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THE ATTRITION OF VIETNAMESE COMMUNIST FORCES, 1968-1969

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CENTRAL INTELLIGENCE AGENCY

DEFENSE INTELLIGENCE AGENCY

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THE ATTRITION OF VIETNAMESE COMMUNIST FORCES, 1968-1969

ASSUMPTIONS

We have approached the complex problem of determining the ability of the Vietnamese Communists to withstand manpower attrition by constructing a hypothetical model of what could reasonably be viewed as a "worst case" situation for Hanoi. This approach is based on the fact that if the Communists have adequate manpower to meet the hypothetical "worst case" requirements during 1968 and 1969, then they can meet any lesser requirement resulting from the actual course of events. Our assumptions, therefore, are not offered as estimate judgments of the probable course of events during 1968 and 1969, but are presented as reasonable structural components of a "worst case" model.

In accordance with this approach we are basing our calculations on the following assumptions:

- a. That the level of combat will be significantly higher than that of 1967 but less than that during the first quarter of 1968.
  - b. That manpower requirements must be met completely from resources within North Vietnam and South Vietnam, with no manpower inputs from third countries, e.g., China or volunteers from other Communist countries.
  - c. That recruitment and impressment in South Vietnam will be adequate to provide manpower at an average monthly rate of 7,000 or about 85,000 persons a year.
- [REDACTED]
- [REDACTED]

d. That the rate of personnel infiltration from the North is determined by requirements in the South rather than being limited by existing capacities of the infiltration system.

e. That the Communists have an insurgency base in the range of 500,000 persons and that they will attempt to maintain this assumed base at this level.

f. The level of air attacks against NVN, and the associated requirement for air defense will be based on experience in the third quarter 1967.

I. Manpower Requirements

A. Military Forces

(1) North Vietnam

The North Vietnamese are estimated to have about 475,000 men in the Armed Forces and another 400,000 in the militia/security forces today. Of this force some 115-130,000 are deployed out-of-country. About 300,000 are considered necessary to provide for defense of the homeland. This defense force includes basically six infantry divisions, air and coastal defense forces, and command and logistics elements. Thus, a force of about 50,000 or 4 division equivalents would be available for out-of-country deployment during 1968.

(2) Laos

The North Vietnamese military forces in Laos total about 30,000. They are a part of the NVA and are counted in the NVN total. Pathet Lao forces have remained in Laos and are not considered in this analysis.

(3) South Vietnam

VC/NVA forces in South Vietnam have probably developed a total insurgency base in the general range of 500,000 persons. The North Vietnamese component of this base is from 85,000 to 100,000 persons.

B. Civilian Labor Force

The North Vietnamese civilian labor force totals 9.8 million persons. Over 400,000 of this total are shown in our

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figures as militia. About 200,000 full-time workers are assigned to essential war related work such as bomb damage repair, the maintenance and operation of LOC's, and logistics activities.

Of the remaining 9.2 million people we estimate that 8.7 million are necessary to maintain economic activity at its normal levels. Thus about 500,000 persons may be regarded as a potential manpower pool which can be diverted to other activities without excessive disruption to the economy.

We estimate that the North Vietnamese labor force contains about 1 million males in the 17 to 35 age group that are physically fit for military service.

North Vietnam also maintains a civilian labor force of about 20,000 persons engaged in LOC construction and repair activities in Laos.

## II. Manpower Availabilities

North Vietnam has a population of about 18.7 million people of which about 2.8 million males are believed to be between the ages of 17 and 35. Of these draft age males, about 1.5 million are believed to be physically fit for military service. More than one million of these have yet to be drafted.

In addition every year about 200,000 males reach the age of 17, and it is believed that at least 120,000 of these are physically fit for military service. We have assumed that 100,000 of these can be drafted each year.

We have previously stated that a total of 500,000 males can

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be drawn from the labor force. If we add to them the 200,000 that can be drafted during 1968 and 1969, a total of 700,000 persons can be diverted to the military service.

### III. Manpower Losses

#### A. South Vietnam

Our calculations postulate that the insurgency base in South Vietnam will be attrited at a rate of 300,000 a year during 1968 and 1969. This figure is based on an assumed loss of 800 men per day from all causes -- killed, died of wounds, disabled, died of sickness, deserted, defected and captured. It is a compromise between the assumed enemy casualties if the enemy should revert to a 1965-1967 style protracted war, and the considerably higher casualties he would sustain if he continued the forward deployment which he adopted after the failure of the Tet offensive.

#### B. In Laos

We have almost no firm knowledge of the attrition experienced by enemy forces in Laos. For the purpose of this estimate we have assumed that the forces in Laos will be attrited at about 15 percent of force levels for annual losses of about 5,000 personnel during 1968 and 1969.

#### C. In North Vietnam

It is assumed that the North Vietnamese will lose approximately 10 percent a year, or 45,000, though normal administrative attrition.

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D. Summary

South Vietnam	300,000
Laos	5,000
North Vietnam	<u>45,000</u>
1968	350,000
1969	<u>350,000</u>
Total	700,000

IV. Manpower Replacement CapabilitiesA. South Vietnam

We are assuming that the Viet Cong will be successful during 1968 and 1969 in recruiting at an annual level of 85,000 persons and thus calculate that the remaining 215,000 men required to replace total enemy manpower losses in South Vietnam must be infiltrated from North Vietnam. In addition, North Vietnam must provide an additional 50,000 persons to meet losses in North Vietnam and in Laos.

B. North Vietnam

We believe that in addition to its annual population increments that yield about 120,000 physically fit males of draft age, North Vietnam has a manpower slack in both its military and civilian forces.

In the existing military structure there are about 50,000 troops, or the equivalent of 4 divisions, that could be deployed to the South during 1968 without reducing NVN forces below the levels necessary for defense of the homeland. Such deployment would be a one-shot movement and could not be duplicated in 1969.

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We calculate that North Vietnam would have to draw down the surplus elements of its civilian labor force to make up any shortfalls not covered by annual drafts or the movement of existing military units.

As we see the situation North Vietnam would be able to obtain manpower to replace losses in the following numbers:

	<u>1968</u>	<u>1969</u>
Annual Draft Class	100,000	100,000
Military Deployment	50,000	--
Draw-down from Civilian Labor Force	<u>115,000</u>	<u>165,000</u>
Total	265,000	265,000

In each year 50,000 of the 265,000 would be required to replace losses in North Vietnam and in Laos, and 215,000 would have to be infiltrated into South Vietnam.

Our figures indicate that the drain on the civilian labor force would increase from about 115,000 men in 1968 to 165,000 men in 1969. The cumulative drain of 280,000 men is just over 55 percent of our calculation of surplus labor in North Vietnam.

#### V. Training

The current national estimate of the North Vietnamese capability to train 75,000 to 100,000 men a year for infiltration was based on an analysis of reports and all source data of the number of units associated with this training and our estimate of their requirements. At that time, the identifiable training base

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consisted of six infantry divisions associated with infiltration training. Airborne, artillery, officer/NCO training, and specialists were trained by other appropriate organizations, schools, and the basic six divisions. In addition, some of the higher or specialized training is provided by Communist advisors both in country and in their homelands.

Subsequently, some of the divisions were redeployed and they no longer provide infiltration training. An analysis of the most recent data has revealed that the North Vietnamese are now employing four divisions and two training groups for basic infiltration training and that, for the most part, they have retained the three month training cycle.

It is estimated that each division (2/3 training, 1/3 regular duties) can assimilate, equip, and train 6,000 to 8,000 recruits every three months. The two training groups are rated at 6,000 each. On this basis, 145,000 to 175,000 recruits can be trained each year. By shortening the training cycle or expanding the base an additional 50,000 to 60,000 recruits could be trained.

Replacements for the NVN forces in-country are considered to be absorbed in the existing units although there may be some provisions for basic training prior to joining the units. For instance, replacements taken from the militia or other reserves would have had some prior basic training.

The most important manpower problem is the adequacy of available leadership. The quality of the leadership, officer

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and NCO, has declined as the demand has increased. Officer and NCO schools have been shortened from two years to eight months. The largest single source of junior officers is now believed to be from battlefield commissions. The decline in standards and training, however, is offset to a considerable extent by the type organizations being deployed south and the absence of requirements for more sophisticated equipment. Basically the VC/NVA is an individual weapon, man pack army which uses equipment easily adaptable to the individual soldier. In the North, the training demands generated by more sophisticated equipment have been met by provision of foreign training at home and abroad.

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BACK-UP SHEETS

- A. North Vietnamese Order of Battle DIA
- B. Insurgency Base CIA
- C. Breakdown of Civilian Labor Force CIA
- D. War-Related Labor Forces CIA
- E. Enemy Losses in South Vietnam DIA
- F. North Vietnamese Personnel Losses in North Vietnam DIA
- G. Surplus Labor Force CIA

TAB A

NORTH VIETNAMESE ORDER OF BATTLE

As of 1 April it was estimated that the strength of the regular North Vietnamese Army was on the order of 475,000 men. The Army includes the following major forces:

NORTH VIETNAM IN-COUNTRY STRENGTH - 360,000

Infantry Divisions	10
Artillery Divisions	1
Anti-Aircraft Artillery Command (12 Regiments)	1
Infantry Brigades	2
Independent Infantry Regiments	6
Independent AAA Regiments	85
Armored Command (2 Regiments)	1
Surface-to-Air Missile Battalions	25-30
Plus other Rear Services, support, headquarters, and miscellaneous support and replacement units.	

NORTH VIETNAMESE FORCES IN LAOS 30,000

This figure is broken down into 14,000 combat troops and 16,000 additional personnel engaged in engineer and rear services support activity as well as the maintenance of infiltration routes and stations.

NORTH VIETNAMESE STRENGTH IN SOUTH VIETNAM - 85,000-100,000

Front Headquarters	2
Divisions	9
Regiments	37
Battalions	144
Total North Vietnamese Force in NVA Units	73,000*

Within North Vietnam seven of the 10 infantry divisions are estimated to be at their full TO strength of 12,500 men. These are the 308th, 312th, 316th, 324th, 325th, 330th, and 350th Divisions. Two other North Vietnamese Divisions -- the 304th and 320th -- are carried at garrison strengths of 3,000 men each. The bulk of these two divisions entered South Vietnam in January of this year. One other division -- the 341st -- is believed to be under-strength by at least one regiment which recently infiltrated into South Vietnam. Information available on the 341st Division is of uncertain validity, however, and its status is currently under study.

\* In addition to those forces in North Vietnamese units in South Vietnam, MACV is estimating that an additional 10-12,000 North Vietnamese troops are integrated into Viet Cong units. Therefore, the total NVA force in South Vietnam is on the order of 83-85,000 men. For the purpose of this paper we have assumed that the NVA force in South Vietnam is on the order of 85-100,000 men. The additional 15,000 men could be in various support units which have not yet been accepted organic to some of the divisions or merely in units which may be in country but which cannot be documented within the criteria established for OB figures.

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Of the seven infantry divisions above carried at full strength, two -- the 324th and 325th -- have previously been carried at garrison strength, but we believe they have now reconstituted their units to a full TO strength of 12,500 men. The 324th Division, for example, sent three regiments to South Vietnam in mid-1966 while the 325th Division sent three regiments south in early 1967.

It should be emphasized that the strength of various North Vietnamese units is an estimate. There is little hard intelligence information available as to the actual strength of any North Vietnamese division. Moreover, there is little information available to judge with any degree of confidence whether such units are manned at their full TO strength. The same is true for other major formations of the NVA listed in paragraph 1 above, with the possible exception of anti-aircraft artillery forces, whose strength is estimated primarily on the number of guns counted in aerial photography.

RATIONALE FOR NORTH VIETNAMESE HOME DEFENSIVE REQUIREMENTS

It is recognized that the North Vietnamese Army has a significant capability to reinforce in South Vietnam with regular forces should the political decision to do so be taken. The dispatch of most of its division size forces would, for example, lead to a greatly stepped up enemy war effort along more conventional lines with its resultant increased casualties, logistic requirements and the like. If the North Vietnamese were to make such a decision, they would leave themselves open to the threat of an invasion. While they might hope

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that their regional forces and militia would be able to bear the initial brunt of such an invasion, they would be unable to contain an invasion and would probably have to recall sizeable forces from South Vietnam or invite the Chinese to defend them.

In addition, they would be stripping the North of a major portion of the Army's training base. The deployment of such sizeable forces would create logistical requirements beyond their capability to sustain them in conventional combat unless the bombing campaign were stopped.

For the purpose of this paper, therefore, we are assuming that a prudent North Vietnamese government faced with a threat of a US invasion would want to maintain at least six divisions in a position to counter any invasion. In addition, the North Vietnamese would be prudent to have additional forces available in order to reinforce as necessary. These forces would be needed to cope with the threat of an Inchon type landing or an armored thrust north of the DMZ. These forces are also necessary to provide the NVN training base. The attached chart shows a breakdown of the forces that the North Vietnamese would prudently maintain in-country.

The regular army forces total some 301,000 men out of the total in-country army of some 353,000 NVA estimated to be available. Thus, some 50,000-odd men or four division equivalents would be available for deployment to South Vietnam in 1968. We estimate that this would be a one-time move on the part of the North Vietnamese in 1968 and that they would not be able to repeat it in 1969. Obviously, however, with their training and defense base intact and the possibility of reconstituting deployed forces, it would be possible

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for the North Vietnamese to send some additional forces south in 1969 from the regular Army, but they probably could not match a four division deployment in 1968.

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NORTH VIETNAMESE FORCES FOR HOMELAND DEFENSE

MILITARY FORCES

Air Force 4,200

Navy 2,600

Army

COMBAT FORCES

6 Inf Div, 2 Inf Bde, 6 Inf Regts,  
and Arty Div 120,000

AIR DEFENSE

1 AAA Div, 85 AAA Regt,  
25-30 SAM Bns 96,500

OTHER

Rear Services, Command and  
Administration, Bases & Depots 85,000  
301,500  
308,300

Total Military Forces

SECURITY FORCES

Armed Public Security Force 16,500

Militia 400,000 416,500

Grand Total 724,800

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TAB BASSUMPTIONS UNDERLYING AN INSURGENCY BASE OF  
500,000 PERSONS

The insurgency base concept includes several categories of personnel; it includes, of course, the Communists regular military and guerrilla forces; it also includes the political infrastructure, and other less formally structured groups used to support the insurgency.

A large portion of the infrastructure represents some of the Communists most valuable assets in South Vietnam in terms of keeping the insurgency alive by providing it with material and human resources. The concept of the insurgency base includes the widest possible range of resources in terms of manpower.

This broad concept was chosen also because members of all of these elements sustain casualties and must be considered against the 800 per day attrition rate, and in South Vietnam against the recruitment rate.

It should be noted, however, that this model deals with losses to the manpower base and sources for replacements, and these flows would be of the magnitude postulated regardless of the size of the base, which is being held constant.

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TAB C

BREAKDOWN OF THE CIVILIAN LABOR FORCE

According to US Bureau of the Census estimates there are presently about 10.4 million North Vietnamese in the 15 to 64 age group. By excluding from this total the 475,000 in the armed forces and the approximately 120,000 students of working age, an estimated labor force of 9.8 million is derived. Such a figure represents a labor force growth rate of 2 percent per year from the officially reported 1960 labor force figure of 8.1 million. This 2 percent growth rate appears reasonable in view of the population growth rate during the period.

The following tabulation shows an estimate of the labor force according to sectors of employment as of 1 January 1968:

<u>Sector of Employment</u>	<u>Thousands Persons</u>
Agriculture	7,000
Services	800
Industry (including handicrafts)	800
Transport and communications	400
Trade	300
Construction	250
Other	250
Total	<u>9,800</u>

These figures were derived from the official 1960 labor force breakdown figures and various statements and figures announced by the regime during the last eight years.

TAB D

WAR-RELATED LABOR FORCE

The estimated total number of civilian workers countering the air war over North Vietnam amounts to a maximum of about 600,000 individuals, including full time and part time workers, both male and female of all ages. The tabulation below shows that of this total less than 200,000 workers were engaged full time:

	In Thousands	
	<u>Full Time</u>	<u>Part Time</u>
LOC repair and reconstruction	72	100 to 200
Transport workers	100 to 120	25
Civilian defense		150
Total	<u>172 to 192</u>	<u>275 to 375</u>

The number of full time workers on LOC repair and reconstruction (72,000) was based on special intelligence regarding LOC work camps. The information specified locations of the camps, numbers of workers, and the work underway. The total number estimated was cross checked by using aerial photography to determine the extent of reconstruction and repair activities. A ratio of two part time workers to every full time worker was established from a variety of intelligence sources.

The additional 100,000 to 120,000 full time transport workers include laborers for the extensive transloading required in bypassing

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interdictions in the transport system, additional truck drivers and boatmen, and the increased use of primitive transport, particularly for moving supplies south.

The estimate of 150,000 part time civilian defense workers was based on collateral sources as well as special intelligence that discussed watches being maintained for air attacks and the warning system.

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TAB E

ENEMY LOSSES IN SOUTH VIETNAM

The estimate of 300,000 enemy losses a year is a compromise between expected losses if he reverts to a protracted war (267,000) and those which he would sustain if he continued the forward deployment (350,000) which has characterized his operations since the Tet offensive.

## Protracted War Strategy

## KIA

First Quarter 1968	84,000
Projected remainder	
Year 1968	<u>80,000*</u>
	164,000

Total Losses: 164,000 x 1.62\*\* = 267,000

## Forward Deployment Strategy

## KIA

First Quarter 1968	84,000
Projected remainder	
Year 1968	<u>131,000***</u>
	215,000

Total Losses: 215,000 x 1.62\*\* = 350,000

\* Based on a study of enemy killed, 1965-67, it was found that every addition of a battalion to the allied OB resulted in an increase in kills by all allied battalions. Projecting 1965-67 casualties in accordance with expected allied buildup during the remainder of 1968 results in the estimate of 80,000 for the final nine months of 1968.

\*\* Adjustment for those who died or were disabled from wounds, deserted, defected, and PW's. It does not include died or disabled from sickness.

\*\*\* During March 1968 the enemy sustained approximately 14,600 killed, or projected to 131,000 for the remaining 9 months of 1968.

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TAB FNORTH VIETNAMESE PERSONNEL LOSSES

The figure of 45,000 for losses in North Vietnam in 1968 and 1969 is based on an estimated turn over in the NVN forces of about 10 percent a year from normal causes i.e., sickness, over-age or physical retirements, training losses, etc. These are no hard figures on such attrition, but it occurs even in war. This should be considered a maximum worse case figure for the purposes of this paper. No estimate has been made for war casualties in the north although the North Vietnamese Armed Forces are suffering casualties from our air and naval actions against the north. Such losses have not been announced by the North Vietnamese. The data available from any other sources are not in sufficient detail to provide a basis for an estimate.

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TAB G

DERIVATION OF THE 500,000 SURPLUS LABOR POOL

At least 200,000 workers could be drawn from agriculture without a decline in agricultural output because of the low marginal productivity of North Vietnamese farmers. For many years the regime has had a goal of reducing the number of farm workers per unit of land. Female labor can be substituted for male labor. Moreover, additional labor can be withdrawn from agriculture by substituting imported food for lost domestic production - the average output per year of a rice farmer in North Vietnam is only about one-half ton.

About 150,000 workers could be withdrawn from the total industrial labor force of about 800,000. Of the industrial force approximately 600,000 are engaged in handicraft activities. Much of this labor force has very low productivity and is not engaged in essential economic activity. The loss of one quarter of this handicraft labor force to the armed forces would not be missed.

About 150,000 workers could be withdrawn from the 1.1 million workers engaged in the trade and services sector of the economy. Although this diversion would result in a decline in consumer welfare the overall effect on the economy would be slight.

In addition to these pools of manpower which can be drained for military purposes there are also approximately 120,000 students in North Vietnam of working age which could be put to work to replace



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some of the draft age physically fit male laborers who might be taken into military service. Such a utilization of students however would, in the long run, be detrimental to the economy.

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