions as a result of the virtual cessation of air raid alerts in Haiphong. The volume of cargo in open storage in Haiphong decreased sharply prior to the bombing halt, and photography since that time has not been sufficiently clear to permit a reassessment of the volume of cargoes in open storage.

Since the bombing halt, there has been bolder daylight activity by the North Vietnamese in Haiphong. On two different occasions in April, tracked prime movers were observed during daylight hours moving antiaircraft guns near gun emplacements in Haiphong. The moving of antiaircraft guns into and out of emplacements has not previously been observed in Haiphong, and in the past presumably occurred at night.

The reappearance of the large Soviet-made suction dredge Zemlesos No. 8, which has not been seen since June 1966, was also observed. This vessel presumably has begun dredging the ship channel to remove accumulated silt, which has limited the draft of incoming ships since early 1967. The lack of dredging of the ship channel since mid-1966 probably reflected North Vietnam's unwillingness to risk US air attacks on the dredge. Its reappearance suggests Hanoi's confidence that the dredge can operate without risk of attack.

### B. Reconstruction

# 1. Industry

Reconstruction of industries now under way in North Vietnam is a continuation of activity begun late in 1967 and includes work on at least six electric powerplants and on the important Haiphong Cement Plant. No reconstruction of industries can be identified as having started after 31 March. General reconstruction of bomb damaged industry is not likely to be undertaken until the bombing halt gains some degree of permanence and other priority repairs to major facilities on lines of communication (LOC's) have been completed.

Repairs are currently being made to at least six electric powerplants -- the Hanoi Thermal Powerplant, Haiphong West, Viet Tri, Thai Nguyen, Hon Gai, and Ben Thuy. Restoration of the heavily damaged Haiphong West Powerplant was first noted during March. About 40 percent of national installed generating capacity is in operation, but repairs now under way could increase serviceable capacity

to 60 percent within six months. Full restoration of North Vietnam's electric generating capacity will require up to two years.

The only major manufacturing plant known to be undergoing repair is the Haiphong Cement Plant. Repair work was first noted in March, and one kiln was observed in operation on 23 April. The plant could be operating at about 20 percent of capacity within six months, although complete restoration would take one to two years. Plants moderately damaged -- the Bac Giang Chemical Fertilizer Plant and the Viet Tri Paper Plant -- could be restored to full operations within six months. The Thai Nguyen Iron and Steel Complex and the Nam Dinh Textile Plant probably would take one to two years to complete restoration.

# 2. Transportation

Aerial photography, although limited, shows that the North Vietnamese are taking full advantage of the restricted bombing program to repair their LOC's north of the 19th Parallel, primarily in the Hanoi and Haiphong areas.

Recent visitors to Hanoi report that repair efforts are continuing on the Doumer Rail/Highway Bridge. In addition, the completion of a rail bypass bridge south of the Doumer Bridge provides a second bypass for rail traffic into and south of the North Vietnamese capital. Aerial photography showed that the 2,800-foot bypass bridge was useable, but possibly only for shuttling cars without locomotives. The rail ferry bypass to the Doumer Bridge continues to be used. Photography revealed about 200 pieces of rolling stock and six locomotives near the ferry.

Photography showed that the Haiphong Railroad/Highway Bridge was operational for rail traffic. Photography showed this structure to be severely damaged, with some 200 feet of the 295-foot bridge in the water. The repair of this key bridge will greatly ease the problem of clearing seaborne imports from Haiphong.

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### C. Manpower

There have been no discernible changes since 31 March in the tasks assigned to the civilian and war-related labor force. A partial cessation of the bombing would not be expected to bring an immediate release of the estimated 200,000 full-time workers diverted to repair work and to moving supplies. Months of repair work remain as well as the threat of a resumption of the bombing.

A large number of the part-time workers on civil and air defense and on LOC's probably have had a welcomed respite from their extra labors. However, even earlier there had been a considerable respite because of the lessening of US air attacks against the northern areas. There is no firm evidence that additional laborers have been sent south to work on the LOC's in the southern route packages.

An observer wrote in early April that the people of Hanoi were relieved by the recent peace overtures but that life continued much unchanged. Air raid shelters were still being dug and workers still journeyed to the country on Sunday to visit their children.

# II. South of the 19th Parallel

# A. Scale of Attack Since 31 March

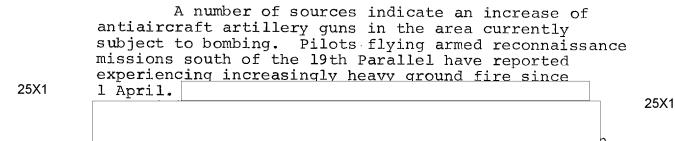
During the period 1 through 23 April 1968, an average of 218 Rolling Thunder attack sorties per day were flown against targets below the 19th Parallel in Route Packages I, II, and the southern one-third of III. This rate of attack is the same as the number of attack sorties per day flown over all of Route Packages I, II, and III during April 1967, but is only about three-fourths the rate throughout North Vietnam during this month of 1967. Attacks in April represent a substantial increase over the average of 162 attack sorties per day flown throughout North Vietnam during the first quarter of 1968. Attack sorties flown over the Panhandle and throughout North Vietnam during the first quarter and April of 1967 and 1968 are given in the following tabulation:

	Route Packages I, II, and III		Route Packages I Through VI and the Buffer Zone	
	1967	1968	1967	1968
January-March				
Attack Sorties per Day Total Attack Sorties	170 15,430	123 11,160	226 20,550	162 14,730
<u>April</u>				
Attack Sorties per Day Total Attack Sorties	221 6,620	$\begin{array}{c} 218 \ \underline{a}/\\ 5,020 \ \underline{\alpha}/\end{array}$	2 <b>99</b> 8,960	220 <u>a/</u> 5,050 <u>a</u> /

a. Number flown during 1-23 April 1968.

#### B. Air Defenses

Since 1 April, there have been indications of an augmentation of antiaircraft artillery in the Panhandle south of Thanh Hoa. There is no evidence of an increase in the number of SAM battalions in the southern area or of a return of significant numbers of jet aircraft to indigenous airfields.



photography have shown an trucks traveling south

increase in the number of trucks traveling south towing antiaircraft artillery.

There is no firm evidence of a shift in the deployment of SAM battalions. Two active units continue to operate near Thanh Hoa, two or possibly three in the Vinh area, and two or possibly three in the area immediately north of the DMZ. Construction and activation of new sites continues in the northern portion of the country as well as in the south, with no discernible increase in the south.

No significant redeployment of jet aircraft to North Vietnamese airfields from Chinese fields has been noted. Four MIG-21's have been redeployed to North Vietnam from China since 1 April, increasing the number of MIG-21's in North Vietnam to 12. The North Vietnamese have increased the number of IL-28's based in North Vietnam to four, an increase of two. These movements are not believed to be a direct response to the partial bombing halt. A deployment of MIG-17's to China began prior to the announced bombing halt.

#### C. Movement of Supplies

#### 1. Trucks and Watercraft

South of the 19th Parallel, the average daily sightings of motor vehicles for the period since 31 March has been 60 percent greater than the average daily figure recorded during the first quarter

of 1968. Weather has also improved, however, and there has been a substantial increase in the number of attack sorties flown in Route Packages I, II, and III since 31 March.

The increased motor vehicle activity observed has been concentrated along coastal Route 1A and Routes 82, 15, 151, and 101, with the heaviest traffic noted on 15, 151, and 101 near Bai Duc Thon and the Mu Gia Pass. During the night of 18 April, pilots reported seeing more than 200 trucks on Route 15 near Bai Duc Thon moving south toward the Laotian border. Even while under attack, these vehicles kept moving with their headlights on. Large numbers of trucks are continuing to flow through this area toward Laos.

Aerial attacks over the Panhandle of North Vietnam have increased the number of trucks destroyed and damaged. During the first three weeks of April, effective vehicle losses have averaged 63 per week, compared with only 37 per week during the first quarter of 1968.

Significant increases in water craft activity south of the 19th Parallel have been observed in April by pilots and by photography. The number of water craft counted by pilots during 1-21 April was more than double the number counted in March. Even more significant is evidence that large barges and coastal craft are again being used in the southern part of North Vietnam. A field readout of a daylight photographic mission of 22 April revealed not only an unusually large number of small craft on the Song Ca River near Vinh but eight coastal vessels of 100-ton capacity each, three barges of 300-ton capacity, and two LCM's of 40-ton capacity. In total, the craft observed from the mouth of the river to a point 15 nautical miles upstream had an estimated carrying capacity of more than 4,300 tons. Such numbers and sizes of craft have not been observed in this area previously except during the Tet standdown of over a year ago. The smaller craft were being used to transship further south on the coastal route leading towards Mu Gia Pass.



# E. Truck Traffic into Laos

Truck traffic moving from North Vietnam into Laos has increased further in April over the high level of earlier months. Although the data are preliminary and the basis of comparison has shifted from one road watch team to another, it appears that the increase in traffic in April could be as much as 40 percent above the March level. If each southbound truck carried 3 tons of supplies, this traffic could have delivered about 260 tons a day into Laos during March, compared with 230 tons a day in January and February and 95 tons a day during the last quarter of 1967. A 40-percent increase in April would raise the deliveries to more than 350 tons a day.\* There are indications, however, that some of the trucks moving south in recent months have carried troops instead of cargo.

<sup>\*</sup> Reporting during about 22 days of April from a team located on Route 912 for the first time in over a year indicates that [footnote continued on p./4].

# F. Infiltration of Personnel

Since 31 March, infiltration of personnel has continued at the accelerated pace that has prevailed since January.

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Limited collateral evidence suggests increased infiltration/logistic movements, but this is from the period before the bombing halt in the north. A prisoner of war claimed that his unit was trucked from an area just south of Hanoi to Kontum Province in about 11 days during February.

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civilians into labor units for porter duties was under way in at least Lai Chau and Son La Provinces in northwest North Vietnam. Finally, an editorial of 24 March in the official North Vietnamese press called for increased mobilization of the army and people.

traffic on this second major access route may not have been as high since the beginning of 1968 as has been estimated. Even though the tonnage delivered into Laos may not have increased to 350 tons a day in April, there is ample evidence that the total traffic into Laos has been increasing throughout this dry season.

Furthermore, traffic during April is normally the highest of any month of the year, as preparations are being made for the rainy season that usually begins in May.

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# III. Political Reactions

### A. North Vietnamese

Hanoi has followed a dual political strategy since the bombing was restricted. It has attempted to assure the continuation of the limitation now in force while pressing for a total end to the air attacks. It has thus maneuvered very carefully in its diplomacy concerning the opening of "contacts" on the war with the United States. Hanoi has taken a stance which it apparently hopes is sufficiently forthcoming to prevent the United States from renewing full country air assaults, but which will eventually enable North Vietnam to gain the psychological advantage of naming the site for the talks.

Meanwhile Hanoi has been keeping up the pressure for a full halt in bombing. Regime propaganda has been steadily alleging that the United States is conducting an intense campaign of terror attacks against the populace south of the 20th Parallel. At the same time, in political contacts with the Free World states, the North Vietnamese are requesting diplomatic pressure on Washington to end the bombing. On occasion, Hanoi has claimed that the United States has bombed locations north of the 20th Parallel -- apparently to lay a basis for claims of US "treachery" and "deception." Hanoi has not, however, attempted to make a major issue of these latter claims.

Domestically, some propaganda in North Vietnam has urged continued preparedness despite the bombing restrictions and has cautioned against hoping for an early end to the war. The Communists doubtless believe they will face some letdown in effort by their armed forces and populace if the lull continues and are apparently trying to head it off with an exhortatory campaign. Western observers who have been in Hanoi since the limited bombing halt went into effect have reported that the mood of the city has changed and become much lighter. Children have been noted in greater numbers. Night activity, including repair work, is carried on at a greater pace. Some facilities

which have been damaged for several months are now being repaired.

There has been little in the regime's propaganda stressing the necessity of greater efforts at transportation in the areas covered by the restrictions. Such a campaign could be carried out at the local level, however, and would not necessarily be reflected in overt regime propaganda obtained by the United States.

### B. Communist China

The Chinese Communists have avoided comment on Hanoi's 3 April offer to hold "contacts" with US representatives to establish a date for a complete cessation of bombing. They have concentrated instead on trying to discredit the President's speech as a "big fraud" aimed at masking an expansion of the war. In the most recent statement on the subject, Foreign Minister Chen Yi on 26 April characterized the reduction in bombing as a "fraud" designed to "get from the conference table what the US cannot get on the battlefield." He professed confidence that the Vietnamese people understand that without military victory "it is impossible to solve any question."

Despite this adamant line, the Chinese have been careful to preserve some flexibility on the negotiations issue. They have privately stated in recent months that although Peking has advised the Vietnamese Communists to avoid negotiations, China would give Hanoi its full diplomatic support if it elects to proceed with talks.

# C. USSR

Soviet reaction to the President's 31 March speech was skeptical and deprecatory until Hanoi's 3 April reaction, after which Soviet propaganda quickly got into line with Hanoi's own.

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Soviet leaders are certainly pleased with the bombing limitation and Hanoi's response, since they have long been seeking a de-escalation. is no indication at this time what, if any, advice they have been giving Hanoi in private. Soviet media, however, have been pressing for the extension of the bombing halt to the whole of North Vietnam and stressing that the onus for further de-escalation rests on the United States. in Rawalpindi on 17 April, Kosygin reiterated that the complete cessation of bombing and all acts of war against North Vietnam was "the first necessary step" toward a political settlement and the "minimum demand" to be met. This position has also been expressed by Soviet officials in private conversations and is a line echoed by East European countries as well.

# D. Western Europe

In general, all of Western Europe welcomed the curtailment of the bombing as a long overdue move.

# 1. United Kingdom

Recent British reaction to Vietnam developments has focused on the dispute over a site for peace talks. Little has been said lately about the bombing pause.

#### 2. Canada

Since their initial favorable reactions to the President's curtailment of the bombing, Canadian officials have made few public comments.

#### 3. West Germany

German opinion continues strongly to approve the bombing restrictions instituted by the United States and the bid for talks, but these developments have in recent weeks been overshadowed by Germany's own domestic problems, such as the student-led disorders and East German harassment of access routes to West Berlin.

### 4. Scandinavia

The bombing restrictions and the possibility of talks have kept some of the opposition pressure off of the governments, but, on the other end of the spectrum, it has not prevented pro-North Vietnam elements from conducting their public protest activities.

### 5. Italy

The Italian reaction to the President's decision to reduce bombing was overwhelmingly favorable.

Prime Minister Moro on 1 April spoke of the 31 March speech as directed toward the conditions for beginning negotiations on Vietnam, "as was so desired by public opinion. It shows the good will of the American people and government."

#### 6. France

Initially, the French public, press, and unofficial government reaction to President Johnson's announcement of a bombing halt and call for negotiations was favorable.

Some dissatisfaction with the limitations the United States imposed on the bombing pause was reflected in De Gaulle's reminder that the pause, while important, was "neither general nor unconditional" -- conditions which Hanoi had strongly emphasized. A later public statement reflecting the official position of the French government made explicit the hope that any preliminary talks would lead to a total and unconditional cessation of the bombing and then to negotiations.

# IV. Targets Between the 19th and 20th Parallels

The North Vietnamese Panhandle between the 19th and 20th Parallels serves primarily as the wide end of a funnel through which men and supplies move to the southern part of North Vietnam, the Laotian Panhandle, and northern South Vietnam. Main supply lines through the area include the Hanoi-Vinh railroad, highway Routes 1A and 15, the inland waterway between Thanh Hoa and Vinh, and the coastal waterway to the area of Vinh. Lifting bombing restrictions from the 19th Parallel to the 20th Parallel would permit attacks against about 80 miles of rail line and more than 150 miles of primary road. In addition, inland and coastal watercraft in the area could be The more important LOC's and other targets are listed in the tabulation below. There are also numerous other rail and highway bridges, fords and ferries, transshipment points, truck parks, and dispersed supply and storage areas.

Most fixed military targets in the area such as barracks and ammunition depots are inactive, the men and supplies having been dispersed. The unfinished Bai Thuong Airfield probably can be made serviceable for limited jet operations in about two months, with uninterrupted construction.

Attacking the targets between the 19th and 20th Parallels would hinder but not seriously impede the movement of supplies to the south. The North Vietnamese constructed several bypass facilities for almost all of the important rail and highway bridges throughout the area before bombing restrictions were imposed. Even when the rail line was under heavy attack, the North Vietnamese tried to keep the line repaired for through rail service at least as far south as Thanh Hoa and used rail shuttle service on major segments on the rest of the line.

Other than the major LOC's, Thanh Hoa is the most important target area between the 19th and 20th Parallels and has been used as a major staging and transshipping area in the past. The Ham Rong Transshipment Points East and West, in the vicinity of

JCS Number	Name		Location	<u>n</u>
Numbel	Dong Phong Thuong RR/Hwy Bridge Dong Phong Thuong Hwy Bridge on Route 1A Trinh Ha Hwy Bridge on Route 1A Thanh Hoa RR/Hwy Bridge Phuong Dinh Hwy Bridge on Route 1A Thanh Hoa Hwy Bridge on Route 1A Qui My Hwy Bridge and Qui My Hwy Bridge South Dai Thuy RR Bridges Nos. 1, 2, and 3 Qui Vinh RR Bridge No. 1	19 19 19 19 19 19	59N/105 58N/105 54N/105 50N/105 50N/105 45N/105 24N/105 22N/105 16N/105	51E 50E 49E 48E 48E 46E 45E 41E
	Dong Khe RR/Hwy Bridge Dong Khe RR Bridge Ly Nhan Hwy Bridge on Route 1A Ham Rong Transshipment Points East and West Tu My Transshipment Point Thanh Hoa Rail Facilities Bai Thuong Airfield Thanh Hoa/My Duc Radar Site Ban Thach Hydro Powerplant Thanh Hoa Thermal Powerplant	19 19 19 19 19 19	04N/105 04N/105 00N/105 50N/105 01N/105 48N/105 49N/105 53N/105 54N/105	35E 36E 48E 35E 46E 23E 57E 32E

Thanh Hoa, have at least 80 percent of their capacity remaining active. The area is served by the Thanh Hoa Thermal Powerplant (with five megawatts capacity) and the Ban Thach Hydro Powerplant (with one megawatt capacity). The Thanh Hoa plant is now operating at about one-half capacity and the Ban Thach plant at full capacity. One of the more important radar sites in the area is at Thanh Hoa/My Duc, which has at least one-third of its capacity remaining. Heavy attacks have been made against these targets in the Thanh Hoa area in the past without extracting a prohibitive price from the North Vietnamese.

Although a complete assessment is not possible because of the limited information, the value of the area between the 19th and 20th Parallels as a staging area probably has increased since the restrictions on the bombing. Increased use is probably being made of facilities at Thanh Hoa. In addition the expansion and greater use of truck parks and dispersed storage and supply areas just north of the 19th Parallel may be in process. The distance is so short from the

19th Parallel to Vinh that high speed coastal craft can now make the run to Vinh and return under cover of darkness.

If the North Vietnamese exploit the area between the 19th and 20th Parallels as a major staging area for a continued upsurge of materials to the south, the area could present lucrative targets.

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