Rolling Thunder
March - June 1965

HQ PACAF
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Prepared by Southeast Asia Team
Project CHECO
Rolling Thunder
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The counterinsurgency and unconventional warfare environment of Southeast Asia has resulted in USAF airpower being employed to meet a multitude of requirements. These varied applications have involved the full spectrum of USAF aerospace vehicles, support equipment, and manpower. As a result, operational data and experiences have accumulated which should be collected, documented, and analyzed for current and future impact upon USAF policies, concepts, and doctrine.

Fortunately, the value of collecting and documenting our SEA experiences was recognized at an early date. In 1962, Hq USAF directed CINCPACAF to establish an activity which would provide timely and analytical studies of USAF combat operations in SEA and would be primarily responsive to Air Staff requirements and direction.

Project CHECO, an acronym for Contemporary Historical Examination of Current Operations, was established to meet the Air Staff directive. Based on the policy guidance of the Office of Air Force History and managed by Hq PACAF, with elements in Southeast Asia, Project CHECO provides a scholarly "on-going" historical examination, documentation, and reporting on USAF policies, concepts, and doctrine in PACOM. This CHECO report is part of the overall documentation and examination which is being accomplished. It is an authentic source for an assessment of the effectiveness of USAF airpower in PACOM when used in proper context. The reader must view the study in relation to the events and circumstances at the time of its preparation—recognizing that it was prepared on a contemporary basis which restricted perspective and that the author's research was limited to records available within his local headquarters area.

ROBERT E. HILLER
Director of Operations Analysis
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# UNCLASSIFIED

## ROLLING THUNDER

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The following report has been prepared to document the execution of the Rolling Thunder program in North Vietnam from its inception. The format was designed to cover the period from the first Flaming Dart strikes through 30 June. However, to provide continuity to the reader, certain information pertaining to July 1965 has been included. Certain of this information will be repeated in the next volume of this report.
Air Strikes Against North Vietnam (Flaming Dart)

Plans for air strikes against North Vietnam were begun as early as June 1964 when the JCS asked CINCPAC to prepare 94 targets in the DRV for air strikes. The situation in South Vietnam and Laos at the time was reaching the critical stage and there was greater acceptance of the fact that the aggression would have to be cut off at its source. In August 1964, following attacks on two 7th Fleet destroyers in the Tonkin Gulf, U. S. Navy planes attacked five naval bases in North Vietnam. The force was readied for another strike in September following another reported attack on the De Soto patrol, but this was cancelled. Nevertheless, following the August incident in the Tonkin Gulf, a sizeable deployment of air units to Southeast Asia and other Pacific bases was carried out. Although no retaliatory strikes were made following the mortar shelling of Bien Hoa in November and the Brink BOQ bombing in December, planning for DRV strikes was quite advanced and units were earmarked and ready for such strikes.

In early February when the Viet Cong struck American installations at Pleiku, the order was given for a retaliatory strike. Another strike was ordered less than a week later after the enemy attack on a U. S. enlisted billets hotel in Qui Nhon. Although these strikes were retaliatory, part of the "Flaming Dart" operation order, they triggered off a regular program for strikes against North Vietnam --- Rolling Thunder, begun in March 1965.

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SECRET NOFOR
These air strikes were only part of a much wider U. S. escalation of the war against the communists. They were carried out at the same time additional U. S. ground forces were arriving in strength at military enclaves on the coast of South Vietnam from which they would move out in direct U. S. combat activities. The "Barrel Roll" program of air strikes against the southern Laotian panhandle was begun to put greater pressure on the infiltration routes. In addition, cross-border operations, 34A operations, and continuing air and sea deployments were deepening the U. S. commitment in Southeast Asia.

Yet, in the spring of 1965, the commencement of air strikes against targets in North Vietnam on a regular basis for a time overshadowed the rest of the U. S. effort, resulting in a noticeable improvement of morale in both the U. S. and Vietnamese forces. There were hopes that the combined military and political impact of these strikes would stop the DRV support of Viet Cong forces in South Vietnam and Pathet Lao forces in Laos. This was a new and radical change in the U. S. war effort, a turn which many USAF key personnel had long advocated. It was an attempt to get at the source of aggression, to strike the roots of the insurgency rather than its end product - the jungle fighter who was highly skilled in insurgent tactics. While it is still too early to fully evaluate the results of this escalation, it appears these air strikes had made the infiltration a more difficult and costly task and had slowed its progress. In fact, starting in February 1965,
the month the attacks began, the DRV began infiltrating regular units across the border on an ever increasing scale. The 325th Division, North Vietnamese Army, whose barracks, assembly, and supply areas were the first targets of the Rolling Thunder program, infiltrated as a unit to directly participate in the fighting. The conduct of air strikes against North Vietnam targets also proved to be a highly difficult task, with the enemy concentrating anti-aircraft weapons, including SA-2 missiles, in the defense of military installations.

The strikes against North Vietnam, like operations in the south, were bound by strict rules of engagement with control of many detailed aspects of operations resting in Washington. The program for hitting targets began on a relatively modest scale south of 20 degrees North and was later expanded to cover practically all of North Vietnam, except the Hanoi-Haiphong area and the CHICOM border area. Nevertheless, the selection hard of targets and the designation of areas for armed reconnaissance was done at the Washington level through July 1965. Results achieved must be considered in this context.

This study narrates the expanding program for striking targets in North Vietnam from the retaliatory strike on 7 February through July 1965. Details of specific strikes are fully documented in the USAF and PACAF bi-weekly reports titled "Analysis of Air Operations Southeast Asia" and will not be repeated here. This study is more concerned with the general pattern of activity.
FLAMING DART
TARGETS

Vit Thu Lu Barracks (36)
Chap Le Barracks (39)
Vu Con Barracks (32)
Dong Ho Barracks (33)
Quang Ke Naval Base (74)
Dong Ho (24)
Phue Yen
Hanoi
Than Hoa Bridge (14)
Haiphong
Vinh
Nepe
Dong Ho

SECRET
Flaming Dart

By coincidence, CINCPAC's operations order, "Flaming Dart", covering retaliatory strikes on NVN in event of an attack on the resumed De Soto patrol in the Tonkin Gulf, came on the same day as the Viet Cong attack on Pleiku. While these strikes were directed in event of "clearly identifiable attacks by NVN forces" on the De Soto patrol, they would also be ordered in case of another provocation, such as the mortar attack on Bien Hoa.

The CINCPAC "Flaming Dart" order had three options. The first called for attacks on Targets #33, #36, and #39. Target #33 was the Dong Hoi barracks, which would use 24 strike and 16 flak/CAP aircraft from CINCPACFLT. Target #36, also assigned to PACFLIT, was the Vit Thu Lu Army barracks to be hit with 24 strike and 12 flak/CAP aircraft. PACAF was assigned Target #39, the Chap Le barracks, which was to be hit with 40 strike aircraft supported by 16 flak/CAP aircraft.

The second option in the CINCPAC order called for PACFLIT strikes with 28 strike and 24 support aircraft on Target #24, the Chanh Hoa barracks. The other target in Option Two was #32, the Vu Con barracks, assigned to PACAF, which would use 10 strike and 12 support aircraft.

Option Three included two targets, one for PACAF and one for PACFLIT. Target #14, the Thanh Hoa bridge, was to be struck with 32 strike and 16 flak/CAP aircraft of PACAF. The Quang Khe Naval Base,
Target #74, was a PACFLT target to be struck with 22 strike and 6 support aircraft. \cite{2/}

The CINCPAC order specified that CINCPACAF would assume operational control of PACAF forces deployed on mainland Southeast Asia, which were currently under the control of COMUSMACV. PACAF was the coordinating authority for the conduct of all air strikes to preclude mutual interference through coordination of timing and routes. This, it was assumed, would be delegated to the Commander, 2d Air Division. The type of aircraft used on these strikes was left to the discretion of the operational commanders. Optimum conventional ordnance would be loaded on the aircraft, but napalm was not authorized. The timing of the strikes was dependent on the number of targets to be attacked with forces available. If all targets were to be hit, then a recycle of forces would be necessary to do the job in a day. \cite{6/}

The order anticipated that the strike forces would be placed on a high state of alert around 7 February if the De Soto patrol was directed during the proposed period of 7 - 9 February. \cite{7/}

On 6 February, the Viet Cong attacked U.S. installations at Pleiku causing considerable materiel and personnel damage. In reprisal, the JCS directed the execution of Option One of Flaming Dart, which called for strikes against Targets #33 (Dong Hoi Barracks), #36 (Vit Thu Lu Army Barracks), and #39 (Chap Le Barracks). In addition, Target #32 (Vu Con Barracks) from the second option was included for a strike by VNAF. \cite{8/}
The Navy strike against Dong Hoi was flown on 7 February employing twenty A-4C's and nine A-4E's as strike aircraft with another thirty aircraft in support roles. The target encompassed 275 major buildings. It was the headquarters of the 325th Division and home for four battalions, housing a total of some 12,500 men. The Navy planes destroyed 16 buildings and damaged six, using 200 250 pound bombs, 323 2.75 rockets, three Zuni rockets and 20 mm ammo. Eight percent of the buildings on the site were destroyed or damaged. This may be considered as a relatively light damage factor but the target was rather widely dispersed and weather was 1500-2300 overcast with scattered clouds below. AA fire was heavy and an A-4E was shot down while seven other aircraft were damaged. Prior to the first strikes on 6 February, there was no low level tactical recce program for North Vietnam. Photography for targeting had been collected by the U-2 and other strategic recce programs and was not suitable for detailed operational planning which would allow the most effective tactics and weapon delivery.

Due to weather, Targets 32, 36, and 39 were not struck as scheduled. RF-101 reports showed a 100 foot ceiling, one mile visibility and tops at 6000 feet. These were the USAF and VNAF targets and the decision was made by Major General Joseph H. Moore, the 2d Air Division Commander, to cancel out.

Admiral Sharp, while admitting that there was no real necessity to defend the decision of General Moore to cancel the attack on Chap Le, said that the decision was "professionally and indisputably
sound. "All things considered", he added, "It was not an easy one to make."

Thirty A-1H's and A-1E's from a combined VNAF/USAF force assembled at Da Nang hit the Chap Le barracks just north of the DMZ on the early morning hours of 8 February. The barracks complex contained some 45 barracks buildings, four warehouses, four probable admin buildings, about 40 storage buildings and an ammo storage area with two ammo storage buildings and extensive personnel trenches. Four medium and six light AAA positions were in the target area. The 26 VNAF A-1H's were the primary strike aircraft. USAF RF-101's and F-100's supported as BDA and flak suppression aircraft.

The VNAF approached the target area from the northwest and rolled in from the west, delivering a total of 97,920 pounds of ordnance. Air Force F-100's dropped 30,000 pounds of ordnance on flak suppression. USAF pilots estimated 95 to 100% of the target area destroyed. A great deal of flak was thrown at the attacking aircraft but none of the aircraft were hit by flak. Sixteen aircraft were hit by small arms and automatic weapon fire from .30 and .50 caliber guns and one VNAF pilot was wounded by plexiglas fragments. Another was forced to bail out just north of Da Nang but he was recovered with slight injuries. In general, the strike was considered a total success.

Almost immediately after these first strikes, CINCPAC recommended to the JCS that they be followed-up with continued pressure on the North Vietnam. This would not only improve the military
situation but bolster the political situation in RVN. CINCPAC suggested also that US aircraft participate on a continuing basis with the VNAF inside the RVN. He anticipated larger scale VC attacks in the coming months, thus providing more profitable targets. Careful employment of US aircraft could minimize adverse political and psychological reactions. Secondly, CINCPAC wanted frequent De Soto patrols since the CHICOMS and North Vietnamese probably estimated that these patrols were used for the purpose of generating reaction against which the US could retaliate. This action would put them on the defensive. Third, he wanted to start medium-low altitude photo recce with fighter cover over infiltration route targets in southern part of North Vietnam. This would provide intelligence and have a psychological and political impact on the north. Fourth, CINCPAC suggested a broadening of objectives in attacks by US aircraft in Laos to include direct support of friendly air and ground operations. This, of course, would depend on the attitude of the Laotian government and other political considerations. Finally, CINCPAC recommended the US, after assessing the response to previous actions, should begin armed recce by US and VNAF aircraft across the DRV border.

The Viet Cong attack on Pleiku and the US retaliation triggered off a series of other actions which marked a turning point in the US effort in Southeast Asia. CINCPAC was directed to alert one battery from a Marine Light Anti-Aircraft Missile battalion for airlift to Da Nang from Okinawa and the 173rd Airborne Bridgade
from Okinawa to Tan Son Nhut. CINCSTRIKE was directed to alert
ten tactical fighter squadrons for movement to West Pac. Thirty
SAC B-52's were alerted for conventional bombing operations.
CINCPAC was also directed to position one amphibious group with a
Marine SLF off Cape St. Jacques and a second one off Da Nang with a
six hour reaction time. 14/

CINCPAC was told to expect a government announcement very
shortly directing the withdrawal of 5235 non-combatant personnel
from South Vietnam. At 0100 EST on 7 Feb, all PACOM forces in
RVN, Thailand, and the South China Sea area assumed the DEFCON 2
position. 15/

In reprisal for the VC attack on an enlisted men's billet
in Qui Nhon on 10 February, the JCS directed a Flaming Dart attack
on Chanh Hoa Barracks (Target 24) located near Dong Hoi airfield
and consisting of 76 major buildings occupied by part of the 325th
Division. The US Navy was directed to carry out this strike,
using 71 strike aircraft with 26 more flying in support. This time,
the Navy planes destroyed 20 buildings and damaged 28% of the total.
The weather was 2000-3000 feet in the target area with a visibility
of one to seven miles. The Navy lost two A-4's and one F-3 on this
mission.

This strike marked the end of the "Flaming Dart" reprisal
strike program, which was followed by the Rolling Thunder program,
for systematic strikes on the 94 target system. Although the
Flaming Dart strikes had a negligible effect on the DRV military
capability, they did signal to the DRV that any serious act of provocation by the VC would be answered with retaliatory strikes.

It was felt that the results might have been better if commanders had wider latitude on the selection of ordnance and the composition of strike forces. Also, there were day to day changes in targets to be struck, and in one case, the urgency of getting the strike off may have forced commanders to use what was available and uploaded. Further, restrictions on pre and post-strike recce resulted in a lack of recent target photos of good quality.

Immediately following the Viet Cong attack against the Qui Nhon billet area on the night of 10 February, the 2d Air Division issued its operations order for the reprisal strike. The strike was planned for VNAF forces against the Vu Con Army Barracks and supply area with the secondary target being the Chap Le Barracks. The USAF was to conduct flak support, MIG CAP, and RESCAP in support of the VNAF strike. Eight F-100's from Da Nang were designated for flak support, four F-100's from Da Nang would provide MIG CAP, four more would provide an airborne RESCAP, with four others on ground alert for RESCAP. Five RF-101's from Tan Son Nhut were directed to provide weather recce, pathfinder duties, and BDA, with four Da Nang F-100's escorting BDA aircraft. USAF Forces were not used on this strike, however. 16/

The employment of U. S. Navy aircraft on both the first and second "Flaming Dart" retaliatory strikes against RVN with the USAF
lumped with VNAF as a flak/CAP force only created misgivings in
2d Air Division about whether the full air power capability in SEA
was being used. After planning during the night for a distinct USAF
strike on a target for the second mission, the 2d Air Division was
advised that the Navy would hit the target. 17/

Considerable difficulty was experienced by the 2d Air Division
planning officers on early strikes. Second Air Division originally
received a target list from a MACV planning conference held on
10 February. Three hours were spent on planning for the strike on
this target when 13th Air Force notified 2d Air Division that a
different target list was to be used. The 2d Air Division said it
had the MACV target list and continued working on it. Shortly after,
a phone call from PACAF indicated that JCS had changed the MACV
target list and that 2d Air Division would hit Target #14, not #24.
The 2d Air Division began working on the strike against Target #14
when information was received that Target #14 was scrubbed. Also,
just before the F-105's were ready to deploy to Da Nang from Thai
bases, word came in that they could strike from Thai bases. 2d
Air Division was informed that the Navy would hit Target #24, VNAF
Target #32 and the USAF would be limited to a flak/CAP role. These
last minute changes were difficult to assimilate, particularly
where VNAF forces were involved. 18/

PACAF subsequently told 2d Air Division that the changes, in
practically all cases, stemmed from Washington level with minimum
lead time. The broadening of flak suppression requirements by
CINCPAC resulted in PACAF forces being deleted from the strike plan and assigned the flak/CAP role. 19/

The new CINCPAC operation order on 11 February 1965 covering reprisal strikes against North Vietnam said that "in the event of serious attacks or provocations, a national decision may be made to retaliate by undertaking punitive and crippling air strikes against pre-selected targets in NVN". The purpose of these strikes would be to get maximum damage consistent with the forces available and to impress upon the Hanoi and Peking leaders that these provocations would bring prompt and destructive response from the U.S. 20/

The real significance of these Flaming Dart missions was political, not military. The first attack was made while Soviet Premier Kosygin was in Hanoi and there was speculation that the Viet Cong attack on Pleiku may have been tied to the Kosygin visit. Secretary of Defense Robert S. McNamara at a press conference on 7 February (Washington time) said that the U.S. could not fail to respond to the Pleiku attacks without misleading the North Vietnamese as to U.S. intent and the "strength of our purpose to carry out that intent". President Johnson, in a statement released on 7 February, said that intelligence had indicated a more aggressive course of action by the Hanoi regime and that the U.S. had no choice but to "make absolutely clear our continued determination to back South Vietnam in its fight to maintain its independence". The first attack on North Vietnamese military targets was intended to deliver a message which apparently did not register,
considering the 10 February attack on the Qui Nhon enlisted billet. 21/
The Washington Post, on 8 February, editorialized on the U. S. posi-
tion: 22/

...The outlook is made particularly grim
by the general chaos in South Vietnam and
by the aid which the Soviet Union is giving
North Vietnam. The Viet Cong is in control
of much of the countryside and is infiltr-
ating the cities. Troop morale is low.
War-weariness afflicts a people at war for
20 years. There is no foreseeable prospect
for a stable government which can command
the confidence of the people. If the Russian
intervention caused the United States to
refrain from such military operations as that
it undertook Sunday, it would remove the only
military card we have left - the threat of
reprisal for stepped-up aggression....
ROLLING THUNDER
(1st EIGHT WEEKS)

Phu Van Ammo Dep (41/42)
Phu Van Sup Dep (53)
Xom Trung Hoe Bks (39.5)
Vinh Airfield (5)
Vinh Barracks (38)
Tam Da RR Br (18.6)

Hu Gia Pass Bar (39.3)
Thayyen Hwy Br (18.2)
Dong Hoi Airfield (4)
Chau Hoi Barracks (24)
Xom Dung Ammo Dep (64)

Vit Thu Lu Barracks (36)
Vu Con Barracks (32)
Chap Le Barracks (39)

Provisional Military Demarcation Line
On 12 February, the JCS recommended an eight week program for action against North Vietnam, which was forwarded to the Secretary of Defense for discussion at top levels. The air phase of this program called for one U. S. plus one SVN strike on each of two days a week against the following targets:

**First Week:**
- Target 32 - Vu Con Bks
- Target 36 - Vit Thu Lu Bks
- Target 67.2 - Vinh Son Radar
- Target 18.3 - Cau Tung Hwy Bridge

**Second Week:**
- Target 4 - Dong Hoi Airfield
- Target 24 - Chanh Hoa Bks
- Target 39.2 - Vinh Linh Bks
- Target 39.3 - Mu Gia Pass Bks

**Third Week:**
- Target 64 - Xom Bang Ammo Depot
- Target 74A - Quang Khe Naval Base
- Target 39.1 - Ben Quang Bks
- Target 18.2 - Thanuyen Hwy Bridge

**Fourth Week:**
- Target 33 - Dong Hoi Bks
- Target 53 - Phu Van Sup Depot
- Target 18.6 - Tam Da RR/Hwy Bridge
- Target 39.5 - Xom Trung Hoa Bks

**Fifth Week:**
- Target 39 - Chap Le Bks
- Target 41/42 - Phu Van Ammo Depot
- Target 64 - Xom Bang Ammo Depot
- Target 18.1 - Dong Hoi Hwy Bridge

**Sixth Week:**
- Target 4 - Dong Hoi Airfield
- Target 41/42 - Phu Van Ammo Depot
- Target 39.16 - Ile Du Tigre Bks/Storage
- Target 39.4 - Quan Len Bks/Stor/Trng

**Seventh Week:**
- Target 36 - Vit Thu Lu Bks
- Target 38 - Vinh Bks and Eq
- Target 71.1 - Phuc Loi Naval Base
- Target 18.4 - Huu Hung Hwy Ferry
Eighth Week:  
Target 5 - Vinh Airfield  
Target 52 - Vinh Sup Depot East  
Target 55 - Vinh Son Sup Depot Southeast  
Target 71 - Ben Thuy Port Facilities.

On these strikes, all flak, CAP and recce sorties would be carried out by U. S. aircraft. Alternates each week would be chosen from the next two weeks list. In case of a MIG reaction, the JCS proposed attacking their bases, with Phuc Yen being attacked at night by 30 B-52's followed at next first light by an attack by 32 fighter bombers supported by eight CAP and eight Flak aircraft.

In addition to the air phase of the program for putting military pressure on North Vietnam, other existing programs would be continued. These were 34A MAROP's and AIROP's, T-28 and Barrel Roll operations in Laos, and De Soto patrols.

The JCS was interested in the interdiction of the Hanoi -- Vinh railway, roads, highway bridges, and ferries as well as radars and telecommunication. Radars and telecommunications should not be attacked piecemeal, but as part of a complete systematic integrated plan.

Replying to a JCS request for comments on an "eight week" program for pressure on the DRV being developed in Washington, CINCPAC cited four key points. First, he wanted low level recce conducted in coordination with air strikes to complement intelligence data currently held. This would allow penetration of jungle canopies, foliage, and camouflage which concealed infiltration installations, and convoys. It would also confuse defenses and serve
to keep North Vietnam off balance. Intelligence data gathered from low level recce would provide a more complete base on which to plan future operations such as 34A operations, naval gunfire, and amphibious operations.

The second point concerned restrictions on the use of Thai bases. The congested base loading in the RVN, particularly at Da Nang, made it highly important that Thai-based forces be used. Based on previous experience, it appeared that Thai-based forces could and should be used for these strikes with the U. S. following the Thai request not to divulge that U. S. aircraft were launched from these bases. CINCPAC said he saw no need for artificial restraints which interfered with operational flexibility.

Third, he wanted the removal of the prohibition on recycling strike aircraft when operationally feasible. Without recycling, larger forces had to be in place.

Lastly, if the tempo of operations continued at no higher level than in the first two weeks of March, CINCPAC wanted to rotate the three carriers in the South China Sea to port for upkeep, removing one at a time.

The JCS directed that the first Rolling Thunder mission be flown on 20 February, but this was delayed until 2 March due to political reasons and weather conditions.

General Khanh, as well as the RVNAF, generally was eager to get going on the program for striking targets in North Vietnam. On 17 February, MACV learned that he had selected three targets,
the Vu Con Army barracks, the Dong Hoi highway bridge, and the
Huu Hung ferry, for strikes within 24 hours. MACV convinced him
to slow down, pointing out the agreement to conduct reprisal strikes
on a joint basis. MACV later learned that Khanh's eagerness to
hit the Dong Hoi bridge on 18 February was based on information
that Ho Chi Minh would personally officiate at the dedication of
this bridge on 19 February.

CINCPAC was also concerned about the effects of VNAF pre-
occupation with strikes in North Vietnam on their counterinsur-
genency mission. He wanted to emphasize to the VNAF their COIN
role. Further, he wished to limit the number of targets assigned
to them in North Vietnam and eliminate those requiring large
number of aircraft. He noted the increasing involvement of the
VNAF in planning for the strikes against North Vietnam and said
this could become a major and dangerous problem.

Rolling Thunder II was postponed three times and it was
expected to be held up longer due to internal Vietnamese politics.
General Khanh, after the 20 February coup was told to get out of
the country by 25 February and he was considered a possible threat
to government stability until he left. The VNAF preoccupation with
the coup gave it a doubtful capability for a North Vietnam attack.
The A-1H's would have to be downloaded of coup weapons prior to up-
load of SVN strike munitions. The U. S. State Department and DOD
wanted a joint USAF/VNAF strike. There was a danger that target
compromise would be increased with the delay.
Employment of VNAF in the early retaliatory strikes presented several problems. In February, the VNAF pilots were put on extensive periods of alert related to current coups and counter-coups and they were not in a position of participating in operations requiring a high degree of alert. General Westmoreland spoke to Air Vice Marshal Ky on 24 February to try to get him to discontinue "his nonsensical alert" or at least reduce its scope. He hopes he could get VNAF available for a full strike on 25 February or for token participation with 2d Air Division. General Westmoreland recommended in any case that U. S. aircraft execute strikes against the Mu Gia Pass Station as soon as weather permitted. The VNAF could then execute the Rolling Thunder II mission when the situation permitted. When the VNAF struck, U. S. forces could strike the Quang Khe naval base on the same day, though not necessarily at the same time and public announcement of reprisal justification could be made on these latter strikes. No public announcement was considered necessary on the Mu Gia strike since it was in an area with little or no civilian population.

Permission was again granted by the Thai government for the use of Thailand-based aircraft for Rolling Thunder V. This would enable the U. S. to employ its aircraft much more efficiently removing the need for planes to stage from Da Nang or other RVN bases. In Thailand, the USAF had 44 F-105's, and 20 F-100's ready for the Rolling Thunder V strike on 2 March. Another 33 F-100's were based at Da Nang in Vietnam.
Weather was still the key planning factor in the March strike as it was in the February retaliatory strikes. On 2 March, weather forecasts were not optimistic, but they showed that between 1000 and 1500 local, the weather would be about 15,000 scattered with ten miles visibility. To cover the possibility of weather forecasting being off, General Moore directed that the strikes be planned for as early a time as possible, postponing it hour by hour if necessary, and carrying it out when weather permitted. The original plan called for a TOT of 1545.

A study of weather conditions indicated that the best time for strikes against North Vietnam in March was between 1800 and 2000 hours (local time) with the worst time being between 0600 and 0800 (local time). In April, these morning hours were still considered the worst time to attack and the best time was given as between 1500 and 1700 hours. In May, the optimum period was between 1200 and 1400 with the worst period between 1800 and 2000 (local time).

Commenting on possible ways to conduct Rolling Thunder strikes under minimal weather conditions in response to a CINCPAC request, 2d Air Division listed several possibilities. First, it did not consider delivery by USAF F-100/F-105 forces feasible with ceilings less than 6500 feet AGL, when the strike force was as large as the one committed in Rolling Thunder IV, and where 750 pound munitions were called for. The most critical consideration was the density of the strike force, including the flak suppression aircraft, while the strike was in progress. The force was compressed under low
ceiling conditions and it lost the capability of vertical displacement and maneuvering room. The accuracy of bombing under these conditions would be degraded.\textsuperscript{39/}

The B-57, which could deliver ordnance by level bombing under lower ceilings, was also subject to traffic density with a degraded effectiveness. The weapon engineering and desired damage levels indicated the ordnance loads for aircraft. Munitions such as rockets and CBU would not approach the damage criteria desired. If a strike was desired at low altitudes, but in no case less than 4500 feet AGL, a drastic reduction in the total strike force, such as four flak and eight strike aircraft, might be feasible. If a reduced strike force was not considered desirable, an alternative of having aircraft strike in a series of time over targets (TOT's) would be a possibility; however, the risk factor might not be acceptable for later TOT's when the surprise factor was lost.\textsuperscript{40/}

The VNAF could make the strikes with lowered ceilings if munitions were changed to WP, rockets, and 20 mm cannon fire. The VNAF had a stated minimum requirement for 3000 feet AGL for dive bombing.\textsuperscript{41/}

The 2d Air Division did not consider GCI radar controlled release feasible from an accuracy standpoint. Radar could not position an aircraft closer than one to five miles. The radar equipped pathfinder could assist in navigation only, since no capability existed for accurate bomb delivery with any radar equipped aircraft available.\textsuperscript{42/}
Low altitude level delivery of delayed fuze 500 pound bombs was possible with the B-57 and Al aircraft; however, safe separations would require a 2000 foot ceiling. Accuracy would be acceptable for area targets only. Snake Eye munitions and napalm could also be delivered effectively with lowered ceilings against area type targets. Target acquisition was critical, however. An initial point or strikes on points would be necessary. A strike force could be broken into flights with varying TOT's, cross the target at high speed and immediately leave, pulling up into the overcast if necessary. Each target would have to be evaluated separately on minimum ceilings depending on such conditions as terrain. The 2d Air Division recommended no strikes at lower than 2000 feet.

In passing these 2d Air Division comments to CINCPAC, COMUSMACV said that he agreed generally, but felt that Snake Eye and napalm could be effective against pinpoint targets as well as area type targets with visibility being the major criterion. He added that the use of U. S. aircraft resources suitably equipped to conduct radar bombing be exploited. Another possibility for exploitation was the use of heavy AC&W aircraft for positioning strike aircraft.

An operations order for weather recce flights over North Vietnam was issued by CINCPAC on 5 March. Called Washing Window, the order directed flights south of the 19th parallel in NVN as required on a random but frequent basis to prevent the association of individual weather recce flights with ensuing planned strike operations. These weather recce flights were to be conducted at
least four times a week, with PACAF and PACFLT taking two each. The missions would be conducted in flights of two aircraft at a minimum altitude of 10,000 feet.

The Rolling Thunder V mission was the first separate USAF strike against North Vietnam targets and the largest strike up to that time, employing some 160 aircraft. Forty-four F-105's from Thai bases, forty F-100's from Da Nang and Takhli, seven RF-101's, twenty B-57's, and six KC-135's were involved. In addition, VNADF A-1H's supported by USAF F-100's flew on the mission. The USAF strike force hit the Xom Bang ammo depot with a reported 70-80% damage by the 120 tons dropped from the 105's and B-57's. The VNADF force struck the naval base at Quang Khe, which was reported 70-80% destroyed.

A total of six friendly aircraft were downed on these strikes. Three F-105's, and one F-100 were downed on the Xom Bang strike with all but one F-105 pilot recovered. An A-1H and F-100 were downed on the Quang Khe strike and both pilots were recovered.

PACAF said there were indications that some hours prior to the launch of the "Rolling Thunder V" strike force, actions were taken to evacuate civilians from target areas and to alert defenses which indicated some degree of compromise. The large number of telephone conversations required before the mission increased compromise possibilities. The pre-strike recce also contributed to an increased enemy alert posture. The enemy radar system and probable VC monitoring of aircraft launch and tactical communications also provided
additional possible early warning of strikes. This meant that the USAF was seldom able to achieve surprise through low attacks. 

PACAF noted that it was also evident that the AF did not have, and might never have, enough intelligence on the location of AA weapons to provide enough effective flak suppression on heavily defended areas. The sites could be located, but the 37 and 57 mm guns were readily moved. A major threat to low level penetrations came from automatic weapons fire of 50 caliber and smaller. These also were easily moved and hidden and difficult to detect in advance.

While it was too early in the operation to draw any firm conclusions on the performance of jets, there were expressions from some sources that the integrated systems of high performance aircraft might make them more vulnerable to tight AA fire. In the case of Rolling Thunder V, however, one A-1H out of 20 on the mission was lost to ground fire while four jets out of 104 in the action were lost, making the percentage of prop losses higher than that of jets.

Since most of the losses were made while attacking AA positions, PACAF felt that it was time to re-examine tactics and weapons for flak suppression and even, perhaps, eliminate flak suppression unless it was considered essential for protection of the primary strike force. If flak suppression were continued, there was a need for better intelligence, better munitions and better tactics. Low
level recce missions and RB-57 LR missions would give better intelligence. The use of CBU-1 munitions would be more effective against AA positions, as would improved Snake Eye bombs and 500 and 750 pound bombs, which were in short supply. Delayed fusing would help, but these were not available for use with the 750 pound bomb. Also, it was felt that the large warhead for the AGM-12 would be valuable, as would the use of napalm.

To increase the possibility of surprise on these strikes, a reduction in the pre-strike communications would help. A program to confuse the enemy by maintenance of a steady pattern of communication activity was also suggested. To reduce early warning intelligence from radar, a program of intensive strikes against radar and communication facilities would be valuable. Unless this radar capability was eliminated, the DRV would always be able to detect incoming strikes by monitoring high flying air cover fighters and recce pathfinders.

Combat losses would be reduced if pilots made one pass on the target and then departed. They should not remain in the target area to search for targets of opportunity. Also, a restriction would have to be placed on the number of aircraft in the target area at one time. A smaller number of aircraft used on a random recycle and re-strike basis against the same target complex would be more effective than using a large number at one specific time. It would permit greater flexibility in tactics, more surprise, and far less exposure time per aircraft. Caution would have to be exercised.
to avoid putting too many restrictions on tactical units as this might discourage them from pressing attacks to accomplish assigned missions.

There was growing evidence in early March that USAF intentions were reaching the enemy from the disclosure of highly sensitive intelligence over unsecured communications. Yet, there was the necessity for the 2d Air Division commander to employ all his air forces and weapons through a positive control system. This made it urgent that a secure voice and teletype system from the 2d Air Division Command Center to combat elements in SEA be installed. A Pacific GEEIA engineering task force arrived in the theater on 16 February to do this job on a rush basis.

Following the first mission, the JCS directed that U. S. strikes be concurrent with or subsequent to VNAF strikes. JCS also authorized attacks on positively identified patrol craft, the use of incendiary, and low level post-strike recce missions for BDA. Recce on all subsequent strikes could be flown at medium altitude unescorted at first good weather without further approval.

On 14 March, 20 VNAF A-1H's with USAF F-105's and F-100's in support hit the Hon Gio Military Barracks on Tiger Island with 250, 500, and 750 pound bombs, achieving an estimated 70-80% damage level against the seven major barracks housing some 250-300 troops. The following day, 137 USAF and USN aircraft in strike and support roles struck the Phu Qui Ammo Depot, achieving a 30% damage level with the loss of one U. S. Navy A-1H. Incendiary was used for the
first time on this strike.

To provide operational flexibility on future strikes, the JCS on 16 March authorized strike missions against the DRV on a weekly basis with strikes to be executed at any time during a seven day period. Those missions not struck during the period could be carried over into subsequent weeks. For the first week of 17-23 March, strikes against seven targets were authorized; ten targets were approved for the second week (24-30 March); eight for the period 31 March - 6 April, and eight for the fourth week (7-13 April).

Further changes in the ground rules were made for this four week period. Thai-based planes could now be used. U. S. forces could fill out VNAF requirements. Enough aircraft could be used to achieve a high damage level. Random armed recce missions employing 4-8 aircraft plus suitable CAP and flak support were authorized. U.S. strikes were not required in association with VNAF missions. Armed recce of highways and railways to strike rolling stock was authorized after strikes. Flak and CAP aircraft could expend on rolling stock and military vehicles. Low level and medium altitude BDA recce was also authorized.

Strikes against targets south of the 20th Parallel became almost a daily occurrence after 19 March, when the first target of the four week series was hit. Like previous strikes, the 19 March attack on the Phu Van Army Supply Depot was a large scale strike employing 57 strike planes with another 29 aircraft flying in support.
In a strike on 21 March made by USAF/VNAF forces against the Vu Con Army Barracks, a force of 24 strike planes and 10 support aircraft was used. Another large scale mission was flown on 29 March against the Bach Long Island Radar site, using 32 attack planes and 25 support aircraft. The majority of strikes in this four week period, however, were flown with fifteen or less attack aircraft on a single mission.

The strikes of 19 and 21 March were against barracks targets, but starting on 22 March, the emphasis was switched to radar sites. Between 19 and 31 March, radar sites were attacked at Vinh Linh, Dong Hoi, Cap Mui Ron, Ha Tinh, Bach Long Island, Vinh Son, Hon Matt, Cua Lo, and Hon Nieu Island. These attacks used up practically all of the strike capability. Knocking out these radar warning sites was expected to improve the security of strike forces, but radar sites proved to be extremely difficult targets to destroy.

In late March, the U.S., according to CINCPAC, was transiting between a situation where the U.S. was not involved in a large war with the DRV and/or CHICOMS and a situation where large U.S. forces were actually engaged in combat. In this latter case, U.S. military actions were circumscribed by political necessity on many occasions. There were certain political restraints which would remain in effect before the strength of U.S. "signals" were read properly in Hanoi, Peking, and Moscow. CINCPAC said the U.S. was on the threshold of intensified operations which required the smooth functioning of military forces with the maximum designed freedom of
action. He added that the machinery and the pre-planned procedures for full intensification of operations were in place and working.

CINCPAC said that although local operations had become intense, it was essential to view the western Pacific with a perspective and a constant awareness that the total communist threat extended from Manchuria to Burma. The overall strategic analysis and many of the decisions would still have to come from Washington, but from a tactical standpoint, restrictions should be eased which might hamper smooth, safe, and effective control of combat operations. The freedom of action made possible in the JCS four week program issued on 16 March was an important example of how broad strategic guidance could permit flexibility of tactical operations. It was CINCPAC's intention to further delegate authority to subordinates at all levels where feasible. Effective plans and control procedures were operating for Barrel Roll, Yankee Team, 34A operations, and punitive strikes against North Vietnam. While each operation had its separate constraints and procedures, execution authority was delegated to the lowest practicable level.

CINCPAC said he was impressed with the smooth and professional coordination between PACAF and PACFLT forces in the Rolling Thunder VI and VII strikes. He said another review should be made of past restrictions from which there had been some relaxation in recent weeks. In this way, it would be possible to move closer toward improved tactical concepts and operational procedures. It was necessary to continue to streamline the decision process at all
levels, curtain excessive communications, and rely more on existing channels of command. Restrictions should be lifted gradually in order to preserve the sensitive agreements which had been reached by painstaking political negotiation.

CINCPAC felt the U. S. should retain a unilateral flexibility to engage North Vietnam on an escalating timetable of our choice, or disengage along lines consistent with U. S. national policy. The finality of a combined command would restrict either course. There was a need to move toward a gradual integration of U. S. ground operations with those of the RVN, but each phase should be pursued without abrogation of national responsibilities. The U. S. should continue in a transition phase, he added, based on cooperation rather than formal combined authority. General Westmoreland had said that the U. S. had come a long way toward bringing its influence to bear on the South Vietnamese.

CINCPAC wanted a small, combined coordinating staff superimposed on the current MACV-RVNAF structure, to be headed jointly by COMUSMACV and CINCRVNAF. This staff would deal only with problems of a combined nature, retaining normal, unilateral national functions within existing command and staff agencies. This was the view of General Westmoreland which CINCPAC endorsed.

Some of the continuing restrictions were pointed out by CINCPAC. Reconnaissance, both photographic and weather, was restricted to medium altitude, specific request to higher authority necessary for low level recce. CINCPAC said the tactical commander
should be given the authority to determine altitudes of recce flights. He also recommended that tactical commanders be given authority to conduct flights on a frequency justified by military needs rather than by an arbitrary timetable. He also wanted reporting requirements reduced. Advance authority should be granted to strike fleeting and on-call targets. Tactical commanders should also be allowed to determine the number of aircraft and weaponizing required to complete a task successfully with the least possible risk. Target selection, including shore bombardment targets, should be authorized at a lower level. Finally, he wanted to expand the concept of U. S. operations to confront North Vietnam with the broad range of U. S. power, including naval shore bombardment of coastal targets and airborne and amphibious raids against the DRV.

COMUSMACV, commenting on these CINCPAC views, pointed out two possible areas for changes in the chain of the U. S. command and control structure. The first would be the decentralization of control authority from CINCPAC to COMUSMACV or the establishment of a separate theater of operations in Southeast Asia with a concurrent activation of Hq, COMUSSEASIA. This latter change would apparently place the U. S. Ambassador in Saigon and possibly ambassadors in all of Southeast Asia, plus other elements of the U. S. Mission, in a supporting role for COMUSSEASIA. This situation would be difficult to perceive apart from the delicate problems posed by the most effective interrelationships of key slot incumbents. It would require
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NORTH VIETNAM

Phuc Yen Hanoi Haiphong

Than Hoa

Dong Phuong RR & Hwy Br (Navy)
Than Hoa RR & Hwy Br (USAF)

Hoai Minh

Dong Hoi

Provisional Military Demarcation Line

30a
at least a U. S. national declaration of emergency or a complete change of personalities, which at the current time, would be counterproductive.

COMUSMACV indicated that there was not enough time to duplicate PACOM support facilities in Southeast Asia, nor did logic support the assignment to COMUSSEASIA of all the combat and combat support forces, which would be needed against all foreseeable contingencies. For these reasons, he considered it desirable to maintain existing headquarters for military affairs within SEA at CINCPAC, with field commanders assuming a support role. The urgency of the military situation which could develop, COMUSMACV said, dictated a relaxation of operational controls, currently held by CINCPAC, for reasons which had been apparent and logical. This relaxation might well be the allocation of all forces required to conduct current operations in Southeast Asia to COMUSSEASIA control, recognizing CINCPAC's much broader but more quiescent responsibilities.

There were no strikes on 1 and 2 April but, on 3 April, a mission was flown against what was to prove one of the most stubborn targets of all, the Thanh Hoa Railroad and Highway Bridge over the Song Ma River, three miles north of Thanh Hoa. The USAF on 3 April employed 31 F-105's with another 15 F-105's and 19 F-100's in support in an effort to destroy the bridge. The bridge was 540 feet long, 56 feet wide, with two equal spans, one concrete pier of steel through-truss construction. The strike planes dropped 254 750 pound GP bombs and 266 2.75 rockets, which were considered sufficient ordnance to drop
The bridge remained standing after the strike. An F-101 and an F-100 were shot down during the mission. Weather during the strike was clear with a five to seven mile visibility.

A strike on the same day against another bridge in the Thanh Hoa area was more successful. The U.S. Navy launched 35 A-4's supported by 18 F-8's, five F-4B's and four A-1H's on flak suppression and air cover against the Dong Phuong Rail and Highway Bridge 13 miles northeast of Thanh Hoa. This bridge was 525 feet long and 22 feet wide with three steel through-truss spans resting on two masonry abutments. Dropping 174 MK-82's and ten MK-83's along with 72 2.75 rockets, the Navy planes dropped the center span of the bridge and probably damaged the northern span. Damage was estimated at 100% effective. The Navy lost one A-4 on this mission.

In a re-strike on the Thanh Hoa bridges conducted at 1100 hours the same day, 48 F-105's supported by 16 F-100's on RESCAP and MIGCAP, damaged a large section of the bridge. However, three F-105's were lost on this mission, two being shot down by MIG aircraft, six of which were sighted in the area. In this re-strike, the planes dropped 384 750 pound bombs and 32 AGM-12 B missiles. Weather on this strike was 15,000 foot scattered with visibility five miles in haze.

There were numerous hits on the bridge with the AGM-12B's carrying 250 pound warheads, but these did little damage. Several 750 pound bombs hit the bridge also during these two missions, but failed to collapse it.
To destroy the highly defended Thanh Hoa bridge, 13 AF suggested that ordnance be changed to M59Al 1000 pound semi-armor piercing bombs with an M-134 delayed fuse. This would allow penetration into the abutment and a higher explosive yield. A skip bomb type delivery to hit under the bridge or a dive bomb high angle delivery was suggested to get maximum penetration and avert ricochets. 13 AF also suggested that only four to six strike aircraft be used instead of the large numbers used on previous raids so that exposure would be reduced.

PACAF indicated it was concerned that too many bombs had been wasted concentrating on the abutment of Thanh Hoa Bridge and aiming at the end of the bridge. BDA showed many "miss" craters up to 700 feet away from the approach end of the bridge, which was 540 feet long and 56 feet wide. The concrete abutment appeared to be from 30 to 40 feet thick which suggested that aiming between the approach end and the abutment would require an unreasonably high expenditure of bombs at the current accuracy rate. Skip bombing at the exposed side of the abutment appeared risky and of little value. If the bombs detonated on the skip, an aircraft would be lost. Blasting of the exposed surface of a 30-40 foot abutment with M-59 or 750 pound bombs offered little chance of dropping the span without expending a prohibitive number of bombs. Accordingly, PACAF agreed that the sorties against this target should be held to an absolute minimum in accordance with 13 AF's recommendation that random hit and run attacks by small units of
four to eight be employed. It recommended that all flights aim at a point halfway between the center of the bridge and the east end with the objective of cutting the girders rather than the abutment. The new AGM-12C's with pylons would be available in July and PACAF wanted the first test of this weapon on the Thanh Hoa Bridge.

On the 3 April air strikes in the Thanh Hoa area, a total of six aircraft were lost, which gave an early indication of the difficulty which could be expected in hitting such targets. The mission also revealed the danger which could be anticipated from the CHICOM/DRV air force. The MIG threat had been early recognized as a distinct danger as the attacks moved further north. MIG's had been sighted during missions in March and on one occasion, the pilot definitely identified the enemy aircraft as having Chinese markings.

The shooting down of the two F-105's by MIG's was the result of a careful enemy plan of attack. The attacking flight of USAF F-105's, Zink Flight, had been in the orbit area three or four minutes and completed nearly 180 degrees of turn when Zink 03 spotted four aircraft making a diving, high speed pass toward the flight. At the time of sighting, these aircraft were some 3000-4000 feet behind the flight. Two were set to attack Zink 01 (Zinc Leader) and Zink 02 while the other two were positioned to attack Zink 03 and Zink 04. Zink 03 made several radio calls to Zink leader, telling them they were under attack and to break. Other
Radio calls were being made by friendly aircraft giving the enemy aircraft positions. Zink 04 also tried to contact Zink leader. Neither Zink leader nor Zink 02 reacted in any way to these calls. The attacking MIG's closed in at high speed on Zink 01 and Zink 02 and continued firing until it was obvious that both planes were hit. They then stopped firing and continued straight ahead at high speed. 76/

Although the MIGCAP for this mission consisted of eight F-100's and four Navy F4B's, they were not able to respond to the MIG attack due to the speed at which the attacks occurred. Debriefs indicated that the attacking MIG's may have been under GCI control. The RESCAP F-100's were approached by MIG's while orbiting offshore east of the target area. The flight jettisoned ordnance and turned into the attacking MIG's. One pilot managed to get behind an attacking MIG and claimed a single hit on the enemy plane's right stabilizer. 77/

The LOC interdiction operations south of the 20th Parallel continued during the week of 6-12 April when seven Rolling Thunder missions were flown. Primary targets were the Tam Da railroad bridge, the Qui Vinh railroad bridge and the Kim Cuong highway bridge. Armed recce missions were made on Routes 1, 7, and 8. On these strikes, the level of damage desired against primary target bridges was the dropping of at least one span with re-strikes authorized, but requiring Washington approval. Strike aircraft returning from attacks on the Tam Da railroad bridges and the
Qui Vinh bridge could expend unused ordnance on rolling stock and military vehicles on Route 1 road and rail lines south of the Cong Phuong Bridge. Armed recce could be flown day and night with not more than 24 armed recce strike aircraft sorties per 24 hour period authorized.

The Tam Da railroad bridge was struck on 9 April by 35 Navy strike planes on one strike and 48 on a re-strike. The north and center spans were dropped on the second strike. The Navy lost an F4B in a MIG engagement on the first strike with an A4C shot down on the second. Forty-eight USAF F-105's struck the Qui Vinh Bridge and the same day, dropping a span. The planes went on to strike the Khe Kiem Bridge, a secondary target, which was completely destroyed and then proceeded to drop a span on the Phuong Can Highway Bridge, another secondary target. The three bridges were knocked out of commission with no losses of friendly aircraft.

On the 10th, 32 Navy strike planes attacked the Kim Cuong Highway Bridge and dropped a span, using MK-81, MK-83 and MK-84 ordnance.

Despite the destruction of highway bridges south of Thanh Hoa, there was believed to be no significant reduction in the North Vietnam capability to move personnel and supplies. By-passes and the ability to move materiel in small increments by man-pack and animal transport made up for the loss of road and rail traffic. The availability of ferry or fording sites, which most of the destroyed bridges had replaced, still allowed the movement of supplies.

The LOC interdiction program south of 20 degrees North continued during the week of 13-19 April with sixteen missions flown by the
Navy and the seven missions by USAF and VNAF. Most of the missions were armed recce, but attacks were made on seven bridges, three of which were destroyed by the Air Force and three by the Navy. By the 20th of April, Rolling Thunder sorties had destroyed 14 bridges, which served the principal rail and highway system on Route 1, affecting the movement of industrial and agricultural goods and taxing bridge repair units. However, the degree of degradation of North Vietnamese military support to Viet Cong and Pathet Lao units as a result of this program was not clear.

After 23 April, MACV indicated that the weather would be increasingly favorable to stepped-up air operations against North Vietnam. The fifth week of Rolling Thunder would implement Phase II of the program for cutting lines of communications and this was scheduled to begin on 23 April. It would involve persistent armed recce and re-strikes ranging over the entire line of communications network below 20 degrees North at a tempo of some 75-100 sorties a day (525-700 a week). This equaled 33 to 44 percent of the 225 sorties a day, which were determined to be the sustained capability of currently deployed PACOM forces. VNAF would be held to 50 sorties a week on a sustained basis in support of Rolling Thunder.

MACV said that by the end of the fifth week of Rolling Thunder, the air strikes would have attacked 17 to 23 radar sites below 20 degrees, barracks areas directly identified with infiltration and all but two of the identified ammunition and supply areas and port facilities below 20 degrees.
MACV said this program should effectively immobilize road communication below the 20th parallel and cut this area off from the rest of North Vietnam. It would interdict substantially the Viet Cong material support which depended on land lines of communication. The infiltration of personnel would also be slowed, North Vietnam forces would be forced to live off the land more often, and the requisitioning of peasant housing would impair local morale. Further, the progressive destruction would make it more difficult to repair bridges, and with land movements becoming increasingly perilous, North Vietnam forces would be isolated logistically from the Hanoi area, MACV said.

MACV added, however, that North Vietnam would still remain a viable nation with the richest, most productive area (north of 20 degrees) unharmed. With CHICOM support, the North Vietnam government could function indefinitely despite some unrest among the civil populace and military, especially those deployed to South Vietnam.

MACV recommended that air strikes be kept below the 20th parallel until enemy MIG's interfered with operations. Then, the U. S. should respond with the progressive execution of Annex R in OPLAN 37, the air campaign against the most significant targets in North Vietnam.

For the sixth through the ninth week of Rolling Thunder, MACV recommended continuation of the LOC interdiction program plus attacks on remaining radar sites as they were located. Simultaneously,
attacks should be made on the remaining airfields, bridges, ferries, ammo depots, supply depots, port facilities, communication facilities below the 20th parallel at the rate of three to four targets and 100 sorties a day. When this was accomplished, attacks should be made on all military headquarters and barracks areas below the 20th parallel.

In considering resources for this program, MACV thought additional deployments of airpower would help, such as the deployment of the USAF F4C squadron to Ubon, the second USAF F-100 squadron to Da Nang, and the Marine F4B squadron at Da Nang, plus the gradual increase in the number of B-57's at Bien Hoa. These aircraft could be committed to the four major programs, which were being carried out, including Rolling Thunder, Barrel Roll, Steel Tiger, and in-country operations. With all these programs on the increase, the maximum operational flexibility would be required to permit such moves as diverting strike aircraft from cancelled missions to missions that were fragged. MACV felt that in-country air missions, although not tied to a specific JCS program, should have the highest priority.

In response to a JCS request for recommendations for an optimum air strike continuation program commencing 23 April, CINCPAC recommended continuing pressure on the North Vietnam logistic network south of 20 degrees, mounting the maximum feasible sustained sorties. These would be used in a series of wide ranging armed recce, harassment, attrition and interdiction missions against
ROLLING THUNDER
RECOMMENDED STRIKE PROGRAM 23 APR 1965

NORTH VIETNAM

Phu Yen
Hanoi

Haiphong

Than Hoa

Than Hoa Thermal Pow Plnt (82.1)

Thien Linh Dong Supply Depot (54)

Phu Van Ammo Depot (N.E.) (41/42)

Phu Van Ammo Depot (E) (41/42)

Vinh Army Supply Depot (52)

Vinh

Ben Thuy Port Facilities (71)

Phu Loi Naval Base (71.1)

Den Thuy Thermal Pow Plnt (82.11)

Napo

Hue

Dong Hoi

Khe Power (39.3)

Dong Hoi Blu and AS Citadel (33)
rolling stock, truck shuttle operations between LOC cut points
and pre-briefed strikes against secondary fixed military targets
along the LOC's. He envisaged a continual daylight route race
using 2-4 aircraft per route or route segment, with occasional
night missions to offer an element of surprise plus harassment.

Concurrent with this program, he recommended air strikes
against the following fixed targets: (1) Thanh Hoa thermal power
plant, (2) Ben Thuy thermal power plant, (3) Ben Thuy port
facilities, (4) Phuc Loi Naval base, (5) Vinh Army supply depot,
(6) Thien Linh Dong supply, (7) Phu Van ammo depot, east, (8)

After this program, he wanted maximum intensity strikes
against "meaningful" targets north of 20 degrees, avoiding Hanoi
and Haiphong. He listed targets in a sequential progression moving
north and northwestward, but indicated that targets didn't
necessarily have to be conducted sequentially from south to north.
The targets were (1) Quang Sugi Barracks, NE, (2) Qui Hau ammo
depot, west, (3) Xom Chang supply depot, (4) Can Xom Lou
barracks, (5) Ban Phung Hoy ammo depot, (6) Son La Army supply
depot, (7) Son La barracks, (8) Thuan Chau barracks/depot,
(9) Dien Bien Phu barracks.

Along with these air strikes, the armed recce program would
be expanded to include the rail and road routes going north of
20 degrees from Ham Rong, Route N-6 from Suyut to Sam Neuv; the
route from Suyut to Moung Min and Route H-19 from Dien Bien Phu to Tay Chang Pass. As these actions were being taken north of 20 degrees, VNAF, supported by U. S. forces, would be programmed to conduct air strikes and armed recce against the target spectrum and LOC network south of 18 degrees.

CINCPAC said there was little information on which to assess Rolling Thunder effects to date. He believed North Vietnam was playing a waiting game, hoping that international pressure would force the U. S. to stop its attacks. The continued strikes would reduce support of the VC, he said, and degrade the transportation system, requiring a diversion of manpower and supplies to the recovery and rebuilding process. The effects might take some time to show themselves. As the attacks moved north, the MiG threat increased but CINCPAC felt this could be handled by F4 aircraft. "We may well gain valuable experience in the coming weeks", he concluded.

At a joint RVNAF-MACV meeting held in April, Air Vice Marshal Ky, the VNAF commander, proposed making PAVN headquarters and barracks south of the 20th parallel priority targets in order to destroy PAVN morale and show the populace its vulnerability. He also suggested continuous night attacks by the VNAF below the 20th to harass the populace in their effort to go to market, movies, or work. Further, he wanted a psywar campaign to explain why the attacks were being made, that they were partly carried out by VNAF, and what North Vietnam must do to end them. He suggested