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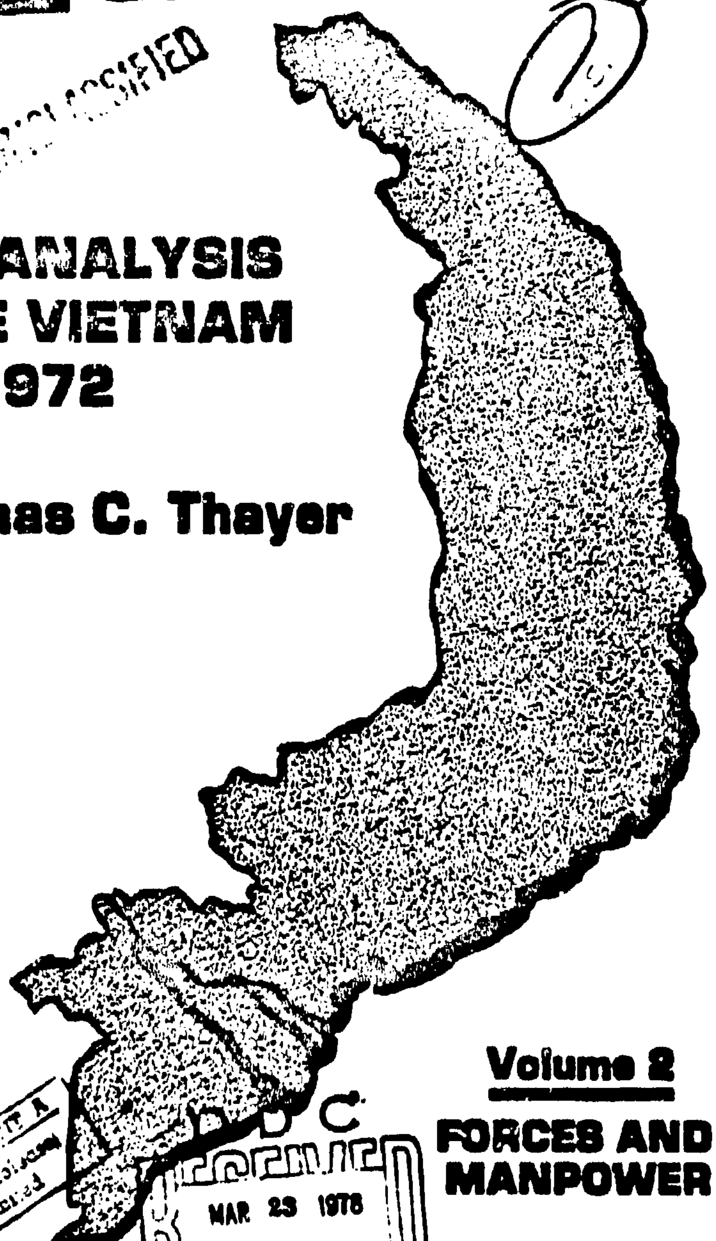
A SYSTEMS ANALYSIS VIEW OF THE VIETNAM WAR 1965-1972

Editor: Thomas C. Thayer



Volume 2

FORCES AND MANPOWER

UNCLASSIFIED

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SEA Analysis Report	SE Asia Air Operations
VC/NVA	SE Asia Deployments
Pacification	SE Asia Logistics/Construction

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This twelve volume set includes every article printed in the fifty issue series of the Southeast Asia Analysis Report. The SEA Analysis Report represented a month-by-month analysis of Vietnam War activity including forces and manpower, VC/NV operations, Allied ground, naval and air operations, RVNAF, casualties and losses, population security, war costs and inflation and construction and port operations in South Vietnam.

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A SYSTEMS ANALYSIS VIEW OF THE VIETNAM WAR: 1965-1972

Contents of the 12 Volumes

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3. U.S. FORCES

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INTRODUCTION

This volume, plus the other eleven volumes in the series, contains every article ever printed in the Southeast Asia Analysis Report (a few additional papers not printed in the report are occasionally included, too.).

Fifty issues of the Southeast Asia Analysis Report were published from January 1967 through January 1972 by the Southeast Asia office under the Assistant Secretary of Defense (Systems Analysis). The Report had two purposes. First, it served as a vehicle to distribute the analyses produced by Systems Analysis on Southeast Asia. It thus provided other agencies an opportunity to tell us if we were wrong and to help prevent research duplications. We solicited and received frequent rebuttals or comments on our analyses which sharpened our studies and stimulated better analysis by other agencies. Second, it was a useful management tool for getting more good work from our staff -- they knew they must regularly produce studies which would be read critically throughout the Executive Branch.

The first page of the Report stated that it "is not an official publication of the Department of Defense, and does not necessarily reflect the views of the Secretary of Defense, Assistant Secretary of Defense (Systems Analysis), or comparable officials." The intent was solely to improve the quality of analysis on Southeast Asia problems -- and to stimulate further thought and discussion. The report was successful in doing precisely this.

We distributed about 350 copies of the Report each month to OSD (Office of the Secretary of Defense), the Military Departments, CINCPAC, and Saigon, and to other interested agencies such as the Paris Delegation, AID, State Department, CIA and the White House Staff. Most copies circulated outside OSD were in response to specific requests from the individual person or agency. Our readership included many of the key commanders, staff officers, and analysts in Washington and in the field. Their comments were almost always generous and complimentary, even when they disagreed with our conclusions. Some excerpts appear below:

"I believe the 'SEA Analysis Report' serves a useful purpose, and I would like to see its present distribution continued." (Deputy Secretary of Defense, 31 May 1968)

"We used a highly interesting item in your May Analysis Report as the basis for a note to the Secretary, which I've attached." (State Department, 28 June 1967)

"We were all most impressed with your first monthly Southeast Asia Analysis Report. Not only do we wish to continue to receive it, but we would appreciate it if we could receive 4 (four) copies from now on." (White House, 9 February 1967)

"Ambassador _____ has asked me to tell you that he has much appreciated and benefited from the studies and analyses of this publication." (State Department/White House, 24 January 1969)

"Congratulations on your January issue. The 'Situation in South Vietnam' article was especially interesting and provoking." (State Department, 24 January 1969)

"I let Ambassador _____ take a swing at the paper. He made several comments which may be of interest to you. Many thanks for putting us back on distribution for your report. Also, despite the return volley, I hope you will continue sending your products." (MACV-CORDS, 17 June 1968)

"As an avid reader (and user) of the SEA Analysis Report, I see a need for more rounded analyses in the pacification field and fewer simplistic constructs." (MACV-DEPCORDS, 17 April 1968)

"The SEA Programs Division is to be commended for its perceptive analysis of topics that hold the continuing concern of this headquarters... The approach was thoughtfully objective throughout and it was particularly pleasing to note a more incisive recognition of factors that defy quantified expression." (Commander, US Army Vietnam-USARV, 29 November 1967)

"In general, I think it is becoming the best analytical periodical I've seen yet on Vietnam (though there's not much competition)." (MACV-DEPCORDS, 21 April 1967)

"Statistical extrapolations of this type serve an extremely useful purpose in many facets of our daily work." (CIA, 6 February 1967)

"One of the most useful Systems Analysis products we have seen is the monthly Southeast Asia Progress Report.... Indeed it strikes many of us as perhaps the most searching and stimulating periodic analysis put out on Vietnam." (President of The Rand Corporation, 22 October 1969)

In November 1968, 55 addressees answered a questionnaire about the Report: 52 said the report was useful, 2 said it was not, and 1 said, "The report does not meet an essential need of this headquarters;" nonetheless, it desired "to remain on distribution" for 7 copies. From 48 questionnaires with complete responses, we found that an average 4.8 people read each copy -- a projected readership of 500-950, depending on whether we assumed 1 or 2.4 readers of copies for which no questionnaire was returned.

Readers responding to the questionnaire reported using the Report for the following purposes:

Information	42%
Analysis	31%
Policy Making	11%
Briefings	7%
Other	9%
	100%

In addition, readers reported about equal interest in each of the seven subject areas normally covered in the Report.

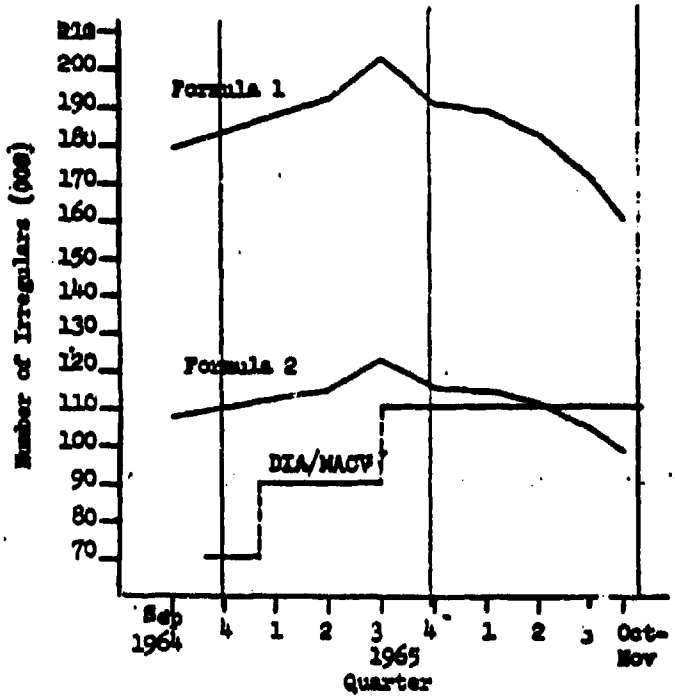
VC/NVA	18%
Air Operations	20%
RVNAF	17%
Pacification	13%
Friendly Forces	12%
Deployments	12%
Logistics/Construction	8%
	100%

There was some negative reaction to the Report. Concern was expressed about "the distorted impressions" the Report left with the reader and its wide dissemination which "implies its acceptance by the Secretary of Defense, giving the document increased credibility."

Given the way in which the Southeast Asia Analysis Report was used, the important responsibilities of many of its readers, and the controversial aspects of the report, I decided to include in these twelve volumes every article ever published in a Southeast Asia Analysis Report. This will allow the users of these volumes to arrive at their own conclusions.

Thomas C. Thayer
February 18, 1975

ESTIMATING VC IRREGULAR STRENGTH



Viet Cong irregular forces are organized into guerrilla, self-defense, and secret self-defense elements subordinate to village and hamlet Viet Cong organizations. Guerrillas are full-time forces organized into squads and platoons which do not always stay in their home village or hamlet. Typical missions for guerrillas are collection of taxes, propaganda, protection of village party committees, and terror and sabotage activities. The self-defense force is a para-military structure responsible for the defense of hamlet and village in areas controlled by the VC. These forces do not leave their home area, and they perform their duties on a part-time basis. Self-defense forces conduct propaganda, construct fortifications, and defend home areas. The secret self-defense force is the clandestine VC organization which performs the same general functions in GVN-controlled villages and hamlets as do the self-defense forces in VC controlled areas. Their operations include intelligence collection as well as sabotage and propaganda.

The nature of the irregular force structure does not lend itself to the more precise measurements which can be made for conventionally organized military forces based upon identifications, command structure, and unit historical data. Even the captured Viet Cong records that are available for some provinces are obviously "estimates" rather than statistical tabulations of strengths for specifically identified irregular platoons and squads. Lacking precise accounting data, it is necessary to use an estimate to ascertain the overall strength of the VC irregular forces throughout SVN. These estimates consider the type of VC infrastructure, the density of population, scale of enemy military activity, and extent of VC control in the various districts, villages and hamlets comprising each province.

MACV's present estimates of the strength of the VC irregulars are derived from estimates provided by GVN province chiefs. During the past few months MACV, in coordination with GVN and other US agencies, has laid groundwork to obtain a more valid estimate of irregular strength by means of a combined collection program. Preliminary indications point to an increase in the number of irregulars to be carried in the order of battle. This will not, however, indicate that the actual irregular strength has increased, but rather that MACV has refined its knowledge of it. The new strength figures will be retroactively adjusted. The present MACV order of battle carries approximately 113,000 irregulars. DIA reports about 100,000 to 120,000 irregulars in SVN and the mean, 110,000, is frequently used for computations. A tabulation of irregular strength since the first quarter of 1965 (as carried by DIA) is shown in Table 1. The tabulated strengths suggest that either the VC irregular forces have remained almost constant or that the estimates have been revised infrequently.

TABLE 1

VC IRREGULAR STRENGTHS - DIA REPORTS
(Thousands of Personnel by Quarters)

	1965				1966			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th
VC Irregulars	90	90	110	110	110	110	110	110

Source: Table 101, OSD SEA Statistical Summary

This article presents two different sets of irregular strength estimates derived from applying two formulas to population control data. The resulting data may shed some light on possible trends in the VC irregular force strength.

Formula #1

The basis for Formula #1 was reportedly developed by the intelligence staff of the RVN Joint General Staff from VC planning factors (RVN document Ministry of Defense, J-2 High Command, RVNAF #2697/TTL/2/9.) The formula relies primarily on population control as a basis for estimating VC irregular strength.

TABLE 2

REPORTED VC PLANNING FACTORS FOR IRREGULAR FORCE STRENGTHS

	VC Controlled Area	Disputed Area (Undergoing Clearing or Securing)	RVN Controlled Areas (Secured)
Guerrillas	1 platoon (30-40) per 1000 VC population (35/1000 VC controlled)	1 Squad (10-12) per 1000 VC population (11/100 VC controlled)	None
Self-Defense	1 platoon (30-40) per village a/ (8.75/1000 VC controlled)	1 Squad per village a/ (2.75/1000 VC controlled)	None
Secret Self-Defense	30 per village a/b/ (7.5/1000 VC controlled)	15 per village a/ (3.75/1000 VC controlled)	1-3 three-man crews per village a/ (1.5/1000 VC controlled)
Total Irregulars per 1000 VC controlled population	51.25	17.5	1.5

a/ Average village population of 4000 is assumed.
b/ Planning factor for Secret Self Defense (SSD) in VC controlled areas appears to be at variance with definition furnished by MACV, which indicates that SSD operates only in GVN areas.

TABLE 3

REFINED FACTORS - FORMULA #1

	VC Controlled	Undergoing Clearing	Undergoing Securing	Secured
Irregulars/1000 VC Controlled (times)	51.25	17.5	17.5	1.5
% VC Control (gives)	90%	60%	30%	10%
Irregulars/1000 Total Population	46.1	10.5	5.3	.2

TABLE 4

VC IRREGULAR STRENGTH - FROM FORMULA #1
(000)

	1964 Sep	4th Qtr	1965 1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	Oct-Nov
VC Irregulars	179.8	183.8	187.9	192.2	203.8	191.0	189.2	182.5	171.9	160.4

Table 2 shows the presumed VC planning factors upon which Formula #1 is based. For the purpose of relating the self-defense and secret self-defense of factors to MACV/GVN population control data, we have assumed an average village population of 4000. This yields the gross planning factors shown in parentheses for the two groups.

To calculate irregular force strength the gross factors in Table 2 are refined in Table 3 for application against the various categories of population control data reported in the monthly MACV Report of Population and Area Control. Application of the refined factors ("irregulars per 1000 total population") developed in Table 3 to the MACV population control data yields the VC irregular strength estimates shown in Table 4 and Graph #1. For example, Table 2 indicates that 17.5 irregulars are planned for each 1000 of VC controlled population located in areas which MACV reports in the undergoing clearing category. For purposes of Formula #1, we have assumed that 60 percent of the population reported in that category is under VC control; thus 60 percent of 17.5 yields a refined factor of 10.5 irregulars per total population undergoing clearing. Similar percentages of VC control have been assumed for the other categories, as shown in Table 3.

Rather than being stable, as suggested by the DIA statistics in Table 1, Formula 1 yields an increasing irregular strength which peaks at 204,000 in the 3rd quarter of 1965 and diminishes to 160,000 late in 1966. It is interesting to note that the estimate of 182,500 irregulars closely corresponds to a statement in a recently captured VC document which implies that VC irregular strength had declined to about 180,000 by mid-1966. The decline of irregular strength shown in Table 4 is primarily a function of the increasing amount of the population which reportedly came under GVN control during the period under consideration.

Any conclusions drawn from Formula #1 results in Table 4 should be tempered by the following considerations. First, the formula is based on supposed VC planning factors, but it is applied to MACV/GVN population control data and the VC probably do not view the population distribution in the same way as MACV. Second, uncontested areas have been ignored in arriving at the number of irregulars; however, the inclusion of these data would probably not change the results significantly.

Formula #2.

By abbreviating Formula #1 results are obtained which more closely approximate the DIA and MACV estimates. Formula #2 is developed from the same set of VC planning factors as Formula #1. This version assumes, however, that a platoon has only 30 persons and a squad 10. In addition, it only assumes that there is 1 platoon per 1000 population in VC controlled areas, a squad per 1000 population in disputed areas and 3-man cells in RVN controlled areas. This formula also ignores the uncontested areas and the same "% VC controlled" factors are applied. The Formula #2 factors are given in Table 5. Table 6 and Graph #1 show the results of applying Formula #2 to the MACV population control data. The trends suggested by these results are identical to those of Formula #1, but the magnitude of the numbers is very close to that of current DIA and MACV estimates. When Formula #2 and the MACV estimates are compared for May 1966 (the most recent revision of the MACV estimates) extremely good agreement is seen (112,760 for MACV and 112,045 for Formula 2.)

TABLE 5

VC MILITIA STRENGTH - FORMULA #2

	VC Controlled	Undergoing Clearing	Undergoing Securing	Secured
Irregulars/1000 VC Controlled (times)	30	10	10	9
% VC Control (gives)	90%	60%	30%	10%
Irregulars/100 Total Population	27	6	3	.9

TABLE 6

VC IRREGULAR STRENGTH - FROM FORMULA #2

	1964	1965				1966				
	Sep	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	Oct-Nov
VC Irregulars	107.8	110.3	112.9	115.7	123.0	116.0	115.1	111.2	105.2	98.7

Feb-67

ENEMY UNITS NOT IDENTIFIED BY POSITIVE CONTACTS

As of December 31, 56 of the VC/NVA battalions carried in the MACV Order of Battle had not been positively identified as contacted during CY 1966. Of these 56 units, 47 were also uncontacted as of August 31, 1966. Table I shows that 43 of the 47 battalions are carried in the MACV Order of Battle as confirmed, 1 as probable, and 3 as possible. Twenty-four of the battalions are support units (Artillery, Anti-aircraft, Engineer, Signal, Transportation, Medical) and the remaining 23 are combat (Infantry and Sapper) battalions. All of the 21 confirmed combat units shown in Table I have been listed in the MACV Order of Battle since June 1966 and 11 have been listed since March 1966. Only 4 of the 47 battalions (all support types) are located in the Laos/Cambodia/SVN border area. None of the uncontacted combat battalions are from either the 324th or the 341st Divisions located in the DMZ area. The 47 battalions accounted for a total personnel strength of 14,820.

Table I

	Combat[a]	Support[b]	Total
Confirmed	7,270 (21)	6,700 (22)	13,970 (43)
Probable	200 (1)	-	200 (1)
Possible	150 (1)	500 (2)	650 (3)
Total	7,620 (23)	7,200 (24)	14,820 (47)

a/ Infantry and Sapper battalions.
b/ Signal, Engineer, Transportation, Medical, Artillery, Anti-aircraft, and Mortar Battalions.

Current information (since October 1966) was received by MACV (from prisoners, defectors, and/or captured documents) concerning the location of 26 of the 47 uncontacted battalions. Of the 21 uncontacted battalions lacking current information, 12 are combat and 9 are support battalions.

Table II shows the 47 uncontacted battalions by Corps area and identifies the units as either VC or NVA. Only 2 of the units showing no positive contact are from IV Corps, with the remainder being distributed almost equally between the other Corps areas.

Table II

UNITS WITH NO REPORT OF POSITIVE CONTACT

	I	II	III	IV	Total	Strength
VC	1	3	12	2	18	5,320
NVA	16	11	2	-	29	9,500
Total	17	14	14	2	47	14,820

6

REVISED ESTIMATES OF VC/NVA ORDER OF BATTLE

MACV has dropped three types of VC/NVA forces from its new order of battle estimates and has revised its estimates of VC/NVA force strength. As a result, the MACV now carries 236,000 VC/NVA personnel in its new October 1967 VC/NVA order of battle versus 294,000 in October under the old system. Based on the retrospective data, VC/NVA military strength is down 48,000 since the beginning of this year.

New VC/NVA Order of Battle Presentation

MACV has dropped VC/NVA political, self-defense and secret self-defense personnel from its order of battle reports on the grounds that they are not a military threat. This eliminates 114,000 personnel of the 294,000 previously counted for October. The new format counts only combat, administrative service, and guerrilla personnel in the VC/NVA military order of battle. The estimate for these forces increased from 180,000 in the old system to 235,852 personnel in the new, primarily due to a doubling of guerrilla strength. VC/NVA combat strength remained unchanged at 116,552. Table 1 shows these changes.

Operations into former enemy safe havens and base areas during early 1967 uncovered documents revealing large numbers of administrative service personnel. Accordingly, MACV has revised its estimate of administrative service personnel upward from 25,753 to at least 35,000 - 40,000 full time personnel. Table 2 and Graph 1 show the new MACV retrospective view of administrative service strength since December 1964. Administrative service strength reportedly peaked at 51,100 in June 1966 and declined to 38,000 by October 1967.

TABLE 2

RETROSPECTIVE TOTAL ENEMY STRENGTH a/
(New MACV Presentation Format)

	Dec 64	June 65	Dec 65	June 66	Dec 66	June 67	Oct 67
Combat	54.8	70.6	92.3	122.6	116.0	118.1	116.5
Admin Service	35.0	38.5	41.3	51.1	41.7	37.8	38.0
Guerrilla	81.2	90.3	91.2	102.2	126.2	94.7	81.3
	171.0	199.4	224.8	275.9	283.9	250.6	235.8

a/ From MACV Monthly Order of Battle Summary, 31 October 1967.

TABLE 1

Total and Military Enemy OB Compared

	1 Old Estimate[a] Total OB	2 New Estimate[c] Military OB	3 New Estimate[b] Total OB
Combat Strength [f]			
VC	62,852	62,852	62,852
NVA	53,700	53,700	53,700
Total	116,552	116,552	116,552
Administrative Service	25,753	38,000	38,000
Irregulars[d]			
Guerrillas	37,587	81,300	81,300
Self Defense and Secret Self Defense	75,173	[e]	75,173-162,600
Total	112,760		156,473-243,900
Political Cadre (VC Infrastructure)	39,175	[e]	84,000
Total All Categories	294,240	235,852	395,025-482,452

[a] The presentation and strength estimates used by MACV before 31 October 1967.

[b] The pre 31 October 1967 total OB presentation with the new estimates of administrative service, guerrilla and political cadre strengths.

[c] MACV's new presentation, without self-defense, secret self-defense, and political cadre and his new strength estimates of administrative service and guerrilla strengths.

[d] "The old data divided the 100,000 to 120,000 irregulars, roughly putting one-third of them into the guerrilla and the other two-thirds into self-defense and/or secret self-defense personnel." - MACV briefing on Enemy Order of Battle, 24 Nov 67.

[e] The self-defense forces provide a base for recruitment as well as for political and logistical support, but are not a fighting force comparable to the guerrillas. Although secret self-defense forces cause some casualties and damage, they do not represent a continual or dependable force and do not form a valid part of the enemy's military force. The political cadre (infrastructure) has no military function. - MACV briefing on Enemy Order of Battle, 24 Nov 67.

[f] Includes confirmed, probable, and possible.

Recent captured documents indicate that the guerrilla forces may be larger than previously estimated.[a] MACV estimates that their current strength ranges from 70,000 to 90,000, much larger than its previous estimate of 33,000 to 40,000.[b] Table 2 and Graph 1 show strength increasing steadily from December 1964 through December 1966, peaking at 126,200 and then declining sharply to 81,300 by October 1967. While this new estimate is an improvement over previous numbers, additional data in the future can be expected to modify it.

The old MACV estimate of 39,175 political cadre was based on an early GVN study. Although MACV has dropped this category from its military OB, it now estimates that political cadre have numbered between 75,000 and 85,000 since December 1964. (Its best estimate is 84,000.)

Summary Effects of the Changes

Column 3 of the Table 1 shows what happens when we place the new strength estimates into MACV's old format. If we assume that the self-defense and secret self-defense estimates have not changed (MACV did not revise the figures) we get a total strength of 395,852, about 100,000 greater than the old estimate and about 160,000 greater than the new estimate. If we assume that secret self-defense and self-defense forces still constitute two-thirds of the irregular forces[c], we get an estimate of about 480,000 VC/NVA, or twice the new military OB estimate. Thus the new estimate is 395,000 - 480,000 on a basis comparable to the old 294,000. The computations do not show that enemy strength has increased, but that previous estimates of enemy strength were too low.

The new MACV retrospective estimates of VC/NVA strength are presented above in Table 2 and Graph 1. They show a peak VC/NVA military strength of about 284,000 in December 1966 on a quarterly basis (strength actually peaked in October 1966 at 288,000) sharply declining to about 236,000 by October 1967, an average of 4800 net losses per month. The 45,000 guerrilla decline accounts for 94% of the total reported drop of 48,000. We note, however, that the Hamlet Evaluation System, from March to August 1967, reports a net increase of only five hamlets where the guerrilla's military control has been broken.

Definitions

MACV's definitions of the enemy's forces included in the old and new estimates are provided below.

---

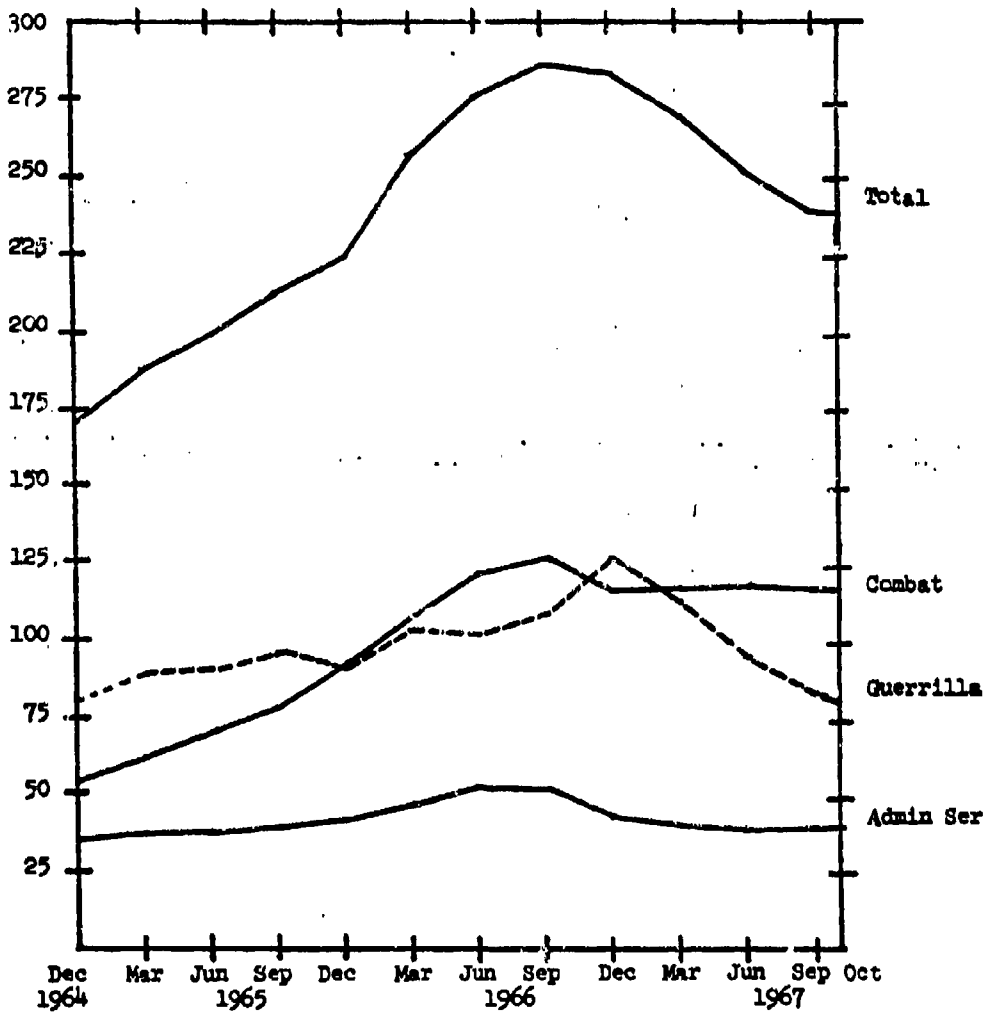
a/ For example, enemy documents (CDEC Log 01-2552-67, 02-1846-67 and 05-1704-67) captured in January and May 1967 suggest that guerrilla strength was between 150,000 and 160,000 at the outset of 1966.

b/ "The old data divided the 100,000 to 120,000 irregulars, roughly putting one-third of them into the guerrillas and the other two-thirds into self-defense and secret self-defense personnel." - MACV briefing on Enemy Order of Battle, 24 November 1967.

c/ See footnote d/, Table 1.

GRAPH #1

NEW RETROSPECTIVE ESTIMATE
OF VC/NVA ORDER OF BATTLE STRENGTH



Definitions of Enemy Forces Included in the OB

Combat: Combat forces are the enemy's maneuver and combat support units. Maneuver units are infantry, armor, security, sapper and reconnaissance elements of platoon level upward regardless of subordination. Combat support units are those fire support, air defense and technical service units organized at battalion level and above, and not classified under administrative service. Separate fire support companies are classed as combat support.

Administrative Service: Military personnel in identified COSVN, military region, military subregion, province, and district staffs, and rear service technical units of all types directly subordinate to the headquarters.

Irregulars: These are organized forces composed of guerrilla, self defense and secret self defense elements subordinate to village and hamlet level VC organizations. These forces perform a wide variety of missions in the support of VC activities and, in fact, provide a training and mobilization base for the VC maneuver and combat support forces. Guerrillas are full-time forces organized into squads and platoons which do not always stay in their home village or hamlet. Typical missions for guerrillas are collection of taxes, propaganda, protection of village party committees, and terrorist and sabotage activities. Self Defense Forces are a VC para-military structure responsible for the defense of hamlet and village areas controlled by the VC. These forces do not leave their home area, and they perform their duties on a part-time basis. Duties consist of conducting progaganda, constructing fortifications, and defending home areas. Secret Self Defense Forces are a clandestine VC organization which performs the same general function in GVN controlled villages and hamlets as do the self defense forces in VC controlled areas. Their operations involve intelligence collection as well as sabotage and propaganda activities.

Viet Cong Infrastructure: The Viet Cong infrastructure or political cadre is designed as the political and administrative organization through which the Viet Cong control or seek to control the South Vietnamese people. It embodies the party (People's Revolutionary Party) control structure, which includes a command and administrative apparatus (Central Office South Vietnam) at the national level, and the leadership and administration of a parallel front organization (National Front for the Liberation of South Vietnam), both of which extend from the national through the hamlet level.

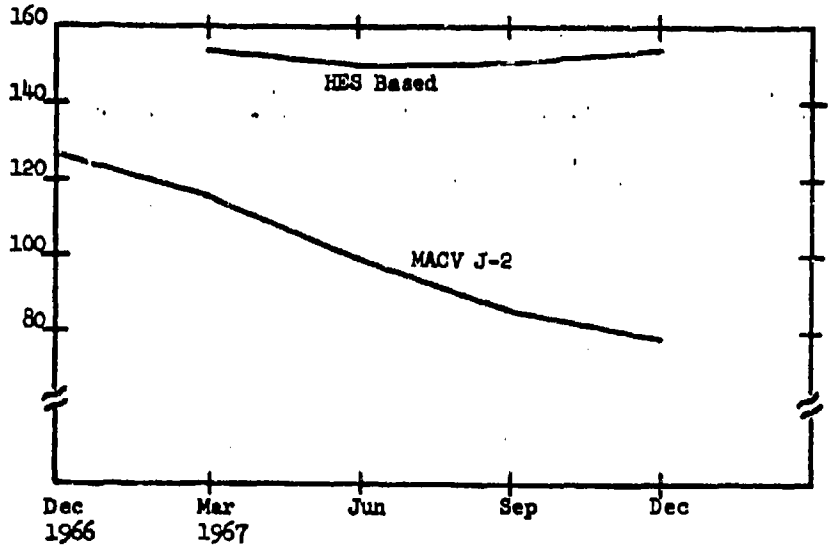
Source: MACV Monthly Order of Battle Summary, 31 August 1967.

Enemy Guerrilla Forces in 1967

MACV J-2 pre-Tet intelligence estimates indicated a steady drop in VC guerrilla strength during 1967. This was reportedly the result of heavy combat losses and mounting recruiting problems. However, the Tet offensive raises questions about the validity of the decline. We have developed an alternative estimate of VC guerrilla strength based on VC planning factors and Hamlet Evaluation System (HES) data. Instead of the decline from 115,900 in March to 78,900 in December as estimated by MACV J-2, the HES based estimate shows a force of about 155,000 in March dipping to 151,000 by June, but recovering to 154,000 by year end. The two estimates are depicted on Chart 1. Our methodology is outlined below.

CHART 1

VC GUERRILLA ESTIMATES - 1967



Enemy Irregular Force Structure

Viet Cong irregular forces are organized into guerrilla, self-defense, and secret self-defense elements subordinate to district, village and hamlet Viet Cong organizations. Their functions are shown below:

Enemy Irregular Forces

Force Type	Role and Typical Mission	Included in OB?
Guerrillas	Full time forces organized into platoons and squads. They are organized at village and hamlet level and include both regular and secret forces. Typical missions include collection of taxes, propaganda, protection of local political apparatus, terror and sabotage.	Yes
Self-defense	Para-military structure responsible for hamlet and village defense in VC controlled areas. These forces generally operate only in their local areas, and perform their duties on a part-time basis. Typical missions include construction of fortifications, home area defense, propagandizing.	No
Secret Self-defense	Clandestine VC organization which performs the same general functions in GVN areas as the self-defense forces perform in VC areas. Their operations include intelligence collection as well as sabotage and propaganda.	No

MACV Guerrilla Estimates

MACV guerrilla estimates for CY 67 are summarized below in Table 1. These estimates are based on captured documents and ARVN and sector advisor estimates. Estimates are required because captured documents cover only parts of SVN. For some provinces there are many detailed and consistent reports; for others there are no reports.

TABLE 1

MACV Guerrilla Estimates

December 1966	March 1967	June 1967	September 1967	December 1967
126.7	115.9	99.7	86.7	78.9

Village Guerrilla Units

The Hamlet Evaluation System grades hamlets (and therefore villages) in terms of the status of VC guerrilla units. This data, summarized in Table 2 below suggests that the VC guerrilla force was expanding, rather

that contracting during the latter part of CY 67. The number of "A" villages, where all guerrilla remnants have been driven out, increased through September 1967, but dropped by December 1967 to pre-March 1967 levels. The number of A, B and C villages, where guerrillas were at 50% or less of desired strength, decreased from 1271 in June to 1267 in September to 1249 in December. The number of D, E and VC villages, where the guerrillas were only "somewhat" reduced in strength at best, rose from 1000 in June to 1028 in December.

TABLE 2

SVN Villages by HES
Village Guerrilla Score

Village Guerrilla Score a/	March 67	June 67	September 67	December 67
A	239	249	270	229
B	549	518	507	494
C	474	504	490	526
D	453	453	482	517
E	98	99	88	81
VC	489	448	446	430
TOTAL	2302	2271	2283	2277

a/ Scoring criteria for Indicator 1A: VC village guerrilla units

Rating	Conditions in Villages
A	Village guerrilla remnants driven out. No threat of harassment or intimidation from guerrillas in adjacent villages.
B	Village guerrilla control reduced to 1-2 hamlets on village periphery or 2-3 hours travel to hamlet; could make desperation raid. Activities of guerrillas from adjacent villages limited by no havens or friendly defenses.
C	Military control of village broken, most guerrillas identified, 50% losses, havens destroyed, activity below platoon level; can harass but not prevent GVN activities in hamlet.
D	Village guerrillas reduced somewhat in men and defenses; can attack in platoon strength from within village or 1-2 hours travel to hamlet.
E	Village guerrillas effective though some identified or eliminated; VC village guerrilla defenses largely intact.

Enemy Guerrilla Estimate From Planning Factors

In an attempt to measure the overall guerrilla strength in SVN we have applied enemy guerrilla factors to the HES population control data. Our method is similar to that used in "Estimating VC Irregular Strength" (SEA Analysis Report, March 1967). Two approaches are pursued. Our first estimate is based on the enemy's planned guerrilla force structure. Our second estimate uses the enemy's planning factors for guerrillas as percentage of "controlled" population.

Captured documents provide an abundance of statements of enemy intent. In developing the "planning factors" of Table 3 we have taken the predominate positions reflected in the documents. Exceptions can be found in some provinces and districts, but these factors reflect the overall flavor of the enemy's objectives.

It is important to note that the enemy does not expect his guerrillas to be all prime age males. Some documents a/ state that up to 50% of the "male" guerrilla strength can be female; others state that 50% of the total guerrilla strength can be female. In addition about 5-15% of the guerrilla strength may be youths.

Each village has a guerrilla platoon of about 32 men; each hamlet a squad of about 10 men. In contested and GVN controlled areas the enemy tries to maintain some covert and secret guerrilla forces. We have assumed that the HES indicator 1a, Village Guerrilla Unit, best reflects the status of guerrillas in each hamlet and village. In "VC" and "E" villages we assume that the enemy planned forces are achieved. In D villages he gets only 80% of his planned level, in C villages 50% and in B villages 20%. In the case of hamlet secret guerrillas we have assumed that 30% of a squad (1 cell of 3 men) is formed in B hamlets, 60% in C hamlets and 30% in D hamlets. Similarly for village secret guerrillas we have assumed that 20% of a platoon (2 cells of 3 men) is achieved in B villages, 40% in C, and 20% in D villages. These factors are summarized in Table 3.

At the end of the first quarter of 1967, we estimate that 154,200 guerrillas were operating in SVN By the end of the second quarter the number dropped to 150,900. Beginning in the third quarter, however, they increased to 151,100 and by the end of the year reached 154,400. These numbers are reasonable in light of a document b/ captured during operation Junction City stating that there were about 150,000 guerrillas at the beginning of 1967.

a/ MACV, Dec #12-1525-65 and 08-1261-66, for example.
b/ MACV, Dec #03-1499-67.

TABLE 3

Guerrilla Force Planning Factors

	HES VILLAGE GUERRILLA CATEGORY					
	A	B	C	D	E	VC
GUERRILLA UNIT PLANNING FACTORS						
1. Village Guerrillas - each village has a 32 man platoon. The following percentage of this strength is assumed:	0	20%	50%	80%	100%	100%
2. Hamlet Guerrillas - each hamlet has a 10 man squad. The following percentage of this strength is assumed:	0	20%	50%	80%	100%	100%
3. Covert and Secret Guerrillas - Hamlets and villages in contested and GVN controlled areas have secret guerrillas: % of 32 man platoon.	0	20%	40%	20%	0	0
Hamlet secret guerrilla - % of 10 man squad.	0	30%	60%	30%	0	0
POPULATION PLANNING FACTOR						
Guerrilla strength as a percentage of population	-	-	-	2.25%	4.5%	4.5%

In VC controlled areas the enemy expects about 9% of the population to be guerrillas. In contested areas he expects about 6% and in "weak" areas he would like about 3% of the population. Unlike the unit planning factors, he rarely achieves his goal as a % of the population. Documents suggest that he manages to get only about half of the guerrillas desired, so we have reduced the above factors by 50%.

Corresponding HES categories have been chosen based on data from Ninh Thuan Province. a/ All HES "VC" and "E" rated population is considered VC controlled in the above sense. Half of the D category is considered contested, and half "weak." In the first quarter 1967 we find 150,600 guerrillas, in second quarter 148,100, in 3rd quarter 145,500 and fourth quarter 146,600. Both the trend and magnitudes are quite similar to the estimates derived from unit planning factors above.

Table 4 below compares our estimates with the MACV guerrilla estimates for 1967.

TABLE 4

GUERRILLA ESTIMATES COMPARED
(000)

	Mar 67	June 67	Sept 67	Dec 67
MACV J2	115.9	99.7	86.7	78.9
Alternate estimates				
Unit factors	154.2	150.9	151.1	154.4
VC population factors	150.6	148.1	145.5	146.6

The most important difference between the MACV estimate and ours is the trend during CY 67. We show guerrilla strength changing little; MACV shows a sharply decreasing strength. We note that some analysts feel that guerrilla strength dropped some 20,000 to 30,000 during the first half of 1967 and then either increased or remained the same. Such a trend is only partially consistant with our estimates (2500-3300 decline in Jan-Jun 1967, 2500 increase to 1500 decrease in Jul-Dec 1967). The amount of decline in early 1967 would depend on the recruitment rate and the amount of upgrading by the VC from guerrillas to main force units, neither of which is known at the present time.

a/ MACV, Dec #04-2082-67.

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May 68

NVA FORCES IN SOUTH VIETNAM

NVA forces now account for about 70% of the enemy's main and local force strength and for 60% of his battalions in South Vietnam. Withdrawal of the NVA battalions from South Vietnam would reduce the enemy's main combat forces from 122,000 men and 243 battalions to 50,000 personnel and 96 battalions; withdrawal of the additional 13,000-16,000 NVA serving in VC units would leave about 36,000 main and local force personnel and impair the combat effectiveness of the remaining battalions. Intelligence to explain the gap between the NVA force size and known losses on the one hand and the much larger NVA infiltration on the other does not exist; we cannot explain where all the reported infiltrators have gone.

North Vietnamese Army (NVA) forces in South Vietnam (SVN) have increased steadily since their introduction in November 1965. By the end of April 1968 there were 9 NVA divisions in South Vietnam with a combined strength of 72,000 in 147 battalions, including 101 infantry battalions, 43 combat support battalions and 3 sapper/recon battalions (Table 1).

Five of the NVA divisions are in I CTZ, three in II CTZ and one in III CTZ. MACV carries no NVA units in IV Corps, but there have been reports of a small number of NVA personnel south of Saigon in the IV CTZ area.

In addition to the 72,000 North Vietnamese in NVA units, MACV estimates that there are between 13,000 and 16,000 North Vietnamese (about 30%) in the 50,000 man VC main and local force units, bringing the estimated total NVA to about 87,000. Many VC regiments have more than 50% NVA personnel, according to MACV.

Table 1 also shows that the proportion of NVA forces in the total enemy combat force has grown from 5% in December 1964 to about 70% today. Withdrawal of all NVA battalions from South Vietnam would reduce the total enemy battalions from 243 to 96. If the 13,000-16,000 NVA personnel in VC units were also withdrawn it would reduce the current total of 121,700 enemy personnel in main and local force units to about 36,000. (In addition to this force, at least 99,000 VC guerrillas and administrative service personnel would remain, plus the political infrastructure.) Withdrawal of NVA personnel serving as permanent replacements in the remaining 96 battalions could significantly impair the combat effectiveness of those units, particularly if NVA personnel are filling the command positions.

TABLE 1

NVA FORCES IN SVN a/b/

	1964 Dec	1965 Dec	1966 Dec	1967 Dec	1968 Mar
NVA COMBAT BATTALIONS					
Infantry	4	36	66	84	101
Other Maneuver			1	3	3
Combat Support		14	29	34	43
Total	4	50	96	121	147
NVA STRENGTH (000)	2.4	28.0	50.6	73.8c/	87.9c/
VC COMBAT BATTALIONS					
Infantry	70	94	82	82	81
Other Maneuver	2	7	6	7	8
Combat Support	7	9	8	7	7
Total	79	110	96	96	96
VC Main/Local Force Strength (000)	52.0	65.6	66.5	45.7d/	35.4d/
Total Enemy Combat Battalions in SVN	83	160	192	217	243
NVA As % Of Total Battalions	5	31	50	56	60
Total Enemy Combat Strength in SVN (000)	54.4	93.6	117.1	119.5	123.3
NVA As % of Total Strength	4	30	43	62	71

a/ Source: OSD Statistical Summary, Table 105, 20 May 1968.
b/ All figures include the Confirmed, Probable and Possible categories of estimates.
c/ Includes 14,500 NVA personnel that MACV estimates are in VC units as fillers and replacements. (Actual MACV estimate is range of 13,000 to 16,000).
d/ 14,500 NVA in VC units (noted in footnote c/) were removed from Total VC strength figure reported in OSD SEA Statistical Tables.

Table 2 shows the pitfall in trying to check the "balance sheet" -- the consistency of NVA force increases, reported infiltration, and NVA losses. We cannot explain the gap between the NVA force size and known losses on the one hand and the much larger NVA infiltration on the other. For the 1965 - March 1968 period, the gap amounts to 173,100 personnel which must be attributed to unknown NVA losses and/or overestimates of infiltration. The intelligence data to fill the gap does not exist. (Only 13,000 of the body count losses were positively identified as NVA personnel and deducted from MACV OB reports during the period; the remainder of the body count figures were not divided between VC and NVA.)

In an attempt to explain the gap, we have estimated total NVA losses since June 1965 in two ways (Table 3). First, we divided all body count losses in the same proportion as the losses that MACV deducted from NVA and VC units in the Order of Battle reports.* This yields a total of 170,000 NVA losses, including KIA, died of wounds, POW and Hoi Chanh. This would fill the gap but the NVA losses exceed the gap for 1968. This discrepancy and the reported high VC guerrilla losses in 1967 and 1968 (not attributable to VC or NVA main force units in the OB) indicate the results of the apportionment method are questionable.

We also tried to estimate NVA losses from factors developed from captured documents.** This method resulted in only 67,000 NVA losses since June 1966, leaving a gap of over 100,000 unexplained.

Our inability to explain the gap between enemy force size/known losses and infiltration estimates suggests that emphasizing infiltration figures publicly is risky. At this stage, we cannot explain where all of the reported infiltrators have gone.

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* For details on apportionment method, see "VC Recruitment and Infiltration," SEA Analysis Report, June 1967.

** See details in "VC/NVA Personnel Losses" SEA Analysis Report, January 1968.

TABLE 2

Calculations To Check Consistency of NVA Strength, Infiltration and Losses

	1965	1966	1967	Thru March 1968	Total
Total Infiltration a/	35.3	89.6	93.4e/	54.9e/	273.2
Less NVA Strength Increases d/	25.6	22.6	23.2	14.1	85.5
Calculated NVA Losses	9.7	67.0	70.2	40.8	187.7
Known NVA Losses					
Known NVA KIA b/	NA	.4	6.2	6.2	12.8
Prisoners c/	NA	.7	1.1	.8	2.6
Chieu Hoi	NA	NA	.2	.1	.3
Total Known Losses		1.1	7.5	7.1	15.7
Unknown Losses and/or Over-estimated Infiltration	9.7	65.9	62.7	33.7	172.0

a/ Table 5, OSD SEA Statistical Summary, 6 May 1968.
b/ From MACV Monthly OB Summaries and MAC7 OB update changes, March 1967 to present.
c/ NVA and Regroupees included.
d/ Based on NVA strength shown in Table 1.
e/ Extrapolated from MACV data to take into account infiltration MACV has not yet accounted for. Extrapolation factors were presented in SEA Analysis Report, February 1968, pp. 13-19. In calculating the 1968 figure, the 16,000 personnel of the 304th and 320th NVA divisions were removed from the extrapolation base for January 1968 and reinserted in the total after the calculations were completed.

NVA Input/Loss Analysis
(In Thousands)

	Dec 1964	1965	1966	1967	1Q 1968	Total 1965-1968 i/
NVA Combat Strength - MACV OB	2.4	28.0	50.6	59.3	73.4	
NVA in VC Units				10.0	14.5	
NVA Combat Strength in SVN	2.4	28.0	50.6	69.3	87.9	
OB Strength Change		17.3a/	22.6	18.7	18.6	77.2
Losses Assessed by MACV b/			0.4	6.2	6.2	12.8
Net Input to OB		17.3a/	23.0	24.9	24.8	90.0
Apportioned Body Count Losses						
KIA		12.4a/	30.8	49.7	33.6c/	126.5
DOW		4.4a/	10.8	17.5	8.7d/	41.4
PW's		--	0.6	0.9	0.6	2.1
Chieu Hoi		--	--	0.4	0.1	0.5i/
Total		16.8a/	42.2	68.5	43.0	170.5
Implied Required Input		34.1a/	65.2	93.4	67.3	260.5
Extrapolated Infiltration e/		23.0a/	93.2	93.4	54.9	264.5
Difference Between Implied Input		-11.1a/	+28.0	+0.0	-12.9	+4.0
Alternative Loss Estimate						
KIA		2.0	10.8	20.5	13.4h/	46.7
Died of Wounds & Disease f/		0.6	3.7	4.1	2.1	10.5
PW's		--	0.6	1.0	0.6	2.2
Desertions		1.3	4.3	1.5	0.5	7.6
Total		3.9	19.4	27.1	16.6	67.0
Implied Required Input		29.5	42.4	52.0	41.4	165.3
Difference Between Implied Input and Infiltration g/		+5.8	+50.8	+41.4	+13.5	+111.5

a/ Second half of 1965 only. Earlier data is incomplete.
b/ These losses are subtracted from NVA units by MACV during the period indicated.
c/ Follows MACV methodology: Omit 10,000 of Tet body count which are estimated to be from the infrastructure or recently impressed soldiers or laborers.
d/ To account for street fighting and nature of Hue battle, we have assumed no DOW for first week of Tet offensive. MACV doesn't apply DOW factor to ½ of first week's body count, or to the fighting up to the securing of Hue City.
e/ See footnote e, Table 2.
f/ We exclude disabled from disease.
g/ A minus (-) indicates that implied required input exceeds infiltration.
h/ Computed from .4 times apportioned KIA, approximately the relation between these estimates for 1967.
i/ Quarterly data is rounded.
j/ Alternative loss estimate and associated calculations for Jan 65 - 1Q 68.

July 68

PROJECTED VC/NVA FORCE LEVELS

During the June 1 - July 13 period enemy losses dropped to a rate of about 7,500 per month. If this level were maintained for the remainder of the year, with no change in infiltration and recruitment rates, total enemy force strength would increase by 50,000 to 267,000 by September and 319,000 by December.

TABLE 1

ENEMY FORCES AND LOSSES
(Thousands)

	1967 Dec	1968 Jan	Feb	Mar	Apr	May	Jun	Average Jan-Jun
ENEMY OB *								
Main & Local Forces	123.4	144.8	130.6	132.6	132.9	129.4	129.3	
Admin Service	37.6	37.6	32.5	33.5	33.5	33.5	33.7	
Guerrillas	73.4	66.5	68.1	63.9	60.5	53.9	51.2	
Total Enemy Forces	234.4	248.9	232.2	230.0	226.9	216.8	214.2	
ENEMY INFILTRATION a/		30.6	13.5	26.9	15.9	22.6	10.8	20.1
ENEMY RECRUITMENT		7.0	7.0	7.0	3.5	3.5	3.5	5.3
ENEMY LOSSES								
KIA		15.2	29.9b/	17.4	12.2	24.1	10.3	
DOW		5.3	5.2c/	6.1	4.3	8.4	3.6	
PW		1.1	1.0	.6	.3	.1	d/	
Chieu Hoi		1.0	.6	.4	.6	.6	.8	
Total		22.6	36.7	24.5	17.4	33.2	14.7	24.9

a/ Extrapolated from MACV data to take into account infiltration MACV has not yet accounted for. Extrapolation factors were presented in SEA Analysis Report, February 1968, pp. 13-19.

b/ Follows MACV methodology: Omit 10,000 of Tet body count which are estimated to be from the infrastructure or recently impressed soldiers or laborers.

c/ To account for street fighting and nature of Hue battle, we have assumed no DOW for first week of Tet offensive. MACV doesn't apply DOW factor to ½ of first week's body count, or to the fighting up to the securing of Hue city.

d/ Unavailable.

* Source: OSD SEA Statistical Summary Table 10b. Includes confirmed, probable and possible.

Table 1 shows enemy losses, recruitment and infiltration for the first half of 1968. MACV estimates that total enemy strength decreased 20,200 between December 1967 and June 1968. Main and local force strength increased 5,900 while losses of 3,900 and 22,200 were registered against the administrative service and guerrillas respectively. Total enemy losses averaged 24,900 per month over the period; during June, however, only 10,900 losses were inflicted and July levels were almost half that. Enemy infiltration is averaging about 20,100 per month; recruitment about 5,000 per month.

Table 2 projects enemy force strength for the remainder of 1968 using a number of enemy loss rates. If losses continue at the present June/July level of 7,500 per month, there will be a force increase of approximately 17,500 per month, resulting in a September strength of 267,000 and a December strength of 319,000. If losses average 11,000 per month, as they did in June, the September OB would be about 256,000 and in December 298,000. Losses would have to be about 25,000 per month in order to attrite the same number as currently being added to the enemy's forces.

TABLE 2

PROJECTED TOTAL ENEMY STRENGTH

Assumed Rates			Projected Strength (rounded in 000)			
Losses	Infiltration	Recruitment	July	Aug	Sep	Dec
7,500	20,000	5,000	232	249	267	319
11,000	20,000	5,000	228	242	256	298
20,000	20,000	5,000	219	224	229	244
25,000	20,000	5,000	214	214	214	214

Comp C-5

PROJECTED VC/NVA FORCE LEVELS - A REBUTTAL

Comments have been received from the Army Staff (ODCSOPS) in rebuttal to the July 1968 Southeast Asia Analysis item (Page 1) which stated that if enemy losses continue at their recent low levels, the enemy will be able to increase his forces by more than 100,000 to 319,000 by December 1968 at recent rates of infiltration and recruitment.

Comments received are as follows:

"The article entitled 'Projected VC/NVA Levels' appearing on page 1 of the July issue of your Southeast Asia Analysis Report presents an interesting and potentially useful comparison of enemy gains, losses and force level capabilities.

"The article provides a projection of enemy force levels based on VC/NVA average 1968 infiltration and recruiting rates versus selected attrition experience. This approach builds the projection on a selected numerical approach which considers fluctuation of the casualty rate but discounts the fluctuation of the infiltration rate. Such an approach overlooks the relationship between losses and replenishment and completely avoids consideration of enemy intentions. If no statistical relationship can be discovered between strength losses and gains, then the simple approach of applying maximum gain experience and minimum loss experience would suffice to determine the maximum enemy reinforcing capability.

"The statement that enemy force strength would increase to 319,000 by December 1968 if enemy losses continued at the 1 June - 13 July rate of 7,500 per month and there were no changes in infiltration and recruitment rates portrays a sensational but highly improbable situation. The assumption in this instance almost amounts to a condition contrary to fact, for this would constitute a major change in enemy strategy. Indications point to continuation of an intensified struggle to topple the GVN and inflict unacceptable casualties on allied forces. Pursuit of this strategy cannot fail to inflict heavier losses on the enemy than he suffered during the June and July lull.

"Further experimenting with enemy gain and loss rates might profitably be undertaken as an approach to predicting enemy intentions to vary combat intensity."

SEAPRO Comment

We agree that heavy fighting is a more likely prospect than an all out enemy effort to build their forces up to 300,000 plus. This in turn would indicate that the enemy's high infiltration rate is designed to cover his past losses and the losses he expects in the fighting to come.

However, we suspect that all of our projected 100,000 increase cannot be ascribed to the enemy's building a manpower reservoir to replace losses. Up to 33,000 could be allocated to filling out the recently expanded VC/NVA force structure. The table below shows that since December 1966 the VC/NVA have added 75 combat battalions, (51 since November 1967) but increased their total combat strength by only 11,800. The December 1966 average combat strength per battalion was 588; by June 1968 it was down to 471. About 33,000 men would be required to bring the present 275 combat battalions up to the December 1966 average strength.

VC/NVA TOTAL COMBAT BATTALIONS AND STRENGTH

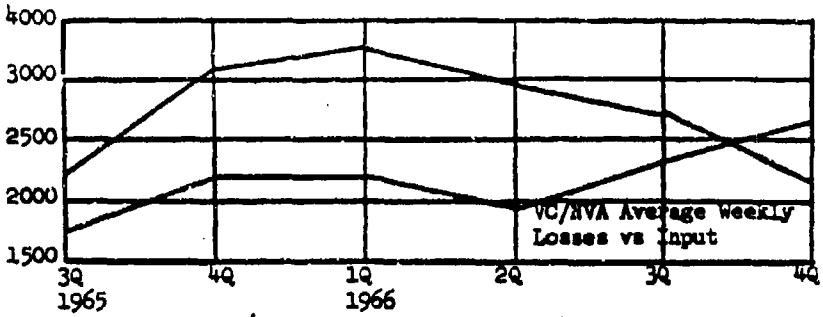
	Dec 1965	June 1966	Dec 1966	June 1967	Dec 1967	June 1968
Battalions	160	202	200	214	233	275
Strength (000)	123.5	124.6	117.6	122.4	123.5	129.4
Strength/Bn	772	617	588	572	530	471

The estimated rate of enemy infiltration remained high during July and we have no new information indicating a change in the enemy's recruitment rate. Unless infiltration drops sharply during the rest of the year, we still must kill about 25,000 enemy per month to stop an enemy force buildup. (The 1968 monthly average, counting all Tet losses, is about 18,000 per month. From 1 June through 17 August it is about 8100).

Jan 67

CONFIDENTIAL

VC/NVA PERSONNEL INPUT VERSUS LOSSES



VC/NVA PERSONNEL INPUT-WEEKLY AVERAGE

	1965 2nd Qtr	1965 3rd Qtr	1965 4th Qtr	1966 1st Qtr	1966 2nd Qtr	1966 3rd Qtr	1966 4th Qtr	Average CY 1966
VC/NVA Strength (End of Qtr-000)[a]	231.5	238.3	249.9	265.2	278.8	284.7	278.5	-
Net Change Per Week[b]		520	890	1175	1045	455	-475	550
Estimated Losses[c]		1745	2215	2215	1945	2330	2635	2280
Required Gross Personnel Input		2265	3105	3390	2990	2785	2160	2830
Less MACV Accepted NVA Infiltration		315	945	1850	1355	465	45[d]	1225[d]
Calculated Residual VC Recruitment		1950	2160	1540	1635	2320	2115	1605

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a/ Sources: Table 101 of OSD SEA Statistical Summary and August 15, 1966 MACV Submission

b/ Net quarterly gain divided by 13.

c/ 1.5 times recorded "body count, plus captured, plus 2 times deserters - in accordance with MLE method.

d/ Source: DIA 4 Jan 67. Reports of infiltration normally lag about 90 days behind actual infiltration. Weekly average for CY 1966 based on first 3 quarters only.

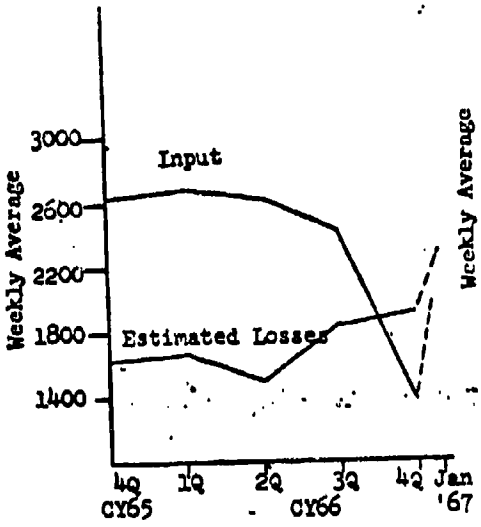
All of the data shown in the table contain very great uncertainties. Thus, any conclusions drawn from them must be considered highly tentative and conjectural. Nevertheless, the data suggest that we may be approaching the point where we can expect to attrite enemy forces at the rate he intends to introduce new ones. However, it is still impossible to predict when we can expect to attrite enemy forces at the rate he is capable of introducing new ones.

As the table indicates, an average enemy total loss rate of 2280 per week prevailed during CY 1966, compared to the calculated enemy input rate of 2830 men per week for the same period. The input rate is that required to provide the average increase of 550 per week reflected in the VC/NVA order of battle strength figures estimated by MACV; it is not estimated independently. Assuming that the infiltration rate from NVN during CY 1966 averaged 1225 per week as estimated by MACV (addition of the MACV "possible" category would raise the figure to 1780), VC recruitment (input minus infiltration) must have been about 1600 per week. This recruitment rate lies well within the current U.S. Intelligence Board estimate that the VC can recruit and train 1635 to 2335 men per week, and can replace current losses from within South Vietnam if necessary. But it lies far above the current MACV recruitment estimate of 815 personnel per week.

Feb-67

VC/NVA PERSONNEL INPUT VS LOSSES

#1
Calculated Input
Versus Losses



#2
MACV Estimated Input
Versus Losses

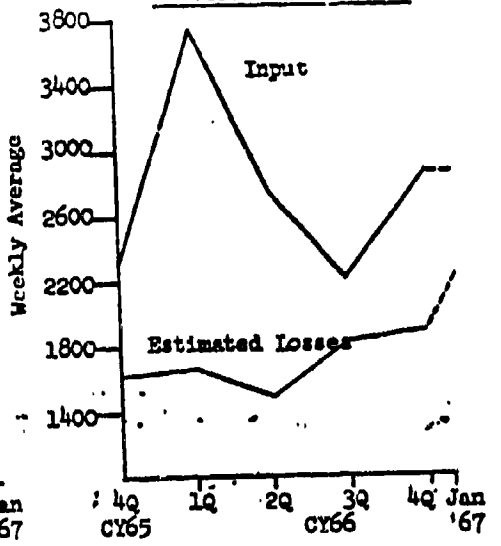


TABLE 1

VC/NVA CALCULATED PERSONNEL INPUT WEEKLY AVERAGE

	1965		1966					1967
	3rd. Qtr.	4th. Qtr.	1st. Qtr.	2nd. Qtr.	3rd. Qtr.	4th. Qtr.	Avg. CY66	Jan
VC/NVA Strength (End of Qtr.-000)[a]	238.6	251.5	264.5	279.4	286.0	279.7	-	278.7
Net Change Per Week[b]		990	1000	1145	510	-485	540	-220
Estimated Losses[c]		1635	1685	1495	1840	1900	1730	2205
Required Gross Personnel Input		2625	2685	2640	2350	1415	2270	1980
Less MACV Accepted NVA Infiltration		945	2095	1140	595	45[d]	1275[e]	-[d]
Calculated Residual VC Recruitment		1680	590	1500	1755	1370	995	1980

a/ Sources: Table 101 of OSD SEA Statistical Summary and August 15, 1966 MACV submission.
b/ Net quarterly gain divided by 13.
c/ 1.35 times recorded "body count," plus prisoners of war, plus military defectors.
d/ Source: DIA 14Feb67. Reports of infiltration normally lag about 90 days behind actual infiltration.
e/ Weekly average for CY66 based on 1st 3 quarters only.

The recent revision of enemy loss data (see VC/NVA Losses Article elsewhere in this report) requires us to reconsider the VC/NVA input/losses analysis of last month (page 7, SEA Analysis Report, January 1967). Table 1 represents a revised version of the table in last month's report. It accepts the VC/NVA strength, VC/NVA losses, and NVA infiltration as given. From these it calculates the gross personnel input required to maintain the VC/NVA order of battle strength in face of losses; it also calculates residual VC recruitment.

The new loss rates cause the gross personnel input requirement to decline from the CY66 weekly average of 2,830 reported last month to 2,270, a decline of 560. The calculated CY66 recruitment rate also declines from 1,605 per week to 995. However, Graph #1 which plots the calculated personnel input against losses, still supports the tentative conclusion of last month that we may be attriting enemy forces at the rate he intends to introduce new ones.

TABLE 2

VC/NVA MACV ESTIMATE PERSONNEL INPUT-WEEKLY AVERAGE

	1965		1966					1967
	3rd. Qtr.	4th. Qtr.	1st. Qtr.	2nd. Qtr.	3rd. Qtr.	4th. Qtr.	Avg. 1966	Jan.
Input								
VC Conscription and Recruitment[a]		1360	1615	1615	1615	1615	1615	1615
NVA Infiltration[b]		945	2095	1140	595	1275[b]	1275	1275[b]
TOTAL INPUT		2305	3710	2755	2210	2890	2890	2890
TOTAL LOSSES[c]		1635	1685	1495	1840	1900	1735	2205
Apparent (Calculated) Strength[d] (000)	238.6	247.3	273.6	290.0	294.8	307.7	307.7	308.4
Actual Strength[e] (000)	238.6	251.5	264.5	279.4	286.0	279.7	279.7	278.7

a/ Source: MACV J-2 estimate of the annual in-country personnel input to VC forces (84,000 in CY66). MACV Order of Battle Reference Manual - Strength, 12 Feb 67.

b/ Source: MACV, DIA 14 Feb 67, reports of infiltration normally lag about 90 days behind actual infiltration. Average for first 3 quarters 1966 used for 4th quarter 1966 and January 1967.

c/ 1.35 times recorded "body count," plus prisoners of war, plus military defectors.

d/ Based on 3rd quarter 1965 total of 238.6 (000). Calculated by adding quarterly input and subtracting quarterly losses.

e/ Source: Table 101 of OSD SEA statistical summary.

Since last month's report, MACV has reported its new estimate of VC recruitment at the level of 1,615 per week (615 was figure given in last month's report) or 84,000 for CY66. This has provided the capability to produce Table 2 which accepts the VC/NVA losses and input (NVA infiltration and VC recruitment) as given, but calculates the apparent order of battle strength resulting from gains and losses. This yields an apparent strength of 307,700 at the end of CY66, compared to the actual reported strength of 279,700. Moreover, a plot of the given input rates versus losses indicates that in the near future, we cannot <u>expect</u> to attrite enemy forces at the rate he <u>intends</u> to introduce new ones.

Thus, the two tables and graphs produce contradictory results. Acceptance of either result is a matter of judgment, depending on which set of given data are accepted as more reliable: the order of battle strength, or the input (infiltration and redruitment) data.

NVA INFILTRATION DATA

A review of data regarding NVA infiltration into South Vietnam indicates that the monthly estimates are subject to so much continual revision (even a year later) and that infiltration statistics alone are not useful for revealing historical trends or for making future projections.

Infiltration Reports

MACV provides monthly estimates of NVA infiltration into South Vietnam by three categories:

Confirmed - based on information provided by at least two prisoners or returnees (Hoi Chanh) from the unit or group, or two captured documents from the unit, or a combination of personnel and documents.

Probable - based on information provided by one prisoner or returnee from the unit or group, or a captured document, supported by information which can be evaluated as probably true.

Possible - based on information evaluated as possibly true even though no prisoner, returnee or captured document is available to verify the report.

MACV considers the confirmed and probable categories as "accepted", but uses all three categories in briefings and studies.

In addition to the above categories, MACV states that other units have been mentioned in agent reports, captured documents, interrogation reports, and sightings by free world forces, but the information is judged insufficient to warrant inclusion in the foregoing categories.

Table 1 presents the most recent MACV estimates of NVA monthly infiltration since October 1965. The infiltration month indicates the month that the infiltrators entered South Vietnam. The monthly estimates are continually revised and updated to reflect the most current knowledge about infiltration in any given month. The largest total monthly infiltration occurred in March, 1966, when a total of 16,700 personnel may have entered SVN.

TABLE 1

INFILTRATION ESTIMATES

	Accepted				
	Confirmed	Probable	Total	Possible	Total
1965					
October	6000		6000	700	6700
November	1600	200	1800	600	2400
December	2000	400	2400	200	2600
1966					
January	3500	1800	5300	2400	7700
February	6700	2400	9100	2400	11500
March	11500	1300	12800	3900	16700
April	100	400	500		500
May	400	2900	3300	3500	6800
June	10500	600	11100	1300	12400
July	4200	100	4300	5500	9800
August	1600	400	2000	3300	5300
September	1400		1400	600	2000
October	100	500	600	4600	5200
November				600	600
December				1100	1100
1967					
January				700	700
February				-	-

Source: MACV Monthly Report of NVN Infiltration into SVN, 1 March 67.

Data Fluctuation

Infiltration estimates are very indefinite. Table 2, based on MACV data, shows the pronounced change in infiltration estimates for a given month over time. The lefthand column of the table shows the infiltration month; the numbers across show the successive estimates of infiltration for that month as additional intelligence information became available. For example, the June 1966 estimate of June infiltration was 2500 (column 0). Three months later, on the basis of additional information, the estimate reached 11,960 (column 3), and subsequently rose to 14,550 in the fourth month before declining to 12,400 by the eighth month. (The decline was probably due to additional intelligence indicating that those personnel may have entered SVN in a different month.)

TABLE 2

INFILTRATION ESTIMATES OVER TIME
(Confirmed, Probable and Possible)

	MONTHS AFTER INFILTR						
	0	1	2	3	4	5	6
Infiltration							
1966							
Month							
January	-	-	2600	5605	6225	4525	21
February	-	3450	4750	7250	9350	9350	93
March	-	4000	6090	5240	9240	9240	10(
April	-	130	210	210	210	210	8
May	-	4450	4750	4490	4800	9495	91
June	2500	7000	11710	11960	14550	14365	128
July	2120	2990	3490	6670	7440	7576	98
August	350	2700	5650	5100	5130	5250	53
September	-	400	1700	1700	1700	2000	
October	2000	3615	4815	4815	5200		
November	-	280	630	600			
December	-	530	1100				
1967							
January	-	700					
February	-						

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MONTHS AFTER INFILTRATION										
3	4	5	6	7	8	9	10	11	12	13
5605	6225	4525	2125	2125	3925	6445	6887	6887	6887	7700
7250	9350	9350	9350	9350	9058	10778	10778	10778	11500	
5240	9240	9240	10027	12931	14371	14411	14761	16700		
210	210	210	873	791	901	901	500			
4450	4800	9495	9155	8755	8755	6800				
11960	14550	14365	12855	12855	12400					
6670	7440	7576	9864	9800						
5180	5130	5250	5300							
1750	1700	2000								
4815	5200									
600										

Table 3 summarizes the average change in infiltration estimates (from Table 2) over time. These averages are generated by calculating the difference between all months that have sufficient data to be included in the categories. For example, five months (Jan to May 1966) were analyzed for changes from the 8th month after infiltration to the 9th month, four months for the 9th to 10th month estimate, etc. For the 8th to 9th month estimates the total differences are 6235, which divided by the five cases in the sample yields an average change of 1247 between the 9th and 10th month. The table also shows the change in terms of percentage (21%).

Table 3 indicates that infiltration data fluctuates widely during the first two or three months, and then settles down to an average rate of 10 to 20 percent change per month. So far, this variation has not died down, because even the change between the 9th and 10th month is about 13 percent.

TABLE 3

AVERAGE CHANGE IN INFILTRATION ESTIMATES OVER TIME [a]

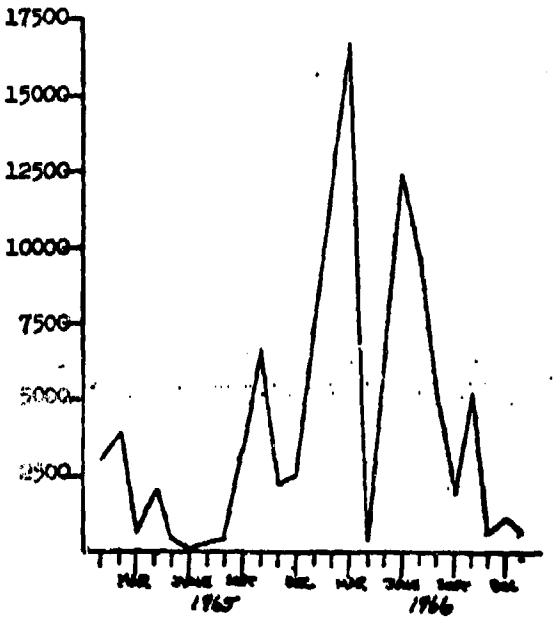
Estimate From	Estimate To	Average Numeric Change	Average Percentage Change
0	1st	2334	243
1st	2nd	1395	86
2nd	3rd	970	27
3rd	4th	1085	17
4th	5th	793	16
5th	6th	1005	15[b]
6th	7th	493	6
7th	8th	683	20
8th	9th	1247	21
9th	10th	298	13

a/ Absolute change.
b/ The April estimate jumps from 210 to 873, an increase of 316%. This estimate has been eliminated from the average. If it were included the number would be 52%.

MACV suggests that the minimum time required for infiltration data to stabilize is between three and six months. Tables 2 and 3 however, indicate that even a year is insufficient time for the data to stabilize. If we compute the average change from the third month (column 3 of Table 2) estimate to the latest estimate for each month, the average change is 3430, or about 80 percent. The change from the six month estimate to the latest estimate averages 2520 or about 65 percent. Thus, the data from a six month base is apparently not much better than data from the three month base, with the reliability of both sets of data being limited.

GRAPH 1

INFILTRATION INTO SVN
(Confirmed, Probable and Possible)



Historical Trends

There is much conjecture about possible trends shown by infiltration data. For example, the data shown in Graph #1 might support the hypothesis that infiltration has been tapering off since the peak month of March 1966, Or, the data may suggest periodic fluctuation in the infiltration rate, as several months in the table show high infiltration rates. However, Tables 2 and 3 have already shown that large data fluctuations in the future may drastically change the shape of the graph. Thus, the graph cannot be used to assess trends with any accuracy.

Future Projections

The foregoing analysis shows that projecting infiltration on the basis of present historical data is very risky, as MACV carefully points out in its infiltration report for February. In face of pressure to estimate future infiltration, MACV has used a line of regression. This technique is best applied, however, when there is some reason to expect a strong linear relationship between the two variables concerned (time and infiltration rates), i.e., a straight line best represents the pattern of infiltration over time. Graph #1 shows how difficult it would be to select and draw a line through the infiltration estimates that reasonably describes a historical trend, let alone predict future infiltration with any accuracy.

VC/NVA GROSS PERSONNEL INPUT BY CORPS AREA

The February SEA Analysis Report presented an analysis of VC/NVA personnel input requirements versus losses for South Vietnam as a whole. To gain further insight, VC/NVA personnel requirements for each of the four Corps areas in South Vietnam have been calculated in this study.

Required gross personnel input equals net change in VC/NVA strength plus VC/NVA losses for the quarter. The total VC/NVA strength includes main force units, irregular forces, and political cadre. Irregular forces comprise about 40% of the current VC/NVA strength. MACV has indicated that its current irregular force estimates are under review and that substantial changes can be expected in the near future. In view of the inadequacy of the irregular force data for analysis, the gross personnel input for each Corps was calculated using three different estimates of irregular strength. Each estimate yielded quite different results.

The results shown in Table 1. The first set of input requirements uses MACV irregular strength data as given, and indicates that I Corps had the largest required personnel input, followed by IV, II, and III Corps in that order. The results are heavily influenced by the MACV revision of irregular strength estimates in May 1966, which created large differences in irregular strength between the 1st and 2nd quarters of 1966 and affected I Corps and II Corps to a marked degree.

To neutralize the effect of the "book" change in the irregular force strengths, we estimated inputs by projecting the May change backward through 3rd quarter 1965. Using the adjusted MACV strength data yields smoother quarterly patterns and shows II Corps requiring the highest personnel input, with I, III and IV Corps following in that order.

The third set of data in Table 1 shows the result of using Formula #1 (February SEA Analysis Report, page 10) to calculate irregular strengths instead of using MACV data. The final yearly averages are closer together, and the inputs required for each Corps are lower than the other two sets. Now I Corps leads, with II, IV and III Corps following in that order.

Finally, regardless of the set of data used, the VC/NVA gross personnel required in all Corps areas may be declining markedly, primarily due to the leveling off of the VC/NVA force structure.

TABLE 1

VC/NVA GROSS PERSONNEL INPUT REQUIREMENTS BY CORPS AREA
(Weekly Average)

	1966 1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Avg. Aug 1966	Avg. Jan 1967
USING MACV STRENGTH DATA						
I Corps	585	2015	750	255	900	530
II Corps	1550	-105	380	350	550	325
III Corps	465	160	550	350	380	565
IV Corps	435	1190	425	395	610	335
Total	3035	3260	2105	1350	2440	1755
USING ADJUSTED MACV STRENGTH DATA						
I Corps	505	1040	750	255	640	530
II Corps	1545	615	380	350	725	325
III Corps	455	480	550	350	460	565
IV Corps	435	420	425	395	420	335
Total	2940	2555	2105	1350	2245	1755
USING FORMULA #1 STRENGTH DATA						
I Corps	695	1140	70	180	595	n.a.
II Corps	1370	410	435	-210	505	
III Corps	370	395	550	120	360	
IV Corps	440	100	315	295	365	
Total	2875	2045	1370	385	1825	

Table 2 shows the ranking of the Corps areas by the required personnel inputs, as calculated the three different ways. It is apparent that the estimate of VC irregular strength used will greatly influence the input estimates and the ranking of the Corps. I Corps and II Corps generally show the highest required inputs and a higher order of magnitude than III Corps and IV Corps.

Details of the analysis are set forth following Table 2.

TABLE 2

RANKING OF CORPS AREAS BY REQUIRED PERSONNEL INPUT
(Weekly Average 1966)

MACV		ADJUSTED MACV		FORMULA #1	
Corps	Avg	Corps	Avg	Corps	Avg
I	900	II	725	I	595
II	610	I	640	II	505
II	550	III	460	IV	365
III	380	IV	420	III	360

VC/NVA Strength and Loss Data

The VC/NVA strength data includes main force units, irregular forces and political cadre. The main force data has been retroactively adjusted to reflect the best current estimate of the strength actually present in each Corps area during the quarters indicated. Irregular strength data has been derived by the three ways indicated above; political cadre data is taken directly from MACV order of battle reports. Except for the Formula #1 calculations of irregular strength, all data is derived directly from MACV order of battle documents.

Total VC/NVA loss estimates include:

1. Killed in action (body count).

2. Died of wounds (.35 times body count).

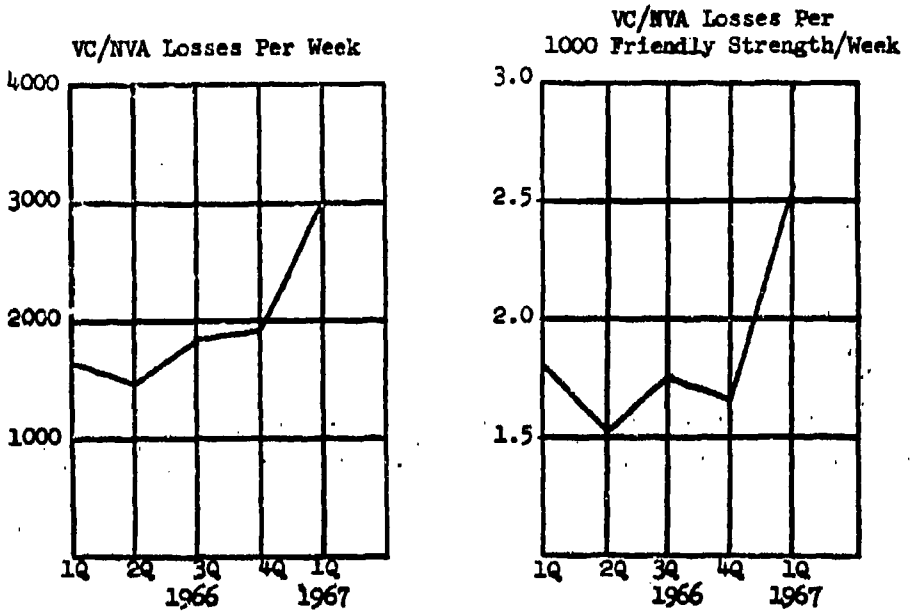
3. Captured (the 2023 prisoners actually in POW camps in CY 66 were apportioned over the year and by Corps areas according to the number of detainees in each Corps each quarter).

4. Military Defectors (since data concerning military defectors by Corps are not available before August 1966, they were calculated on the basis of the countrywide total prior to August and the subsequent data broken out by Corps area).

For the purpose of this analysis, the killed and died of wounds estimates, representing 70-90% of the losses in each Corps area, are reasonably accurate because they are based on body count. The captured and military defector estimates are less reliable, but should not distort the total loss estimates significantly because they represent a small proportion of the total.

Apr 67

VC/NVA Losses and Input



ESTIMATED VC/NVA LOSSES - WEEKLY AVERAGE

	CY1966					CY1967
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	CY 1966 Average	1st Qtr
Estimated Losses						
Killed (Body Count)	1005	915	1200	1150	1070	1825
Died of Wounds[a]	350	320	420	405	375	640
Captured[b]	40	40	40	40	40	40
Military Defectors	290	220	180	305	245	520
Estimated Total Losses	1685	1495	1840	1900	1730	3025
Average Friendly Strength (000)	930	982	1044	1143	1025	1193
Total VC/NVA Losses/ 100 Friendly Strength/ Week	1.81	1.52	1.76	1.66	1.69	2.54

a/ .35 times recorded "body count". - Revised MACV estimate.
b/ Includes only the POW population in GVN PW camps. The figure was derived by dividing the 1966 total of 2023 by 52.

MACV ESTIMATE OF VC/NVA PERSONNEL INPUT
(Weekly Average)

	1965		1966					1967
	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1966 Ave.	1st Qtr
VC Conscription & Recruitment[a/]		1360	1615	1615	1615	1615	1615	1615
Plus MACV Accepted Infiltration[b/]		815	2090	1030	590	1130	1210	1130
Total Input		2175	3705	2645	2205	2745	2825	2745
Estimated Losses[c/]		1635	1685	1495	1840	1900	1735	3025
Apparent(Calculated) Strength (000)[d/]		246.1	272.4	287.4	292.1	303.1		299.5
Actual Strength[e/] (000)	239.1	252.0	265.1	280.3	286.9	279.6		277.3

a/ Source: MACV J-2 estimate of the annual in-country personnel input to VC/NVA Forces (84,000) in CY 1966. MACV Order of Battle Reference Manual - Strength, 12 Feb 67.
b/ Source: MACV 11 Apr 67. Average for 1 Oct 65 - 30 Sep 66.
c/ 1.35 times recorded "body count", plus POW's, plus military defectors.
d/ Based on acceptance of 3rd qtr 1967 total of 239,100. Calculated by adding quarterly input and subtracting quarterly losses.
e/ Source: MACV 11 Apr 67.

The estimated weekly VC/NVA losses for the first quarter 1967 is 75% higher than the CY 1966 average and 59% higher than the fourth quarter 1966. VC/NVA losses per thousand friendly strength in first quarter 1967 rose 50% above the 1966 average and 53% above fourth quarter 1966.

Table 2 attempts to evaluate the MACV VC/NVA order of battle using MACV's estimates of infiltration and conscription-recruitment, by adding total input and subtracting estimated losses (using MACV's ground-rules for long-term VC/NVA losses) from a base figure (239,100) in the third quarter of 1965. In the first quarter of 1967 the calculated VC/NVA order of battle is only 8% greater than the MACV stated order of battle, showing a high degree of consistency in the MACV estimates.

The absolute differences between the calculated and MACV stated orders of battle are, on the average, only 4.3% using the MACV estimate as a base.

The VC/NVA order of battle seems to be leveling off and may be declining. We are presently attriting the enemy at a rate higher than he is estimated to be recruiting and infiltrating. However, the trend is not clear as the initial MACV degradation of the VC/NVA order of battle due to enemy casualties was in the fourth quarter of 1966.

VC/NVA RECRUITMENT AND INFILTRATION

An analysis of VC/NVA order of battle changes, losses, recruitment and infiltration shows that the July 65-April 67 infiltration and in-country recruitment each have been about 5000 per month. However, recently (July 66-April 67) both inputs have been about 4000 per month.

Table 1 summarizes an input-loss analysis of MACV data. We have compared total VC/NVA losses and order of battle (OB) changes against enemy infiltration and recruiting, finding a balance between input and losses. Since the last quarter of CY 1965, the total input required to meet total VC/NVA and OB changes was 193,000, whereas in-country recruiting and accepted infiltration reportedly supplied 199,400. If, however, the MACV accepted monthly average infiltration of 4,500 is used, as many as 19,200 additional infiltration might be found, forcing the input loss analysis out of balance by a total 25,600 personnel, suggesting that MACV estimated in-country recruitment of 7000 per month is too high.

Looking at the VC and NVA separately, we have had to estimate the proportionate VC and NVA losses based on MACV assessed losses against enemy units. Table 2 summarizes the unit losses since February 1966; the unit losses account for only 22.1% of total KIA, but it is usable to divide total KIA into VC and NVA.

Table 3 shows VC losses as a percent of total VC/NVA losses (using the data of Table 2). In the first quarter of CY 1967, for example, country-wide VC losses were 60% of all reported enemy losses. VC losses were 19% of all I Corps losses in CY 1966, 24% of II Corps losses, 93% of III Corps losses and account for all losses in IV Corps.

Our best estimate of VC and NVA losses is summarized in Table 4. Killed in action and died of wounds (.35 x KIA) have been proportioned by the ratios of Table 3; all Chieu Hoi are assumed to be VC because a Rand Study suggests that most returnees are from VC guerrilla and local force units. These loss estimates are based on the factors of Table 3 and may overstate NVA losses (because of our reliance on assessed "unit" losses), and understate the losses of the VC irregular forces.

Results

Table 5 shows our input/loss analysis for the NVA. Since July 1965, NVA OB increases and losses have implied an input of 114,500, or about 5000 per month, but accepted infiltration is only 72,900, or about 3000 per month. This difference (41,600) far exceeds the probable error in our loss estimates. Had we projected the Oct 65-Nov 66 average infiltration at 4500 per month for Dec 66-Apr 67, this difference would be reduced to 22,400, still a significant difference.

The infiltration shortfall/excess data (T[illegible] 5) suggest a substantial portion of infiltration is not being recorded. [illegible]re already aware that the infiltration figures do not account for out of country replacements. (For example, if the 324B division gets into a fight, takes substantial losses, retreats back across the border, regroups and rebuilds its member units, then the replacements, when entering SVN with the 324B, are not counted in the

infiltration estimates.) This undoubtedly accounts for some of the disparity between the implied NVA input and infiltration, but not all. Moreover, recent evidence suggests that NVA infiltrators are being used as replacements to VC units, which would mean our methodology further understates infiltration and overstates recruitment. In short, we suspect that infiltration has averaged about 5000 per month in the July 65-Apr 66 period, and lately has declined very little, if at all.

Table 6 shows that MACV's recruiting estimate of 7000 per month exceeds the implied need for personnel to replace losses and meet OB changes. Recent captured documents and prisoner statements suggest that the VC are having a good deal of trouble meeting their personnel requirements. This, in addition to the decreases in the VC OB strength over the past two quarters, suggests that the VC may not be recruiting at the 7000 monthly rate. Actual recruitment is more likely about 5000 per month.

Tables 5 and 6 together, then, suggest that infiltration at 4500-5000 per month is quite likely, but VC recruitment is probably not over 5000 per month.

TABLE 1

VC/NVA OB, LOSSES AND INPUT

	Dec 64	Quarter Ending Mar 65	Jun 65	Sep 65	Dec 65	Mar 66	Jun 66	Sep 66	Dec 66
END OF MONTH STRENGTH[a]/									
VC	171.2	194.3	208.9	226.0	228.6	231.7	242.1	243.8	240.7
NVA	2.4	6.2	9.2	14.7	26.6	39.0	53.0	55.5	50.0
Total	173.6	200.5	218.1	240.7	255.2	270.7	295.1	299.3	290.7
Strength Increase		26.9	17.6	22.6	14.5	15.5	24.4	4.2	-8.6
VC/NVA LOSSES									
KIA		5.8	6.1	10.1	13.5	13.1	11.9	15.6	15.
DOW[b]/		2.0	2.1	3.5	4.7	4.6	4.2	5.5	5.
Military Defectors		.8	1.8	0	0	0	0	1.4	3.
Total Losses		8.6	10.0	13.6	18.2	17.7	16.1	22.5	24.
REQUIRED INPUT		35.5	27.6	36.2	32.7	33.2	40.5	26.7	15.
Recruitment[d]/		21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.
Accepted Infiltration[e]/		6.1	2.9	6.1	10.7	27.9	13.5	9.8	1.
Total Input		27.1	23.9	27.1	31.7	48.9	34.5	30.8	22.
Input Shortfall (-) Excess (+)		-8.4	-3.7	-9.1	-1.0	+15.7	-6.0	+4.1	+7.

a/ MACV Order of Battle Summary - April 30, 1967
b/ Based on MACV estimate of .35 times killed equals died of wounds
c/ Not available
d/ Accepted MACV estimate of VC in-country recruitment
e/ As of 31 May 67

2

Dec 65	Mar 66	Jun 66	Sep 66	Dec 66	Mar 67	Apr 67
228.6	231.7	242.1	243.8	240.7	238.0	237.7
26.6	39.0	53.0	55.5	50.0	47.9	47.9
255.2	270.7	295.1	299.3	290.7	285.9	285.6
14.5	15.5	24.4	4.2	-8.6	-4.8	-.3
13.5	13.1	11.9	15.6	15.0	23.7	6.9
4.7	4.6	4.2	5.5	5.3	8.3	2.4
0	0	0	1.4	3.7	6.5	1.9
18.2	17.7	16.1	22.5	24.0	38.5	11.2
32.7	33.2	40.5	26.7	15.4	33.7	10.9
21.0	21.0	21.0	21.0	21.0	21.0	7.0
10.7	27.9	13.5	9.8	1.9	2.6	-
31.7	48.9	34.5	30.8	22.9	23.6	7.0
-1.0	+15.7	-6.0	+4.1	+7.5	-10.1	-3.9

unds

TABLE 2

MACV ASSESSED KIA

	FEB-DEC 66	JAN-MAR 67	TOTAL
I CORPS			
VC	657	100	757
NVA	2796	496	3292
II CORPS			
VC	980	33	1013
NVA	3132	290	3422
III CORPS			
VC	3620	819	4439
NVA	291	167	458
IV CORPS			
VC	2850	491	3341
NVA			
ASSESSED LOSSES			
VC	8107	1443	9550
NVA	6219	953	7172
TOTAL	14326	2396	16722
TOTAL LOSSES a/	52900	22800	75700
% OF TOTAL ASSESSED	27.1%	10.5%	22.1%

Source: MACV Order of Battle Summaries Feb 66 - Mar 67, Part II, Section 5
a/ KIA

TABLE 3

VC KIA AS A PERCENT OF TOTAL

	FEB-DEC 66	JAN-MAR 67	TOTAL
I CORPS	19.0	16.8	18.7
II CORPS	23.8	10.2	22.8
III CORPS	92.6	83.1	90.6
IV CORPS	100.0	100.0	100.0
TOTAL	56.6	60.2	57.1

TABLE 4

ENEMY LOSSES a/

		3Q 65	4Q 65	1Q 66	2Q b/ 66	3Q 66	4Q 66	1Q 67	2Q 67
I CORPS									
VC		685	876	873	844	1611	1258	2334	629
NVA		2921	3735	3720	3597	6692	4096	9400	2841
	TOTAL	3606	4611	4593	4441	8303	5354	11734	3470
II CORPS									
VC		1210	1326	1677	1398	1271	3170	2310	840
NVA		3873	4244	5368	4476	3684	4671	6954	2080
	TOTAL	5083	5570	7045	5874	4955	7841	9264	2920
III CORPS									
VC		1394	3493	2530	2633	3667	4959	9623	2495
NVA		111	279	202	210	282	348	1528	382
	TOTAL	1505	3772	2732	2843	3949	5307	11151	2877
IV CORPS									
VC		3426	4240	3263	2870	5248	5449	6338	1981
NVA		-	-	-	-	-	-	-	-
		3426	4240	3263	2870	5248	5449	6338	1981
SVN TOTAL									
VC		6715	9935	8343	7745	11797	14836	20605	5945
NVA		6905	8258	9290	8283	10658	9115	17882	5303
	TOTAL	13620	18193	17633	16028	22455	23951	38487	11248

Source: Table 2 SEABS

a/ KIA, DOW and Military defectors
b/ Military defectors are not included before August 67

TABLE 5

NVA INPUT/LOSS ANALYSIS
(000)

	Quarter							Month of
	SEP 65	DEC 65	MAR 66	JUN 66	SEP 66	DEC 66	MAR 67	APR 67
END OF MONTH STRENGTH[a]	14.7	26.6	39.0	53.0	58.5	50.0	47.9	47.9
OB STRENGTH CHANGE	5.5	11.9	12.4	14.0	2.5	-5.5	-2.1	-
ESTIMATED NVA LOSSES	6.9	8.3	9.3	8.3	10.7	9.1	17.9	5.3
REQUIRED INPUT	12.4	20.2	21.7	22.3	13.2	3.6	15.8	5.3
ACCEPTED INFILTRATION[b]	9.9	11.1	27.6	13.5	8.8	1.4	.6	-
Infiltration Shortfall (-) Excess (+)	-2.5	-9.1	+5.9	-8.8	-4.4	-2.2	-15.2	-5.3

TABLE 6

VC INPUT/LOSS ANALYSIS

	Quarter Ending							Month of
	SEP 65	DEC 65	MAR 66	JUN 66	SEP 66	DEC 66	MAR 67	APR 67
COMBAT STRENGTH[a]	61.0	63.6	66.7	66.9	67.9	64.7	62.1	61.8
ADMINISTRATIVE SERVICES[a]	22.2	22.2	22.2	23.1	23.9	24.0	23.9	23.9
IRREGULARS[a]	103.6	103.6	103.6	112.8	112.8	112.8	112.8	112.8
POLITICALS[a]	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
TOTAL VC OB STRENGTH	226.0	228.6	231.7	242.0	243.8	240.7	238.0	237.7
OB STRENGTH CHANGE	17.1	2.6	3.1	10.3	1.8	-3.1	-2.7	-.3
ESTIMATED VC LOSSES	6.7	9.9	8.3	7.7	11.8	14.8	20.6	5.9
REQUIRED INPUT	23.8	12.5	11.4	18.0	13.6	11.7	17.9	5.6
RECRUITING CAPABILITY	21.0	21.0	21.0	21.0	21.0	21.0	21.0	7.0
Recruitment Shortfall (-) Excess (+)	-2.8	+8.5	-9.6	+3.0	+7.4	+9.3	+3.1	+1.4

a/ From MACV Order of Battle Summary, 30 Apr 67
b/ MACV accepted infiltration as of 1 May 67
c/ MACV order of battle summary, 30 Apr 67

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SEP 66	DEC 66	MAR 67	Month of APR 67	CUMULATIVE TOTAL
55.5	50.0	47.9	47.9	-
2.5	-5.5	-2.1	-	38.7
10.7	9.1	17.9	5.3	75.8
13.2	3.6	15.8	5.3	114.5
8.8	1.4	.6	-	72.9
-4.4	-2.2	-15.2	-5.3	-41.6

ending P 5	DEC 66	MAR 67	Month of APR 67	CUMULATIVE TOTAL
.9	64.7	62.1	61.8	
.9	24.0	23.9	23.9	
.8	112.8	112.8	112.8	
.2	39.2	39.2	39.2	
.8	240.7	238.0	237.7	
.8	-3.1	-2.7	-.3	28.8
.8	14.8	20.6	5.9	85.7
.6	11.7	17.9	5.6	114.5
.0	21.0	21.0	7.0	154.0
.4	+9.3	+3.1	+1.4	+39.4

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VC/NVA RECRUITMENT AND INFILTRATION

Both NVA infiltration and VC recruitment appear to have increased above their 1966 levels, with infiltration at 7500 per month and recruitment at 5200 per month. However, infiltration may be understated and recruitment overstated within the total of 12,700 per month.

TABLE 1

IMPLIED INFILTRATION AND RECRUITMENT
VERSUS MACV ESTIMATES
(Monthly Average)

	1965 2nd Half	1966	1967 1st Half
NVA			
Implied Infiltration	5605	5228	7523 a/
MACV Accepts Infiltration	2835	4540	1785 a/
Difference	2770	688	5738 a/
VC			
Implied Recruitment	5980	4445	5195 b/
MACV Estimate	7000	7000	7000 b/
Difference	-1202	-2555	-1805

a/ It takes at least 6 months for MACV infiltration data to stabilize enough to be useful.
b/ MACV is reevaluating its recruitment estimate.

The foregoing rates are based on the input/loss analysis shown in Table 2. We have taken total VC/NVA losses by Corps and divided them into VC and NVA losses based on MACV Order of Battle data (Details of the process appear in the June 1967 SEA Analysis Report item, "VC/NVA Recruitment and Infiltration"). Table 3 gives the percentages for each Corps that were applied to divide losses between VC and NVA. In Table 2 VC and NVA strength changes are added to the losses to yield calculated infiltration and recruitment since 1965. The differences between implied infiltration and recruitment and that reported by MACV, are probably greater than the probable error of our loss estimates.

TABLE 2

VC/NVA OB, LOSSES AND INPUT
(In Thousands)

	1965		1966				1967	
	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr
NVA								
End of Qtr. Strength	14.7	26.6	39.0	53.8	55.6	49.3	55.0	54.5
Strength Change	5.5	11.9	12.4	14.8	1.8	-6.3	5.7	-.5
NVA Losses	7.4	8.9	9.9	8.9	11.6	9.8	19.0	20.9
Implied Infiltration	12.9	20.8	22.3	23.7	13.4	3.5	24.7 a/	20.4 a/
MACV Accepted Infiltration	6.1	10.9	28.2	15.4	8.7	2.2	6.1 a/	4.6 a/
Difference c/	6.8	9.9	-5.9	8.3	4.7	1.3	18.6	15.8
VC								
End of Qtr. Strength	228.5	231.1	234.5	244.9	247.7	244.5	242.2	242.0
Strength Change	17.7	2.6	3.4	10.4	2.8	-3.2	-2.3	-.2
VC Losses b/	6.2	9.3	7.7	7.2	10.9	14.2	19.5	14.2
Implied Recruitment	23.9	11.9	11.1	17.6	13.7	11.0	17.2	14.0
MACV Recruitment Factor	21.0	21.0	21.0	21.0	21.0	21.0	21.0 c/	21.0 c/
Difference	2.9	-9.1	-9.9	-3.4	-7.3	-10.0	-3.8	-7.0

a/ It takes at least 6 months for MACV infiltration data to stablize enough to be useful.
b/ Includes KIA, died of wounds and all Military Chieu Hoi.
c/ Positive number denotes MACV understatement; Negative number denotes MACV overstatement.

TABLE 3

VC LOSSES AS A PERCENTAGE OF CORPS AREA TOTALS a/

Corps	Pre 1967	1967
I	10	10
II	21	15
III	92	75
IV	100	100

a/ Derived from MACV Monthly Order of Battle Summaries, February 1966 -- June 1967.

Table 1 shows how implied monthly average infiltration tapered off from 1965 to 1966 and increased markedly during the first half of 1967 to approximately 7500 per month. The MACV accepted infiltration data suggests, however, that the monthly rate was significantly greater in 1966 than in 1965. (The MACV infiltration data for 1967 is not yet considered to be complete). These data, then, suggest that MACV accepted Infiltration estimates consistently understate actual infiltration.

A similar analysis of VC inputs and losses shows the strain on the VC recruiting mechanism. The calculated recruiting rate decreased from almost 6000 per month in 1965 to 4445 per month during 1966. Curiously, the 1967 recruitment rate rises to 5200 per month, due to increased losses. However, a rise in actual VC recruitment is unlikely in view of recent captured documents and interrogation reports indicating that the VC strength shows slight decreases. Or, the use of NVA replacements to fill up decimated VC units may be much greater than current estimates suggest. In that case, NVA infiltration is higher than estimated above. In any case, MACV is in the process of reevaluating its recruitment estimates.

Accepted infiltration includes confirmed and probable infiltration. MACV also reports a possible category, representing some 40,000 additional persons since October 1965. The inclusion of these additional persons, however, does not bring the MACV estimates into line with our calculations.

PERSONNEL INFILTRATION

Preliminary infiltration figures for the first 7 months of 1967 indicate that from one-third to one-half of all NVA infiltration is coming through the DMZ.

Table 1 shows infiltration by route for 1965, 1966 and the first seven months of 1967. While recent data is subject to substantial revisions, there appears to be a trend towards greater use of the DMZ as an infiltration route. NVA infiltration through the DMZ increased significantly in 1966 (from almost nothing in 1965) and accounts for 30% - 46% of all infiltration in the first seven months of 1967. Furthermore, the figures do not include unit losses replenished in NVN (i.e., if the 324B Division loses 1000 KIA, returns to NVN, replaces the losses and returns to SVN, the replacements are not counted as infiltrators).

The reciprocal of the increased use of the DMZ is a reduced use of Laos. Infiltration through Laos plus that through the DMZ consistently accounts for two-thirds to three-quarters of total infiltration throughout the last 2½ years. This suggests a shift from the "higher cost" Laos route to the "lower cost" DMZ route, or that the enemy strategy calls for more people in the DMZ area. The large build-up of enemy forces and activity in the DMZ indicates that changed strategy rather than the higher cost of the route through Laos is the more likely explanation.

Table 1 indicates that infiltration through Cambodia has fallen off sharply since 1965. (Infiltrators through Cambodia, of course, travel the Laotian trails, but are not counted as infiltrators through Laos.) This decline is suspect in view of the increasing enemy strength in the B3 Front (whose reported location is Cambodia), and recent intelligence suggesting that there are established personnel routes through Cambodia. The lack of reports for Cambodia may indicate that:

1. Our intelligence system is concentrating more heavily on infiltration through the DMZ and Laos, since the higher level of fighting in the DMZ area is likely to yield more and faster intelligence.

2. Many of the infiltrators reported with "routes unknown" are entering through Cambodia.

3. The Cambodian network has not been used for personnel infiltration. We would guess that less intelligence concentration and the "route unknown" reports account for the lower figures. Reports of NVA replacements for VC units in III Corps and even some units in IV Corps lead us to suspect that the enemy continues to infiltrate through Cambodia.

Finally, infiltration by sea accounts for very few personnel, most of whom are high level cadres, medical and communications-liaison personnel, political cadres and intelligence agents.

Any of the trends shown in the 1967 data could be affected by acceptance of the large number of possible infiltrators reportedly entering through Laos or by identifying the currently unknown routes through which one-third to one-fourth of the 1967 infiltrators entered. Nonetheless, it appears that the DMZ has become an important infiltration route.

TABLE 1

NVA INFILTRATION BY ROUTE[a]
(Monthly Average)

	1965		1966		Jan-Jul[b]	
	Nr.	%	Nr.	%	Nr.	%
Accepted Infiltration Through:[c]						
DMZ	76	4	1318	29	712	46
Laos	1464	66	2155	47	460	30
Cambodia	636	29	478	11		
Unknown	31	1	591	13	366	24
Total	2207	100	4542	100	1538	100
Accepted & Possible Infiltration Through:[c]						
DMZ	201	7	1582	23	812	30
Laos	1837	62	2848	40	867	32
Cambodia	813	27	664	9	104	4
SEA			33	1	14	-
Unknown	118	4	1926	27	914	34
Total	2969	100	7053	100	2711	100

a/ Source: MACV data as of 31 July 1967.

b/ Enemy infiltration of personnel is difficult to detect and many groups of personnel are not documented by MACV J2 until after they have been in South Vietnam for six months or longer. Therefore the figures for the period from 1 February to 31 July 1967 are considered to be incomplete, and even those for 1966 can be expected to change in the future.

c/ Accepted infiltration consists of confirmed infiltration plus probable infiltration. MACV defines infiltration categories as follows:

Accepted Confirmed. A confirmed unit/group is one which is determined to exist on the basis of information provided by a minimum of two captives, returnees or captured documents (any combination).

Accepted Probable. A probable infiltration unit/group is one believed to exist on the basis of information which can be evaluated as probably true provided by one captive, returnee or captured document.

Possible. A possible infiltration group/unit is one which is believed to exist on the basis of information which can be evaluated as possibly true, even though no captive, returnee or document is available to verify the report or reports.

VC RECRUITMENT

MACV's recent study [1] on VC recruitment deserves detailed scrutiny since it will form the basis for much comment and discussion about how well the war is going and how hard the VC are being pushed. The study was generated last winter by a growing volume of evidence "that the MACV estimate of Viet Cong recruitment in 1966, 7,000 men per month, probably was not valid for 1967." The key finding of the study was:

> .....during the period of 1 January to 1 May 1967, the VC were able to recruit at a rate of 3000 to 4500 men per month, with the probable rate of recruitment being 3500 men per month.

Methodology

The first step in the study was to obtain reports on recruitment by district from senior intelligence advisors in each Corps. Data also was obtained from MAC CORDS, MACJI, and other Saigon intelligence agencies. These reports covered only part of the country, so the next questions were how large a part and how much recruitment occurred in the remainder. This required an analysis of the total manpower pool to which the VC had access.

The determination of the VC manpower pool is a critical and difficult step. The VC themselves use a set of categories that are not amenable to US/GVN statistical analysis. These categories, and the percentage of population in each on which the VC can draw, are:

	% of Recruiting Access
Liberated Areas	70%
Disputed Areas	50%
Critical Areas	30%
Market Towns	15%
Inner Sector	10%

Source: Resolution by V (TAY NINH PROVINCE) For the 4th Quarter of 1966, dtd 28 July 1966, CDEC Log #07-2551-67.

Obviously, MACV had to use "population control" statistics for which it had numbers. While the study was being made, the only data that was usable from the new Hamlet Evaluation System (HES) was total population, including men and women. Thus the study used the control percentages from the GVN population control system, applied to the newer (and higher) HES population base. To compound the problem further, the GVN redefined its categories in March 1967, so that January and February had to use one set and March and April another. The VC "access" to population, then, was based on the following:

1/ CICV Study ST 67-C81, VC In-Country Recruitment of 15 September 1967, page 1.

	VC Recruitment Access	
	Jan-Feb 1967	Mar-Apr 1967
Secure Areas	10%	10%
Areas Undergoing Securing	20%	20%
Areas Undergoing Clearing (or Contested)	30%	50%
Uncontested Areas	50%	70%
VC Controlled Areas	90%	90%

These percentages, times the population in each Corps areas, gave the population on which the VC could draw. The results were multiplied by .49 to obtain the male population, then by .41 to obtain the males of in 15-45 age bracket - from which the VC are thought to recruit. These two factors were obtained from a MACJ-1 Phuoc Tuy Province Pilot Census - one province. Finally, MACV estimated that 63% of the draft age males were physically fit - based on GVN physical standards.

The reported district recruitment, totaling 9,017 recruits on a country-wide basis, covered 399,084 persons or 63% of the total Viet Cong manpower pool of 628,651; thus it was necessary to use the elaborate set of assumptions outline above to estimate the recruitment from the remaining 229,567 persons or 37% of the manpower pool.

The breakdown used by MACV by Corps tactical zone is as follows:

VC MANPOWER POOL

	I CTZ	II CTZ	III CTZ	IV CTZ	RVN TOTAL
Manpower pool	152,140	114,144	112,730	249,637	628,651
Manpower pool covered	126,530	65,486	83,600	123,468	399,084
Percentage of total manpower covered	83%	57%	74%	49%	63%
Remaining manpower pool to be estimated	25,610	48,658	29 [illegible]	126,169	229,567
Remaining percentage to be estimated	17%	43%	26%	51%	37%

To estimate the Viet Cong recruitment from that part of the manpower pool not covered by reports from corps senior intelligence advisors, MACV assumed that, within a corps tactical zone, the Viet Cong would probably be able to recruit from the unreported districts at about the same rate as they did from those districts on which there were recruitment reports. MACV computed the reported number of recruits from each district as a percentage of the Viet Cong manpower pool in that district. Making use of these percentages in the form of an array and a confidence level of 60% a minimum, median (probable) and maximum percentage of recruitment

were determined. The following percentages were the actual factors used by MACV to estimate the spread of recruitment.

	I CTZ	II CTZ	III CTZ	IV CTZ
Minimum	1.790	.389	1.380	1.220
Median	3.200	1.348	2.330	1.985
Maximum	9.600	2.392	3.630	3.410

Reported recruitment was added to each of the estimated minimums, probable and maximum recruitment to derive the total minimum, probable and maximum Viet Cong recruitment for the 4 month period. These totals (divided by four) provide the basis for the estimated monthly rates of Viet Cong recruitment for the period.

	I CTZ	II CTZ	III CTZ	IV CTZ	RVN TOTAL
Reported recruitment	4,256	450	1,842	2,469	9,017
ESTIMATED RECRUITMENT					
Minimum	458	189	402	1,535	2,584
Probable	821	658	679	2,506	4,664
Maximum	2,459	1,164	1,058	4,303	8,984
Total recruitment					
Minimum	4,714	639	2,244	4,004	11,601
Probable	5,077	1,108	2,521	4,975	13,681
Maximum	6,715	1,614	2,900	6,772	18,001
Total recruitment monthly					
Minimum	1,178	160	561	1,001	2,900
Probable	1,269	277	630	1,244	3,420
Maximum	1,679	403	725	1,693	4,500

The above table uses a 60% confidence interval that the actual Viet Cong recruitment will fall between the minimum and maximum figures. Using the same data various other confidence intervals are indicated below:

	MINIMUM	PROBABLE	MAXIMUM
90%	2,556	3,420	6,660
80%	2,683	3,420	5,315
70%	2,820	3,420	4,869
60%	2,900	3,420	4,500
50%	2,983	3,420	4,038

Comment

The MACV study is built on many assumptions. Sensitivity tests are essential before the reader can have much confidence that the study is either correct or meaningful. One can question the use of the GVN population control statistics - on which the whole structure is based, the access percentages in each GVN category, the percentage of draft age males (based on a Pilot Census in one province), the assumption that only males are recruited, and the use of the 60% confidence interval. The study may be right, but it is certainly not conclusive.

As to meaning the danger in the analysis is that readers will assume that a reduced ability to recruit can be equated with reduced military effectiveness. This is not necessarily so. First the Viet Cong use women for certain logistic support functions which they can perform about as well as men. In addition, some reductions in the VC/NVA force structure could occur without serious reduction in the total combat effectiveness of their forces. In view of the logistic problems they appear to have in some areas, marginal units could be deleted with a small impact on VC combat effectiveness.

It is also interesting to compare VC recruitment potential vs GVN. Applying the same methodology to the GVN recruitment effort, it would appear that the GVN has as much of a problem as does the VC.

Using the aggregate VN population statistics, 11,593,620 represent the total population to which the GVN has access. Multiplying this figure by .49x.41x.63 gives the number of males available for GVN service in the 14 - 45 age bracket, i.e., 1,467,364, from which the GVN were only able to derive an average monthly input of 8,375 for the RVNAF.

From a strict comparison of recruiting as a percentage of available manpower within Vietnam, the Viet Cong are doing as well with their recruitment base as the GVN in fielding forces, i.e.

$$\frac{\text{GVN available 14 -45 age bracket population - } 1,467,364}{\text{VC available 14 -45 age bracket population - } 627,656} = 2.338$$

$$\frac{\text{GVN monthly input (ave) 1 Jan - 1 May 1967 - } 8,375}{\text{MACV monthly input (ave) estimate 1 Jan-1May 67 - } 3,500} = 2.393$$

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NVN INFILTRATION ESTIMATES

Our analysis indicates that about nine months must elapse before MACV detects about 85% of the enemy infiltrators into SVN. We have developed factors to extrapolate the final level of infiltration for any month from the most current estimate. Applying these factors to MACV infiltration figures, as of 31 December 1967, yields an estimate of 75,000 infiltrators for 1967.

Table 1 shows the MACV estimates of NVA Infiltration into SVN since January 1965. Infiltration data are subject to continuing reevaluation due to the receipt of updated information and information on undetected personnel. MACV considers data for the latest six months to be incomplete. While we have no feel for the number of infiltrators that are never detected, we know that replacements provided to a unit out of country are not included in these estimates.

Estimates of infiltration of personnel into South Vietnam are updated monthly and listed in two major categories: accepted and possible. Total infiltration estimates (accepted plus possible) are used for this study. The accepted category includes "confirmed," - personnel whose entry into SVN is established by two sources from the infiltrating unit or group, - and "probable," - personnel whose entry into SVN is established by one source from the unit/group and other probable evidence. The possible category includes personnel who may have entered SVN based on reports evaluated as possibly true, even though no captive returnee or document has verified the reports.

Table 2 contains all MACV's estimates of total infiltration for 1966 and 1967, through 31 December 1967. The latest estimate for each month in Table 2 is the last number on the right (e.g. 5300 men are now believed to have infiltrated in April 1967). As of 31 August 1967, six months after the end of April (column 6), MACV's estimate was 4600 (or 13%) less. Table 3 shows the same data aggregated by quarters. In Table 4, we have looked at the total infiltration estimate for each month as a percent of the estimate six months after infiltration and nine months after infiltration. Table 4 shows the average and the range for each "month after" period (or column). The averages for monthly data are plotted in Graph 1 and for quarterly data in Graph 2.

Estimates of infiltration for a given month rise steadily for nine months, and remain within 1% of the ninth month after infiltration estimate during the next nine months. On average, the estimate at nine months is 33% higher than at six months. The range is much higher around the 6 month

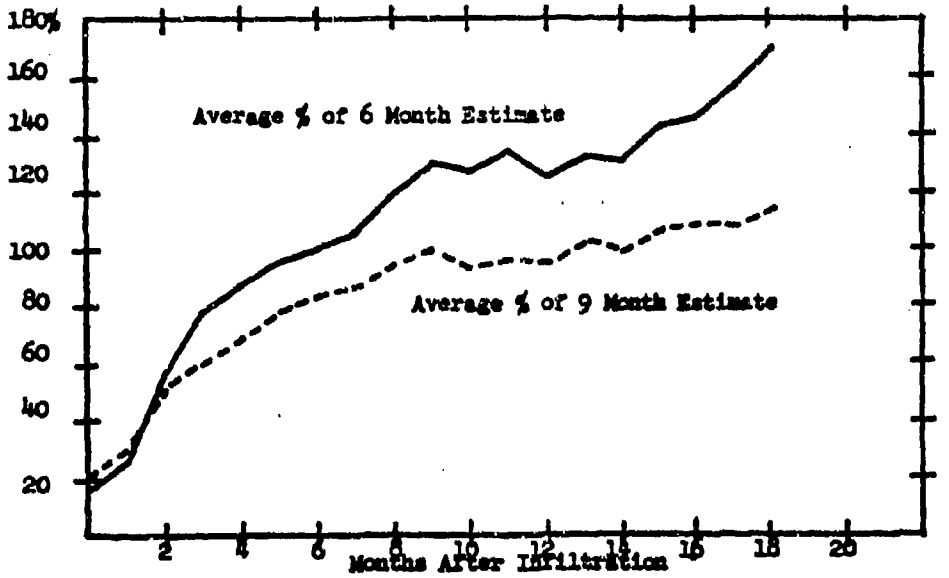
TABLE 1

NVA INFILTRATION INTO SOUTH VIETNAM

Month of Infiltration	Accepted			Possible	Total Infiltration
	Confirmed	Probable	Total		
Jan 1965	2,000		2,000	1,200	3,200
Feb	2,800	400	3,200	600	3,800
Mar	500	400	900	400	1,300
Apr	2,400	-	2,400	700	3,100
May	-	300	300	100	400
Jun	-	200	200	300	500
Jul	400	-	400	700	1,100
Aug	-	-	-	900	900
Sep	5,700	-	5,700	2,200	7,900
Oct	7,000	-	7,000	400	7,400
Nov	3,300	-	3,300	1,000	4,300
Dec	200	400	600	800	1,400
Total 1965	24,300	1,700	26,000	9,300	35,300
Jan 1966	4,200	2,000	6,200	3,000	9,200
Feb	6,800	2,300	9,100	2,100	11,200
Mar	11,800	1,300	13,100	3,600	16,700
Apr	100	500	600	600	1,200
May	1,800	400	2,200	3,600	5,800
Jun	12,300	700	13,000	2,200	15,200
Jul	4,000	700	4,700	4,200	8,900
Aug	1,800	400	2,200	3,700	5,900
Sep	1,400	700	2,100	700	2,800
Oct	100	600	700	5,200	5,900
Nov	900	100	1,000	600	1,600
Dec	1,000	600	1,600	2,500	4,100
Total 1966	46,200	10,300	56,500	32,000	88,500
Jan 1967	1,000	800	1,800	4,300	6,100
Feb	1,700	2,000	3,700	1,500	5,200
Mar	4,300	400	4,700	4,600	9,300
Apr	4,300	600	4,900	400	5,300
May	4,000	1,300	5,300	1,500	6,800
Jun	5,400	-	5,400	1,800	7,200
Jul	1,600	-	1,600	1,300	2,900
Aug	3,800	-	3,800	2,000	5,800
Sep	400	100	500	1,800	2,300
Oct	1,100	-	1,100	800	1,900
Nov	-	-	-	800	800
Dec	-	-	-	-	-
Total 1967	27,600	5,200	32,800	20,800	53,600

SOURCE: MACV

Graph 1
Infiltration - Monthly



Graph 2
Infiltration - Quarterly

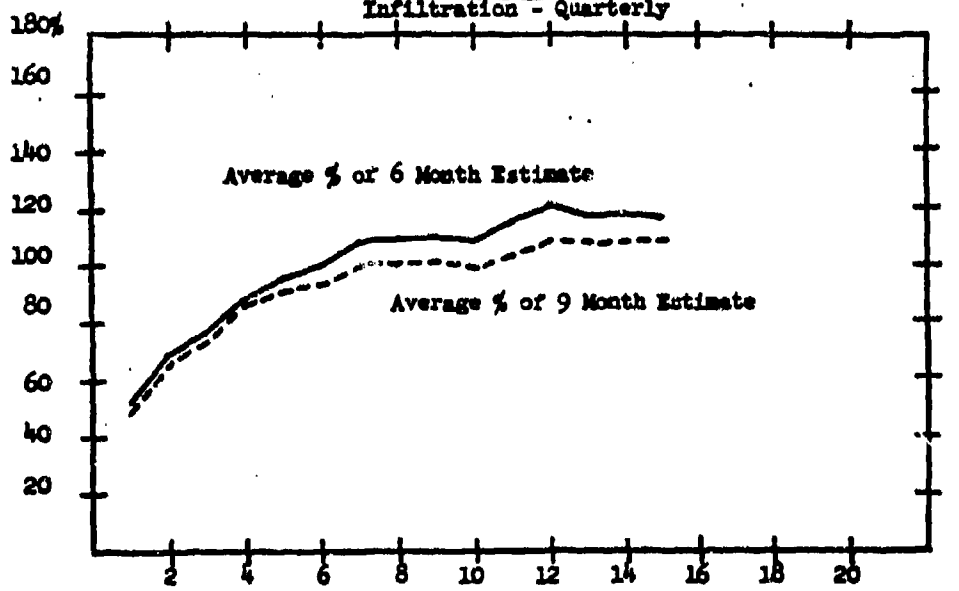


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TABLE 2

TOTAL[a] INFILTRATION OVER TIME - MON

	Months After Infiltration											
	0	1	2	3	4	5	6	7	8	9	10	11
1966												
January			2600	5605	6225	4525	2125	2125	[illegible]	6445	6887	6887
February		3450	4750	7250	9350	9350	9350	9350	[illegible]	10778	10778	10778
March		4000	6090	5240	9240	9240	10027	12933	[illegible]	14411	14761	16700
April		130	210	210	210	210	873	791	[illegible]	901	500	500
May		4450	4750	4450	4800	9495	9155	8755	[illegible]	6800	5300	5300
June	2500	7000	11700	11960	14550	14365	12855	12855	[illegible]	12400	12400	12400
July	2120	2990	3490	6670	7440	7576	9864	9800	[illegible]	10300	10600	10500
August	350	2700	5650	5100	5130	5250	5300	5000	[illegible]	5100	5200	5200
September		400	1700	1700	1700	2000	2000	2100	[illegible]	2000	2700	2700
October	2000	3615	4815	4815	5200	5200	5300	5300	[illegible]	5300	5300	5400
November		280	630	600	700	1100	1100	1100	[illegible]	1200	1200	1200
December		530	1100	1800	1300	2200	2500	3500	[illegible]	3900	3900	4100
1967												
January		700	1600	1700	2000	2000	2700	3400	[illegible]	5500	5500	6100
February		500	300	900	2100	3000	4200	5000	[illegible]	5200	5200	
March		900	5900	7800	7700	8600	9300	9200	[illegible]	9300		
April	100	100	800	4100	4100	4600	4600	4900	[illegible]			
May		500	1400	4100	5800	6200	6800	6800				
June			3300	3600	4300	5900	7200					
July		400	400	600	1800	2900						
August	400	1800	3900	5200	5800							
September		1300	1400	2300								
October		1200	1900									
November		800										
December												

a/ Includes confirmed, probable and possible

SOURCE: MACV monthly reports of NVA infiltration into SVN, Special MACV Study: Strength.

TABLE 2

TOTAL[1] INFILTRATION OVER TIME - MONTHLY

Months After Infiltration

	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
5	2125	[illegible]	6445	6887	6887	6887	7700	7700	8000	8400	8400	9000	9000	9000	9000	9200	9200
0	9390	[illegible]	10778	10778	10778	11500	11500	11100	11000	11000	11200	11200	11200	11200	11200	11200	
7	12933	[illegible]	14411	14761	16700	16700	16700	16700	16700	16700	16700	15700	16700	16700	16700		
3	751	[illegible]	901	500	500	600	600	600	1200	1200	1200	1200	1200	1200			
5	8755	[illegible]	6800	5300	5300	5300	5300	5300	5300	5100	5400	5400	5800				
5	12855	[illegible]	12400	12400	12400	12400	14700	14700	14700	14700	14700	15200					
4	9800	[illegible]	10800	10600	10500	8800	8800	8800	8900	8900	8900						
0	5000	[illegible]	5100	5200	5200	5200	5900	5900	5900	5900							
0	2100	[illegible]	2000	2700	2700	2700	2700	2800	2800								
0	5300	[illegible]	5300	5300	5400	5400	5900	5900									
0	1100	[illegible]	1200	1200	1200	1200	1600										
0	[illegible]00	[illegible]	3900	3900	4100	4100											
0	3400	[illegible]	5500	5500	6100												
0	5000	[illegible]	5200	5200													
0	9200	[illegible]	9300														
0	4900	[illegible]															
0	6800																
0																	

Strength.

TABLE 3

TOTAL a/ INFILTRATION DATA - QUARTERS

	Months After Infiltration											
	0	1	2	3	4	5	6	7	8	9	10	11
1966												
First Quarter		14,355	19,565	19,115	20,715	20,715	23,302	28,434	32,096	32,076	32,486	35,900
Second Quarter	7,160	11,960	16,360	16,970	24,918	24,311	22,511	28,511	19,700	18,200	18,300	18,300
Third Quarter		12,720	14,240	14,406	16,814	17,100	16,800	17,900	18,800	18,700	17,400	17,400
Fourth Quarter		5,975	6,900	7,700	7,700	8,600	8,900	9,900	9,800	10,500	10,500	11,200
1967												
First Quarter		2,900	8,800	11,900	13,400	15,300	19,000	20,000	19,900	20,600		
Second Quarter			11,500	14,000	15,100	17,600	19,300					
Third Quarter		5,800	8,400	11,000								
Fourth Quarter												

a/ Includes confirmed, probable and possible.

	Months After Infiltration												
	9	10	11	12	13	14	15	16	17	18	19	20	21
A34	[illegible]	32,076	32,[illegible]	35,900	35,900	35,800	36,100	36,100	36,900	36,900	36,900	36,900	37,100	37,100
311	[illegible]	18,200	18,300	18,300	18,300	21,200	21,200	21,000	21,300	21,300	22,200			
[illegible]	[illegible]	18,700	17,400	17,400	17,400	17,500	17,600	17,600						
[illegible]	[illegible]	10,500	10,500	11,200	13,400									
200	19,900	20,600												

TABLE 4

ANALYSIS OF INFILTRATION DATA

Months After Infiltration

	0	1	2	3	4	5	6	7	
Monthly Data									
Average % of 6 month estimate	17.4	29.2	57.7	77.8	88.5	95.3	100.0	106.7	12
Highest % of 6 month estimate	38	68	122	164	293	213	100	129	16
Lowest % of 6 month estimate	2	2	7	21	24	24	100	91	9
Average % of 9 month estimate	21.3	30.5	52.2	60.8	68.9	77.5	84.4	88.7	9
Highest % of 9 month estimate	38	68	111	100	117	140	135	129	12
Lowest % of 9 month estimate	7	10	6	17	23	23	33	33	4
Quarterly Data									
Average % of 6 month estimate		54.6	70.8	77.5	89.2	94.5	100.0	109.0	11
Highest % of 6 month estimate		76	85	87	111	108	100	122	13
Lowest % of 6 month estimate		15	46	63	71	81	100	100	9
Average % of 9 month estimate		49.9	67.1	72.2	86.0	89.8	92.6	99.9	9
Highest % of 9 month estimate		68	90	93	137	134	124	124	10
Lowest % of 9 month estimate		14	43	58	65	65	73	89	9

ON DATA

ration

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.7	77.8	88.5	95.3	100.0	106.7	120.3	132.7	130.7	135.2	127.8	134.9	134.0	145.8	148.6	158.7	170.8
	204	293	213	100	129	185	303	324	324	324	362	362	376	395	424	434
	21	24	24	100	92	96	74	57	57	58	58	58	58	56	59	59
.2	60.8	68.9	77.5	84.4	88.7	95.0	100.0	95.1	97.2	96.3	103.4	100.4	107.0	109.0	109.0	115.8
	100	117	140	135	189	189	100.0	107	116	116	119	119	133	133	133	140
	17	23	23	35	33	61	100.0	55	55	67	67	67	78	75	79	79
.8	77.5	89.2	94.5	100.0	108.0	110.1	111.2	110.5	116.2	122.4	117.3	118.0	117.7			
	87	111	108	100	188	137	138	139	154	154	154	153	155			
	63	71	81	100	188	88	81	81	81	81	94	94	95			
.1	72.2	86.0	89.2	98.6	98.9	99.5	100.0	98.7	103.0	108.3	107.2	107.7	107.3			
	93	137	134	184	184	108	100	101	112	127	116	116	115			
	58	65	65	73	89	95	100	93	93	93	94	94	94			

average than it is around the nine month average. Quarterly data are similar to the monthly data; the nine month estimate, however, is only 11%, rather than 33% higher than the six month. (This is not surprising since the six month quarterly estimate, contains a six, seventh, and eight month monthly estimate.)

From these averages we can make an estimate of the actual infiltration for any month in the past, although the estimate becomes more tenuous the more recent the month to be estimated. From the current estimate of infiltration for a month, we estimate the level for the ninth month after infiltration. We add an additional 15% to cover infiltrated personnel picked up during the next nine months. For example, after three months, on average, 60.8% of the personnel that will be reported at nine months have been identified. The 31 December 1967 (or third month) estimate for September 1967 is 2,300 (Table 3, column 3). If we multiply by 1.64 (1/ .608) we get 3,785 as the nine month estimate of infiltration. Adding 15% we get 4350 as our estimate of infiltration during September 1967. This is a very uncertain process, and our estimate could be off by more than 100%. However, it provides an order of magnitude estimate of the total infiltration for that month.

In Table 5 we apply this process to the latest MACV estimates of infiltration for the last 9 months of 1967. As of 31 December 1967, MACV reported that it has thus far counted 53,600 enemy infiltrators into SVN for 1967. We estimate that about 75,000 NVA infiltrated into SVN.

TABLE 5

ESTIMATED NVA INFILTRATION INTO SVN DURING CY 1967

	1Qtr	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
MACV 31 Dec 67 Estimate	20,000 3/	5300	6800	7200	2900	5800	2300	1900	800		
Average % of 9 Mo. Est. 1/	na	95.0	88.7	84.4	77.5	68.9	60.8	52.2	30.5	21.3	
Extrapolation Factor 2/	1,000	1.053	1.127	1.131	1.290	1.251	1.645	1.915	3.279	4.695	1.15 4/
Extrapolated 9 Month After Infiltration Estimate	20,000	5580	7635	8145	3740	8415	3785	3640	2625		63,565
Extrapolated Total Infiltration Estimate 5/	23,000	6420	8780	9365	4300	9675	4355	4185	3020		73,100

1/ From Table 4.
2/ 100 ÷ (average % of 9 month estimate).
3/ Sum of 9 month after infiltration estimates for each month of 1Qtr 67 - column 9 Table 2
4/ An additional 15% are added during the following nine months.
5/ Extrapolation factor times the 31 Dec MACV estimate.

NVN INFILTRATION ESTIMATES

Analysis of MACV infiltration data indicates that about 15 months elapse before MACV's estimates pick up all of the NVA infiltrators into SVN for any given period. We have computed factors to predict the final level of infiltration for any month from the most current estimate for that month. Applying these factors to the 31 October MACV infiltration figures yields an estimate of 147,000 infiltrators for January-September 1968. The factors developed from 1966-67 infiltration data 1/ remain good for 1968 data.

Estimates developed from this methodology in February 1968 predicted 73,100 total infiltrators during the first 11 months of 1967. As of September 1968, MACV lists 83,900 for the for the same period, 15% more than we estimated in February, when MACV estimated 53,600. A comparison of the month-to-month increases between 1968 and earlier years indicates that MACV is not finding infiltration groups after they have entered SVN any faster (or slower) than it did in the past.

Projecting Recent Infiltration

Table 1 lists the factors for projecting the final infiltration estimate for any of the past 15 months. Multiplying each MACV monthly estimate

TABLE 1

Estimated NVA Infiltration Into SVN - 1968

		Months After Infiltration	Projection Factor	31 Oct 68 a/ MACV Estimate	Projected Total	1968 Total Thru Sep.
1968	Oct	0	7.513	NA	NA	
	Sep	1	4.541	400	1,816	
	Aug	2	2.613	4,300	11,236	
	Jul	3	2.008	4,200	8,434	
	Jun	4	1.717	11,200	19,230	
	May	5	1.463	11,600	16,971	
	Apr	6	1.353	18,100	24,489	
	Mar	7	1.283	19,900	25,532	
	Feb	8	1.197	12,100	14,484	
	Jan	9	1.140	21,900	24,966	147,158
1967	Dec	10	1.140	6,300	7,182	
	Nov	11	1.131	6,200	7,012	
	Oct	12	1.125	4,800	5,400	
	Sep	13	1.058	6,300	6,665	
	Aug	14	1.050	8,400	8,820	
	Jul	15	1.016	7,400	7,518	

a/ Table 5, OSD SEA Statistical Summary, 12 November 1968

1/ See SEA Analysis Report, February 1968, p. 13.

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by the appropriate factor yields the projected final estimate of infiltrations for that month. By adding the 1968 monthly estimates we arrive at an estimate of 147,198 infiltrators for the January through September 1968 compared to MACV's reported 103,700 by 31 October. (A current MACV estimate for October is not yet available, so we can only estimate Jan-Sep.)

Details of the Analysis

MACV updates its estimates of NVA infiltration into South Vietnam monthly in two major categories: accepted and possible. Total infiltration estimates (accepted plus possible) are used for this study. Replacements provided to an NVA unit outside of South Vietnam are not included in either of these estimates.

Table 2 shows all the MACV monthly estimates of NVA infiltration into SVN since January 1966. The latest estimate for each month is the rightmost number (e.g., 7800 men are now estimated to have infiltrated in April 1967). The monthly infiltration estimates are subject to continuing reevaluation as MACV receives updated information and information on previously undetected personnel. MACV considers data for the latest six months to be incomplete. In August 31, 1967, for example, six months after the end of April (Column 6), MACV estimate for that month was 4600, or 41% less than the current estimate.

To develop our estimating factors we express the data for each month in Table 2 as a percentage of the ninth month infiltration estimate. Averaging each column of these percentages for 1966 and 1967 allows us to estimate how many of the total infiltrators have been detected at any given time after they have entered SVN. These factors are shown in Table 3 and plotted in Graph 1. Estimates of infiltration for any given month rise steadily for the next nine months and remain, on average, within 14% of the ninth month estimate for the next 17 months. On average, the estimate at nine months is 18.6% higher than at six months.

GRAPH 1

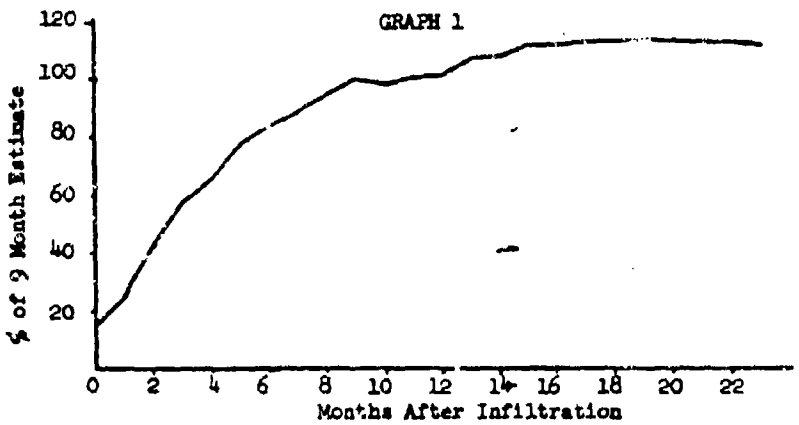

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TABLE 3

ANALYSIS OF INFILTRATION DATA
(1956-57 Data Only)

Months After Infiltration	Number of Observations	Lowest % of 9 Month Est	Highest % of 9 Month Est	Avg % of 9 Month Est
0	6	1.7	37.7	15.2
1	21	1.7	68.2	25.1
2	24	5.8	101.8	43.6
3	24	11.3	100.0	56.8
4	24	23.3	117.3	66.4
5	24	23.3	139.6	78.0
6	24	33.0	134.6	84.3
7	24	33.0	128.8	80.9
8	24	60.9	128.3	95.2
9	24	100.0	100.0	100.0
10	23	55.5	111.6	98.6
11	22	55.5	115.9	100.8
12	21	66.6	115.9	101.3
13	20	66.6	133.3	107.7
14	19	66.6	133.3	108.6
15	18	77.9	133.3	112.2
16	17	75.0	133.3	112.4
17	16	79.4	133.3	113.1
18	15	79.4	139.6	113.2
19	14	85.3	139.6	113.8
20	13	85.3	139.6	113.0
21	12	85.3	139.6	112.7
22	11	85.3	142.8	113.5
23	10	85.3	142.8	111.5
24	9	85.3	142.8	111.3
25	8	85.3	142.8	113.6
26	7	85.3	147.4	113.7

From these averages we can estimate the actual infiltration for any month in the past nine. For example, the September 30, 1968 (or third month) estimate for June 1968 is 10,300 (Table 2, Column 3). After three months, on average, 56.8% of the personnel that will be reported at nine months have been identified (Table 3). This yields a factor of 1.76 (1/.568) to obtain the nine month estimate of infiltration. Multiplying the factor by 1.14 to cover the 14% additional personnel picked up after the ninth month yields a final factor of 2.006. Multiplying the third month estimate of 10,300 by 2.006 yields a projected final estimate of about 20,700 infiltrators during June 1968.

This is an uncertain process, and our estimate could be off by more than 50% in any month; the more recent the month the more uncertain the estimate. However, the factors provide an order of magnitude estimate of the total infiltration for that month; adding the estimates for several months produces an overall estimate probably within 10 or 20 percent of the total that MACV will eventually pick up.

These factors, while developed from 1966-67 data, are still correct through the first half of 1968, except for January 1968, when MACV quickly picked up both the 304th and 320th NVA Divisions. This is demonstrated in Table 4, which is computed from the data of Tables 2 and 3. First we estimate the 9th month MACV infiltration figure for each month in 1968, using the September 30, 1968 infiltration estimates and the factors in Table 3. With these numbers as a base, we compute the percentages of the 9th month estimate for each month of 1968. For example, estimated infiltration in March, as of September 30, 1968, (6 months after) is 19,000. Table 3 shows that for 1966-67 the 6 month estimates average 84% of the ninth month estimates. Thus, we estimate the nine month MACV figure for March to be about 22,500 (19,000/.84). We then go back to Table 2, divide each of the 6 estimates for March 1968 by 22,500 and compare the resulting factors with those from the 1966-67 data shown in Table 3. The

TABLE 4

ADJUSTED 1968 PERCENTAGES

Months After Infiltration
(Thru September Only)

	0	1	2	3	4	5	6	7	8	9
1968										
January		.843	.895	.878	.895	.895	.917	.903	.952	
February		.213	.380	.464	.615	.669	.737	.889		
March		.2[illegible]	.457	.630	.657	.710	.843			
April		.200	.334	.483	.683	.780				
May		.340	.533	.551	.664					
June	.110	.276	.441	.568						
July		.168	.436							
August		.251								
September										
Avg from Feb		.239	.429	.532	.652	.689				
Factors from 66-67 data	.152	.251	.436	.568	.664	.780	.843	.889	.952	1.0

February through July 1968 average factors are essentially the same as the 1966-67 factors. More to the point, the month-to-month rate of increase in the factors parallels that of 1966 and 1967, indicating that MACV is not finding enemy infiltration groups any faster (or slower) than he did in 1966 or 1967, and that our 1966-67 factors are applicable in 1968.

NVN INFILTRATION INTO SOUTH VIETNAM

Summary. Most infiltration into SVN occurs during the first half of each year; it is normally lowest during the last quarter. Infiltration is down sharply this year compared to 1968, and the 3rd quarter drop appears to be sharper than ever before.

Analysis of infiltration data is complicated by the difficulty of obtaining accurate information. Data on North Vietnamese arrivals in South Vietnam are maintained by two sources. MACV publishes a monthly infiltration report based on collateral information, such as captured documents and prisoners of war and defector interrogations. However, MACV data only approximate actual infiltration because of the time lag in obtaining information on most infiltration groups (3-9 months) and validation procedures which leave some groups undetected.[1] Adjustment factors have been developed to compensate for the time lag, as shown in the appendix.

The second source of arrival data is the CINCPAC Intelligence Coordination Group all-source estimate of infiltration into the RVN, developed in conjunction with DIA. These numbers are generally much higher than the MACV estimates, and exist only from January 1968 through the present. They are probably more realistic than the MACV collateral numbers, but their accuracy has not been verified.

Table 1 shows summary historical infiltration data from both MACV and CINCPAC. Several trends stand out:

1. Most infiltration occurs in the first six months of the year. In the period 1966-68, infiltration in the first half of the year averaged 97% greater than in the last half, according to MACV reports. The CINCPAC data for 1968 show infiltration in the first half 73% greater than in the second half.

2. Infiltration in any given year is lowest in the 4th quarter. According to MACV numbers, infiltration in the 4th quarter averaged only 43% of the average infiltration rate in the other three quarters of 1966-68; the CINCPAC number averages 32%.

3. The highest infiltration has always occurred in the first or second quarter of each year. Again, both MACV and CINCPAC data confirm this.

The pattern of infiltration is probably best explained by the weather cycle in North Vietnam and Laos. During the rainy season (May through September) travel is very difficult. Few infiltrators arrive in the last quarter, because the trip takes 2-3 months and few enter the pipeline during

1/ As an example, one of the primary sources of information is POW interrogations. However, only about 1 out of 11 POW's are formally interrogated (not battlefield interrogation) after capture.

the summer (rainy) season. Since conditions for travel are relatively good from October through March we find a surge of infiltration in the first half of each year. Within the weather cycle the NVA can vary infiltration to suit their battlefield needs.

TABLE 1

NVN INFILTRATION INTO SVN (000)
(Monthly Average)

	Year	1st Half	2nd Half	1Qtr	2Qtr	3Qtr	4Qtr
MACV Adjusted							
1966	7.6	10.1	5.2	12.5	7.7	6.1	4.3
1967	8.4	9.0	7.7	8.4	9.6	8.5	6.9
1968	12.3	18.5	6.2	19.9	17.1	9.5	2.9
1969	8.0a/	8.0	-	6.1	9.8	-	-
CINCPAC							
1968	20.5	26.0	15.0	23.6	28.4	22.1	7.8
1969	12.0b/	14.3	-	10.3	18.2	5.1c/	-

Source: MACV and CINCPAC.
a/ Based on 6 months data.
b/ Based on 8 months data.
c/ July and August only.

Finally, the data reveal two interesting points in 1969. First infiltration is down sharply in 1969 compared with 1968, according to both sources. The adjusted MACV collateral estimate of 8,000 per month during first half 1969 is the lowest first half average recorded during the entire 1966-69 period, and the CINCPAC average of 14,300 is almost half of the 26,000 recorded in 1968. Second, the drop in infiltration in the 3rd quarter as reported by CINCPAC is sharper than any previous (1966-68) third quarter drop.

The reasons for the infiltration cutback are obscure. Many NVA personnel associated with maintaining the pipeline returned to North Vietnam during the rainy season this year and the pipeline's capacity was greatly reduced. However, there seems to have been very little input into the system from North Vietnam. This accompanied a relatively low level of enemy activity in South Vietnam and what appears to be a period of reorganization of VC/NVA forces. Given the lower levels of combat, the NVA could have maintained their own force structure with relatively low infiltration.

The key to the reasons for the infiltration cutback should appear in the coming months. Since the bombing stopped, the North Vietnamese transportation system has improved, and transit time to South Vietnam has been reduced accordingly. The infiltration pipeline in Laos is being reopened, and the North Vietnamese now have the capability to introduce additional infiltrators into the South rapidly. Such a move would be clear departure from past infiltration patterns and would signal no change in Hanoi's hard line approach to the war. On the other hand, we would expect a continued low level of 4th quarter arrivals in South Vietnam based on historical experience.

ANNEX

We can compensate for the time lag in infiltration reporting by deriving average increase factors to apply to early reports. Such a system was presented in the November 1968 SEA Analysis Report.[1] Table 1 shows reported and adjusted MACV infiltration figures for the last 13 months.

TABLE 1

REPORTED AND ADJUSTED MACV INFILTRATION ESTIMATES
June 1968-June 1969

	1968 Jun	Jul	Aug	Sep	Oct	Nov	Dec	1969 Jan	Feb	Mar	Apr	May	Jun
Reported Figure(000)	11.6	10.1	11.5	4.4	3.5	2.9	1.2	1.6	3.9	7.1	8.2	4.3	2.7
Adjustment Factors	1.1	1.1	1.1	1.1	1.1	1.15	1.2	1.3	1.4	1.5	1.7	2.0	2.6
Adjusted Figure(000)	12.8	11.1	12.7	4.8	3.9	3.3	1.4	2.1	5.5	10.7	13.9	8.6	7.0a/

Source: Monthly Report of NVN Infiltration into SVN - MACV. September 2 and August 7, 1969.

a/ MACV intensified its collateral collection efforts during June and the adjusted figure must be viewed with caution.

1/ See NVN Infiltration Estimates, SEA Analysis Report, November 1968, p. 6.

VC/NVA EXPERIENCE

Despite increasingly high rates of losses, replacements, and additions to VC/NVA forces, the average VC/NVA soldier's experience is increasing; by the end of CY 1967 we estimate that he will have 2.5 - 3.5 years of experience in SVN. However, about 40% of the enemy will have less than 2 years of experience.

TABLE 1

VC/NVA LOSS RATES

	1964	1965	1966	1967 Projected
Total VC/NVA Losses	26219	55775	87854	147608
End Year Strength (Confirmed)	174100	254900	290400	289200
Total VC/NVA in SVN During Year	200319	310675	378254	436808
Loss as % of Total	13.1	18.0	23.2	33.8

Table 1 shows that the enemy loss rate has increased from 13.1% in 1964 to 33.8% in 1967. It also shows that, despite heavy losses, VC/NVA strength increased every year until 1967 when it has leveled off. The high loss rates and order of battle growth imply high rates of addition and replacements to VC/NVA forces.

TABLE 2

VC/NVA EXPERIENCE - END OF YEAR CY 1967

Yrs. of Experience	0-2	2-4	4 and over	Total
VC/NVA Personnel (000)				
By Method 1	159.6	95.4	34.2	289.2
By Method 2	113.5	111.7	64.0	289.2
Percentage Distribution				
By Method 1	55.2	33.0	11.8	100
By Method 2	39.2	38.7	22.1	100

Table 2 shows two calculated distributions of VC/NVA personnel by years of experience. We derived the estimates as follows:

1. Assume that the 35,500 VC in-country at the end of 1960 became active during that year. Thus, all had 0-1 years of experience by the end of 1960.

2. Calculate total enemy strength in-country during any given year by adding year end strength to enemy losses during the year and calculate the loss rate for each year (as shown in Table 1).

3. Apply the loss rate to the 1960 year end distribution and to each subsequent year using Method 1 and Method 2. Method 1 assumes that all VC/NVA, regardless of experience, have the same probability of becoming a loss during

the year. Method 2 assumes that survival the first year significantly reduces an enemy's chance of becoming a loss. Subsequent years of experience further reduce his chance of becoming a loss, but to a lesser degree.*

Using the foregoing rules, a table similar to Table 2 was produced for each year from 1960 through 1967; only the 1967 table is shown. Assuming that all VC/NVA have a equal chance of becoming a loss (Method 1), Table 2 indicates that by the end of 1967 more than half (55.2%) will have less than 2 years of SVN experience, about 12% will have 4 or more years of experience. Method 2 indicates that about 40% would have less than 2 years experience with about veterans of 4 or more years.

TABLE 3

AVG. EXPERIENCE (YEARS) PER MAN a/

	1960	1961	1962	1963	1964	1965	1966	1967
Method 1	.50	.93	1.35	1.70	1.53	1.64	1.94	2.13
Method 2	.50	.95	1.46	1.95	1.75	1.90	2.34	2.85

a/ The averages were calculated using the assumption that the VC/NVA with 0-1 years of experience have an average experience of .5 years; with 1-2 years of experience, an average of 1.5 years, etc.

Table 3 indicates that the average years of experience per VC/NVA soldier has increased steadily since 1964. The Method 2 average experience per man per year in 1967 is 34% higher than the Method 1 results (2.85 versus 2.13).

The analysis shown so far is based solely on theoretical calculations. To gain better perspective, we turned to RAND corporation interviews of over 500 VC/NVA defectors and prisioner-of-war from January 1965, to December 1966. From these, samples of VC/NVA operating in SVN at the end of 1964 (332 personnel) and 1965 (137 personnel) were drawn. Table 4 compares the two samples with Method 1 and Method 2 results for 1964 and 1965. The two samples show a more even distribution of personnel with two or more years of experience than either method. They also indicate that even Method 2 understates the growth of VC/NVA experience. For 1964, Methods 1 and 2 show an average VC/NVA experience of 1.53 to 1.75 years; the 1964 sample averages 2.11 years. For 1965 Method 1 and 2 results are 1.64 to 1.90 versus 2.31 years of experience from the sample.

*The VC/NVA with 1-2 years of experience has 60% the probability of becoming a loss that the VC/NVA with 0-1 years of experience has, 2-3 has 40%, 3-4 has 30%, 4-5 has 25%, 5-6 has 22.5%, 6-7 has 21.25%, and the VC/NVA with over 7 years of experience has 20.625% probability of becoming a loss that the VC/NVA with 0-1 years of experience has.

TABLE 4

RESULTS OF RAND SAMPLES VS. METHODS 1 & 2

Yrs. of Experience	0-2	2-4	4 and over
End of CY 1964			
Sample Personnel Distribution	174	100	58
Percentage Distribution:			
Sample	52.5	30.1	17.4
Method 1	69.5	22.8	7.7
Method 2	63.1	24.4	12.5
End of CY 1965			
Sample Personnel Distribution	75	29	33
Percentage Distribution:			
Sample	54.8	21.2	24.0
Method 1	73.6	16.3	10.1
Method 2	68.3	15.5	16.2

ENEMY COMBAT EFFECTIVENESS

Combat effectiveness ratings of VC/NVA infantry battalions suggest that the enemy units can easily and quickly recover from large losses. The number of combat effective VC/NVA battalions has been increasing since February 1967.

Since November 1966, enemy infantry and sapper battalions are rated on their combat effectiveness by MACV. The rating criteria employed is similar to the US Unit Readiness Ratings. A battalion is placed in one of five categories: fully combat effective (C-1); combat effective (C-2); marginally combat effective (C-3); not combat effective (C-4); and unknown. Evaluation of four areas determines the overall rating: personnel; equipment and supplies on hand; training and leadership; and morale, discipline and political reliability. The detailed ratings and criteria for each area are given in Annex 1. (The TOE strength differential for enemy infantry battalions (VC-400/Bn; NVA-500/Bn) may bias the personnel ratings in favor of the NVA type Bn, because a TOE NVA battalion apparently can be at 80 percent strength and still be C-1 (at an operating strength of 400), whereas a VC Bn must be at full strength to be categorized C-1). The overall rating of the unit is the lowest known rating assigned for any of the four measurement areas. In cases where two or more areas can not be rated, the overall rating will be "unknown". For example, if a battalion is rated C-2 in personnel, C-4 in equipment and supplies, and unknown in the remaining two areas, the overall rating of the battalion is unknown.

Table 1 shows that in November 64% of the enemy's infantry battalions were rated combat effective (C-1 or C-2), in February 51% and in May 59%. I and II Corps both show a period of decreasing effectiveness followed by increasing combat effectiveness in recent months. The trend of VC battalion effectiveness in I Corps is particularly interesting. The number of Bns rated as combat effective rose from 6 of 15 in February to 14 of 15 in May. The rapid increase may be due to more intensive support of these battalions by the NVA in the I Corps vicinity.

Table 2 shows a small sample of data available to compare battalion combat effectiveness rating changes with losses assessed against these units. Only for the 38th VC Bn does the rating fall in association with a sizeable number of losses. Conversely, the rating of the 30th Bn increased after a period when it may have had as many as 831 of its members killed. In all other cases, no changes in the ratings were noted after substantial losses were inflicted. This suggests that the ratings are unreliable, the loss data is inadequate, or the enemy has a remarkable ability to replenish his losses. The lack of change is probably due mostly to the enemy's ability to replenish his losses quickly.

TABLE 1

COMBAT EFFECTIVE BATTALIONS BY CORPS

		Nov 66	Dec 66	Jan 67	Feb 67	Mar 67	Apr 67	May 67
I CORPS								
Combat Effective:	NVA	18	18	18	18	19	20	20
	VC	11	11	9	6	8	12	14
Non-Combat Effective:	NVA	3	3	3	4	6	5	5
And Unknown	VC	4	4	6	9	7	3	1
II CORPS								
Combat Effective:	NVA	28	28	17	16	16	13	16
	VC	0	0	1	1	1	1	3
Non-Combat Effective:	NVA	3	3	14	15	15	18	15
And Unknown	VC	10	10	9	9	9	9	7
III CORPS								
Combat Effective:	NVA	3	3	3	3	5	5	5
	VC	15	15	18	15	18	14	13
Non-Combat Effective:	NVA	12	12	9	9	7	7	7
And Unknown	VC	18	18	15	18	14	19	20
IV CORPS								
Combat Effective:	VC	18	18	17	14	16	16	16
Non-Combat Effective:								
And Unknown	VC	3	3	4	7	6	5	5
TOTAL SVN								
Combat Effective:	NVA	49	49	38	37	40	38	41
	VC	44	44	45	36	43	43	46
Non-Combat Effective:	NVA	18	18	26	28	28	30	27
And Unknown	VC	35	35	34	43	36	36	33
Total Enemy Bns		146	146	143	144	147	147	147

TABLE 2

SELECTED ENEMY LOSSES [a]

Enemy Battalion	Date	Losses	Combat Effectiveness Rating Change
38 VC BN	7-10 Jan	77 KIA [b]	C-2 to C-3
	26 Jan-7 Apr	383 KIA [b]	Jan/Feb C-2 to C-3; Feb/Mar C-3 to C-2 Mar/Apr no change
48 VC BN	26 Jan-7 Apr	[b]	
	7 Apr-22 Apr	181 KIA	Apr/May no change
R20 VC BN	26 Feb-7 Mar	77 KIA	no change
85 LF BN	8 Mar-18 Apr	831 KIA [e]	effectiveness unknown
30 MF BN	8 Mar-18 Apr	831 KIA [e]	Mar/Apr no change Apr/May C-3 to C-2
269 VC MF BN	8 Mar-cont	57 KIA	no change
303 VC BN	14-16 Feb	331 KIA [c]	Feb/Mar no change
309 [d] VC BN	14-16 Feb	331 KIA [c]	no change
TAY DO LF BN	12-14 Apr	230 KIA	no change

a/ Sources: MACV Monthly Evaluation Report, January-April 1967; Combat Effectiveness Ratings of Enemy Infantry and Sapper Battalions in SVN.
b/ Losses allocated to both 38 VC BN and 48 VC BN. Most of the losses occurred in January and should be accessed against the 38 VC BN.
c/ Losses allocated to HQ 206 VC Regt, 303 VC BN and 209 (309) VC BN.
d/ 209 VC BN assumed to be 309 VC BN.
e/ Losses allocated to both 85 and 30 Bns.

ANNEX 1

COMBAT EFFECTIVENESS RATING CRITERIA
(Enemy Infantry Battalions)

PERSONNEL

C-1: Not less than an operating strength of 400 personnel are available for duty.

C-2: Not less than an operating strength of 300 personnel are available for duty.

C-3: Not less than an operating strength of 200 personnel are available for duty.

C-4: Less than criteria established for C-3.

EQUIPMENT AND SUPPLIES ON HAND

C-1: No deficiencies exist in equipment and supplies (food and ammunition) on hand or within ready access which would restrict the accomplishment of assigned combat missions.

C-2: No important deficiencies exist in equipment and supplies on hand or within ready access which would restrict the accomplishment of assigned combat missions.

C-3: There are important but not vital deficiencies in equipment and supplies on hand or within ready access. These deficiencies would substancially restrict the accomplishment of assigned combat missions.

C-4: Less than criteria for C-3.

TRAINING AND LEADERSHIP

C-1: Not less than 85 percent of personnel available for duty have had at least two months basic training or combat experience and their are no deficiencies in leadership.

C-2: Not less than 75 percent of personnel available for duty have had at least two months basic training or combat experience and there are no important deficiencies in leadership.

C-3: Not less than 50 percent of personnel available for duty have had at least two months basic training or combat experience. There are important but not vital deficiencies in leadership. These deficiencies would substantially restrict the accomplishment of assigned combat missions.

C-4: Less than criteria for C-3.

MORALE, DISCIPLINE AND POLITICAL RELIABILITY

C-1: No deficiencies exist which would restrict the accomplishment of assigned combat missions.

C-2: No important deficiencies exist which would restrict the accomplishment of assigned combat missions.

C-3: Important but not vital deficiencies exist. These deficiencies substantially restrict the accomplishment of assigned combat missions.

C-4: Less than criteria for C-3.

Source: Combat Effectiveness Ratings of Enemy Infantry and Sapper Battalions in SVN, 12 November 1966.

MANPOWER AVAILABILITY IN NORTH VIETNAM

One argument frequently encountered during discussions of the bombing of North Vietnam is that the U.S. air campaign has diverted manpower to reconstruction and air defense and thereby restricted the build-up of NVA troops in South Vietnam. Cessation of the bombing, it is stated, would enable the North Vietnamese to use the 300,000 - 600,000 men, currently engaged in uneconomic construction and repair, to expand their Armed Forces and possibly infiltrate them into South Vietnam. This argument rests upon three assumptions:

1. There is no excess capacity in the present labor force structure.

The economy of an underdeveloped agricultural nation, however, usually contains large amounts of "disguised unemployment," labor which can be diverted to other tasks without decreasing overall productivity. 72% of the civilian labor force in NVN is employed in subsistence agriculture.

2. Manpower diverted to construction and repair is unavailable for other activities.

However, North Vietnam has created "shock brigades" to repair the bomb damage. These brigades are composed largely of persons who work in the vicinity during the day and when needed spend extra hours at night on construction and repair.

3. Manpower recruited for military service is accorded a low priority in relation to the alternative manpower uses.

But in a nation as highly mobilized as NVN, it is unlikely that men needed on the battlefield will be assigned to marginal industrial duties or subsistence agriculture.

The following comparisons may provide a better appreciation of the strain the war places on NVN manpower resources.

1. The number of NVA troops currently in South Vietnam (52,200) is only 1.2% of the NVN male civilian labor force, 2% of the male agricultural force. The U.S. forces in SEA comprise about 1% of our male civilian labor force.

2. North Vietnam has a larger percentage of the males aged 15-64 in the armed services (9.7%) than the United States (5.7%).

3. The 52,200 North Vietnamese troops in SVN represent 10.9% of the NVN army. The 465,000 U.S. forces in Aug 67 accounted for 13.8% of our total active duty military personnel.

The table below shows summary demographic data for North Vietnam.

Total Population - NVN (000)	Male	Female	Total
Persons under 15 a/	3781	3686	7467
Persons 15-64	4913	5327	10240
Persons Over 64	245	344	589
Total	8939	9357	18296
Armed Forces Personnel (000)			475

Civilian Labor Force - NVN (000) b/	Male	Female	Total
Production and Distribution			
Agriculture	2800	4150	7000
Industry	491	326	817
Construction	150	100	250
Transport & Communication	277	149	426
Other	204	162	366
Services			
Administration	57	19	76
Consumer Services	173	238	411
Culture, Education & Science	76	115	191
Other	98	65	163
Total Civilian Labor Force	4326	5324	9650

a/ Approximately 200,000 North Vietnamese males reach the age of 15 each year. SEA PRO estimated annual NVA total losses are 80,000 at Jan-Jun 1967 rates.

b/ Total Civilian Labor Force = (population 15-64) - (armed forces) - (students). 9,650,000 = 10,240,000 - 475,000 - 115,000

Source: U.S. Bureau of the Census (for population)
CIA OER/G/I (For civilian labor force)

SVN Manpower Mobilization

In furtherance of our policy of providing a wider audience for interesting SEA analysis work, we are presenting some of the principal conclusions of a preliminary study on SVN manpower mobilization which was prepared by the Manpower Information Staff of the U.S. Mission in Saigon. The study attempts to answer important questions concerning actions which may be required in the next two years to meet GVN military and paramilitary requirements; assesses the overall impact these actions are likely to have on both the military establishment and civilian economy; and considers some actions that could be taken to offset any harmful impacts on the civilian sector.

In summarized form, some of the conclusions are:

1. Under present policies it is estimated that RVN military organizations will meet less than 90% of their total manpower requirements in FY 68 and only 65% in FY 69. The major problem of meeting requirements is in the RF/PF. (See Table 1)

2. Lowering the draft age will not resolve the manpower problems of the RF/PF unless present policy is changed to allow conscripts to be assigned to these organizations.

3. Extending tours of duty indefinitely might enable RVNAF to meet manpower requirements during the next two years without lowering the draft age, but only if tours of duty of RF/PF, as well as the Regular forces, are extended.

4. Lowering the draft age to 19 without extending tours of duty will not enable RVNAF to meet requirements beyond FY 68.

5. It is unlikely that total requirements for the two year period can be met by lowering the draft age to 18 without extending tours of duty.

6. Lowering the draft age to 19 and extending tours of duty for only one year in the Regular forces only will not meet requirements beyond 1968. If tours of duty in all three forces are extended, this alternative would probably enable RVNAF to meet requirements.

7. If present policies continue, there will be a decline in the ratio of NCOs in the Regular forces; the ratio of officers will increase somewhat.

8. Complete elimination of the system of deferment of students would have an adverse effect not only on RVN's long range development but also on the ability to win the war.

9. The only obvious action to improve utilization of the Chinese in RVNAF in the short run is to establish separate Chinese units.

10. Under present policies it can be assumed that all para-military organizations will recruit sufficient manpower to meet their requirements. If the draft age is lowered and RVNAF tours of duty are extended, it is unlikely that either the National Police or the RD will be able to recruit the required manpower.

11. The present practices with respect to members of para-military organizations appear adequate to protect these organizations from losing members to RVNAF.

12. Lowering the draft age is not likely to seriously interfere with essential activities but may have an adverse effect on agriculture. Only four out of every five conscripted from the 18 and 19 age groups would actually be withdrawn from the workforce and few would be skilled workers.

13. Extending tours of duty would adversely affect the civilian sector. A significant number of professional, technical and skilled workers would be withheld from the workforce.

14. Refugees and Hoi Chanh constitute a large pool of skilled and semi-skilled workers which is at present utilized to only a limited extent. A major roadblock to proper utilization is the Military Security Service (MSS) security clearance procedure. Evidence indicates clearances must, in effect, be purchased in most cases and refugees and Hoi Chanh cannot afford the price. Other impediments to proper utilization of refugees are the fact that refugees are often not located near labor shortage areas and the mistaken notion of many U.S. and GVN officials that few have any potential as workers. The problem of utilizing Hoi Chanh is much greater than that of refugees. Many GVN agencies refuse to employ them; U.S. government civilian agencies are unable to employ them due to security regulations and U.S. Forces and their contractors cannot employ them (except in a military capacity) because current regulations require all workers to have MSS clearance.

15. It is possible for the GVN to restrict non-essential activities through the use of licensing or similar authority already possessed by the government. Utilization of manpower by non-essential industries could be reduced by refusing or restricting import licences for raw materials used by these industries; non-essential construction could be stopped by refusing to issue building permits; the number of cyclo drivers could be reduced by restricting the number of licenses granted.

16. The U.S. government can take unilateral action to restrict some non-essential activities in SVN without infringing on Vietnamese sovereignty by:

a. Placing restrictions on U.S. citizens which reduce demand for local goods and services or reduce the profitability of non-essential activities.

b. Refusing to furnish U.S. foreign exchange for importation of raw materials for industries we deem non-essential.

c. Developing or accelerating programs which naturally lead to rapid improvement in manpower utilization.

TABLE 1
ESTIMATED SHORTFALLS IN RVN MILITARY MANPOWER

	FY	Regular Forces	RF	PF	Total
Estimated Requirements a/	1968	66,000	74,900	52,800	213,700
	1969	97,900	93,000	47,800	238,700
Estimated Accessions Under Present Policies b/	1968	98,100	45,500	45,500	189,100
	1969	83,100	35,300	35,300	153,700
Shortfall	1968	(12,100)	29,400	7,300	24,600
	1969	14,800	57,700	12,500	85,000

a/ Requirements consist of the add-on necessary to reach MACV recommended levels plus replacements for attrition due to discharges, casualties and desertions. However, the MACV recommended increase for FY69, from 685,739 to 763,953, has not yet been submitted to SECDEF.

b/ Methods currently used to meet manpower requirements of military organizations are: Regular forces - Volunteers supplemented by conscripts; RF/PF - Volunteers only.

TABLE 2
ADDITIONAL MEN OBTAINED UNDER ALTERNATIVES INVOLVING LOWERING THE DRAFT AGE AND/OR EXTENDING TOURS OF DUTY OF THE REGULAR FORCES, REGIONAL FORCES, AND POPULAR FORCES

	Number of Men Added if:			
	Implemented in FY68			Implemented
Policy Alternatives	FY68	FY69	Total 68/69	in FY69
Extend tour 1 year no change in draft	51,000	24,000	76,000	76,000
Extended tour indefinitely no change in draft	51,000	76,000	127,000	76,000
Lower draft to 19 continue to discharge	35,000	8,000	43,000	43,000
Lower draft to 19 extend draft for 1 yr.	87,000	32,000	119,000	119,000
Lower draft to 19 extend indefinitely	87,000	84,000	170,000	119,000
Lower draft to 18 continue to discharge	84,000	8,000	92,000	92,000
Lower draft to 18 extend for 1 year	135,000	32,000	167,000	167,000
Lower draft to 18 extend indefinitely	135,000	84,000	218,000	167,000

Note: Due to rounding, detail does not necessarily equal totals.

May 68

MANPOWER AVAILABILITY IN NORTH VIETNAM

Manpower reserves in North Vietnam appear sufficient to meet current requirements and could support a higher level of mobilization without significant shortages. Mobilization has undoubtedly caused some strain in the labor force. However, as shown below, these increased requirements have been more than off-set by normal population growth, foreign labor, and the use of unemployed and underemployed North Vietnamese.

CHANGES IN NVN WAR-RELATED MANPOWER - 1965-67
(Persons 15-64 in thousands)

Manpower Gained From		Manpower Diverted to	
Population growth	720	Increase military forces	275
Foreign labor	40	Bomb damage repair	200
Other	81	Transportation	146
Total	841	Other	126
		Total	747

The table on the following page shows estimates of the North Vietnamese population and civilian labor force in 1968.

Population - There are approximately 18.7 million people in NVN.

Military Reserves - A total of 475,000 males are currently in the armed forces, 34% of the men between 17 and 35 who are fit for military service. Of the 200,000 North Vietnamese that reach the draft age each year, about 120,000 would be suitable for military duty.

Labor Force - There are 9.8 million North Vietnamese in the civilian labor force. Approximately 72% of the force is employed in subsistence agriculture. This sector of the economy contains large amounts of "disguised unemployment," labor which could be diverted to war-related tasks without decreasing overall productivity. Additional North Vietnamese labor could be made available by increasing imports of domestically produced items.

Construction and Repair - Approximately 500,000 North Vietnamese and 40,000 Chinese laborers are used to off-set the effects of US airstrikes. However, CIA estimates that less than 200,000 are occupied full time. Construction teams are composed largely of persons who work in the vicinity during the day and spend extra time at night on repair activities.

The following comparisons indicate the relative strain on North Vietnamese manpower reserves.

1. If North Vietnam mobilized the same percentage of its population as South Vietnam, the NVN full-time military force would more than double its present size.

2. Both North Vietnam and the United States have about 15% of their active duty military personnel in South Vietnam.

3. North Vietnam's armed forces represent approximately 3% of the population. During World War II, the German armed forces accounted for 13% of the population, and Germany was never considered fully mobilized.

POPULATION OF NORTH VIETNAM (000s)
(1965)

	Male	Female	Total
Persons under 15	3865	3770	7635
Persons 15-64	5035	5430	10465
Persons over 64	252	353	605
Total	9152	9553	18705

CIVILIAN LABOR FORCE IN NORTH VIETNAM
(000's)

	Male	Female	Total
Persons Age 15-64			
Armed Forces	475	-	475
Students	90	30	120[a]
Production and Distribution			
Agriculture	2800	4200	7000
Industry	500	325	825
Construction	150	100	250
Transport & Communication	300	150	450
Other	200	160	360
Services			
Consumer Services	175	240	415
Education, Science & Culture	75	115	190
Other	270	110	380
Total Civilian Labor Force	5035	5430	10465

Source: U.S. Bureau of Census (for population).
CIA OER/G/I (for civilian labor force).

a/ The specific allocation between male and female is not known.

Book II

June 68

A COMPARISON OF ALLIED AND VC/NVA
OFFENSIVE MANPOWER IN SOUTH VIETNAM

Most current Vietnam planning assumes (a) that U.S./Free World Forces ground forces are clearly superior to VC/NVA forces, and (b) that the margin of superiority is great enough so that we can win a war of attrition and shift some of the military burden now borne by the U.S. to the RVNAF. This paper questions these assumptions. More work needs to be done on this subject and comments and critiques of our readers would be appreciated.

The main conclusions of this analysis are:

1. Despite a 5.6 to 1 advantage in total military manpower in December 1967, the friendly forces were roughly at parity with enemy forces in rifle-carrying infantrymen on offensive operations. In total manpower in battalions on offensive operations, the US/GVN/FWF forces had a slight 1.3 to 1.0 manpower advantage over the enemy. Because the U.S. contributed most of the friendly offensive battalion and platoon manpower, a decrease in its forces would enable the enemy to gain an advantage in offensive manpower. Without any U.S. forces, the GVN/FWF combat forces on offensive operations might have been outnumbered by 2 to 1 by VC/NVA forces in battalion manpower.

2. If you exclude the ARVN, the VC/NVA were at parity with the U.S./FWF in terms of main force manpower engaged in offensive operations, and they had a superiority of 1.4 to 1.0 in offensive manpower in rifle platoons. With this combat manpower advantage, the enemy's ability to use the terrain and the population to gain the tactical initiative may go a long way toward offsetting U.S./FWF advantages in firepower, mobility, combat support, and overall manpower. Thus, in December 1967, the U.S./FWF forces probably held an offensive edge over the main force enemy but it was not a large or decisive one.

3. Since the Tet offensive, additional troop deployments and the reallocation of deployed forces have probably increased the Allies' relative offensive strength. However, projected increases in ARVN combat strength will not significantly add to this advantage. Possible increases in enemy main force strength, continued enemy guerrilla and sniper pressure on the populated areas, or the replacing of Tet drawdowns in pacification and reserves could further erode this slight offensive edge.

Situation in December 1967

Allied military superiority was evidenced by our greater total military manpower and total combat battalions. The following table shows that the Allied forces (1.3 million men) had at least 5.6 times as many men in military forces as the enemy is estimated to have had men (230,400) in December 1967.

261,500

TOTAL ALLIED AND VC/NVA MILITARY MANPOWER
December 1967 - In Thousands

U. S./GVN		VC/NVA	
RVNAF	643.1	NVA	59.2
CIDG/NP	111.7	VC	60.2
U. S.	486.6	Guerrillas	73.4
3d Nation	59.4	Admin Svc	37.6
Total	1,300.8		230.4

Source: U.S./GVN - OSD SEA Statistical Summary, Table 2, 18 June 1968
VC/NVA - OSD SEA Statistical Summary, Table 105, 19 June 1968

Of this total manpower, the cutting edge of fighting forces are the men in allied and enemy maneuver battalions. As shown below, the Allied forces had a 2.0 to 1.0 manpower superiority over the enemy in maneuver battalions.

ALLIED AND VC/NVA MANPOWER IN MAIN FORCE MANEUVER UNITS[1]
December 1967 - In Thousands

Allied	BNS	Men[2]	Enemy	BNS	Men
GVN	154	84.7	NVA	78	45.5
U. S.	98	94.5	VC	82	55.1
3rd Nation	26	26.0			
Total	278	204.2		160	100.6

1/ Included are airborne infantry, airmobile, infantry, mechanized infantry, and non-organic armored cavalry units. Combat support and combat service support units are not included.

2/ Strengths are estimated at 550 men / GVN Bn.; 1200/USMC Bn.; 900/USA Bn.; 1000/3rd Nation Bn.

Source: US/GVN - OSD SEA Statistical Summary, Table 2, 18 June 1968
VC/NVA - MACV OB Summary, 31 December 1967.

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However, the U.S. and GVN have large and continuing needs for combat forces in activities that the enemy does not, e.g., military base and LOC security and the pacification program. Based on an analysis of force dispositions by function we estimate that in December 1967, these activities absorbed 17 of the 98 U.S. combat battalions and 105 of the 180 ARVN/FWF battalions. As a result, only 156 battalions, or only about 56% of our total combat force, were available to engage the VC/NVA in offensive operations. On the other hand, the enemy main forces were largely free to engage U.S./FWF forces as they have not committed large forces to defense of their base areas or LOCs and hold no cities. The enemy can use guerrillas and other organized forces to threaten populated areas and keep Allied forces tied down in their protection. As a result, Allied forces committed to offensive operations held only about a 1.3 to 1.0 edge over VC/NVA forces in battalion manpower and were at parity in rifle platoon manpower.

ALLIED AND VC/NVA MAIN FORCE MANPOWER IN OFFENSIVE OPERATIONS
December 1967 - Thousands of Men

	U.S./GVN				VC/NVA		
	Bns	Men In Bns	Men In Platoons		Bns	Men In Bns	Men In Platoons
GVN	53	29.2	16.1	NVA	78	45.5	27.2
U.S.	81	76.2	34.3	VC	82	55.1	35.8
3rd Nation	22	22.0	9.9		—	—	—
Total	156	127.4	60.3		160	100.6	63.0

Source: U.S./FWF/Enemy platoon manpower; 45% of a U.S./FWF bn. is comprised of rifle platoons; likewise, 65% for the VC; 60% for the NVA; and 55% for ARVN.
U.S./GVN Force Dispositions-- "NMCC Operational Summary", JCS Jan 1-16 1968.

Moreover, this narrow superiority is entirely dependent upon the effective use of the RVNAF for offensive missions. If the 53 ARVN battalions are not counted, the U.S. FWF force about equals the VC/NVA main forces in total offensive manpower in battalions and falls well short in terms of strength in rifle platoons.

ALLIED AND VC/NVA OFFENSIVE FORCES:
TOTAL BATTALION AND INFANTRY PLATOON STRENGTHS

December 1967

	Allied				Enemy		
	Bns	Men In Bns	Men In Platoons		Bns	Men In Bns	Men In Platoons
U. S.	81	76.2	34.3	NVA	78	45.5	27.2
FWF	22	22.0	9.9	VC	82	55.1	35.8
Total	103	98.2	44.2		160	100.6	63.0

Source: U.S./FWF/Enemy platoon manpower; 45% of a U.S./FWF bn. is comprised of rifle platoons; likewise, 65% for the VC; 60% for the NVA; and 55% for ARVN.

With virtual overall parity in offensive combat battalion manpower and superiority in combat platoon manpower (excluding ARVN), the VC/NVA can achieve initial manpower superiority in many individual engagements, though allied reaction forces may offset this advantage. With this manpower advantage, the enemy's ability to use the terrain and population to gain the tactical initiative may go a long way toward offsetting the U.S./FWF advantages in mobility, firepower, and combat support. Thus, in December 1967, the Allied forces probably held an offensive edge over the main force enemy but it was probably not a large or decisive one.

Situation since Tet

Following the Tet offensive, the U.S. was able to both add 12 battalions to its force levels, reallocate 4 battalions to offensive activities from its reserves and pacification programs (see table below) and increase the combat strength through the addition of a 4th rifle company to its standard battalion (ARCOV Program). Likewise, ARVN, without increasing its force size, has been able to shift 21 battalions to offensive operations.

FORCE DISPOSITIONS [a] BY FUNCTION
(Maneuver Battalions)

	Combat Operations	Security	Pacification	Reserves/ Training	Total
U.S.					
Jan 1-16	81	13	2	2	98
May 1-16	97	13	0	0	110
GVN/FWF					
Jan 1-16	75	39	47	19	180
May 1-16	96	38	37.5	7.5	179

[a] NMCC Operational Summary, JCS

These actions have given the Allies a stronger offensive force though many of these offensive battalions are stationed in defensive positions around South Vietnam's cities. However, including these forces, the Allied battalion manpower advantage was increased, 1.3 to 1.0 during December and about 1.6 to 1.0 by May 1968. In platoon manpower, the Allied forces had gained a 1.3 advantage over the enemy--about equal to the 1.4 advantage the enemy had prior to Tet.

OFFENSIVE MAIN FORCES
(May 1967)

	U.S./GVN			VC/NVA		
	Bns	Men In Bns	Men In Platoons	Bns	Men In Bns	Men In Platoons
GVN	74	40,700	22,400	NVA 99	55,658	35,200
U.S.	97	97,000[1]	52,400[2]	VC 82	46,118	30,000
3d Nation	22	22,000	9,900			
Total	193	159,700	84,700	181	104,771	65,200

[1] No breakout of USA and USMC bns. on offensive operations was available. Estimate of 1000 men/USA or USMC bn. was used in place of weighted average.

[2] With the addition of a 4th rifle company (ARCOV program) the USA/USMC battalion is estimated to have 54% of its manpower in rifle platoons.

Source: NMCC Operations Summary May 1-16, 1968
OB Summary MACV-J2 March 31, 1968

At present force levels, future increases in U.S./GVN offensive strength will be difficult to achieve. First, the U.S./GVN commitment of battalions to base, LOC, and city security will probably increase in the face of a more aggressive enemy. Second, even if the needs for combat troops in security, pacification, or reserves do not increase, the presently planned increases in force levels during FY 69 may have to replace the Tet drawdowns of forces in these activities. In total, the projected increases in Allied battalion strength from June 1968 through June 1969 indicate a total increase of 9 maneuver battalions. As shown below, this increase cannot compensate for the diversion of forces during Tet. To fully offset the Tet drawdowns, 17 new battalions, in addition to the planned 9 battalion increase, would be needed. Consequently, there will almost certainly not be a net increase in the Allied offensive forces.

	FY 69 Force Increases (Bns)		Tet Drawdowns[1] (Bns)
U.S.	1	U.S.	
		Pacification	2
		Training or Reserves	2
ARVN/FWF	+8	ARVN/FWF	
		Security	1
		Pacification	9.5
		Training or Reserves	11.5
Total	9		26.0

[1] Tet drawdowns are derived by subtracting the May 1968 forces in each function from their January levels - see table on "Force Disposition by Function".

Source: U.S./FWF SEA Deployment Program (#6) 4 April 1968
ARVN - Staff Estimate OASD(SA) 10 June 1968

Concluding Comments

This analysis points up clearly that we do not now have a simple manpower advantage which would enable us to achieve a decisive military advantage. Adding more U. S. troops is not the answer. The enemy, in the past, has matched our force buildups and could probably continue to do so. As the table below points out, the ratio of friendly to enemy maneuver battalions has remained relatively constant since mid-1965.

ALLIED VS VC/NVA MANEUVER BATTALIONS
(End of Month)

	1965		1966		1967		1968	Net
Allied Bns a/	Jun	Dec	Jun	Dec	Jun	Dec	May	Change
U. S.								
Army	2	22	33	59	62	79	86	84
USMC	7	13.3	18.6	20	23	23	24	17
Subtotal	9	35.3	51.6	79	85	102	112	103
3d Nation	1	10	14	23	23	26	26	25
ARVN	134	139	160	167	164	164	165	31
Total	144	184.3	225.6	269	272	292	303	159
VC/NVA Bns b/								
NVA	14	33	64	64	74	86	103	89
VC	86	96	90	88	87	91	91	5
Total	100	129	154	~~292~~	161	177	194	94
		137		161		192		
Ratio:		1.34		1.7		1.44		
Allied to VC/NVA	1.4	1.4	1.5	1.8	1.7	1.6	1.6	1.7

a/ Source: Table 110, Program 5, through Change 13, dated 15 February 1968.

b/ Source: Confirmed infantry and other maneuver battalions from Table 105 of OSD(C) SEA Statistical Summary.

Moreover, the addition of 100,000 U. S. military personnel would only give us about 20,000 more men in maneuver battalions and 10,000 more men in platoons. One answer may be to get a larger share of the ARVN into offensive operations. This could be done by expanding and improving the RF/PF and giving them a larger role in RD support. This could free up to 50 ARVN battalions for offensive operations.

The need to get more men into combat units is recognized by MACV. The recent action by the Army to add a 4th company to each infantry type battalion was an important step in this direction. Another related action was the addition of a 4th battalion to some of the brigades in Vietnam. It should be possible to do more in this regard. We must constantly keep watch over the size of the logistic tail. It has a powerful tendency to grow almost independent of the basic mission oriented units and its contribution to their effectiveness.

June 68

GVN AND VC MANPOWER POOLS

Analysis of available population data from South Vietnam indicates that both the GVN and VC have dug deeply into their manpower pools. However, it also indicates that (1) the GVN have the manpower needed to expand the RVNAF to 801,000 and sustain that level, and (2) the VC can continue to maintain current force levels at least through 1968 in the face of losses at current rates. The estimates assume a 17,000,000 SVN population and 60% of the draft eligible males physically qualified for military service. The estimate further assumes that 60% of the population is under GVN control, and that 30% is under VC control. Given these assumptions, the RVNAF can contain and sustain a force level of 801,000 only if the GVN drafts men in the 35-44 age group.

Various manpower studies have sought to evaluate the GVN capability to expand their forces. The varying conclusions of these studies, and of manpower experts, highlight the fact that the various manpower estimates are extremely sensitive to the assumptions made in arriving at the estimate. We examine the GVN force expansion problem paying particular attention to the sensitivity of the assumptions needed to estimate the available manpower pool. Then we address the Viet Cong's manpower problems using the same techniques. Can they sustain losses at the current rates? How deeply have they dug into their manpower pool?

The Population of SVN

Demographic information for South Vietnam is scarce. Official estimates of the size, age-sex distribution and vital rates are approximate at best. The most recent census in South Vietnam was taken during 1959, and was only a pilot census of Phuoc Tuy Province. The last national census was taken in the 1930's. A partial census of the major cities was taken in 1958, but there is no measure of the growth of urban population. The 17.2 million population generally used of South Vietnam is at best an estimate unsupported by sound demographic data. The actual population may be as low as 15 million, or greater than 19 million.

The Manpower Pool of SVN

An age-sex distribution of the population is needed to estimate the size of the manpower pool. Since sound demographic data is unavailable, we will use a series of Princeton-West distributions to estimate the SVN age-sex

distribution. A Princeton-West distribution describes the age-sex characteristics of the population of Western Europe but has shown to be a good representation of the populations of Asia, particularly Taiwan. These distributions are described by specifying two of the following three parameters: birth rate, death rate or population growth rate. The growth rate is the net of births over deaths. Table 1 summarizes the four sets of parameters used in this analysis.

TABLE 1

POPULATION PARAMETERS
(Rate per 1000 Population)

	Expected Life At Birth	Birth Rate	Death Rate	Growth Rate
Model 1	32.5 years	50	30	20
Model 2	37.3 years	45	25	20
Model 3	42.1 years	45	20	25
Model 4	42.1 years	50	20	30

These parameters have been selected after reviewing the available demographic data for South Vietnam. A Simulmatics study[a] has estimated that birth rates in South Vietnam range between 44 and 52 per 1000. This is a high birth rate compared to Western experience (the US birth rate is presently about 19 per 1000), but not uncommon in Asia. Death statistics are probably the worst of the vital data on SVN. Studies of the official registry data show recorded death rates at approximately 15 per 1000. However, experts feel that this is an understatement of the death rate. More realistic estimates are between 20 and 25 per 1000, with 30 per 1000 at the upper end of the range. The growth rate is estimated to be between 2.0% and 3.5% or 20 to 35 per 1000. The 3.5% rate, however, is considered high in light of the very low implied death rate. (If the birth rate is 50 per 1000, then the death rate would have to be 15 per 1000. This low death rate cannot be supported by any studies of which we are aware.) We will consider the effects of war casualties in a later section.

The four sets of parameters that we have chosen should bracket the age-sex distribution for South Vietnam. The resultant age-sex distributions for a 17,000,000 population are given in Table 2. Because we are interested in annual draft classes and draftable manpower pools, our table has collapsed the

a/ A Population Survey in Vietnam, SIM/CAM/10/67, 31 March 1967.

TABLE 2

PRINCETON-WEST-MODEL AGE/SEX
POPULATION DISTRIBUTIONS OF SVN

(Assumes Approximately 17,000,000 Total Population)

	MODEL 1 Birth Rate=50/1000 per year Death Rate=30/1000 per year Growth Rate=20/1000 per year			MODEL 2 Birth Rate=45/1000 per year Death Rate=25/1000 per year Growth Rate=20/1000 per year		
Age	Males	Females		Males	Females	
0-1	358.2	351.1		330.2	322.2	
1-4	1,110.9	1,102.5		1,065.4	1,052.3	
5-9	1,176.1	1,156.9		1,146.1	1,130.5	
10-14	1,028.8	1,015.8		1,007.7	992.0	
15-19	900.1	884.5		887.1	870.4	
20-24	776.4	762.5		770.8	756.5	
25-34	1,221.0	1,202.8		1,231.8	1,211.3	
35-59	1,593.5	1,641.4		1,685.5	1,897.2	
60 or over	302.3	376.6		363.5	267.8	
Total	8,467.3	8,494.1	16,961.4	8,488.1	8,500.2	16,988.3

	MODEL 3 Birth Rate=45/1000 per year Death Rate=20/1000 per year Growth Rate=25/1000 per year			MODEL 4 Birth Rate=50/1000 per year Death Rate=20/1000 per year Growth Rate=30/1000 per year		
Age	Males	Females		Males	Females	
0-1	344.2	336.6		383.1	374.0	
1-4	1,135.8	1,118.6		1,247.4	1,230.0	
5-9	1,209.1	1,190.9		1,298.6	1,280.1	
10-14	1,042.9	1,025.1		1,092.1	1,075.3	
15-19	898.9	882.3		918.9	901.9	
20-24	767.7	754.0		765.3	751.4	
25-34	1,199.7	1,179.8		1,151.8	1,134.8	
35-59	1,722.0	1,766.3		1,406.1	1,431.4	
60 or over	199.4	248.2		269.6	321.3	
	8,519.7	8,501.8	17,021.5	8,532.9	8,500.2	17,033.1

older age group. Table 2 also shows our estimates of the number of males reaching the historical GVN draft age of 20, the current GVN draft age of 18, and the estimated VC draft age of 15.

The sizes of the manpower pools are not very sensitive to our assumptions about birth, death and population growth rates. Table 3 summarizes the age 15 to 34 manpower pool and draft classes of each of the models. The overall manpower pools are within 2% of each other, and the draft classes within 3%. Only in the age group 30-34 does the range of estimates exceed 5% of the Model 3 estimate. Because of the significantly greater variation present in the overall population of SVN, and in the assumptions to follow, we choose Model 3 to discuss because it describes the "best guess" set of parameters.

TABLE 3

SVN MALE MANPOWER POOL & DRAFT CLASSES
(Assumes 17,000,000 Population)

	Age 15-19	Age 20-24	Age 25-29	Age 30-34	Total
Manpower Pool					
Model 1	900,100	776,400	661,300	559,700	2,897,500
Model 2	887,100	770,100	663,900	567,900	2,889,000
Model 3	898,900	767,700	651,000	548,700	2,866,300
Model 4	918,900	765,300	632,200	519,600	2,836,000

	Age 15	Age 18	Age 20
Draft Classes			
Model 1	192,900	180,400	167,700
Model 2	189,500	177,700	165,800
Model 3	194,200	180,600	166,700
Model 4	201,100	185,100	168,400

Table 4 shows the sensitivity of the estimated principal manpower pool to the estimated population of SVN. A difference of a million in total population, changes the manpower pool by 168,600 (7%) with a change in the draft class of about 10,000. We assume a population of 17 million to conclude that the manpower pool contains about 2,866,000 men in the 15-34 age group.

TABLE 4

MALES REACHING DRAFT AGE

	Total Population		
	16,000,000	17,000,000	18,000,000
Manpower Pool (Age 15-34)	2,697,700	2,866,300	3,034,900
Draft Class			
Age 15	182,800	194,200	205,600
Age 18	170,000	180,600	191,200
Age 20	156,900	166,700	176,500

Physically Fit Manpower

Not all of the males in any draft class, or in the manpower pool, are physically and mentally qualified for military service. Firm data on current (or historical) acceptance experience in SVN are unavailable. The GVN have reported that about 30% of the 18, 19 and 20 year olds are physically unqualified for the draft. Table 5 presents the "physically fit" draftable male population under various physical and mental criteria. If 60% of the manpower pool is fit, then this pool numbers about 1,719,600, and the 20 year old draft class is 100,000 strong. The population available to the draft is very sensitive to these fitness criteria. Each additional 5% of the pool which is acceptable, (or unacceptable), represents 143,300 men in the pool and some 10,000 in a draft class.

TABLE 5

PHYSICALLY FIT MALES IN SVN

	70%	65%	60%	55%	50%
Manpower Pool (Age 15-34)	2,006,200	1,862,900	1,719,600	1,576,300	1,433,000
Draft Class					
Age 15	135,900	126,200	116,500	106,800	97,100
Age 18	126,400	117,400	108,400	99,300	90,300
Age 20	116,700	108.400	100,000	91,700	83,400

GVN Controlled Manpower

Table 6 shows the size of the physically fit manpower pool under differing assumptions of GVN control. If 60% of the population is under GVN control, (and we assume that the manpower pool is controlled in the same proportions as the total population), then a physically fit manpower pool of 1,031,800 persons is available to the GVN. A difference of 5% in controlled population represents approximately 86,000 men in the GVN manpower pool and 5,000 men in the 20 year old draft class. This is about the same as the number of men added to the total GVN pool with a 5% lowering of the physical and mental acceptance criterion. (A five percent lowering of the acceptance criterion adds 143,300 men to the pool. At 60% GVN control this is an addition of 86,000 to the GVN manpower pool.)

TABLE 6

PHYSICALLY FIT GVN MANPOWER POOL AND DRAFT CLASS[a]
(Assuming 17,000,000 population)

	75%	70%	65%	60%	55%	50%
Manpower Pool						
Age 15-19	404,500	377,500	350,500	323,600	296,600	269,700
Age 20-24	345,500	322,400	299,300	276,400	253,300	230,300
Age 25-29	293,000	273,400	253,900	234,400	214,800	195,300
Age 30-34	246,900	230,500	214,000	197,500	181,100	164,600
Total	1,289,900	1,203,800	1,117,700	1,031,900	945,800	859,900
Draft Class						
Age 15	87,400	81,600	75,700	69,900	64,100	58,300
Age 18	81,300	75,900	70,400	65,000	59,600	54,200
Age 20	75,000	70,000	65,000	60,000	55,000	50,000

a/ Assume that 60% of the males are physically fit for military service.

Some Caveats

We will not consider the effects of the duration of service on the manpower pool; we assume that all fit persons in the pool (including veterans) are eligible for the draft. The effects on the economy are neglected (i.e., the economy is left to the physically or mentally unfit for military service, and those who can afford to buy their way out or avoid the draft. These two groups appear substantial: we cannot assess their capability.)

Before making our estimates of the physically fit manpower available to the GVN and VC respectively, we must re-emphasize that the sensitivity of our estimates to the assumptions we make, particularly about population size and physical and mental fitness. A slight variation in the selected parameters can change an apparent manpower shortage into a manpower surplus. The primary value of this analysis is that it allows the comparison of differing assumptions and highlights their sensitivity.

GVN Expansion Capability

Table 7 shows net GVN personnel accessions. Net personnel accessions are reported volunteers and conscripts less 50% of the reported RVNAF desertions (who are assumed to return to the GVN forces). During 1967 151,000 men were added to the GVN military and paramilitary forces. In 1967 the population of SVN was estimated at a little less than 17 million yielding an estimated 20 year old draft class of about 60,000 (at 60% GVN control). This means that some 91,000 men had to come from the manpower pool. During 1966 an even more substantial part of the GVN force increase had to be supported from the manpower pool.

TABLE 7

NET GVN PERSONNEL ACCESSIONS

	VOLUNTEERS a/			CONSCRIPTS c/	
	RVNAF	OTHER b/	TOTAL		TOTAL
1966	100,889	24,405	125,294	46,092	171,386
1967	74,870	27,856	102,726	48,545	151,271

a/ Volunteers minus 50% of deserters for same period. This assumes that 50% of the deserters reenter the system.
b/ Includes CIDG and National Police.
c/ To date conscripts are utilized only by ARVN.

There are presently about 900,000 men in the GVN military (including RD and CIDG, but excluding a portion of the National Police attributable to normal police functions). This represents about 90% of the estimated available manpower at 60% GVN control. Under the above assumption - a manpower pool of ages 15-34, 17,000,000 total SVN population, 60% physically fit, and 60% GVN control - there are 100,000 physically fit males available to the GVN draft.

This pool is somewhat reduced, however, by deaths from military action. The ravages of war do not have a particularly great impact on the total population figures at the present time. Through April there have been 10,600[a] civilian deaths, or 0.062% of a 17 million population, but deaths from military action have a more significant impact on the manpower pool. Since 1960, the GVN has suffered about 68,000 deaths from hostile action. This represents about 2.4% of the age 15-34 manpower pool.

If the above assumptions are correct, the GVN manpower pool is almost exhausted (i.e., 900,000 are presently in service, plus 68,000 war deaths, would leave only 60,000 in the pool). But Table 8 shows that by lowering the draft fitness standards by 5 percent, and adding the 35-44 age group to the pool, an additional 337,300 men become available for military service. The additional manpower would provide the GVN enough men to expand their forces and support a 801,000 RVNAF force structure.

TABLE 8

ADDITIONS TO THE GVN MANPOWER POOL [a]

5% lowering of physical standards for ages 15-34	86,000
Addition of men aged 35-44 to pool [b]	251,000
Total addition to manpower pool	337,300

[a] Assumes 60% GVN control.
[b] We assume that only 50% of these men are physically fit for the draft.

VC Controlled Manpower

Table 9 shows the VC manpower pool under the following assumptions: 17,000,000 total population, manpower pool aged 15-34, and 60% physically fit. If we assume 30% VC control, their manpower pool is about 515,900. (A 10% error in the estimate of VC controlled population represents 172,000 men in the manpower pool.) At 30% VC control the enemy draft class numbers 35,000 or about 3,000 per month. If the VC were able to maintain their force at the same proportion of the manpower pool as the GVN, that is, 90%, their armed strength would number about 464,300. As of 31 May 1968, MACV estimates a VC force of some 123,600 (including main and local force regulars, guerrilla and administrative service types) or about 27% of the 90% mobilization at 30% VC control.

[a] Source: OSD SEA Statistical Summary; excluding February 1968 for which data are unavailable.

TABLE 9

PHYSICALLY FIT VC MANPOWER POOL AND DRAFT CLASS[a]
(Assuming 17,000,000 population)

	25%	30%	35%	40%	45%
Manpower Pool					
Age 15-19	134,800	161,800	188,800	215,700	242,700
Age 20-24	115,200	138,200	161,200	184,200	207,300
Age 25-29	97,700	117,200	136,700	156,200	175,800
Age 30-34	82,300	98,800	115,200	131,700	148,100
Total	430,000	516,000	601,900	687,800	773,900
Draft Class					
Age 15	29,100	35,000	40,800	46,600	52,400
Age 18	27,100	32,500	37,900	43,300	48,800
Age 20	25,000	30,000	35,000	40,000	45,000

a/ Assumes that 60% of the males are physically fit for military service.

The manpower pool is affected significantly by casualties suffered since 1960. Cumulative VC/NVA deaths number about 330,000 through March 1968 of which approximately 130,000 can be assessed against the NVA. The large losses significantly reduce the estimated VC manpower pool. Above we saw that the current force left an "untapped" pool of about 340,000 physically fit men. If we reduce this by 200,000 VC losses we are left with 140,000 men. If VC losses continue at their first quarter 1968 rate of 3200 per week, an additional 124,800 losses will be incurred during 1968, and the manpower pool almost depleted.

Prisoners, returnees and captured documents report the use of women by the VC in their guerrilla and administrative service units. This "manpower" source is significant. The foregoing analysis indicates that the VC are probably in a little worse shape than the GVN, given our assumptions. At 30% control, lowering of physical standards by 5% would yield 43,000 men; inclusion of the 35-44 age group would add another 125,000. VC use of women has not been quantified, but could significantly ease their manpower shortage, particularly over the next year as losses continue to mount.

Validity of Posture Judgments

We have estimated that the GVN can sustain an RVNAF force of 801,000 (or possibly higher) and that the VC can continue to suffer losses at the 1968 rate at least through the rest of 1968. How valid are these judgments? Our estimate of the overall SVN manpower pool is probably within 10% of the true pool; the overall estimate of 60% physically fit manpower probably is within about 5%. Thus, the estimate of physically fit manpower is probably good within 20%. Moreover, it is more likely that we have underestimated the size of the manpower pool and draft classes than overestimated it, and this tends to make our estimate conservative.

JOINT STAFF COMMENTS ON JUNE ARTICLES

"1. The June 1968 SEA Analysis Report has been reviewed by the Joint Staff. In accordance with the request for suggestions to improve future reports, page i, the following comments are provided.

"2. The articles in the report appear to represent three general types: those presenting data and information; those reporting on analysis with findings, conclusions, and sometimes recommendations; and those which commingle presentation of data and conclusions without the associated analyses. Examples from the June 1968 report are:

"a. Present data and information - 'The War in Vietnam - Post TET,' page 21; 'Aircraft Sorties and Losses,' page 58; and 'Wage and Real Income Changes in SVN,' page 65.

"b. Report on analysis - 'Enemy Initiated Activity Against RF/PF,' page 1; 'A Comparison of Allied and VC/NVA Offensive Manpower in SVN,' page 26; and 'GVN and VC Manpower Pools,' page 33.

"c. Commingle data and conclusions without analyses - 'VC/NVA Medical Material and Supplies,' page 10; 'Interdiction of Enemy Truck Traffic,' page 63.

"3. Articles presenting data and information can be very useful as a source of data for analyses by agencies which do not ordinarily have access to or the personnel to accumulate such data. This type of article should be continued as appropriate.

"4. Articles reporting the results of analyses can provide useful exchange of information, ideas, and methodology related to analysis of the war in Southeast Asia provided the following are included:

"a. Statement of the purpose, hypothesis, or proposition being addressed.

"b. Statement of the assumptions made or required.

"c. Definition of terms and measures.

"d. Data, rationale, and methodology used.

"c. Identified findings, conclusions, and recommendations.

'These are required in order to establish a basis for any substantive exchange of ideas or comment on a specific article. The article, 'GVN and VC Manpower Pools,' page 33, is an outstanding example with an additional feature in the sensitivity analysis to show the effects of changes in 'estimated' values. Specific comments on another article, 'A Comparison of Allied and VC/NVA Offensive Manpower in SVN,' are set forth below. This type of of article, if technically accurate and ably written, is the most valuable to decision-makers and analysts and should constitute the majority of the monthly report, however this particular article does not attain this standard.

"5. Articles which commingle data and conclusions without the associated analyses have no place in a report which has the purpose as that stated for the 'Southeast Asia Analysis Report.' Such articles assess the war by innuendo. They also disguise opinion as fact. Specific comment on two such articles are set forth below. These are: 'VC/NVA Medical Material and Supplies,' and 'Interdiction of Enemy Truck Traffic.'

Specific Joint Staff Comments on June Articles

"1. Article - 'A Comparison of Allied and VC/NVA Offensive Manpower in SVN," page 26.'

Comments

'The purpose of the article is stated, 'This paper questions these assumptions,' i.e. '(a) that US/Free World Forces ground forces are clearly superior to VC/NVA forces, and (b) that the margin of superiority is great enough so that we can win a war of attrition and shift some of the military burden now borne by the U. S. to the RVNAF.'

"a. There is, by inference, a conclusion regarding the first assumption. That is, the assumption is false. This inference is based on the statements: 'Despite a 5.6 to 1 advantage in total military manpower in December 1967, the friendly forces were roughly at parity with enemy forces in rifle-carrying infantrymen on offensive operations.', page 26, and 'This analysis points up clearly that we do not now have a simple manpower advantage which would enable us to achieve a decisive military advantage, page 31.

"b. The measure used to determine superiority of force appears to be 'rifle carrying infantrymen on offensive operations.' The number of infantrymen, per se, does not indicate the offensive power of ARVN, U.S., and Free World forces. It totally neglects firepower, combat support, and mobility (all of which are acknowledged in passing as US/FWF advantages). Furthermore, the technique used to quantify 'infantrymen on offensive operations' pits only the ARVN, U.S., and FW forces in designated offensive functions against all VC/NVA main force maneuver units.' This results in an inflated strength ratio in favor of the VC/NVA. The implicit assumption required to support this reasoning is that VC/NVA forces are engaged against only those ARVN, U. S., and FW forces on specifically designated offensive operations. This ignores the reality of combat in South Vietnam. In fact, the article, 'Enemy Initiated Activity Against RF/PF,' page 1, indicates that there were 5,210 enemy initiated incidents against RF/PF forces during 1967.

"c. If 'analysis of force dispositions by function' were applied to VC/NVA units, the 'availability' of VC/NVA manpower for offensive operations would be decreased by approximately 93 percent. Empirical evidence indicates that VC/NVA battalions engage in offensive operations about one day in 15. Thus, using the data for platoon strengths on page 28, the VC/NVA available manpower is (1/15)(63.0) = 4.2. The FWF strength would similarly be reduced because they were achieving a utilization rate of 7.5 battalion days of operation per battalion during December 1967. The FWF availability would be (7.5/31)(9.9) = 2.4. There would be no reduction in U. S. availability because they were employed at a rate of 31 battalion days of operation per battalion in December 1967. The resulting comparison is:

December 1967

	Men in Platoons		Men in Platoons
US	34.3	NVA	1.8
FWF	2.4	VC	2.4
Total	36.7		4.2

'The ratio of US/FWF to VC/NVA is 8.7 to 1. Applying the same method to both friendly and enemy forces to determine the number of forces 'available to engage in offensive operations' would give face validity to such comparisons. However, these comparisons would still be virtually pointless because they fail to

consider many other factors of offensive power.

"d. The exclusion of the ARVN to provide comparisons between the VC/NVA and US/FWF presents an interesting comparison even though such comparison is meaningless in terms of analysis of the countrywide war. In essence, this eliminates the IV Corps Tactical Zone from consideration during the period covered in the analysis because US forces were there in limited numbers (18,232). Neither does it account for the fact that order of battle statistics indicate that 35,900 or 17.9 percent of the VC/NVA force was in the IV CTZ opposing, almost exclusively, ARVN forces.

"e. Based on the force ratios:

Total Military Manpower (pg 26)	5.6 to 1
Main Force Maneuver Units (pg 27)	
Battalions	1.7 to 1
Men in Battalions	2.0 to 1
Men in Platoons "available to engage in offensive operations" (recomputed above)	8.7 to 1

It is asserted that US/Free World Forces ground forces are clearly superior to VC/NVA forces. "Superior" meaning greater in quantity or number since quality has in no way been addressed. Manpower committed to offensive operations has not been considered for two reasons. First, the number of VC/NVA "committed" cannot be determined with accuracy and gross estimates would render the resulting force ratio nearly meaningless (despite the fact that estimates as high as 90 percent of the total VC/NVA force would give a ratio favorable to allied forces rather than the narrow superiority for the VC/NVA indicated in the article.) Second, the number of forces committed to offensive operations can be varied for both sides merely by accounting procedures. As noted on page 29, offensive forces are stationed in defensive positions around South Vietnam's cities and, similarly, defensive units participate in or support offensive actions.

"f. The second assumption - relating to war of attrition and shift of some of the military burden to the RVNAF - is not addressed in the article. An oblique conclusion about shifting

some of the burden to the RVNAF may have been intended by statements in the main conclusions on page 26. These are: 'Because the U. S. contributed most of the friendly offensive battalion and platoon manpower, a decrease in its forces would enable the enemy to gain an advantage in offensive manpower. Without any U. S. forces, the GVN/FWF combat forces on offensive operations might have been outnumbered by 2 to 1 by VC/NVA forces in battalion manpower.' and 'Since the Tet offensive, additional troop deployments and the reallocation of deployed forces have probably increased the Allies' relative offensive strength. However, projected increases in ARVN combat strength will not significantly add to this advantage.' There is no basis in fact for these statements, without extensive qualification, irrespective of the purpose for which they were made. Conjecture about offensive manpower ratios resulting from a change in one of five related variables without regard to the remaining four has no place in questioning assumptions. A forthright way to address a question is: state the hypothesis related to the question, select an appropriate statistical test, select a confidence level, calculate the critical value of the test statistic and the value of the selected statistic from empirical data, and then accept or reject the hypothesis. The report of the analysis and resulting conclusions need not be written in so simple a manner, but the report should at least reflect that a technically adequate analysis has been completed.

"g. Irrespective of the stated purpose of the article, one apparent purpose is to refute any future requirement for additional U. S. troops. This point is made on page 31 based on the fact that ' ...the ratio of friendly to enemy maneuver battalions had remained relatively constant since mid-1965.' Using this relatively constant ratio as basis for a conclusion that adding more U. S. troops is not the answer to achieving a 'decisive military advantage' (this term is not defined) is not logically consistent with the earlier developed premise that the key factors are men in maneuver battalions, and, more important, offensive rifle platoon manpower. Neither is it consistent with the change in platoon manpower before and after Tet as noted on page 29. 'Following the Tet offensive, the U. S. was able to both add 12 battalions to its force levels, reallocate 4 battalions to offensive activities from its reserves and pacification programs ... and increase the combat strength through the addition of a 4th rifle company to its standard battalion (ARCOV Program). Likewise, ARVN, without increasing its force size, has been able to shift 21 battalions to offensive operations.' This was accompanied by a total military force increase of 43,200 U. S., 95,500 RVNAF, and 600 3rd Nation which resulted in the following changes:

	Before Tet	After Tet	Percent Change
Allied Battalion Manpower Advantage 1/	1.3 to 1	1.6 to 1	+23
Allied Platoon Manpower Advantage 1/2/	.7 to 1	1.3 to 1	+86
US Maneuver Battalions Combat Operations 1/	81	97	+20
GVN/FWF Maneuver Battalions (Combat Operations) 1/	75	96	+28
Military Forces (Thousands) 3/			
US	494.3	537.5	+ 9
RVNAF	494.3	537.5	+ 9
3rd Nation	636.9	743.4	+15
Total	60.6	61.2	+ 1
	1201.8	1342.1	+12

1/ Source: Southeast Asia Analysis Report, June 1968, pg 29.
2/ Enemy advantage of 1.4 to 1 converted to allied advantage of .7 to 1.
3/ Source: Southeast Asia Statistical Summary, OASD(C), Table 2, 1 August 1968. Before Tet - January 1968, After Tet - May 1968.

From these figures it is noted that a 7 percent increase in allied military personnel, achieved by increasing only U. S. personnel and other forces held constant, would result in a twofold increase in the percent change in allied advantage in both battalion and platoon manpower. Assuming that the U. S. increase would be met by a VC/NVA increase to maintain the 1.7 ratio of allied to VC/NVA battalions, there would be approximately a 5 percent increase in the ratio of both battalion and platoon manpower. Neither these force ratio changes nor any facts presented in the article are sufficient basis for decisions regarding increase or decrease of U. S. forces.

"2. Article - 'VC/NVA Medical Materiel and Supplies,' page 10.

Comments

"a. There is no data or analysis in the article to support the statements 'The captured materiel probably did not affect significantly his medical needs.' and 'It is unlikely that the loss of these caches is the cause of reported enemy shortages of medical supplies.'

"b. Inclusion of such unfounded statements, apparently the opinion of the author, detracts from the overall value of the article and the 'Analysis Report' by raising the question, 'What is the purpose of the article - and the Report?'

"3. Article - 'Interdiction of Enemy Truck Traffic,' page 63.

Comments

"a. The major conclusion of the article is that 'US airstrikes destroy less than 3% of the total truck traffic in North Vietnam and Laos ... Thus, only about 3% of the total truck movement is destroyed by the US interdiction campaign. Apparently 'destruction of truck movement' is the measure used to evaluate the US interdiction campaign. This does not address the military objective of the air campaign which is to make it as difficult and costly as possible for North Vietnam to continue effective support of the Viet Cong and to cause North Vietnam to cease direction of the Viet Cong insurgency. Interdiction of enemy truck traffic is just one part of the air campaign.

"b. There is inconsistency in the logic used to arrive at the percent of truck movements destroyed. The analysis is based on a CIA estimate that we sight only 25 percent of the actual truck traffic while noting that an increase in truck sightings probably results from seeing a higher percentage of the traffic due to more sorties, more overt enemy movement, and use of night observation devices. This leads to the obvious questions as to when the CIA estimate was made, what is the current estimate of percent traffic sighted, and whether the change in observation rate was taken into account to arrive at the conclusion stated.

"c. The impact of truck attrition on the North Vietnamese truck inventory is discounted by stating that the Communist Bloc truck production is so large that it is unlikely the North Vietnamese logistic effort will be constrained by a shortage of trucks and while the number of trucks may have decreased, the decline has been offset by the importation of bigger and better vehicles. If such statements are intended to support a contention that the interdiction of truck traffic has no effect on the North Vietnamese logistic effort, they show a blatant

disregard of factors essential to the analysis of a logistic system. Essential factors include: quantity of goods delivered, transportation time, resources required to maintain equipment and roads, transhipment and other support required, utilization of vehicles, etc.

"d. The data presented in the report indicates that 10,466 trucks have been destroyed from January 1967 through May 1968. This represents about a 100 percent turnover during that period and a substantial reduction in truck inventory. Despite the fact that some modernization has occurred, there is no data presented to indicate the capacity of the logistic system and whether the capacity has remained constant, decreased, or increased."

August 68

NORTH AND SOUTH VIETNAMESE MANPOWER

About 81% of the GVN's physically fit manpower are already members of the military and para-military forces. Only 27% of the NVN and 28% of the VC physically fit males aged 15-34 are estimated to be in the armed forces. If loss rates in the war continue at first half 1968 rates, available NVN manpower would be exhausted in about 29 years, VC manpower in 3½ and GVN in 6.

In the May 1968 SEA Analysis Report, p. 1, we indicated that manpower reserves in North Vietnam appear sufficient to meet current requirements and could support a higher level of mobilization without significant shortages. In the June 1968 SEA Analysis Report, p. 33, we showed that both the GVN and the VC have dug deeply into their manpower pools but that (1) the GVN have the manpower needed to expand the RVNAF to 801,000 and sustain that level, and (2) the VC can continue to maintain current force levels at least through 1968 in the face of losses at current rates. In this article we compare the relative strains on the VC, GVN and NVN manpower due to the war, and estimate how long each of the participants can continue to suffer losses at various rates.

TABLE 1

Draftable Manpower in North and South Vietnam

	North Vietnam	South Vietnam		
		VC a/	GVN a/	Total
Total Population	18,700,000	5,900,000	11,100,000	17,000,000
Males aged 15-34 b/	2,886,000	830,000	1,817,000	2,647,000
Physically Fit b/	1,792,000	479,000	1,165,000	1,644,000
Males reaching 18 years	192,000	63,000	118,000	181,000
Physically Fit	125,000	41,000	77,000	118,000
Armed Forces Strength	475,000	134,000	942,000	1,076,000
% of Physically Fit 15-34	26.5%	27.9%	80.8%	65.4%

a/ Assumes 65% GVN control.

b/ Adjusted for estimated war deaths since January 1965: Losses of 241,500, 172,900 and 46,000 have been subtracted from the estimated 15-34 and physically fit manpower pools shown for the NVN, VC and GVN respectively. For example, the GVN draft age population in the June article shows 1,863,000 males 15-34 of which 1,211,000 (65%) are fit. The GVN have suffered 46,000 combat deaths since 1965. Subtracting these from both figures yields 1,817,000 draft age males, of which 1,165,000 are fit.

Manpower Resources

Table 1 compares the manpower resources of North Vietnam, the GVN and the VC. Of the approximately 17,000,000 persons in South Vietnam we assume that about 11,100,000 or 65% are under the control of the GVN for recruiting purposes; the remaining 5,900,000 belong to the Viet Cong. There are about 18,700,000 persons in North Vietnam, 10% more people than in South Vietnam. There are indications that both of these total population estimates may be too low. If so, we exaggerate the manpower shortage.

After accounting for war losses and dividing the SVN population into GVN and VC, we arrive at 1,817,000 draft age males for the GVN and 830,000 for the VC. North Vietnam has 2,886,000 draft age males. GVN experience indicates that about 70% of the draftable males are physically and mentally fit for the draft. In our June study we assumed that 60% were physically fit. We are less conservative now and assume that across the entire 15 to 34 age group, 65% are physically and mentally qualified for the draft. Under these assumptions and after subtracting all combat losses from the physically fit portions, the North Vietnamese end up with 1,792,000 physically fit males aged 15 to 34; the VC 437,000 and the GVN 1,165,000.

In June 1968 there were 475,000 men in the North Vietnamese Armed Forces, or 27% of the fit males. There are 942,000 South Vietnamese in the GVN military and para-military forces, accounting for 81% of GVN males; the VC have 134,000 for 28%. The data suggest that the GVN have dipped much deeper into their manpower resources than either the VC or the NVN.

Table 2 shows the manpower losses and strength changes in the three force structures. Intelligence indicates that the NVN has increased their armed forces by 248,400 men from 226,600 to 475,000. In the same period the GVN have increased from 611,700 to 942,000 or 330,300; the VC decreased from 168,300 to 137,400 or 30,900. Each force has suffered significant losses. From January 1965 through June 1968 the GVN have suffered 46,000 killed and died from wounds, the VC 172,900 and the NVN 241,500. The GVN have a significant turnover due to desertion. Reported GVN net desertions were 88,300 in 1967 and 46,700 during the first half of 1968. VC desertions, measured by military Chieu Hoi, amount to 42,400 or about 12,100 per year. NVA desertion rates are very low, again as measured by military Chieu Hoi, equaling about 300 for the 3½ years. In the calculations which follow, we neglect NVA desertions.

TABLE 2

MANPOWER REQUIREMENTS

	1965	1966	1967	1st Half 68	Total 65-1st Half 68
OB Changes					
GVN	[illegible]	[illegible]	+54.2	+151.9	+330.3
VC	+2[illegible].3	[illegible]7.7	-62.9	-2[illegible].0	-30.9
NVN					+218.4
Losses a/					
GVN	11.2	12.0	12.7	10.1	46.0
VC	22.5	33.[illegible]	51.7	65.3	172.9
NVN b/	28.8	51.2	76.7	84.8	241.5
Losses-Including Desertions					
GVN	127.0 c/	136.1 c/	100.0	56.8	419.9
VC	30.4	46.3	69.3	69.3	215.3
NVN	28.8	51.2	76.7	84.3	241.8

a/ Includes [illegible] and DOW. DOW for VC and NVN are estimated by adding 35% of KIA.

b/ NVA losses in SVN and during infiltration. Estimates NVA infiltration losses at 10% of those entering SVN. Apportionment of KIA and DOW between VC and NVA is described in "VC Recruitment and Infiltration," SEA Analysis Report, June 1967.

c/ Not corrected for deserters returning to their unit, about 5% of total in 1967.

Exhaustion Estimates

Table 3 summarizes our estimates of how long the NVN, GVN and VC can continue fighting under various loss rate assumptions. If the war continues at the 1967-68 pace, the NVN will lose about 123,500 men per year, the VC 103,900 and the GVN 106,800 to combat deaths and desertion. Comparing these loss rates to the annual draft classes we find that the NVN draft class exceeds these losses by 1,500 so that at 1967-68 casualty rates, the North Vietnamese can continue the war indefinitely. This is not the case for the VC or the GVN. The VC will have to dip into their manpower pool for 62,900 per year. At this rate the available manpower pool of 345,100 would be exhausted in 5 to 6 years. The GVN require about 29,800 more than their draft class and at this rate they will exhaust their manpower pool in about 7 to 8 years.

If losses continue at first half 1968 rates, available NVN manpower would be exhausted in about 30 years, VC manpower in 3½ and GVN in 6. Together the VC and NVA can last 11.7 years. If we expand the manpower pool to include those aged 35 to 39, the NVN could last an additional 6.9 years at 1968 loss rates, the VC another year and the GVN another five.

TABLE 3

MANPOWER CONSUMPTION RATE
(Thousands)

	NVN	VC	GVN
Non-Military Manpower Pool (15-34)	1,316.5	345.1	223
Annual Draft Class	125	41	77
At 1967-68 Loss Rates			
Annual Manpower Consumption[a]	123.5	103.9	106.8
Manpower Pool Consumption Per Year	- 1.5	62.9	29.8
Years of Manpower[b]		5.5	7.5
At 1968 Loss Rates			
Annual Manpower Consumption	169.8	138.6	113.6
Manpower Pool Consumption Per Year	44.8	97.6	36.6
Years of Manpower	29.4	3.5	6.1
Adding Fit Males (35-39)			
Additional Years at 1967-68 Rates	--	1.7	6.6
Additional Years at 1968 Rates	6.9	1.1	5.3

a/ From Table 2, losses including desertions. No allowance is made for a change in OB strength.
b/ The NVN are adding men to their pool at 1967-68 loss rates.

A COMPARISON OF ALLIED AND VC/NVA OFFENSIVE MANPOWER IN SOUTH VIETNAM

Our Vietnam planning assumes that the Allied forces are superior to VC/NVA forces because the Allied forces "in toto" have more combat manpower, firepower, mobility, and support. This paper examines one facet of this assumption -- our combat manpower relative to the enemy's -- and attempts to measure it and point out how recent decisions have changed it. 1/

The main conclusions of this analysis are:

1. Despite a 7.0 to 1 advantage in total military manpower in August 1968 and a total military force of 1,600,000 men, friendly forces had only 88,000 rifle-carrying infantrymen on offensive operations. At this time, the enemy regular forces had about 70,000 infantrymen on offensive operations, only 20% less.

2. The present relative offensive strength situation is better than before the Tet offensive because of additions to friendly forces and reallocation of existing forces to offensive missions. However, the enemy has maintained the capability to match this strength man-for-man, and at current rates of attrition, will retain that capability in the future. Moreover, continued threats to the populated areas erode the Allies' offensive infantry strength.

Such comparisons do not tell the whole story. The Allies enjoy overwhelming superiority in firepower, logistics support, and mechanized mobility. However, there is considerable evidence 2/ that the enemy has held the tactical initiative throughout the conflict and can, therefore, choose to fight in a way that negates many of the Allied advantages. One such way is for the enemy to mass manpower to exploit tactical situations relatively favorable to him while tying down large Allied forces through the use of small forces to attack and harass our bases, lines of communications, and cities. In this way the enemy reduces the Allied forces to gain a favorable force ratio on some Allied operations. Such a strategy, combined with the use of night operations and random attacks by fire, can go a long way toward negating Allied resource advantages. The cost in enemy lives is high, but the Allies are not able to turn their decisive overall resource superiority into a decisive military advantage.

1/ The paper was written in response to constructive Joint Staff criticisms (SEA Analysis Report, August 1968) of an earlier paper of the same title published in the June 1968 SEA Analysis Report.

2/ See article on "Military Initiative," p. 6, September 1968 SEA Analysis Report. Also see "The Strategy of Attrition," p. 66, Special Supplement of 1967 Articles, and "VC/NVA Attacks in III CTZ," p. 3, February 1968 Report.

Situation in August 1968

Allied military supriority is evidenced by our greater total military manpower and total combat battalions. Table 1 shows that the Allies have at least seven times as many men in military forces (1.6 million men) as the enemy is estimated to have had (228,100 men) in July 1968.

TABLE 1

TOTAL ALLIED AND VC/NVA MILITARY MANPOWER
In Thousands

US/GVN (Aug 68)		VC/NVA (Jul 68)	
RVNAF	811.5	NVA	83.8
CIDG/MP	178.0	VC	50.7
US	538.3	Guerrillas	61.1
3rd Nation	65.5	Admin Svc	33.5
Total	1,593.3	Total	228.1

Source: US/GVN - OSD SEA Statistical Summary, Table 2, 9 Oct 68;
VC/NVA - OSD SEA Statistical Summary, Table 105, 3 Sep 68.

Of this total manpower, the cutting edge of fighting forces are the men in Allied and enemy maneuver battalions. As shown below (Table 2), the Allied forces have a 2.0 to 1 manpower superiority in maneuver battalions. For each side, these forces represent the principal resources available for offensive operations and their size imposes a limit to offensive activities. 1/

However, within this overall resource limit, the commitment of forces to non-offensive missions further reduces offensive capabilities. For instance, the US and GVN have large and continuing needs for combat forces in military base and LOC security missions and the pacification program. Based on an analysis of force dispositions by function, we estimate that in August 1968 these activities absorbed 18 of the 114 US combat battalions and 74 of the 188 ARVN/FWF battalions. As a result, 210 battalions, or about 70% of our total combat force, were available to engage the VC/NVA in offensive operations. Of course, these offensive forces can be increased by drawdowns of the forces committed to other missions. However, particularly

1/ This resource comparison would be misleading if a large portion of the Allied or enemy offensive forces were committed against forces -- GVN paramilitary or VC guerrillas -- not included in the force comparison. Evidence from 1967 indicates about 60-70% of Allied main force activity is probably directed against VC/NVA main force units and vice versa. For instance, during 1967, 67% of the enemy incidents against Allied forces were against US/FW/ARVN main forces and only 33% against the RF/PF forces.

in regard to ARVN forces in the security and pacification missions, the ability to reallocate forces to offensive operations is probably small until the RF/PF can be strengthened to take over those missions.

TABLE 2

ALLIED AND VC/NVA MANPOWER IN MAIN FORCE INFANTRY-TYPE UNITS [a/]
August 1968 - In Thousands

Allied	Bns	Men [b/]	Enemy	Bns	Men
GVN	161	88.6	NVA	120	66.6
U. S.	110	106.2	VC	84	46.2
3d Nation	28	28.0		—	—
Total	299	222.8	Total	204	112.8

Source: US/GVN - OSD SEA Statistical Summary, Table 2, 9 Oct 68;
VC/NVA - OSD SEA Statistical Summary, Table 105, 3 Sep 68.

a/ Included are airborne infantry, airmobile infantry, infantry, mechanized infantry, and non-organic armored cavalry units. Combat support and combat service support and tank units are not included.

b/ Strengths are estimated at 550 men/GVN bn; 1,200/USMC bn; 900/USA bn; 1,000/3rd Nation bn.

The enemy's strategic situation is quite different. Compared to the friendly forces, the enemy has had to allocate relatively few of his regular forces to non-offensive missions. The enemy holds no cities that he must defend. His base areas and lines of communication are not held and defended by large numbers of troops. Overall, it seems that the greater portion of his regular forces are largely free to engage Allied forces as he sees fit. Moreover, the enemy could certainly choose to use all of his regular forces for offensive operations regardless of his prior commitments.

Given its commitment of regular forces to defensive missions, Allied forces on offensive operations held only a 1.5 to 1.0 edge over those enemy forces that could potentially be committed against them. Furthermore, as shown in Table 3, as far as rifle carrying infantrymen were concerned, the enemy has only 20% fewer riflemen committed to the offense.

TABLE 3

ALLIED AND VC/NVA MAIN FORCE MANPOWER IN OFFENSIVE OPERATIONS
August 1968

	U.S./GVN				VC/NVA		
	Bns	Men in Bns	Men in Platoons		Bns	Men in Bns	Men in Platoons
GVN	87	47,800 a/	26,300 b/	NVA	120	66,600	40,000
U.S.	96	96,000 a/	51,300 b/	VC	84	46,200	30,000
3d Nation	27	27,000	10,300				
Total	210	170,800	88,400	Total	204	112,800	70,000

Source: "MACC Operational Summary," Aug 1-16, 1968; OB Summary MACV-J2, July 31, 1968.

a/ No breakout of USA and USMC battalions on offensive operations was available. Estimate of 1,000 men/USA or USMC battalion was used in place of weighted average.

b/ With the addition of a 4th rifle company (ARCOV Program), the USA/USMC battalion is estimated to have 54% of its manpower in rifle platoons.

Situation Since Tet

The present situation is far better than at Tet. Following the Tet offensive, the US was able to add 16 battalions to its force levels, reallocate two battalions to offensive activities from its pacification program (see Table 4 below) and increase the combat strength through the addition of a 4th rifle company to its standard battalion (ARCOV Program). ARVN, while increasing its force size by only 8 battalions, has been able to increase its forces for offensive operations by 39 battalions by reducing its battalions committed to the security mission.

These actions have given the Allies a stronger offensive force though many of these offensive battalions are stationed in defensive positions around South Vietnam's cities. However, including these forces, the Allied battalion manpower advantage was increased 1.3 to 1.0 during December and about 1.6 to 1.0 by August 1968. In platoon manpower, the Allied forces had gained a 1.2 advantage over the enemy -- an improvement over the virtual parity of forces prior to Tet.

TABLE 4

FORCE DISPOSITIONS BY FUNCTION a/
(Maneuver Battalions)

	Combat Operations	Security	Pacification	Reserves/ Training	Total
U.S.					
Jan 1-16	81	13	2	2	98
May 1-16	97	13	0	0	110
Aug 1-16	96	15	0	3	114
GVN/FWF					
Jan 1-16	75	39	47	19	180
May 1-16	96	38	37.5	7.5	179
Aug 1-16	114	19	40	15.0	188

a/ "MACC Operational Summary," JCS.

Future Allied Offensive Strength

At present force levels, future increases in US/GVN offensive strength will be difficult to achieve. First, the US/GVN commitment of battalions to base, road, and city security may have to be increased if the enemy becomes more aggressive. Second, even if the needs for combat troops in security, pacification, or reserves do not increase, the presently planned increase in force levels during FY 69 may have to replace the Tet drawdowns of forces in these activities. For instance, the US has increased its maneuver forces by four battalions since May 1-16; however, its offensive forces remained about constant and the additional battalions were committed to security, reserves and training. Likewise, while the ARVN increased its total forces by nine battalions since May, these forces have been committed to reserves/training (7 battalions) and pacification (2 battalions).

The small size of planned increases in Allied forces and the need to replace Tet drawdowns in Allied non-combat operations imply that our offensive battalion strength may not increase from its August level over the coming year. Unless we drastically reduce ARVN forces committed to pacification beyond the 10 battalions freed by RF/PF upgrading, or find the means of fulfilling the security mission with fewer troops, our offensive battalion strength could actually decline. The key to improved offensive operations must be improved allied efficiency, particularly a better equipped and trained ARVN and improved intelligence.

Future Enemy Offensive Strength

Since December 1966, the enemy has maintained a nearly constant number of regular force manpower in South Vietnam. As during Tet, the enemy has carried out offensives by varying his activity rate rather than his force level.

TABLE 5

ENEMY COMBAT FORCES

	Dec 1965	Dec 1966	Dec 1967	June 1968
Combat Battalions	160	200	233	275
Strength (000)	123.5	117.6	123.5	129.4

If the enemy continues to follow this strategy, infiltration during the last four months of 1968 will go mainly to replace casualties suffered on combat support rather than to increases in its combat forces. In this case, the Allied forces' margin of 1.2 to 1.0 in offensive platoon manpower may be maintained.

However, the enemy may use part of his manpower supply to build up his combat units. Since December 1967, the Allied offensive platoon strength has increased 31% (67,400 to 88,000) and the enemy may feel a need to match this increase. To do so, the enemy needs to add 18,000 men to his July 1968 platoon manpower of 70,000 men or about 30,000 men in maneuver battalion manpower. Given losses at their July 1968 rate of 10,000 men and net additions from infiltration (28,000 men) and recruitment (3,500 men), the enemy would need to maintain its current low level of activity for only 1½ months to accomplish the force increase of 30,000 men. In this way, the enemy could, at the cost of relative inactivity for a short period, again match the Allied forces in offensive combat manpower. In fact, there are observers who believe that the enemy has already matched our offensive forces.

JAN-67

STATUS OF DEPLOYMENTS TO SEA

The following table summarizes the personnel deployments to South Vietnam during December 1966 and the planned strengths for the 1st quarter CY 1967.

	Actual	Planned (Prog #4)			
	Dec 66	Dec 66	Jan 67	Feb 67	Mar 67
USA	238.2 (P)	243.6	253.3	261.4	269.2
USMC	67.9 (P)	67.9	69.1	69.6	70.1
USAF	53.5 (P)	53.4	53.7	54.1	54.6
USN&CG	23.7 (P)	23.9	24.2	24.2	24.2
Total	383.3 (P)	388.8	400.3	409.3	418.1

Note: P denotes preliminary data. Planned strength includes approved adjustment requests and below-threshold changes.

Army

Army deployments to South Vietnam during December 1966 included the 199th Infantry Brigade and the 9th Infantry Division minus one brigade. These units included eight infantry battalions. The remaining brigade of the 9th Division, including two mechanized infantry battalions and one infantry battalion are scheduled to close in January 1967.

The preliminary strength figures for SVN indicate that the Army was approximately 5400 personnel below the planned December 1966 strength. 28 Army units (3220 personnel) slipped from December into CY 1967. The Army stated the major reason for the slippages is non-availability of mission-essential equipment. These units are summarized in the table below:

	Above Threshold		Below Threshold		Total	
	Units	Personnel	Units	Personnel	Units	Personnel
Engineer	2	413	3	447	5	860
Signal	2	632	8	100	10	732
Aviation	1	109	-	-	1	109
Mac Spt	2	442	10	1077	12	1519
Total	7	1596	21	1624	28	3220

Additionally, units of the 1st Brigade, 9th Infantry Division, which closed in part on December 30, 1966, were not accounted for in the preliminary strength figures. These units account for over 2000 personnel.

USMC, USAF, USN-CG

The preliminary strength report for USMC agreed with the planned strength for December 1966. Preliminary Air Force strength figures for December 1966 were within 100 personnel of the planned strength for SVN. USAF deployments

during December 1966 included two F-100 squadrons. The Navy/Coast Guard preliminary strength for December agrees within 200 personnel of the planned strength.

Projected Deployments

Deployments to SEA during the 1st quarter CY 1967 should be closely aligned with the Program #4 planned strengths except for the Army in SVN. The Army has submitted an adjustment request which includes a proposal to slip eight engineer construction battalions beyond the 1st quarter of CY 1967. The Secretary of Defense has requested that the Army provide additional information to justify these and other slippages. If the Army slips the units in DAR A-67-1 as proposed, they will fall short of the current plan figure for SVN in March 1967 by approximately 7000 personnel.

In this regard, CINCPAC has scheduled a conference from 16-19 January 1966 to clarify Program #4 strengths and to establish guidelines under which force requirements will be processed in Washington. A representative from SEA Programs Division, ASD(SA), will attend the conference as an observer.

Deployment Adjustment Request System

On December 30, 1966, the Assistant Secretary of Defense for Systems Analysis approved a revised Adjustment Request System.

Generally, the revised system requires ASD(SA) or Secretary of Defense approval for major adjustments in combat and other critical units listed in the current program tables or any adjustments which would increase total country strengths. The JCS are given increased flexibility to adjust minor unit deployments within the approved strength totals for each country.

The "100 man threshold" has been deleted from the revised system. A review of previous DAR requests indicates that this change should reduce the requirement for submission of DAR's by approximately 70 percent. However, the revised system requires that OSD be notified of all "below threshold" deployment adjustments on a weekly basis, so the data base and strength totals can be kept up to date.

STATUS OF DEPLOYMENTS TO SEA

The following table summarizes the personnel deployments to South Vietnam during January 1967 and the planned strengths for the subsequent three months:

	Actual	Planned (Prog #4)			
	Jan 67	Jan 67	Feb 67	Mar 67	Apr 67
USA	252.7 P	255.4	263.3	270.8	275.2
USMC	73.9 P	69.1	69.6	70.0	70.5
USAF	53.5 P	53.7	54.3	54.8	55.1
USMACV	34.4 P	24.2	24.2	24.4	26.6
Total	404.5 P	402.4	411.4	420.0	427.4

Note: P denotes preliminary data.

Army

Army deployments to South Vietnam during January 1967 included the remaining elements of the 9th Infantry Division. At the present time, 62 of 67 planned Army maneuver battalions have closed in SVN. The remaining five maneuver battalions (two airborne, two armored cavalry, and one tank) are scheduled to close between August and October 1967.

The preliminary strength figures for SVN (from MACV weekly strength report of February 2, 1967) indicate that the Army was approximately 2700 personnel below the planned January 1967 strengths. The table below summarizes the above threshold units which have slipped beyond January 1967:

	Units	Personnel
Engineer	4	1938
Artillery	1	583
Quartermasters	2	499
Total	7	3020

On January 12, 1967, the Secretary of Defense requested that the Army provide additional information to justify the slippages proposed by the Army in DAR 67-1. The Army is expected to complete the study imminently. Additionally, the Army is currently conducting a detailed study of the Army's capability to deploy all remaining units in Program #4. This latter study is expected to be complete by March 1967.

USMC

The preliminary SVN strength report for the Marines indicates that they exceeded the January Program #4 figure by 4800 personnel, and the maximum USMC strength planned for SVN (71,000) by 2900. The reason appears to be

that the preliminary report contains a substantial number of personnel who may still be assigned to in-country units, but in fact are no longer in SVN. Examples would be personnel who extend for six months who get a 15-day special leave, casualties in out-of-country hospitals, or personnel in process of returning to CONUS. It also appears that the number of replacements who arrived in SVN during the month exceeded the number of casualties and personnel completing tours. The Marine Corps has been trying for some months to get the "effective" strength of their units up to 100%. This latest report indicates they have succeeded in solving this under-strength problem and that their combat units are now fully manned. Hq, USMC is examining the reporting system in an effort to exclude those personnel who are actually not in-country.

USAF, USN&CG

USAF and USN&CG preliminary strength figures agree within 200 personnel of the January 1967 planned strength. No significant unit slippage occurred.

Projected Deployments

Air Force and Navy deployments to SEA through April 1967 should be closely in accordance with Program #-.

The Army has submitted an adjustment request which includes a proposal to slip eight engineer construction battalions beyond the 1st quarter of CY 1967. The Secretary of Defense has requested that the Army provide additional information to justify these and other slippages. If the Army slips units in DAR A 67-1 as proposed, they will fall short of the current plan figure for SVN in April 1967 by approximately 6000 personnel.

All scheduled Marine combat units have been deployed in SVN. Support units totaling approximately 1000 personnel, remain to be deployed. The Marine Corps will undoubtedly show an over-strength until the reporting system is revised to exclude those personnel who are actually not in-country. Additionally, an overlap of replacements and rotatees may tend to cause periodic over-strengths as the Marines approach the approved force levels (the same will be true later for the other Services).

CINCPAC Program #4 Conference

CINCPAC held a conference from January 16-19, 1967, to clarify Program #4 strengths and to establish guidelines under which force requirements will be processed. A representative from SEA Programs Division, ASD(SA), attended the conference as an observer.

The conference developed internal PACOM procedures for recommending changes to Program #4. These procedures are currently being staffed with the CINCPAC component and subordinate unified commands and will be promulgated by message when coordination is complete.

The key point deriving from the Conference was that the MACV August 31, 1966, strength report which serves as the base point for Program #4 was in error by several thousand personnel. (The partial discovery of this fact was the major reason the conference was held). The Services

have completed an audit of all forces in SVN as of August 31, 1966. CINCPAC is staffing the results of the audit and is expected to submit recommendations for strength adjustments in the near future.

Status of Deployments to SEA

The following table summarizes the personnel deployments to South Vietnam during February 1967 and the planned strengths for the subsequent three months.

	Actual Feb 67	(Planned Program #4) Feb 67	Mar 67	Apr 67	May 67
USA	258.4P	262.3	269.7	274.1	278.8
USMC	73.5P	69.6	70.0	70.5	70.8
USAF	54.8P	54.3	54.8	55.1	55.4
USN&CG	24.9P	24.2	24.4	26.6	27.6
Total	411.6P	410.4	418.9	426.3	432.6

Note: "P" denotes preliminary data from MACV strength report as of March 2, 1967.

Army

Army deployments to South Vietnam during February 1967 consisted of combat support and combat service support units. Approximately 4500 personnel were associated with the unit deployments.

Approximately 8,000 personnel were planned for deployment in February. Above threshold units which slipped beyond February are five engineer construction battalions and one artillery battalion (approximately 5,000 personnel). However, units totaling about 1500 personnel associated with accelerations and previous slippages were deployed in February.

USMC

The Marines exceeded the planned strength in January by 4600 personnel and preliminary strength data indicates they were approximately 3900 above the planned strength for February. There are two major reasons for the discrepancy:

a. A surge of replacements during the preceding two months exceeded the number of casualties and personnel completing tours.

b. A substantial number of personnel who are assigned to the III MAF are in fact not in-country. During January, for example, a daily average of 2,846 personnel were out-of-country. These included R&R, emergency and other leaves, and TDY.

The preliminary strength data for February indicate that the replacement flow is leveling off. Additionally, effective with the March 1967 weekly and monthly strength reports, MACV will identify the number of

assigned personnel not in-country. This will allow a more accurate analysis of in-country strength in the future.

USAF/USN&CG

The Air Force and Navy/Coast Guard preliminary strength data agrees within 500 and 700 respectively of the planned strength for the month of February. No slippages were noted. The discrepancy could be the result of a fluctuation in the arrival of replacements and the fact that the preliminary strength data for February includes the first two days of March.

Projected Deployments

Air Force and Navy deployments to SEA through May 1967 should be closely in accordance with Program #4.

The Army has submitted an adjustment request (A-67-1) which includes a proposal to slip eight engineer construction battalions beyond the 1st quarter of CY 1967. OSD and the Army are currently examining equipment availability for these units in an effort to accelerate deployment. The JCS have recommended that four of these construction battalions be deployed at 80 percent capability which would increase the deployment times for these battalions an average of three months. Additionally, the JCS have recommended that an NMCB currently en route to Okinawa be diverted to SVN. From available data, it now appears that the Army will fall short of the current plan figure for SVN in May 1967 by approximately 3,000 personnel.

An overlap of replacements and rotatees will tend to cause periodic over-strengths as the Services approach the approved force levels. The Marines are experiencing this problem now and the same will be true later for the other Services. However, over a period of time, the over and under strengths caused by the replacement flow should balance itself out. It appears that a one percent fluctuation from the approved Service strength should be a reasonable figure.

CINCPAC Program #4 Conference

CINCPAC held a conference from January 16-19, 1967 to clarify Program #4 strengths and to establish internal PACOM guidelines under which force requirements will be processed. The key issue deriving from the conference was that the MACV August 31, 1966 strength report, which serves as the basic point for Program #4, was in error by several thousand personnel. CINCPAC has submitted his recommendations for strength adjustments to the JCS. The CINCPAC adjusted August 31, 1966 strength would have the following impact on the approved Program #4 end strengths.

	Program #4	CINCPAC	Change
USA	311,273	316,217	+4944
USMC	71,000	71,000	0
USAR	55,746	55,975	+ 229
USN&CG	29,752	28,433	-1319
	467,771	471,625	+3854

The JCS are currently reviewing the CINCPAC recommended adjusted strengths and are expected to submit their recommendations imminently.

DEPLOYMENTS TO SOUTHEAST ASIA

A series of decisions during the past month have resulted in increases in the Program #4 forces for South Vietnam and Thailand. The approved June 30,1968 strength in South Vietnam rose from 467,800 to 478,900; the approved Thailand strength from 38,500 to 41,300. The following table shows the South Vietnam increase by Service.

PROGRAM #4 STRENGTH FOR SVN - JUNE 30, 1968

	Previously Approved[a]	Currently Approved[b]	Increase
Army	311,300	321,900	10,600
Navy	29,800	30,000	200
Marines	71,000	71,000	-
Air Force	55,700	56,000	300
Total	467,800	478,900	11,100

a/ Program #4 through Change 16, 15 March 1967
b/ Program #4 through Change 25, 12 April 1967

Two decisions led to these increases in approved SVN strength: (a) An increase of 3852 to the Program #4 base. The MACV 31 August 1966 Audited Strength Report was used as the base point for the Program #4 forces. It later was determined that a number of units had been omitted from this report, and the authorized strength for others was in error. The CINCPAC strength accounting conference held in January determined that the base should have been 3852 personnel higher. On March 31, the Deput Secretary of Defense approved an increase to Program #4 to incorporate the revised base. (b) An increase of 7522 for PRACTICE NINE Forces. On April 8, 1967 the Secretary of Defense approved, for planning purposes, the inclusion of certain forces in support of PRACTICE NINE. Included were an Army mechanized brigade, a separate artillery battalion, 2 Navy mobile construction battalions, and various support forces. Also included were 2 LSTs (300 personnel) to be added to the offshore Navy forces.

A number of decisions led to an increase in the approved strength for Thailand. The table below shows the increase by Service.

PROGRAM #4 STRENGTH FOR THAILAND - JUNE 30, 1968

	Previously Approved	Currently Approved	Increase
Army	10,600	11,000	400
USN, USMC&CG	300	500	200
Air Force	27,600	29,800	2,200
Total	38,500	41,300	2,800

The principal decision affecting Thai land deployments was the Deputy Secretary of Defense's March 30, 1967 approval of the deployment of 15 B-52 aircraft to U-Tapao Air Base. This force and associated support increased U.S. strength in Thailand by 2183 Air Force personnel and 440 Army personnel. Offsetting reductions were made in the approved strength in SVN, Okinawa and Guam.

March Planned vs Actual

The preliminary March strength report indicates that the plan (Program #4 through Change #25) was exceeded by more than 21,000, primarily Army personnel as shown below:

MARCH 1967 STRENGTH IN SVN
(in thousands)

	Planned	Actual a/	Difference
Army	264.8	279.6	14.8
Navy	23.1	25.4	2.3
Marines	70.0	74.8	4.8
Air Force	55.1	54.9	- .2
Total	413.0	434.7	21.7

a/ Preliminary data based on MACV Weekly Strength Report.

After lagging behind the plan for some time, the Army met the plan in February and significantly exceeded it in March. The preliminary data indicate an in-country Army increase of 20,200 during March; the Army staff states that new units closing during the period only totaled about 7500. While it is possible a surge in replacements is the reason, it is more likely the MACV figure is in error, or a change in reporting procedures has taken place. Action is underway to determine the reasons for this situation.

The Marine strength continues to exceed the Program #4 totals. This is due to Marine Corps efforts to provide replacement personnel to keep the deployed units at full strength at all times, including personnel to offset men on R&R or leave. The Secretary of Defense is currently considering a Secretary of the Navy proposal to increase the Marine Program #4 strength by 3500 to cover these replacement personnel.

U.S. Forces in IV Corps

The numbers of U.S. personnel in IV Corps (the Mekong Delta) increased slowly from 3800 in September 1965 to about 6250 a year later. It stabilized at about that level for the remainder of 1966. This strength plateau, however, began to change rapidly early this year as elements of the 9th Infantry Division began moving into the Dong Tam base near My Tho. U.S. forces increased to over 10,000 in February. Combat units now consist of one brigade and one artillery battalion.

U.S. Forces in I Corps

The deteriorating security situation in I Corps led COMUSMACV on April 7, 1967 to order a substantial strengthening of U.S. combat forces in I Corps. He has ordered one Army brigade to move to the Chu Lai area, and a second to Duc Pho in South Quang Ngai Province. The units being redeployed are the 196th Light Infantry Brigade and one brigade of the 1st Cavalry Division (Airmobile). In addition, MACV has alerted the 173rd Airborne Brigade for possible deployment at a later date, should the situation so require and elements of the 9th MAB from Okinawa may be committed. The additional forces totaling about 7560 men will increase the number of U.S. maneuver battalions in I Corps by about 30% and will permit redeployment of Marine battalions now in the southern portion of I Corps to the DMZ area. COMUSMACV plans to replace the brigade from the 1st Cavalry Division with a brigade from the 25th Infantry Division later this month.

DEPLOYMENTS TO SOUTHEAST ASIA

Program #4 End Strengths for SVN and Thailand have increased 7100 spaces during the past month. The approved June 30, 1968 strength in South Vietnam rose from 479,100 to 483,100; the approved Thailand strength from 41,300 to 44,400. The following table shows the South Vietnam increase by Service.

PROGRAM #4 STRENGTH FOR SVN - JUNE 30, 1968

	Previously a/ Approved	Currently b/ Approved	Increase
Army	322,100	322,400	300
Navy	30,000	30,000	-
Marines	71,000	74,500	3,500
Air Force	56,000	56,200	200
Total	479,100	483,100	4,000

a/ Program #4 through Change 25, 19 April 1967
b/ Program #4 through Change 33, 17 May 1967

The increase in the approved SVN strengths was the result of two decisions:

a. On 12 April 1967, the Secretary of Defense approved an increase of 3500 for the Marine Corps in SVN to offset out-of-country non-effective personnel and keep combat units near full strength.

b. On 8 May 1967, the Secretary of Defense approved additional forces for PRACTICE NINE, of which 478 personnel are authorized for SVN (336 Army and 142 Air Force).

The table below shows the increase in approved strengths for Thailand by Service.

PROGRAM #4 STRENGTH FOR THAILAND - JUNE 30, 1968

	Previously Approved	Currently Approved	Increase
Army	11,000	11,300	300
USN, USMC, CG	500	500 a/	-
Air Force	29,800	32,600	2,800
	41,300	44,400	3,100

a/ Does not reflect temporary deployment of Navy SP-2 Squadron (331 personnel) from November 1967 to March 1968.

The Air Force strength increase is associated with the Secretary of Defense 8 May 1967 decision on PRACTICE NINE and includes an EC-121 Wing and an F-4 Squadron. The Army increase includes 39 personnel associated with PRACTICE NINE. Other approved Army increases are an ASA Detachment (77 personnel), a Personnel Services Company (73 personnel), and a Logistic Support Command Headquarters (57 personnel).

The preliminary MACV strength report for April indicates that the plan (Program #4 through Change #33) was exceeded by approximately 13,300 as shown below:

APRIL 1967 STRENGTH IN SVN

	Planned	Actual	Difference
Army	273.6	285.9	+12.3
Navy	26.1	25.9	- .2
Marines	74.0	74.1	+ .1
Air Force	55.4	56.5	+ 1.1
	429.1	442.4	+13.3

The Army overstrength of 12,300 was the second successive month the Army exceeded Program #4 by a sizeable margin; Army March overstrength was 17,800. MACV's explanation was that there had been a change in reporting procedures for handling transients and patients. There also had been an excess of approximately 8,600 individual replacements over losses.

Strength reports through Army channels, however, show a somewhat different picture. April Army reports show an overstrength of 5,600 (including patients and TDY) as compared to the MACV reported overstrength of 12,300. Since 97.2 per cent of the reported Army strength for SVN is in Army units assigned to USARV, the reasons for such discrepancies are not apparent. The Department of the Army has tasked USARPAC to resolve the differences between the two reports. This matter will also be discussed at the CINCPAC Strength Accounting Conference to be held 22-25 May 1967.

DEPLOYMENTS TO SOUTHEAST ASIA

Although 89 percent of the Army's Program #4 forces will close in SVN by June 1967, the units remaining to deploy during FY 68 include considerable combat and combat support forces. These units will provide MACV with the equivalent of nearly 2 additional divisions of "foxhole" strength and a 25 percent increase in helicopters. Major units remaining to be deployed are listed below:

Unit	Number	TOE Strength	Projected Close Date
Infantry Battalions	3	849	Oct 67
Airborne Battalions	2	809	Oct 67
Mechanized Battalion	1	920	Sep 67
Armored Cavalry Squadrons	2	783	Aug 67
Air Cavalry Squadrons	3	770	Oct 67 - Jan 68
Separate Infantry Co.	22 a/	142 - 182	Jul 67 - Aug 67
Artillery Battalions	5	539 - 595	Sep 67 - Mar 68
Helicopter Companies	18		
Light Airmobile	(10)	219	Aug 67 - Nov 67
Medium	(5)	181	Aug 67 - Jun 68
Heavy	(2)	129	Dec 67 - Jun 68
Aerial Weapons	(1)	170	Apr 68

a/ An Army proposal to send 33 additional infantry companies is (as of 15 June) being considered by the Secretary of Defense. If approved, this would add a third additional division equivalent of "foxhole" capability.

The preliminary MACV strength report for May indicates that the plan (Program #4 through Change #34) was exceeded by approximately 21,400 as shown below:

May 1967 Strength in SVN (000)

	Planned	Actual	Difference
Army	279.3	301.7	+22.4
Navy	27.8	27.5	- .3
Marines	80.3	79.6	- .7
Air Force	55.7	55.7	-
	443.1	464.5	+21.4

The Army continues to be about 8 percent overstrength. If this continues, the Army will reach the approved Program #4 strength by September 1967. This would be prior to most projected deployment dates of the remaining combat and combat support units listed above.

The reason for this overstrength is still not known. It is not the result of accelerated deployments; unit closures have not exceeded the plan. Thus the differences in planned and actual strength must be caused by discrepancies in reporting, or by an excess of replacements over losses, or a combination of both. Tighter controls over the replacement personnel flow to SEA may be required.

As noted in the April Analysis Report, USARPAC has been tasked to resolve the difference between the Army strength reports and MACV strength reports. This matter was also discussed at the CINCPAC Strength Accounting Conference in May. Everyone is aware of the problem; actions are under way to resolve the differences in strength reports; but little progress toward a solution is evident.

DEPLOYMENTS TO SOUTHEAST ASIA

Preliminary June data indicate that the actual U.S. troop strength in Vietnam was within one percent of the Program #4 projections. Reported actual strength was 444,800 troops, 5,600 men below the plan of 450,400. Army strength was about 1,800 below plan, largely the result of two 8" artillery battalions that failed to close on schedule.

The Marines were 3,300 below plan. Marine planned strength for June included 3 battalions from the 9th Marine Amphibious Brigade (MAB). However, one battalion from the Brigade (about 1,000 personnel) was still in Okinawa. The rest of the Marine under-strength probably reflects a short-fall in providing replacement personnel. While Marine approved strength includes 3,500 personnel to provide for R&R, emergency, leaves, TDY, etc, only about half were actually in-country as of the end of the month. The table below compares the planned strength versus actuals for the end of the past three quarters.

SVN Personnel Strengths
(000 of U.S. Personnel)

	1966		1967			
	December		March		June	
	Plan	Actual	Plan	Actual	Plan	Actual 1/
Army	245.6	239.4	264.8	263.4	285.5	283.7
USMC	67.9	69.2	70.0	75.3	80.5	77.2
Navy	53.7	52.9	55.1	55.8	55.9	55.6
USN/CG	22.6	23.8	23.2	25.1	28.5	28.3
Total	389.8	385.3	413.1	419.6	450.4	444.8

1/ Preliminary data.

The Army actual strength data for March in the table above are based on the Department of the Army 840 report rather than the MACV strength reports. During the three month period March - May MACV reports indicated the Army was 15 to 20,000 overstrength. This sizeable over-strength was apparently merely a reporting error as Army reports did not substantiate it. MACV now is using the Army 840 report as the basis for his strength reports. Thus, in the future the MACV reports should closely tie to those submitted by Army channels. For this reason actual data for March has been revised based on the Army 840 report to give a more accurate portrayal of the actual strength during that time period. A number of queries have been made but to date MACV has been unable to provide a reasonable explanation for the discrepencies. OASD/Controller is currently investigating the problem and hopes to have a definitive answer shortly.

PROGRAM #5

On August 10, 1967, the Secretary of Defense tentatively approved FY 67 add-on and FY 68 forces for SVN. The table below summarized the approved force levels for SVN now included in Program #5.

	Army	Navy	AF	MC	Total
Program #4	323,735	30,039	56,148	74,550	484,472
67/68 Added Forces	33,297	4,234	2,242	7,523	47,296
Civilization	-5,414	- 812	-542	-	6,768
Program #5	351,618	33,461	57,848	82,073	525,000

Program #5 deployments include an additional 16 maneuver battalions (101st Abn Div (-), 11th Inf Bde, 9th MAB, and 3 separate Inf Bn), nine infantry companies, two Air Force A-1 squadrons and Mobile Riverine, GAME WARDEN, and MARKET TIME forces. Additionally, two Marine VMA/VMFA squadrons and one Air Force F-4 squadron, ready for deployment, are included in the strength ceilings.

The Secretary of Defense has requested the JCS to submit a refined FY 68 troop list by September 15, 1967. Any added requirements in the refined troop list are to be fully justified and accompanied by corresponding civilianization or trade-off spaces in order to insure that U.S. forces in SVN do not exceed 525,000.

CINCPAC has scheduled a Deployment Conference which will convene in Hawaii on August 23, 1967. This conference will refine the Program #5 troop list and determine the capability to provide the Program #5 forces. OSD, Joint Staff, and Service representatives have been invited to attend.

DEPLOYMENT TO SOUTH VIETNAM
Program #5 Force

On 15 September the Joint Chiefs of Staff submitted to the Secretary of Defense a refined FY 68 (Program #5) troop list. The tables below summarize the recommended force levels for SVN.

	ARMY	NAVY	AF	MC	TOTAL
Program #4 (Change 39)	323,735	30,039	56,148	74,550	484,472
CY 67/68 added forces	39,365	7,483	3,161	7,689	57,698
Civilianization	-9,595	-2,050	-600	-300	-12,545
Adjust Prog. 4	-4,625	-	-	-	-4,625
JCS Recommended Prog. 5	348,880	35,472	58,709	81,939	525,000

SUMMARY DEPLOYMENTS TO SEA

	Program #4 Thru Ch. #39	Program #5 As of 8/14/67	Program #5 JCS Proposed
U.S. Maneuver Bns	90	106	106
Artillery Bns	61⅔	68⅔	67⅔
Engineer Bns	53	55	55
Fighter-Attack A/C	1,033	1,074	1,074
Helicopters	3,202	3,392	3,581
In-country Naval Vessels	443	608	605

The maneuver battalions and their expected close dates are listed below.

		CLOSE DATE
198th Bde	(3 Bns)	Oct 67
101 Abn Div. (-)	(6 Bns)	Feb 68[a]
11th Bde	(3 Bns)	Feb 68
Aug 196 Bde	(1 Bn)	Apr 68
Aug 199 Bde	(1 Bn)	Apr 68
Aug 198 Bde	(1 Bn)	Apr 68
Aug 11th Bde	(1 Bn)	Apr 68
9th MAB	(3 Bns)	In-country

a/ The Secretary of the Army has recommended deploying 1 Bde task force of the 101 Abn Div. (-) by air during December and the remaining Bde in January.

The proposed 67/68 Added Forces deploy a high proportion of combat and combat support troops to SVN. Summarized in the table below are the statistics relating to the combat troops and support activities personnel.

	COMBAT/COMBAT SUPPORT	SUPPORT	TOTAL
Army	31,833 (81%)	7,532 (19%)	39,365
Navy & MC[b/]	4,284 (51%)	4,168 (49%)	8,452
AF	1,747 (55%)	1,414 (45%)	3,161
TOTAL	37,864 (74%)	13,114 (26%)	50,978

b/ Does not include the 9th MAB.

Other Deployment Actions

Two Armored Cavalry Squadrons closed RVN in August. In addition two Marine attack squadrons (35 a/c) from Japan and one composite Air Force Squadron (B-57 and F-100 aircraft) have been authorized to deploy to SVN to offset the loss of sorties resulting from the USS Forrestal fire. These squadrons are authorized to remain in SVN until 15 Nov 67 in order to take advantage of the good flying weather over North Vietnam.

DEPLOYMENTS

On 5 October 1967 the Secretary of Defense approved the JCS refined Program 5 troop list for Southeast Asia. As indicated in the September report, these authorizations add significantly to the combat/combat support elements and only minimally increase the Service support forces. The "tooth to tail" ratio of the add-on force package is about 74%/26%.

The early deployment of elements of the 101st Abn Div (-) has also been approved by the Secretary of Defense. The divison headquarters control group, a brigade headquarters, and 3 infantry battalions (approximately 5000 personnel) will close in Vietnam about 20 December. The Army is currently studying the possibility of accelerating the remainder of the Division as well as the 11th Infantry Brigade.

On mechanized infantry battalion closed in SVN during September. The 198th Infantry Brigade (3 battalions) is scheduled to close during October. On the other hand CINCPAC has decided not to deploy to SVN the 2 Marine fighter/attack aircraft squadrons and the composite AF squadron, temporarily authorized to offset the Forrestal attack carrier loss.

Approved US Force levels in Thailand have shown a marked increase since the beginning of the year. Program 4 authorized 37,600 personnel in Thailand. Program 5 through Change #4 authorized 45,800 personnel, an increase of 22%. The two major factors in this increase were the deployment of B-52's to U-Tapao and the MUSCLE SHOALS Project, as the table below shows.

	INCREASE IN APPROVED DEPLOYMENT	B-52/MUSCLE SHOALS Forces	% OF TOTAL SERVICE INCREASE
ARMY	1,700	896	53
NAVY	200	a/	0
AF	6,300	503	80

a/ 331 Navy personnel will be temporarily deployed in support of MUSCLE SHOALS.

On October 13, 1967 the Secretary of Defense forwarded a memorandum to the Chairman, JCS stating that he felt certain reductions in unnecessary personnel could be obtained by more careful management of resources and that the presently approved US military strengths in Thailand (45,724) are adequate to meet the forseeable needs. Therefore, recommendations for new units, or augmentations of present units in Thailand should follow the same rules as now applied in South Vietnam. This will entail submitting offsetting space reductions when new personnel requirements are submitted.

DEPLOYMENTS

South Vietnam

On 21 October 1967 the Secretary of Defense approved the accelerated deployment of the remainder of the 101st Airborne Division (-) in December 1967. One brigade of the 101st was previously authorized for deployment in December. In addition, deployment of the 11th Brigade to SVN in December 1967 was authorized by the Secretary of Defense on 6 November 1967. It had originally been scheduled to close in February 1968. As a result of the above, 9 additional maneuver battalions will be operationally available to COMUSMACV 30-45 days earlier than the initial estimates.

The following table summarizes the personnel deployments to SVN during October and the planned strengths for the subsequent 3 months.

	ACTUAL	PLANNED (PROGRAM #5 THROUGH CHANGE #6)			
	OCT	OCT	NOV	DEC	JAN
ARMY	308.8P	310.7	312.2	327.7	329.7
USMC	73.2P	81.3	81.3	81.5	81.5
AIR FORCE	56.4P	56.5	56.0	55.9	55.8
USN&CG	30.4P	31.1	30.5	31.2	32.5
TOTAL	468.8P	479.6	480.0	496.3	499.5

The Marine Corps preliminary actual strength for October decreased from September (76,500 to 73,200) and was approximately 8,000 under October current plan strength. The major reason appears to be that the replacement flow has fallen behind the returnee flow. This results from a reduction of Marine tour lengths (from 13 to 12 months) coupled with a "hump" in the returnee flow during the 4th quarter CY 67. (Personnel deployments during 4th quarter CY 66 were approximately 12,700 compared to 2800 personnel during 3rd quarter CY 66). In September the two Marine divisions and the 9th MAB were 5000 understrength and they were probably further understrength the end of October.

During the month of October the 198th Infantry Brigade (3 battalions), 2 separate Air Cavalry Squadrons (3/17 & 7/17) and 2 separate Airborne Infantry Battalions (3/503 and 3/506) closed in SVN. The 3/503 is the 4th maneuver battalion of the 173d Airborne Brigade and the 3/506 the 4th battalion of the 1st Brigade, 101st Airborne Division. In addition there was a significant increase in Army aviation units during October. Six Light Air Mobile Companies, 1 Medium Helicopter Company, 2 Corps Aviation Companies and a Light Surveillance Company closed during the month.

Thailand

As an exception to his memorandum on US Troop Strength in Thailand, the Secretary of Defense on 28 October 1967 approved an increase of 902 Air Force personnel in Thailand. This raises the authorized military strength in Thailand to 46,626 personnel. The additional personnel are associated with an increase of 13 EB-66s and to support an increased EB-66 flying hour program.

DEPLOYMENTS

South Vietnam

During November approximately 1200 Army personnel deployed to SVN. Three Light Air Mobile Companies (LH-1s) were the significant units which arrived during November. Approximately 16,500 Army personnel will close in SVN during early December. The 101st Airborne Division (-) and the 11th Brigade close prior to Christmas, adding 9 maneuver battalions to COMUSMACV's operational capability.

Other developments of interest are:

1) MACV Advisory Personnel - The actual strengths of the MACV field advisory elements are now very close to the authorized strengths. The Army elements were well below authorized strength in 1966 and early in 1967. The table below summarizes authorized and actual strengths of the advisory teams since the beginning of this year.

MACV FIELD ADVISORY ELEMENTS

	Authorized			Actual			% of
	Officer	EM	Total	Officer	EM	Total	Authorized
31 December 1966							
Army	2104	3382	5486	2012	2606	4618	84%
Navy (incl Marines)	247	256	503	238	261	499	99
Air Force	226	267	493	215	273	488	99
30 April 1967							
Army	2213	3451	5664	2079	3128	5207	92
Navy	254	263	517	278	268	546	106
Air Force	213	280	493	211	288	499	101
31 October 1967							
Army	2223	3674	5897	2070	3820	5890	99.9
Navy	259	259	518	260	256	516	99.6
Air Force	195	270	465	206	287	493	106

An additional 3151 Army advisors (1458 officers and 1693 non-commissioned officers) were included in Program #5. These advisors will begin to deploy in February and should all be in SVN by June 1968. These deployments are made possible only by shortening CONUS Military Assistance Training Advisory (MATA) training and making extensive grade and branch substitutions. In addition, in February and March the Army will deploy 200 officers and 300 non-commissioned officer advisors without MATA training. These men will probably be assigned to U.S. units, freeing experienced personnel to serve as members of 5-man Mobile Training Teams designed to improve the effectiveness of the RF/PF.

2) Marine Corps Strength - The Marine preliminary actual strength for November showed a 2000 increase over October but it was still below the plan (81,270) by approximately 4000 personnel. The Marines had expected to be about 1100 short of authorized. The additional 2900 personnel shortfall resulted from heavy casualties in recent months, high rotation resulting from large number of units which deployed a year ago and firm adherence to the 395-day rotation policy. The Marines expect to have their forces back up to the authorized level in January 1968.

The Marine Corps has informed us that it has not revised its tour policy of 13 months "portal-to-portal", contrary to what we erroneously reported here last month.

Thailand

During the past month the Secretary of Defense approved two deployments which increase the approved U.S. strength in Thailand by nearly 1300 men. The first was the deployment of 10 B-52 aircraft to U-Tapao Air Base. This will add 1000 Air Force personnel. The second item was an additional 285 Air Force personnel to support new MUSCLE SHOALS requirements.

Present authorized strengths for U.S. Forces in Thailand are:

Army	12,196
Navy (includes Marines and Coast Guard)	444
Air Force	35,271
Total	47,911

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DEPLOYMENTS

South Vietnam

During December approximately 12,000 Army personnel deployed to South Vietnam. The 101st Airborne Division (-) and the 11th Brigade were the principal units to close. When their in-country training is complete in February they will add 9 maneuver battalions to COMUSMACV's operational capability. The remaining 4 authorized maneuver battalions are scheduled to close SVN in April, bringing the total to 106 battalions. In addition, one 175mm artillery battalion closed in SVN in December. The Marine Corps deployed 4 combined action companies (800 personnel) which completes their Program 5 authorized deployments. The remaining major units still to close are shown on Table 2.

The following table summarizes the planned versus actual personnel strength for December 1967.

TABLE 1

U.S. MILITARY PERSONNEL IN SVN - DECEMBER 1967
(000 of Personnel)

	Authorized (Prog 5 thru Chge #8)	Actuals a/	% of Authorized
Army	328.3	321.1	97.8
USMC	81.5	77.8	95.5
Navy	31.2	31.9	102.0
USAF	56.0	56.1	100.0
	497.0	486.9	98.0%

a/ Preliminary Data

Marine actual strength continues to be somewhat below authorized. About 3000 of the 3700 shortfall is associated with the Special Landing Forces (SLF) which are in-country only periodically. The remainder is caused by a lag in the provision of replacement personnel discussed in the November SEA Analysis Report. There has been, however, a significant improvement since October, when the Marines were nearly 8000 below plan. Hq USMC states that their actual strength will approximate authorized by the end of this month.

Since the Secretary of Defense approved the 525,000 authorized personnel for SVN there have been significant strength and unit readjustments within the Army forces in Vietnam. Requirements for about 4800 combat service support personnel have been eliminated by deactivating and consolidating logistical units and installations. About 1300 of these spaces were used by the Army to standardize the infantry and artillery battalions and to activate the 23rd (Americal) Division. The Army now has a remaining "credit" of approximately 3500 spaces in its "debit/credit" account.

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DEPLOYMENTS

South Vietnam

During the month of January approximately 2300 personnel deployed to South Vietnam. The aided forces were about half Army and half Navy (1100 and 1000 personnel respectively).

The following table summarizes the planned versus actual personnel strength for the month of January, 1968.

TABLE 1

US MILITARY PERSONNEL IN SVN - JANUARY 1968

	Actual[a]	Plan	% of Plan
Army	329.8	331.0	99.8
USMC[b]	78.8	82.1	96.0
Navy	32.9	32.2	102.1
USAF	56.4	56.2	100.4
Total	497.9	501.5	99.3

a/ Preliminary data.
b/ Marine Corps shortfall of 3300 personnel consists primarily of Special Landing Force (SLF) which is in-country only periodically.
Source: SEA Deployments Program #5 through Change #13 (February 13, 1968).

During February the 3d Bde, 82d Abn Div (3700 personnel) and the 27th Regimental Landing Team, 5th Marine Division (5600 personnel) closed in SVN. This temporary deployment added 6 maneuver battalions and two 105mm artillery battalions to COMUSMACV's planned forces. In addition, the Navy deployed temporarily a Naval Mobile Construction Battalion (NMCB). Previously planned Program #5 deployments for February included an armored air cavalry squadron, a medium helicopter company, and a 105mm howitzer FA battalion. In all, about 14,000 US troops deployed to SVN during February, raising the total US force level to over 510,000.

Other SEA Deployments

The Secretary of Defense approved the move of 10 KC-135s and 5 RC-135s to Taiwan. Five KC-135s will come from Okinawa, the other 10 aircraft from Thailand. The net effect of the personnel shifts will be a 450-man increase in the number of personnel in Taiwan and a similar decrease in Thailand. There will be no change in the number of personnel in Okinawa as an expansion of their heavy maintenance facilities will off-set the deploying aircraft crews.

In addition, the Secretary of Defense approved deployment of two C-130 squadrons on a temporary basis to PACOM. While the main operating base for the aircraft will be in Japan, they will be operating in South Vietnam most of the time. The aircraft will provide MACV with more in-country airlift, particularly to meet requirements in I. Corps.

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DEPLOYMENTS

Program #6

On April 4, 1968, the Deputy Secretary of Defense approved a Program #6 force of 549,500 men in SVN. This includes the additional forces approved by the President as well as routine changes in the deployment plan. Major changes since Program #5 through Change #13 was issued are listed below:

1. Addition of 24,500 personnel including 7 maneuver battalions, 4 artillery battalions, 1 engineer combat battalion and 2 tactical fighter squadrons (TFS) (36 F-100s). This includes permanent deployment of a separate infantry brigade as a substitute for the 82nd Airborne Brigade and replacement of the 27th Marine RLT with an Army brigade.

2. A deferral of the civilianization schedule until September 1968. The requirement to civilianize 12,545 military spaces still exists and insures military strengths do not exceed 549,500.

3. Deployment of 1 Air Force F-100 squadron and 1 Marine A-4 squadron in April and a second Air Force F-100 squadron in May.

4. Acceleration of one infantry battalion from April to March.

5. Slippage to June of the MUSCLE SHOALS Air Force F-4 squadron originally scheduled to deploy to Thailand in February.

March and April Deployments

During the month of March approximately 3600 personnel deployed to South Vietnam. An infantry battalion and a 155 howitzer battalion were the major units to deploy. About 5000 personnel are scheduled to deploy in April, including 3 infantry battalions, an engineer combat battalion and a 155 howitzer battalion. A 155/8" battalion scheduled for July deployment will complete major Army Program #5 deployments.

Actual Versus Authorized Strength

As is shown on the following table, actual personnel strength at the end of March 1968. was 98.6% of the Plan. It would appear that Tet casualties have largely been replaced.

US MILITARY PERSONNEL IN SVN - MARCH 1968

	Actual[a]	Plan	% of Plan
Army	338.5	344.5	98.3
USMC	84.1[b]	87.1	96.6
Navy	35.6	35.1	101.4
USAF	58.5	57.3	102.1
	516.7	524.0	98.6

a/ Preliminary data.
b/ Marine Corps short fall of 3000 personnel consists primarily of Special Landing Force(SLF) operating ashore only periodically.

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Detailed unit data for end March are not available yet. Based on data for February, it appears that the impact of the Tet offensive on the strength of the combat elements was not severe, or at least had been alleviated by the end of the month. It also appears the personnel pipeline was able to keep most of the maneuver battalions at combat operational strength. While not ideal, having 90% of authorized personnel is considered satisfactory; the impact on effectiveness would not be severe.

The maneuver battalion in the 7 Army divisions dropped from 92% of authorized at end January to slightly over 89% by end February. The table below summarizes the personnel strength in the Army and Marine Corps divisions and separate brigades in SVN for January and February. The divisions were essentially at 100% of strength at both points in time.

PLANNED VS ACTUAL STRENGTH OF DIVISIONS/SEPARATE BDE IN SVN
(End of Month)

	January 1968[a]				February 1968			
	Plan	Actual	Total Unit % of Plan	Maneuver Battalions % of Plan	Plans	Actual	Total Unit % of Plan	Maneuver Battalions % of Plan
1st Cav Div	18309	18647	101.8	94.0	18482	18229	98.6	87.7
1st Inf Div	17459	17539	100.5	90.6	17074	16942	99.2	83.6
4th Inf	19003	19042	100.2	87.6	18669	18484	99.0	87.6
9th Inf	16160	16153	99.9	94.0	16186	16107	99.5	91.6
23d Inf	16322	15825	97.0	91.4	18512	18189	98.3	92.2
25th Inf	17734	17666	99.6	93.7	17451	17217	98.7	94.1
101st Abn	15011	15220	101.4	91.1	15354	15077	98.2	87.8
173d Abn Bde	5229	5313	101.6	97.2	5239	5103	97.4	91.2
199 Inf Bde	4084	4215	103.2	98.1	4576	4366	95.4	74.0[b]
11th ACR	4153	4331	104.3	100.0	4163	4266	102.5	98.7
1st Mar Div	24629	22466	91.2	96.4	24623	21862	88.8	95.2
3d Mar Div	23688	24417	103.1	98.9	23688	24802	104.7	99.5

SOURCE: MACV Strength Reports.

a/ January reports are pre-Tet data.

b/ Inf Bn authorization was increased from 764 to 920 (one bn apparently not filled).

DEPLOYMENTS

South Vietnam Deployments

The 5th Mech Brigade (1 Inf Bn, 1 Mech Inf Bn, Tank Bn, 155mm SP Arty Bn) closed in SVN on 1 August. The Marine 27th Regimental Landing Team, temporarily deployed to Vietnam in the wake of the Tet offensive, returns to CONUS in September. An Armored Cavalry Squadron in November, two 155mm Arty Bns and an Engineer Combat Bn in September and October, and a number of helicopter companies are the principal units remaining to be deployed under Program #6. Virtually all of the remaining units are Army.

Based on a PACAF air defense study of RVN and CINCPAC's recommendations, the Deputy Secretary of Defense approved withdrawing two Hawk Bns (1 Army and 1 Marine) from SVN and returning them to the US. The remaining HAWK units will be redeployed within SVN and command, control and communication improvements made to increase their effectiveness. In addition, one HAWK battery will deploy from Vietnam to Thailand in 1969. This adjustment to Program #6 will free manpower spaces that COMUSMACV can use to deploy other type forces within current approved manpower levels. It does not reduce the authorized strength of US forces in SVN.

Program #6 Authorization

The approved 549,500 force for SVN is made up of more than a list of military units and organizations. It includes factors to cover estimated Temporary Duty (TDY) personnel and Army patients. It also includes a deduction to account for the "civilianization" MACV has been directed to accomplish. The following table breaks the total down into the major elements.

	Army	Navy	USMC	USAF	TOTAL
Total Structure Spaces	374,182	38,679	82,321	59,413	554,595
TDY Allowance	500	600	150	2,700	3,950
Patient Allowance	3,500	-	-	-	3,500
Total Authorized	378,182	39,279	82,471	62,113	562,045
Less Civilianization	9,595	2,050	300	600	12,545
Program #6 Ceiling	368,587	37,229	82,171	61,513	549,500

Civilianization

Program #6 Deployment Tables show the authorized strength reaching the approved ceiling of 549,500 in October. About 10,500 additional troops will arrive in Vietnam later, but do not increase the authorized force level because as additional units arrive, MACV is required to "civilianize" enough spaces to offset the new units. The table below is MACV's schedule to delete certain military spaces replacing them with local nationals or civilian contract capability (e.g., construction, transportation).

MACV CIVILIANIZATION SCHEDULE
(CY Quarter)

	2/68	3/68	4/68	1/69	2/69	TOTAL
Army	767	2546	2797	2785[3]	701	9595
USMC	-	191	109	-	-	300
Air Force	600[1]	-	-[2]	-	-	600
Navy	-	290	1760[2]	-	-	2050
Total	1367	3025	4666	2785	701	12,545

1/ CE Squadron civilianized.
2/ Two NMCBs civilianized.
3/ Engineer Const Bn civilianized.

STRENGTH ACCOUNTING

US military strength in SVN total 541,819 as of 15 August, about 1200 personnel over the Program 6 authorized strength for that date. The reason for this slight overstrength (1/4 of 1%) was that TDY and patients were running higher than our factors while PCS strength was slightly below the authorization.

US MILITARY PERSONNEL STRENGTH - SVN

	Deployment[1] Auth	TDY	PCS	Total (For Ceiling Comparison)
USA	358,369	928	358,092[2]	359,020
USN (Includes USCG)	37,798	587	37,183	37,770
USMC	84,910	55	83,825	83,880
USAF	59,499	3,077	58,072	61,149
Total	540,576	4,647[3]	537,172[3]	541,819

1/ Total deployed as of August 1, 1968, less civilianization completed as of June 30, 1968. Includes 27th RLT and 1st Bde, 5th Inf Div (Mech).
2/ Operating strength plus patients (352,872 and 5,220).
3/ Based on MACV Strength Report of August 15, 1968.

The reported actual strength has frequently exceeded the authorized strength. There are two reasons for this. First, the actual strength of units fluctuates above and below authorized from day to day depending on the arrival of replacements and departure of personnel completing their tour or suffering casualties. Second, the 3500-man allowance for Army patients in South Vietnam hospitals is low. As Army strength and casualties increased, the actual number of patients have been in excess of the 3500 allowance (in recent months they have averaged about 5500). Since patients are included in the actual strength reports, the actuals tend to run about 2000 above authorized.

If this were to continue until all authorized deployments were in Vietnam, the actual strength within a few months would probably exceed the authorized strength of 549,500 military personnel. However, the Deputy Secretary of Defense in his memorandum on strength accounting in SVN of August 10, stated that actual reported strength should not exceed the approved force level of 549,500 military personnel in SVN. This will require action by MACV to eliminate units now in-country or scheduled to deploy or possibly expand the civilianization program. Also, unnecessary accountable personnel (e.g. TDY) will have to be kept to a minimum.

THAILAND DEPLOYMENTS

On August 21, the Deputy Secretary of Defense approved for deployment to Thailand the following forces to Program #6.

1. Eight AC-130 GUNSHIP and 414 personnel.
2. Ten B-52s and 851 personnel.
3. Forty-six propeller aircraft and 914 personnel.
4. Three EC-121 IGLOO WHITE AIRCRAFT.

The Air Force is able to tradeoff sufficient spaces to accommodate these deployments and therefore the 47,788 personnel ceiling is unchanged.

In addition, the Deputy Secretary of Defense approved a 45 day extension of the F-111 combat test. These aircraft and associated test personnel are authorized to remain until October 31. The A-1 Tactical Fighter Squadron, presently supporting IGLOO WHITE operations, was authorized to remain in Thailand until December 1968. It will then deploy to SVN.

DEPLOYMENTS

August Planned Versus Actual

US STRENGTH IN SVN - AUGUST 1968

	Program #6 (Change 19)	Actual	Difference
Army	363.6	353.7	- 9.9
Navy	38.4	38.0	- .4
USAF	60.3	61.3	+ 1.0
USMC	82.0	85.3	+ 3.3
Total	544.3	538.3	- 6.0

The Marines exceeded the plan because redeployment of the 27th RLT was delayed until September. It had been scheduled to return to the US in July.

While the Army appears to be about 9900 understrength, the shortfall was only about 3500. The "bookkeeping" changes explain the remaining 6400 difference.

1. Bookkeeping error discovered after dissemmination of Program #6 through change #19	- 2.2
2. New MACV civilianization schedule beginning in July rather than September	- 2.5
3. Revised base for the projections. The JCS completed a detailed audit of all units in-country, TO&E changes, units activated, and deactivated. The previous base was the reported actual strength as of August 1966	- 1.6
4. Minor changes in unit deployment dates	- .1
Total Adjustments	- 6.4

Of the remaining 3500 shortfall, approximately 800 are aviators the Army presently cannot provide because of personnel problems. The remaining 2700 understrength is within a normal tolerance of 1% of the authorized strength.

Strength Accounting

There now appears to be little danger that the actual number of troops in SVN will exceed the Program #6 ceiling for the foreseeable future. MACV is carrying out the civilianization program as scheduled. Other actions also have been taken to ensure that the actual strength stays below the ceiling. For example, MACV has set up a "Watch Committee" to monitor the actuals. As a result, TDY personnel dropped from 5777 in July to 4745 at

the end of August. The number of Army patients had been running about 2000 above the 3500 factor in Program #6. On August 31, it was only 3093. (Apparently, MACV has tightened the criteria under which a man can be considered a patient. Once a man is transferred to patient status, his parent unit can requisition a replacement. But men hospitalized for short periods are no longer considered as patients, thus reducing the number of men carried in the patient category and the flow of replacements).

As a result of MACV's actions, it is likely that actuals will run a few thousand below plan. This is partially because the the civilianization effort anticipates new deployments by a month or so. In addition, MACV is continuously deleting low priority units to generate spaces to meet new requirements. This continually delays actual achievement of the 549,500-man force. Our current projection of the Program #6 strength is shown below:

PROGRAM #6 ADJUSTED AUTHORIZED STRENGTH

	1968					1969			Unknown + Debit/ Credit
	Aug	Sep	Oct	Nov	Dec	Mar	Jun	Sep	
Army	357.2	363.9	366.4	367.8	367.3	366.8	366.1	366.3	2.3
Navy	37.7	37.9	38.1	38.3	36.6	36.9	36.9	36.9	.3
USAF	60.3	60.3	60.4	60.4	61.8	61.0	61.0	61.0	.5
USMC	87.6	82.1	81.7	81.7	81.6	81.6	81.6	81.6	.6
Total	542.8	544.2	546.6	548.2	547.3	546.3	545.6	545.8	3.7

The Marine 27th Regimental Landing Team (RLT), deployed to SVN to temporarily augment MACV's forces after the Tet offensive, returned to the US during September. It was replaced by the 5th Mechanized Brigade which arrived on August 1. Although the 27th RLT deployed at an authorized strength of 5636, only about 900 Marines actually left Vietnam. The remainder of the RLT personnel were reassigned to the units within SVN.

Significant Program #6 Units to Deploy - SVN

Army

Number	Unit	Close Date	Strength
-	Field Advisors	Sep-Nov 68	1,799
6	Helicopter Companies	Dec 68-Mar 69	744
2	Field Artillery Bns	Sep-Oct 68	1,135
2	Med Hosp Evac Semimobile	Sep 68-Mar 69	626
16	TC Acft Maint Units	Oct 68-Mar 69	1,467
2	Ord Co Ammo	Oct 68	446
1	Engr Combat Bn	Sep 68	812
1	Armored CAV Sqdn *	Nov 68	1,094
5	Med Helo Ambl Units	Nov 68-Jul 69	216
5	Transportation Cos	Sep 68-Oct 69	865
3	Land Clearing Cos	Dec 68	357
2	Med Fld Hosp	Sep-Oct 68	368
4	CS Maint Cos	Oct-Nov 68	755
4	CS Sup & Svs Cos	Sep 68	702
1	QM Pol Sup Cos	Oct 68	237
3	Armored Air Cav Trps	Mar 69	474

USMC

1	Fixed Wing Recon Sqdn	Unknown	164
1	MAF Hq Augmentation	Sep 68	157

USAF

1	A-1 TAC Ftr Sqdn (Now in Thailand)	Dec 68	352
-	Forward Air Ctrl/Maint Spt	Sep 68	258

Navy

50	River Patrol Boats	Sep-Nov 68	255
16	Assault Patrol Boats	Oct-Jan 68	96
31	Armed Helicopters-HA (L)	Unknown	157

* Deployment cancelled September 25 at request of COMUSMACV. Personnel spaces will be used for high priority MACV requirements.

DEPLOYMENTS

Strength Accounting

US military strength in SVN totals 535,653 as of October 17, about 8000 personnel under the Program #6 authorized strength as of the end of September.

US MILITARY PERSONNEL STRENGTH - SVN

	September Authorized[a]	Actual[b]	Difference	Percent Difference To Authorized
Army	363.9	354.1	- 9.8	- 2.7%
Navy	37.9	38.4	+ .5	+ 1.3%
USAF	60.3	59.3	- 1.0	- 1.7%
USMC	82.1	83.8	+ 1.7	+ 2.1%
	544.2	535.6	- 8.6	- 1.6%

a/ Program #6 Change #27.
b/ MACV Strength Report of October 17.

The Army, which is about 9800 personnel below its authorized strength, is the principal factor in the MACV shortfall. There appears to be two reasons for the Army understrength. First, the Secretary of the Army has imposed a 4000 man buffer to insure the Army actual strength does not exceed the authorized level. Second, provision of replacements is lagging requirements by about 4000; the Army Staff indicates that this latter situation will be corrected by November.

The Marine's overstrength appears to be caused by a combination of two factors; retention of 27th RLT personnel (the 27th returned to the US in September) until their SVN tours are complete, and replacements in excess of needs. The Marines expect to be down to their authorized strength by the end of the calendar year.

CIVILIANIZATION

Congress exempted the Department of Defense from the limitations of PL 90-364 with respect to positions for support of SEA operations established since June 30, 1966 in the South East Asia theater of operations. Under PL 90-364, only three vacancies out of four of permanent civilian positions can be filled until overall number of employees reaches a level of June 30, 1966. In addition, Congress authorized that employment in temporary and part-time positions may be programmed on an annual basis. The personnel included under these exemptions should facilitate the civilianization efforts in South Vietnam and Thailand. Without them, providing the necessary manpower spaces could have had a significant impact on DOD employment in other areas.

DEPLOYMENTS

Strength Accounting

US military strength in SVN totals 537,432 as of November 21, about 5400 personnel under the October Program #6 authorized strength (6700 below the end-November authorization).

US MILITARY PERSONNEL STRENGTH - SVN

	October Authorized[a]	Actual[b]	Difference	Percent Difference to Authorized
Army	363.5	359.6	-3.9	-1.1
Navy	37.2	37.3	+ .1	-
USAF	60.4	59.5	- .9	-1.5
USMC	81.7	81.0	- .7	-1.0
Total	542.8	537.4	-5.4	-1.0

a/ Program #6 Change #33.
b/ MACV Strength Report of November 21.

The Army is responsible for 72% of the total MACV shortfall, but is only about 1% below authorized. The previous lag of about 4000 replacements has been largely eliminated; the present deficit is attributable to the Army's self-imposed 4,000 man buffer to ensure it stays below the SVN ceiling. The Marines appear to have corrected their previous overstrength and are now operating within the approved Program #6 force levels.

Units Scheduled to Close

The table below lists the principal military units still scheduled to deploy tc SVN and Thailand under Program #6

SOUTH VIETNAM

ARMY

Number	Unit	Close Date	Strength
-	Field Advisors	Nov 68-Jan 69	476
6	Helicopter Companies	Dec 68-Mar 69	744
12	TC Acft Maint Units	Dec 68-Mar 69	670
5	Med Helo Ambl Units	Nov 68-Jul 69	222
6	Land Clearing Cos	Dec 68-Jan 69	714
3	Armored Air Cav Trps	Mar 69	474
1	CS Lt Maint Co	Nov 68	154
2	Transportation Cos	Nov 68-Jan 69	497
1	SC Combat Co	Jan 69	172
1	Inf Long Range Patrol Co	Dec 68	214
2	FA Aerial Rocket Arty Btry	Mar 69	218

SOUTH VIETNAM - Continued

USAF

Number	Unit	Close Date	Strength
1	A-1 TAC Ftr Sqdn (Now in Thailand)	Dec 68	352
-	Forward Air Controllers	Jan-Mar 69	190

NAVY

20	River Patrol Boats	Nov 68	126
31	Armed Helicopters-HA (L)	Unknown	157
2	YRBM	Jan 69-Feb 69	180

THAILAND

ARMY

1	HAWK Btry (Now in SVN)	Unknown	172

USAF

1	1st Spec Ops Sq (18 A-1s)	Nov 68	288
-	1st Spec Ops Sq (Aug) (7A-1s)	Feb 69	95
-	22d Spec Ops Sq (Aug) (7A-1s)	Feb 69	95

Dec - 68

DEPLOYMENTS

Strength Accounting

US military strength in SVN totals 533,822 as of December 12, about 10,300 personnel under the end November Program #6 authorized strength.

US MILITARY PERSONNEL STRENGTH-SVN

	November Authorized[a]	Actual[b]	Difference	Percent Difference to Authorized
Army	365.2	357.7	- 7.5	-2.0
Navy	36.7	37.0	+ .3	+0.8
USAF	60.4	59.7	- .7	-1.2
USMC	81.8	79.4	- 2.4	-2.9
Total	544.1	533.8	-10.3	-1.9

a/ Program #6 through Change #33.
b/ MACV Strength Report of December 12.

The Army continues to be responsible for the bulk (73%) of the total MACV shortfall, and is about 2% below authorized strength. The Army's 4000-man buffer (initially imposed to ensure that the actual strength stayed within the ceiling) was recently eliminated. But, replacement flow will not be affected until January. The other factor appears to be an abnormally large number of personnel in the replacement/returnee categories which are not counted as part of the actuals used to compare with the ceiling. In part, this reflects the accelerated return of personnel (approximately 2800 over average) for Christmas. In addition, the replacement category totaled 9800 personnel (1500 over average), a bookkeeping matter that aggravates the report shortfall. Accelerated return of Marines for Christmas also causes USMC shortfall.

Deployments

The Deputy Secretary of Defense on November 27th, approved the deployment to SVN in December of the 71st Special Operations Squadron (16 AC-119Gs and 551 personnel). In addition, an A-1 squadron will deploy to SVN, increasing the Tactical Fighter Squadrons in Southeast Asia to 53 (37 in SVN and 16 in Thailand).

On December 9, the Deputy Secretary of Defense approved the permanent assignment of a 13th C-130 squadron in PACOM. This squadron, (16 C-130s and 532 personnel) which previously was deployed on TDY in Japan, will be based on Taiwan.

The Air Force "Red Horse" heavy repair squadron (400 men) will be returned from Thailand by June 1969. This action was directed by the Deputy Secretary of Defense on December 13, 1968 and the Program #6 strength in Thailand will be reduced accordingly.

IMPACT OF US MANEUVER BATTALIONS IN SOUTH VIETNAM

Summary. A highly tentative preliminary analysis suggests that, in provinces where US presence has been high, a significant increase in US battalions is associated with a rise in HES security scores and decreased ARVN activity. Conversely, small increases have little or no effect on security scores but are accompanied by increased ARVN activity. For provinces where US presence is low, no apparent effects are associated with changes in levels of US battalions. Enemy activity seems to react briefly to additional US battalions but reverts quickly to countrywide patterns.

This analysis is a preliminary survey of historical data in an attempt to determine the impact of US maneuver battalions on Hamlet Evaluation System (HES) scores, enemy activity, and RVNAF activity in South Vietnam. We examined countrywide, corps and sample province data available in Washington, starting with January 1967. We regard our observations and findings from this initial assessment as promising, but highly tentative. Future papers will refine the approach to achieve greater validity.

Approach

We examined correlation patterns for HES security scores against US battalions employed countrywide and by Corps Tactical Zone. The hypothesis for this investigation was that increases in US battalions should result in increases in relatively secure (A+B+C) HES scores and a reduction in either the contested (D+E) or VC controlled (V) categories; a reduction in US battalions should have opposite effects. In the HES part of the analysis, we examined correlation results for 11 of the 27 SVN provinces which had a history of US battalion presence. Our first two findings listed below result from this initial investigation.

For a more detailed look at the impact of changes in US maneuver battalion deployment, we narrowed the number of sample provinces to five and looked at the effect of changes on enemy and RVNAF activity. Data for each province was displayed graphically for interpretation and observations leading to the remainder of the findings below.

Tentative Findings

1. When the data is aggregated countrywide or by Corps Tactical Zone, no consistent relationship between the presence of US battalions and HES security scores emerges for either total hamlets or total population. 1/ However, for total population, an increase in US battalions is associated with an increase in secure population and a decrease in contested or VC controlled populations for countrywide data, I Corps and IV Corps.

1/ Total population does not include the population of Saigon and the other autonomous cities, but does include the other urban population.

2. When provinces are grouped according to the numbers of US battalions present (instead of by CTZ), the provinces with more than four US battalions present each month since April 1967 show a pattern consistent with our hypothesis, in which addition of battalions seems to raise HES scores, and withdrawal seems to lower them. However, the time lag for effects to become apparent varies throughout the range available (from 0 to 8 months), depending on the province.

3. Deployment of one US battalion into a new area, or small increases over previous levels, seems to have little effect on hamlet security scores at the province level. These relatively small increases, however, are usually followed by a period of greater ARVN activity which, in turn, seems associated with an increase of secure hamlets.

4. A large influx of US battalions is accompanied not only by a rise in security scores but also in an almost immediate decrease in ARVN activity.

5. If not balanced by increased ARVN activity, a decrease of more than 50 per cent of the US battalions present seems to be associated with a reduced rate of growth for secure hamlets, but not necessarily in a loss.

6. Enemy activity seems to show an initial marked increase subsequent to the appearance of additional US battalions or entry of US battalions into a new area. This activity seems to subside quickly, with the enemy apparently reverting to his previously planned campaign.

Details of the Analysis

To allow for future refinement and to accommodate tenuous data, we chose the three broad areas of possible US force impact already mentioned. Since HES security scores are clearly defined and reflect a very important facet of the war, their relationships to US battalion deployments were used as the initial screening device for this analysis.

We assumed that relationships between US maneuver battalions and HES scores would vary by province to some extent, but that grouping the provinces by reported levels of US presence might yield the most consistent pattern. Accordingly, we categorized US battalion employment during 1967-68 in the following levels of presence for the 24 month January 1967-December 1968 period:

High	-	More than 96 battalion months. 1/
Medium	-	Between 24 and 96 battalion months.
Low	-	Less than 24 battalion months.

We also included a reference province (Phong Dinh) with no recorded US presence.

1/ A battalion month represents the reported presence of a US battalion in a province during one month. (Divide by 24 to yield the average battalions present during the period.)

While HES security scores are a tabulated statistic, no general agreement on a single indicator of enemy or RVNAF activity exists. For the purpose of this article, we define an enemy activity index (VC/NVA AI) as the ratio of VC/NVA total attacks to VC/NVA strength for any given month and province. Similarly, the RVNAF activity index (ARVN AI) is defined as the average battalion days of operation per RVNAF battalion.

Correlation of HES Security and US Battalions - Countrywide and by Corps Tactical Zone

The influence exerted on the HES security scores in any given area can be both direct and indirect, depending on the local situation. We therefore used a regression technique containing a lag routine in assessing the extent to which the scores correlated with the presence of US battalions during the period April 1967 to November 1968. In plotting the number of US battalions present against the security score for each of the 20 months, the lagging technique essentially shifts the security score curve until its fluctuations match, as closely as possible, those of the fixed US battalion curve. Table 1 shows the results of our regression analysis by CTZ using the lag which gave the most significant correlation value in each case. Zero entries indicate either no correlation or that correlation was not significant at the 95% confidence level regardless of lag. In this paper we are more interested in basic patterns than in the amount of correlation, so we have included only the signs of the significant correlations for comparison with our hypothesis.

The corps and countrywide data aggregation in Table 1 shows no clear pattern. In the Countrywide, I CTZ and (to some extent) IV CTZ columns, the total population scores agree with expected results, showing a general upgrading through the three score categories. The total hamlet correlation trends for these columns, as well as all other entries, show little agreement with expected results. In fact, II CTZ scores seem relatively indifferent to the presence of US battalions.

Battalion Month Distribution

Since corps and countrywide results were not encouraging, we decided to investigate the situation by province. As a preliminary step, we tabulated the number of battalions present during each month for 1967 and 1968. This served the dual purpose of providing us the total battalion months by province and highlighting significant shifts of US battalions into or out of a particular area.

TABLE 1

REGRESSION ANALYSIS a/

HES SECURITY SCORES AGAINST US BATTALIONS
BY MONTH, APR 67 THROUGH NOV 68

	I CTZ	II CTZ	III CTZ	IV CTZ	Countrywide
Total Hamlets:					
Relatively Secure (A+B+C)	-	0	-	-	-
Contested (D+E)	0	0	+	-	+
VC Controlled (V)	-	0	-	+	-
Total Population					
Relatively Secure (A+B+C)	+	0	-	+	+
Contested (D+E)	+	0	+	+	+
VC Controlled (V)	-	0	-	0	-

a/ + Significant positive correlation.
- Significant negative correlation.
0 No significant correlation.

Table 2 displays the total battalion months for 1967, 1968 and their sum. The table also shows US presence levels by the high, medium or low categories previously explained. From this display we selected at least one province from each category in all four CTZ (except IV Corps, where the battalion in Kien Hoa has been deployed only recently). The 11 circled selections in the table exhibit US battalion employment level changes of interest such as:

1. Entry where no US battalions had previously operated - Kontum, Binh Long, Binh Thuan, Lam Dong and Phuoc Long.

2. Significant increases over previous commitment - Quang Tri and Dinh Tuong.

3. Significant withdrawals - Quang Duc, Binh Dinh, Pleiku, Hau Nghia, Lam Dong, and Phuoc Long.

4. Consistent US battalion employment at a low level - Binh Thuan.

5. Consistent US battalion employment at a medium level - Binh Long and Dinh Tuong.

6. Consistent US battalion employment at a high level - Quang Tri, Binh Dinh, Hau Nghia and Dinh Tuong.

TABLE 2

CUMULATIVE MONTHLY TOTALS 1967-68
US MANEUVER BATTALIONS BY PROVINCE
(Battalion Months)

	1967	1968	Total	US Presence: High	Medium	Low
I CTZ						
Quang Tri	90	209	299	⊗		
Thua Thien	51	165	216	X		
Quang Nam	116	148	264	X		
Quang Tin	51	65	116	⊗		
Quang Ngai	64	46	110	X		
II CTZ						
Binh Dinh	97	50	147	⊗		
Pleiku	76	52	128	⊗		
Kontum	10	56	66		⊗	
Phu Yen	23	8	31		X	
Binh Thuan	8	12	20			⊗
Ninh Thuan	14	0	14			X
Darlac	2	8	10			X
Lam Dong	4	6	10			⊗
Quang Duc	0	10	10			X
Phu Bon	0	1	1			X
Tuyen Duc	0	1	1			X
III CTZ						
Bien Hoa	167	95	262	X		
Binh Duong	105	117	222	X		
Hau Nghia	72	54	126	⊗		
Long An	30	43	73		X	
Long Khanh	31	30	61		X	
Tay Ninh	12	46	58		X	
Binh Long	3	34	37		⊗	
Gia Dinh	0	9	9			X
Phuoc Long	0	9	9			⊗
IV CTZ						
Dinh Tuong	30	53	83		⊗	
Kien Hoa	0	1	1			X
				10	7	10

Source: SEAFA Computer File.
(X) Used in the analysis.

Correlation of HES Security Scores and US Battalions - Selected Provinces

We grouped the eleven selected provinces according to the level of US presence and again looked at the results of the regression analysis with respect to HES security scores. Table 3, while showing variations similar to Table 1, does indicate a pattern of good agreement with expected results for the provinces with high US presence. The amount of lag required for the

best correlation varied considerably from province to province in each score category, possibly showing the influence of the local situation. Except for Dinh Tuong and Kontum, province HES security scores in the medium and low level categories seem relatively indifferent to the presence of US battalions. Dinh Tuong mirrors the countryside and IV CTZ picture for population security scores, while the Kontum scores show a negative correlation.

Since grouping the provinces by level of US battalion presence provided better results than a CTZ grouping, we have used this technique for the rest of this analysis. For the detailed analysis of US battalions versus enemy activity, ARVN activity and HES scores all together, we narrowed the sample from 11 down to 5 provinces: Quang Tri, Binh Dinh, Dinh Tuong and Binh Thuan (because they each have at least two of the US presence characteristics discussed earlier in the paper) and Phong Dinh (as a control province, with the same characteristics as Binh Thuan, but no US battalion presence).

TABLE 3

REGRESSION ANALYSIS

HES SECURITY SCORES AGAINST US BATTALIONS
BY MONTH, APR 67 THROUGH NOV 68

	High US Presence [a]					Medium US Presence [b]			Low US Presence [c]		
	Quang Tri	Binh Ding	Pleiku	Hau Nghia	Quang Tin	Dinh Tuong	Kontum	Binh Long	Binh Thuan	Lam Dong	Phuoc Long
Total Hamlets:											
Relatively Secure (A+B+C)	+	+	+	+	+	+	-	0	0	0	0
Contested (D+E)	-	-	-	-	-	0	-	0	0	0	0
VC Controlled (V)	-	+	+	+	0	-	0	0	0	+	0
Total Population:											
Relatively Secure (A+B+C)	+	+	+	+	+	+	-	0	0	0	0
Contested (D+E)	-	-	-	-	-	+	+	0	0	0	0
VC Controlled (V)	-	-	+	+	-	-	0	0	0	+	0

a/ 97 or more US battalion months.
b/ 24-96 US battalion months.
c/ 23 or less US battalion months.

US Battalion Employment Versus Secure Hamlets (A+B+C), Enemy Activity and ARVN Activity

We present this data for the selected provinces as a series of five pairs of graphs, one pair for each province. For each pair, the top graph displays US battalions versus total hamlets rated relatively secure (A+B+C) and ARVN activity. The bottom graph depicts US battalions versus VC/NVA activity. Since we are most interested in how changes in US battalions compare with changes in the other variables, the graphing technique used was similar to a price index. For each set of data, the average value for 1st quarter 1967 was used as a base figure, and each subsequent entry represents the per cent change from that base level. The single exception is for US battalions in Binh Thuan province. Since there were no US battalions present in 1st quarter 1967, the actual number of battalions is plotted for that province. These graphs are attached in order of descending US battalion presence level and yielded the highly tentative observations which follow.

US Battalions and Secure Hamlets

All five sample provinces show either a constant secure hamlet score or a small but steady improvement up to the 1968 Tet offensive, which caused a drop of 10-50 per cent. The improvement in Quang Tri and Dinh Tuong during the pre-Tet period shows a step increase following a US battalion increase of more than 100 per cent. The associated lags were 6 and 2 months respectively. For Phong Dinh (no US battalions) the secure hamlet line shows a gradual, steady increase prior to the Tet offensive. In Binh Thuan (one US battalion new to the area) and Binh Dinh (50 per cent decrease in US battalions) there was either no effect or the resultant lag encountered the blurring effects of the Tet offensive.

After the 1968 Tet offensive, Quang Tri once again begins a sharp rise in ABC hamlets about 6 months after a sharp rise in US battalions, with progress leveling off for several months after the US battalions were substantially reduced. In Dinh Tuong the curves for US battalion changes and A+B+C hamlet changes are quite similar in the post-Tet 1968 period. In Phong Dinh significant recovery began in August 1968 and continued steadily upward to substantial gains. In Binh Thuan a pattern emerges in the post-Tet period. The US battalion drop is accompanied and followed by a decline in A+B+C hamlets, which then levels off throughout the rest of 1968 as the US battalion presence remains level. In Binh Dinh the pattern is still not very clear.

US Battalions and ARVN Activity

1. US Battalion Increases - Binh Thuan, Quang Tri and Dinh Tuong

In Binh Thuan, one US battalion initially entered in August 1967. In Quang Tri and Dinh Tuong a US battalion increase of around 100 per cent occurs during April and May 1967. Following these changes in US deployment, ARVN activity showed a marked increase and then a decrease to the base level. In all three provinces this was followed, at different intervals, by an erratic but steadily increasing climb to activity levels well above the first quarter 1967 base activity level by December 1968. In Quang Tri and Dinh Tuong, increases of US battalions to more than 250 per cent above base level seemed to depress ARVN activity.

2. US Battalion Decreases - Binh Dinh and Quang Tri

In Binh Dinh the 50 per cent withdrawal of the US battalions was matched by a 75% decrease in ARVN activity, which has remained relatively steady at this lower level. In Quang Tri the effect of the 140 per cent decrease has not yet been apparent. Based on observed lags, these effects should materialize by June 1969.

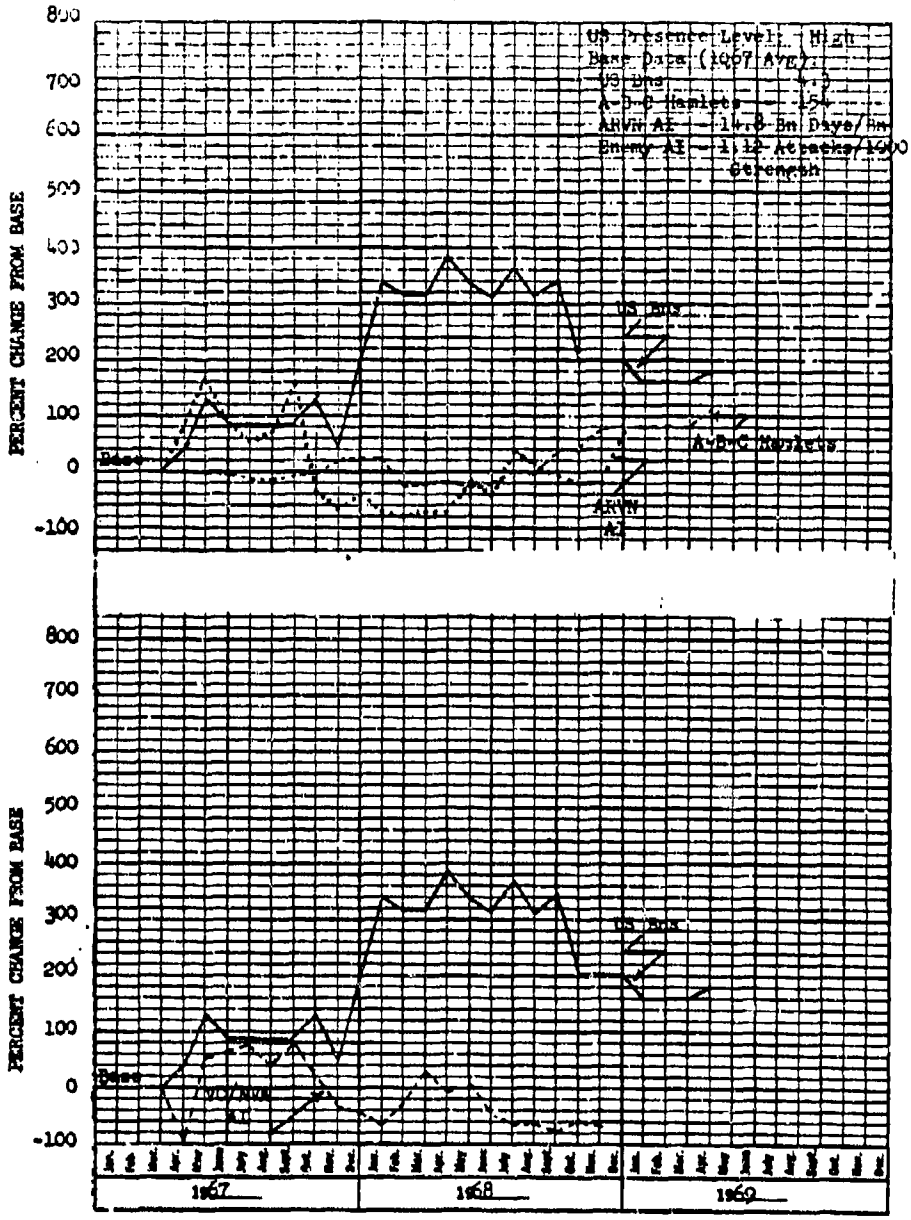
3. Control Province - Phong Dinh

In Phong Dinh, ARVN activity has oscillated generally around the base level throughout. Unlike the other sample provinces, additional ARVN battalions have been deployed there.

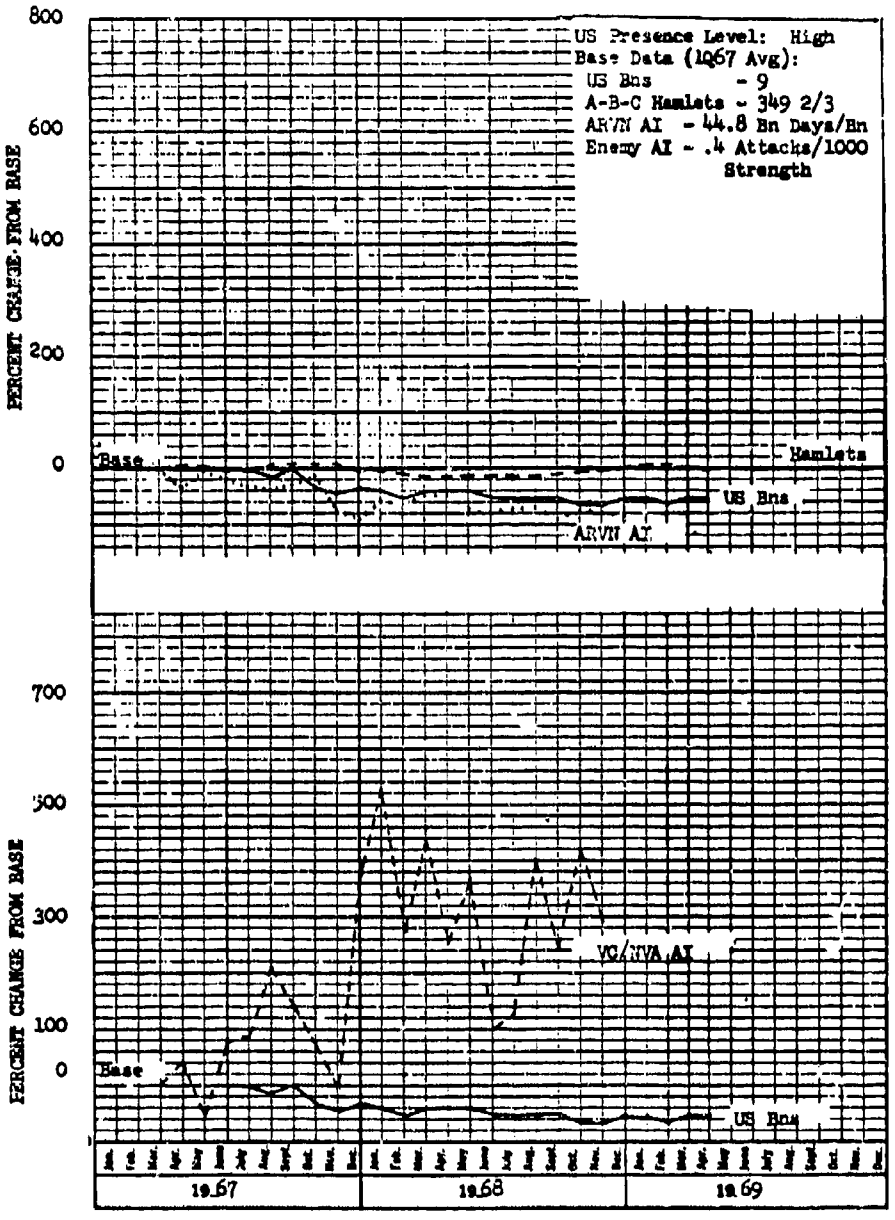
US Battalions and VC/NVA Activity

US battalion increases show an accompanying rise in enemy activity. Otherwise enemy activity follows almost the same pattern for all sample provinces. Activity peaks in Quang Tri, where US presence is highest, are much less pronounced. After the 1968 Tet offensive, there is a definite damping of enemy activity to levels generally below the first quarter 1967 base in 4 of the 5 provinces. The single exception is Binh Dinh where, except for a lower level in June and July 1968, enemy activity has persisted at around 300 percent higher than the base level since the 1968 Tet offensive.

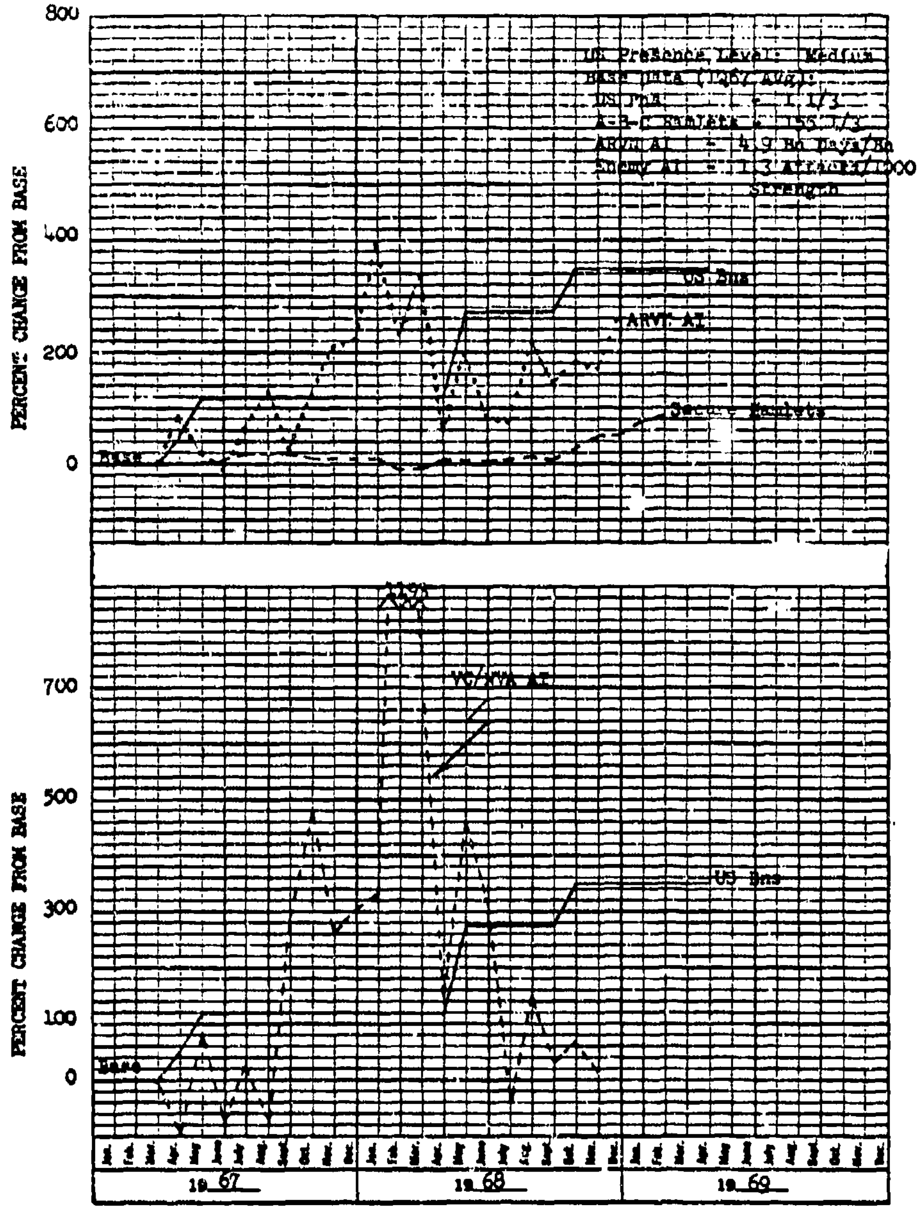
QUANG TRI


US Presence Level: High
Base Date (1967 Ave):
US Bns 4.2
A-D-C Hamlets 154
ARVN AI 14.8 Bn Days/Bn
Enemy AI 1,12 Attacks/1000 Strength
PERCENT CHANGE FROM BASE
800
700
600
500
400
300
200
100
0
-100
US Bns
A-D-C Hamlets
ARVN AI
Base
1967
1968
1969

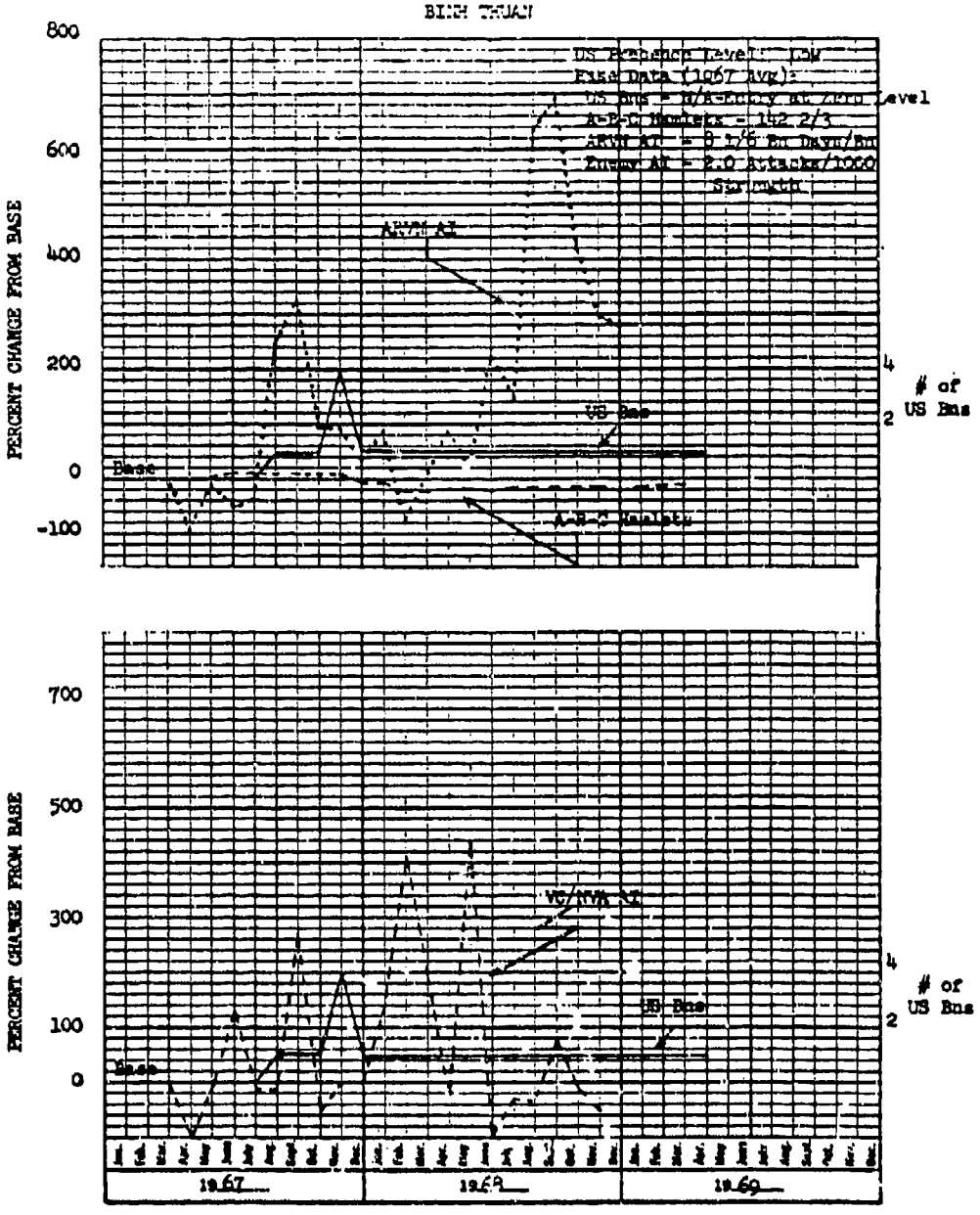
BINH DINH


US Presence Level: High
Base Data (1967 Avg):
US Bns - 9
A-B-C Hamlets - 349 2/3
ARVN AI - 44.8 Bn Days/Bn
Enemy AI - .4 Attacks/1000 Strength
PERCENT CHANGE FROM BASE
800
600
400
200
0
Base
Hamlets
US Bns
ARVN AI
700
500
300
100
0
VC/NVA AI
Base
US Bns
1967
1968
1969

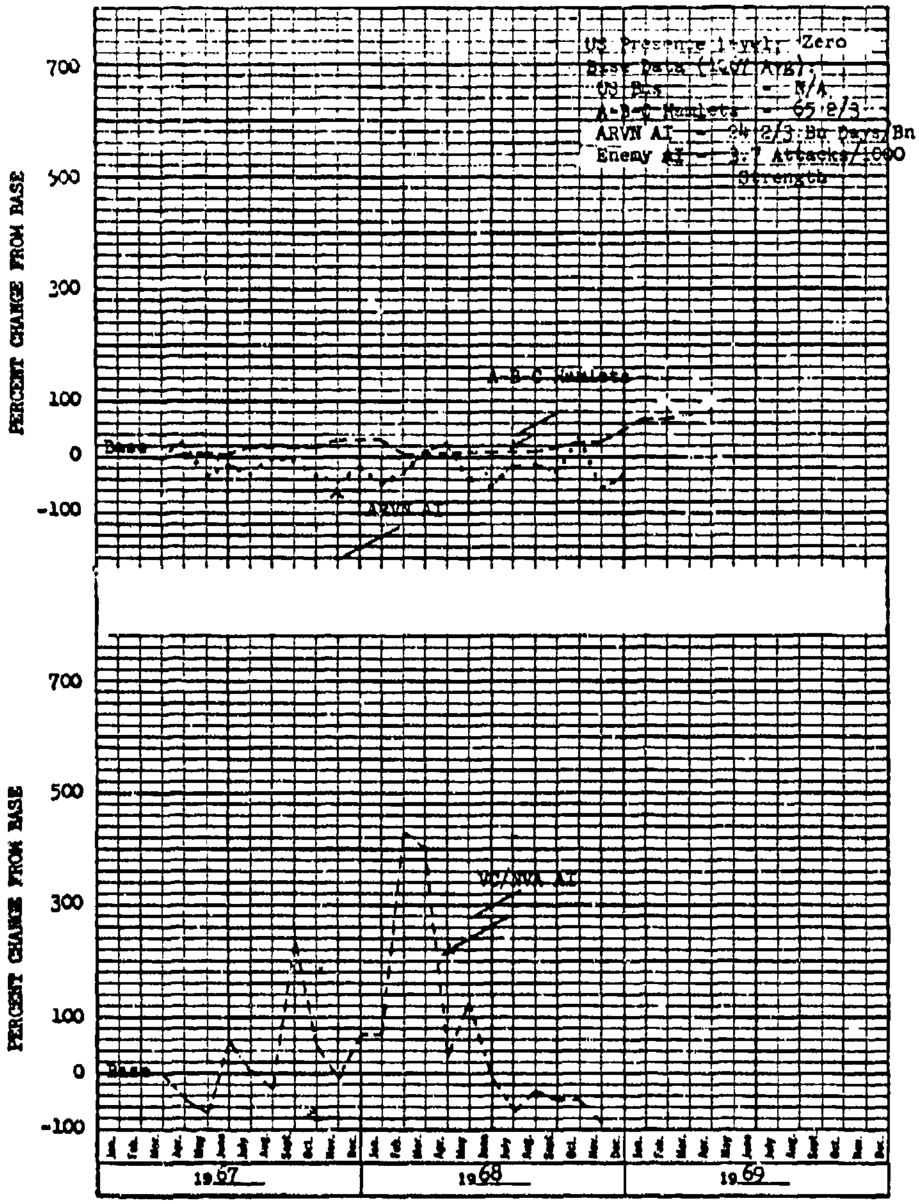
DINH TUONG


US Presence Level: Medium
Strength
US Bns
ARVN AI
VC/NVA AI
US Bns
Base
Base
PERCENT CHANGE FROM BASE
PERCENT CHANGE FROM BASE
800
600
400
200
0
700
500
300
100
0
19 67
19 68
19 69

BIEN THUAN


US Presence Level: LOW
Base Data (1967 Avg):
US Bns = N/A-Enemy at Zero Level
A-P-C Hamlets = 142 2/3
ARVN AT = 8 1/6 Bn Days/Bn
Enemy AT = 2.0 Attacks/1000
Strength
PERCENT CHANGE FROM BASE
800
600
400
200
0
-100
ARVN AT
US Bns
Base
A-P-C Hamlets
# of US Bns
4
2
PERCENT CHANGE FROM BASE
700
500
300
100
0
VC/NVA AT
US Bns
Base
# of US Bns
4
2
1967
1968
1969

PHONG DINH


US Presence Level: Zero
Base Data (1967 AVG):
US Bns - N/A
A-B-C Hamlets - 65 2/3
ARVN AI - 24 2/3 Bn Days/Bn
Enemy AI - 3.7 Attacks/1000 Strength
PERCENT CHANGE FROM BASE
700
500
300
100
0
-100
Base
A-B-C Hamlets
ARVN AI
VC/NVA AI
1967
1968
1969

WITHDRAWAL OF THE US 9TH DIVISION FROM IV CTZ

Summary. By the end of August all US ground combat forces (1st and 2nd Brigades of the US 9th Division) will be withdrawn from the IV CTZ area in South Vietnam. These forces moved into IV CTZ early in 1967. RVNAF and enemy force deployments apparently did not change significantly as a result of the introduction of US ground forces. The enemy attack patterns also showed little change from the patterns elsewhere in IV CTZ. However, the entry of US forces seems to have raised Hamlet Evaluation Security scores in the four provinces where the 9th Division operated most, and there could be some security regression after the forces withdraw. In recent weeks, enemy attacks have not diminished in IV CTZ as they have elsewhere in Vietnam, but most are attacks by indirect fire. Except for a few rocket attacks, the US 9th Division apparently has not been made a prime enemy target after the announcement of its withdrawal, because its combat death rate has followed the countrywide trend for US deaths in the lull.

There is considerable interest in the effects of the withdrawing of all US ground combat forces (9th Division) from the IV Corps area. To develop a better perspective for assessment of possible future changes in enemy activity, GVN security status, and RVNAF performance in the area, this paper describes the entry of US forces into IV CTZ in early 1967, identifies their primary areas of operation, and attempts to examine the impact of the US forces' entry on RVNAF and enemy force deployments, enemy attacks, and HES security scores. Finally, the enemy and South Vietnamese reactions to the announced withdrawal are discussed.

Deployment of US 9th Division into SVN

The 9th US Infantry Division moved into the upper delta region of III and IV Corps in early 1967. This was the initial deployment of US units into IV CTZ, except for one brief joint US/Vietnamese amphibious operation conducted earlier.

After a short in-country training period in Bien Hoa province, the 9th Division units moved into base camps in Dinh Tuong, Long An (III Corps) and Kien Hoa provinces. The 3rd Brigade moved into Dinh Tuong with one battalion in January 1967 and then moved to Long An as the 1st and 2nd Brigades deployed into Dinh Tuong. The 2nd Brigade became the Mobile Riverine Force with one battalion ashore and two afloat. As a riverine force, it operated in conjunction with the US Navy along the major waterways in the area, particularly in the coastal province of Kien Hoa. In January 1969, the 2nd Brigade Headquarters and battalion ashore were shifted to Truc Giang (Ben Tre) in Kien Hoa. The 1st Brigade remained in Dinh Tuong. By late 1968 the tactics of all three brigades had evolved to relatively small unit actions responding to intelligence, instead of large unit sweeps tied to specific terrain.

Table 1 indicates about 90% of the Division's effort has been in Dinh Tuong, Long An and Kien Hoa, plus extended operations of three maneuver battalions in Bien Hoa in 1967. Units from the Division also made brief forays into the III CTZ provinces of Hau Nghia and Gia Dinh, according to MACV order of battle reports.

TABLE 1

9TH INFANTRY DIVISION PRESENCE [a]
(Battalion Months [a] - Jan 1967 through May 1969)

	IV Corps		III Corps			
	Dinh Tuong	Kien Hoa	Long An	Bien Hoa	Other[b]	Total
1st Brigade	38	0	25	33	5	101
2d Brigade	75	6	0	0	7	88
3rd Brigade	1	0	63	17	7	88
9th Division Total	114	6	88	50	19	277

a/ Source: The SEAFA Computer File, which reports the location of each maneuver battalion monthly. One battalion month is the reported presence of a battalion in a province during 1 month.
b/ Operations in Gia Dinh, Hau Nghia and predeployment training.

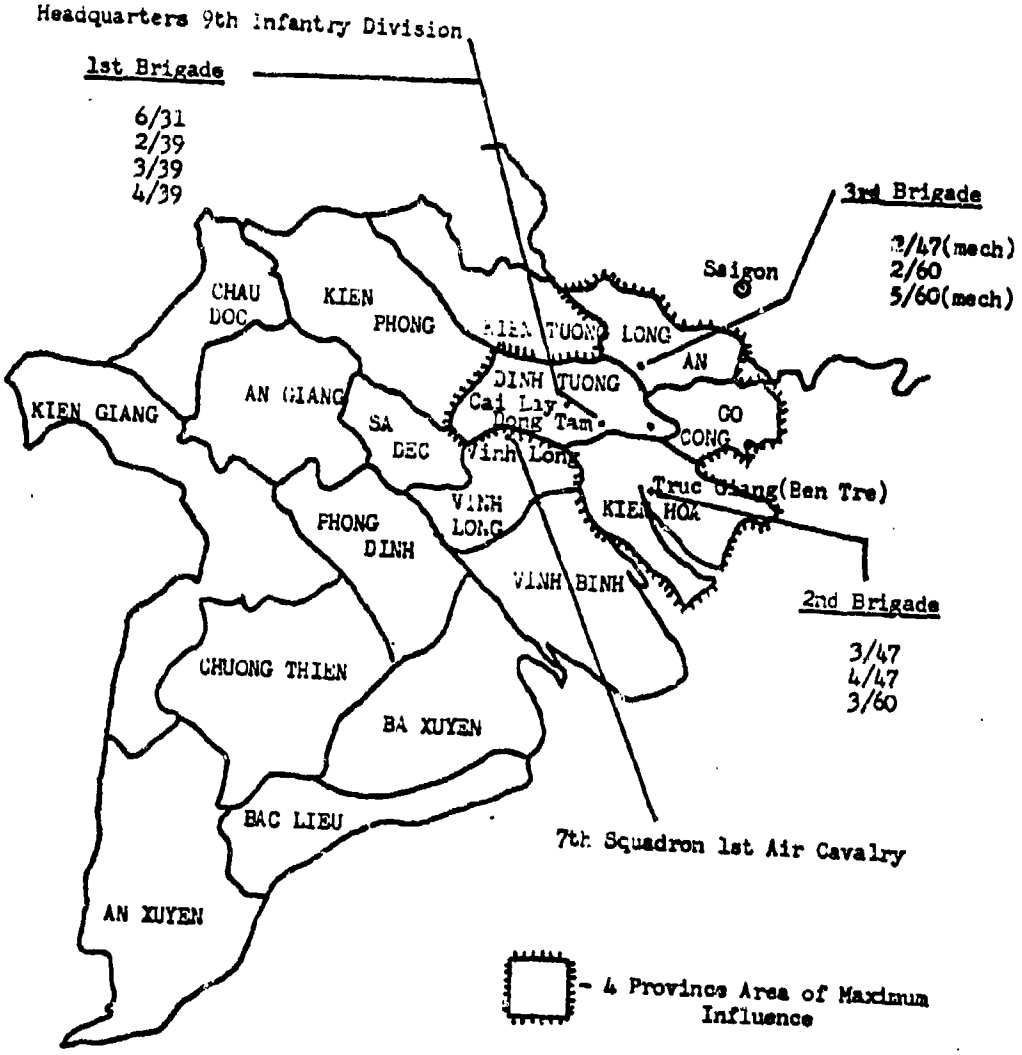
The location of each brigade and its maneuver battalions in May 1969 is shown in Figure 1, along with the location of the 7th Squadron, 1st Air Cavalry, which supports US and ARVN operations in the IV Corps area with helicopter gunship and reconnaissance operations. While the monthly MACV order of battle reports show US maneuver battalions present only in Dinh Tuong and Kien Hoa, operations by units smaller than battalion size, short riverine operations, and support by artillery helicopters have undoubtedly transmitted the 9th Division's influence to adjacent provinces.

Since Go Cong is surrounded by the 9th Division provinces, we are including it within the 9th Division area of maximum impact. Thus, for this analysis, the 9th Division area includes the four provinces of Dinh Tuong, Kien Hoa, Long An, and Go Cong. The sections below examine the enemy and ARVN deployments, enemy activities, pacification status of the area, and events since 1 June 1969.

RVNAF and Enemy Deployments

The 21 ARVN maneuver battalions in the 9th Division area (i.e., the four provinces) at the end of 1966 consisted of 13 battalions, controlled by the ARVN 7th Division, in the IV CTZ portion, and 8 battalions in Long An, under the 25th ARVN Division. Table 2 shows the increase in US battalions during the last two years and indicates that the location and number of ARVN

FIGURE 1


Headquarters 9th Infantry Division
1st Brigade
6/31
2/39
3/39
4/39
3rd Brigade
2/47(mech)
2/60
5/60(mech)
Saigon
CHAU DOC
KIEN PHONG
KIEN TUONG
LONG AN
DINH TUONG
Cai Lay
Dong Tam
GO CONG
AN GIANG
KIEN GIANG
SA DEC
Vinh Long
Truc Giang(Ben Tre)
KIEN HOA
VINH LONG
PHONG DINH
VINH BINH
2nd Brigade
3/47
4/47
3/60
CHUONG THIEN
BA XUYEN
BAC LIEU
7th Squadron 1st Air Cavalry
AN XUYEN
- 4 Province Area of Maximum Influence

battalions have not changed significantly during that time. However, RVNAF Regional and Popular Forces in the area have increased as a result of the RVNAF force expansion. Table 2 also indicates that enemy strength did not change much, but the enemy force figures are from collateral intelligence and may not be very reliable.

TABLE 2

FORCE LEVELS IN 9TH DIVISION AREA a/
(End of Quarter Status)

	1967 1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1968 1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1969 1st Qtr
US Battalions	5	6	6	6	6	9	9	10	10
ARVN Battalions	22	23	22	21	21	21	19	21	20
VC/NVA Strength (000's)	7.7	7.3	8.6	7.5	7.3	7.0	8.3	7.6	N/A

Source: SEAFRS Computer file (from SEAFA).
a/ Includes provinces of Dinh Tuong, Kien Hoa, Go Cong, and Long An

Enemy Activity

Table 3 indicates that the level of enemy attacks in the 9th Division area has fluctuated independently of changes in the US maneuver battalion presence there. Enemy attacks in the 9th Division area averaged about 40% of the IV CTZ total in 1966, 1967 and 1968.

TABLE 3

ENEMY ATTACKS
(Quarterly Average)

	1966	1967	1968	1Qtr 1969
Total Attacks				
IV CTZ	80	175	265	178
9th Div Area a/	31	70	107	94
%	39	40	40	53

a/ Dinh Tuong, Long An, Kien Hoa and Go Cong provinces.

Population Security

Table 4 shows that, at the time of the 9th Division's arrival in first quarter 1967, the percentage of the population in its four provinces rated "C" or "Contested" (D+E) was about the same as the rest of the country. In the other two categories, "A+B" and "VC Controlled" (V), IV Corps lagged slightly behind the countrywide ratings, but the 9th Division area was far behind, with 44% of its population under VC control.

During the periods in which security scores improved, the 9th Division area improved faster than IV Corps or the country as a whole. Moreover, its A+B ratings did not drop below 1st quarter 1967 levels during the 1968 Tet offensive. The marked security improvement beginning with the 4th quarter 1968 scores is probably best explained as the effect of the Accelerated Pacification Campaign operating within the security provided by the 7th ARVN Division, 9th US Division, US Air Cavalry and US Navy.

TABLE 4

SECURITY STATUS - END OF QUARTER

	1967				1968				1969
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
Total Population a/									
Per Cent Rated A&B									
Countrywide	35	36	38	35	23	25	26	38	43
IV Corps	31	30	32	31	23	25	28	36	39
9th Div Area b/	13	15	19	19	15	18	20	29	31
Per Cent Rated C									
Countrywide	26	25	25	28	30	31	34	35	36
IV Corps	23	23	23	23	23	25	25	29	34
9th Div Area b/	26	24	24	24	22	21	21	27	35
Per Cent Contested (D&E)									
Countrywide	16	17	16	17	25	23	20	13	10
IV Corps	17	19	18	19	24	22	20	13	9
9th Div Area b/	17	22	16	16	21	21	20	15	9
Per Cent VC Control (V)									
Countrywide	23	22	21	20	22	21	20	14	11
IV Corps	29	28	27	27	30	28	27	22	18
9th Div Area b/	44	39	41	41	42	40	39	29	25

Source: HAMLA Computer File.
a/ Excluding autonomous cities in countrywide total.
b/ Dinh Tuong, Kien Hoa, Go Cong and Long An.

Table 5 is a regression analysis presentation using data from April 1967 through November 1968. This approach was used in an earlier article to assess the impact of US maneuver battalions. 1/ If security scores are dependent upon the presence of US battalions, then the increase in US battalions during the period should be accompanied by an increase of population within GVN security (A+B+C) and a decrease of either contested population (D+E) or VC controlled population (V). A reduction in US battalions should have the opposite effects.

Table 5 shows just such a pattern for Dinh Tuong, Long An and countrywide data. In Dinh Tuong, the GVN secure and contested categories increase at the expense of the VC controlled category when US battalions are increased. The effect of US presence (or absence) shows immediately; there is no time lag. In Long An the GVN secure category increases at the expense of the VC category, with the contested category having no relationship to the input or withdrawal of US battalions, and it takes four to seven months for the full effect to show. The countrywide pattern is similar to Dinh Tuong's, but the lag is nine to ten months.

TABLE 5

REGRESSION ANALYSIS[a/]
HES SECURITY SCORES AGAINST US BATTALIONS
BY MONTH, APR 67 THROUGH NOV 68

	Dinh Tuong		Long An		Countrywide	
	Corr	Lag (Months)	Corr	Lag (Months)	Corr	Lag (Months)
Total Population						
Within GVN Security (A+B+C)	+	0	+	4	+	10
Contested (D+E)	+	0	0	1	+	0
VC Controlled (V)	-	0	-	7	-	9

Source: SEAPRS computer file (HAMLA data).
a/ + significant positive correlation.
- significant negative correlation.
0 no significant correlation.

Thus, Dinh Tuong may prove to be a useful case study for evaluating the immediate impact of withdrawing US forces because there seems to be some relationship between the Hamlet Evaluation System (HES) security scores and the presence of US maneuver battalions. Moreover, the relationship shows immediately after a change in US presence. However, the relationship

1/ SEA Analysis Report, June 1969, p. 7.

is not an extremely strong one; only 20-25% of the change in the HES scores can be explained by the change in US battalions. Nonetheless, the withdrawal of US battalions from Dinh Tuong could adversely affect HES security scores there soon, unless other factors (which influence the other 75-80% of the changes in HES scores) overcome the influence of the US withdrawals.

Table 6 shows the changes in maneuver battalion employment for IV Corps which will have occurred by September 1, 1969, assuming no change in ARVN deployment after 8 July. The 9th Division redeployment will result in a 14% reduction of IV Corps friendly maneuver battalions and a 21% decrease in battalions on combat operations. Of course, the impact on the four 9th Division provinces will be greater.

TABLE 6

IV CTZ MANEUVER BATTALION DEPLOYMENT

	8 June	30 June	17 July	1 Sep[a]
Combat Operations				
US	6	4	3	0
ARVN	28	27	27	27
Security/Pacification				
US	1	0	1	0
ARVN	12	12	12	12
Reserve/Training				
US [b]	0	3	1	0
ARVN	3	4	4	4
Total				
US	7	7	5	0
ARVN	43	43	43	43

Source: NMCC Operational Summary
a/ Estimated.
b/ US Battalions standing down for movement.

Events Since 1 June 1969

Friendly Operations. The 9th Division began its IV CTZ operations in June with one battalion in security and the remaining six battalions of the 1st and 2nd Brigades committed to combat operations. Following the June 8 Midway conference announcement, these two brigades were publicly designated (on 17 June) for redeployment. On 20 June, the 2nd Brigade moved to the Division Headquarters at Dong Tam in Dinh Tuong province, and by 4 July all three battalions (3/47, 4/47 and 3/60) were standing down for redeployment. On 8 July the 3/60 departed for the US followed by the 4/47 on 13 July The remaining battalion and 2nd Brigade Headquarters will move to the US for demobilization by 27 August. On 23 July, the 1st Brigade turned over the fire support base at Cai Lay to the 7th ARVN Division. The 9th Division Headquarters and the 1st Brigade will redeploy to Schofield Barracks, Hawaii, and become a part of PACOM reserve between 30 July and 30 August.

Vietnamese Reaction[1/] Outside the 9th Division operational area, the Vietnamese appear to be relatively unconcerned, but in the provinces of Kien Hoa and Dinh Tuong, there is reportedly a mixture of relief and apprehension. This ambivalence apparently stems from uncertainty regarding security without American support, coupled with a feeling that heavy US firepower can be as large a personal threat as VC terror.

Officers from the 7th ARVN Division express some optimism, stating that ARVN soldiers will go on the same number of missions as before, and that adequate US air, artillery, and helicopter support has been assured. On the other hand, there are some fears that RF/PF performance will suffer from reduced US materiel and fire support. There are no indications that the Vietnamese accept the VC contention that the withdrawal is a tacit US admission of defeat.

Recent Enemy Actions The countrywide lull in combat started during the week ending 25 June, with enemy ground, ambush and indirect fire attacks, averaging 66 per week through 19 July, compared with 123 per week during the two weeks before the lull. In IV CTZ, the opposite happened: average attacks increased to 14 per week, versus 10 per week before the lull. On the other hand, IV CTZ closely followed the countrywide trend in harassment, terror, and sabotage incidents, with a 5.5% decline (vs 5.6 decline countrywide), as shown by Table 7. Thus, the enemy may have reacted to the withdrawal announcement by deciding to keep his attack level up in IV CTZ, particularly attacks by indirect fire.

TABLE 7

RECENT ENEMY ACTIVITY LEVELS - IV CTZ
(Weekly Totals)

	June 14	21	28	July 5	12	19
Total Attacks [a/]						
Countrywide	127	119	88	61	67	49
IV Corps	9	11	13	9	20	14
H/T/S Incidents						
Countrywide	495	501	413	441	507	521
IV Corps	95	49	50	41	75	107

Source: DIA

a/ Includes assaults, ambushes and indirect attacks by fire.

1/ Based on recent CIA and American Embassy assessment.

After the redeployment announcements there were indications that the VC had changed tactics in the upper delta region; elements of the 9th Division had difficulty finding and engaging the enemy and there were numerous reports of small Viet Cong units hiding out in villages. In the lower delta (VC Military Region 3), the VC are reportedly moving into pacified areas, and their operations indicate the possibility of strong attacks.

Primary VC emphasis in the 9th Division area has been on propagandizing the withdrawal as a defeat for US forces, supported by harassment of US bases during and after the withdrawal. On 10 July a 107mm rocket landed in the Dong Tam base, resulting in 23 US WIA, the first such attack since 20 June. Since then there have been other attacks by fire, and captured documents indicate continued VC reconnaissance of US bases.

Despite the harassment and reported targeting of the withdrawing units, 9th Division combat deaths declined from an average of 17.6 per week in the 5 weeks before the lull to 9.3 per week during the lull, following the countrywide trend.

During the 3 week period preceding the Midway conference, 44% of the 9th Division KIA were due to gunshot wounds or grenade fragments; for the 3 week period which followed the conference, this figure had dropped to 34%. Wounds caused by gunshot and grenade fragments are reasonable indicators of forces in contact, so the decrease tends to support assertions that the VC are relying on attacks by fire and avoiding ground contact.

VIETNAM REDEPLOYMENTS

On June 8, President Nixon announced redeployment of approximately 25,000 US combat troops from South Vietnam. The currently approved deployment program (Program #7) for manpower, logistical, and financial planning, reduced the authorized strength from 549,500 to 524,500 military personnel. However, the return of 25,000 troops is expected to reduce the actual number of US military personnel in SVN to about 515,000 by September 1969.

Troop withdrawals began on July 2 and are scheduled to be completed by August 27. During this period, 88 units (52 Army, 6 Navy, 30 USMC) and approximately 31,000 short tons of cargo will be moved from SVN to bases in CONUS, Hawaii, Okinawa, and Japan. The table below projects actual US troop strength in SVN during the redeployment period.

PROJECTED US TROOP STRENGTH IN S.V.N a/
(000)

Week Ending	Projected Actual Strength
3 Jul 69	539.2
17 Jul 69	534.4
31 Jul 69	532.0
14 Aug 69	524.0
28 Aug 69	514.3

a/ Based on JCS-SASM 1st increment redeployment timetables. Normal replacement/returnee fluctuations omitted.

Army Approximately 15,400 Army troops will be redeployed. Major elements include the 1st and 2nd Brigades of the 9th Infantry Division (the 3rd Brigade will become a separate brigade); two artillery battalions; two engineer battalions; one Hawk Air Defense Battalion, and one aviation battalion. The 2nd Brigade was the only US Army unit operating with allied riverine forces in IV Corps; Vietnamese units will now assume full responsibility for riverine operations. Approximately 8100 personnel (primarily the 2nd Brigade, 9th Division) will return to CONUS and be inactivated. The remainder will be stationed on Hawaii where the 9th Infantry Division (-) will absorb the 29th Infantry Brigade and reconstitute a portion of the Pacific Command (PACOM) reserve force.

Marines Approximately 8400 Marines will be redeployed. One regimental landing team (9th Marines) will relocate on Okinawa, and one tactical air squadron of the 1st Marine Air Wing will move to Japan. Approximately 400 Marines will return to CONUS for inactivation.

Navy A total of 1200 Navy personnel will be redeployed; 800 will return to CONUS and inactivate. The majority of the Navy personnel scheduled for inactivation are from the riverine assault squadrons operating in the IV Corps Delta region whose equipment will be gradually turned over to the Vietnamese. Navy personnel supporting the Marines redeploying to Okinawa and Japan will accompany the Marine units.

Air Force No Air Force personnel are being redeployed in the first increment.

The following table summarizes redeployment activities by service and by destination.

REDEPLOYMENT SUMMARY

Total by Service	To Be Inactivated	To Be Retained	Total	% of Total
Army	7,979	7,421	15,400	61.6
Marines	360	8,028	8,388	33.5
Navy	821	401	1,222	4.9
Air Force	-	-	-	-
Total	9,160	15,850	25,010	100.0

Total by Destination	Army	Marines	Navy	Total	% of Total
Afloat in WESTPAC			149	149	0.6
Okinawa		7,640	247	7,887	31.5
Japan		388	5	393	1.6
Hawaii	7,421			7,421	29.7
CONUS	7,979	360	821	9,160	36.6
Total	15,400	8,388	1,222	25,010	100.0

IMPACT OF US WITHDRAWALS

Summary. Initial troop withdrawals from IV Corps and I Corps were completed in August. The ARVN 7th Division took over from the withdrawing 9th US Infantry Division in IV Corps, but the 9th Marine Regiment was replaced by expanding the operational zone of the adjacent 4th Marine Regiment. On the basis of our two previous articles dealing with withdrawals and incomplete province level data since June, no unusual developments have occurred in either withdrawal area yet. As expected, there are different enemy activity patterns in the two areas but there was little or no successful harassment of departing units in either place. As more data become available, we will continue to watch these two areas, and others from which US units are to be withdrawn. Future articles will also include a detailed examination of RVNAF performance in withdrawal areas.

Background. In our June article we examined HES security scores, enemy activity and RVNAF activity on a countrywide basis and found that, for analysis, grouping provinces according to the historical level of US presence was more useful than administrative grouping by Corps. Using this approach we tentatively concluded that in provinces with more than 4 US battalions, (such as Quang Tri and Dinh Tuong) addition of more battalions seems to raise the HES scores, and withdrawal seems to lower them. The time lag for such effects to become apparent varied from 0 to 8 months, depending on the province. Enemy activity showed some initial reaction to additional US battalions but quickly reverted to countrywide patterns.

In the July analysis we concentrated on a historical review of IV Corps and found that the entry of the 9th Division seemed to have had positive effects on HES security scores there. There seemed to be no change in enemy attack patterns from the rest of IV Corps, and after the withdrawal of the 9th Division was announced, its combat death rate followed countrywide trends during the lull period.

During July and August, the 1st and 2nd Brigades of the US 9th Infantry Division redeployed from IV Corps and the 9th Marine Regimental Landing Team departed Quang Tri in northern I Corps. This status report uses applicable portions of two articles in the SEA Analysis Report[1] reviewed above, together with the most current province level data to provide a fragmentary initial assessment.

US 9th Infantry Division

The 2nd Brigade, with 3 battalions, relocated from Kien Hoa province to the 9th Division Headquarters and 1st Brigade base (Dong Tam) in Dinh Tuong province on June 20. By the end of July, four battalions of the 1st and 2nd

1/ "Impact of US Maneuver Battalions in SVN," June 1969.
"Withdrawal of the US 9th Division from IV CTZ," July 1969.

Brigades had redeployed from Dong Tam. The remaining two battalions left in August and the security battalion joined the 3rd Brigade in III Corps' Long An province on August 31. The 11th Infantry Regiment of the 7th ARVN Division assumed control of the Dong Tam base on September 1.

Table 1 shows the recorded 9th Division maneuver battalion presence by province since December 1967 as of the end of each quarter or month depicted. Consistent with the July article in the Analysis Report, Go Cong is included because it is surrounded by the other three 9th Division provinces. Moreover, numerous operations have been conducted in both Go Cong and Kien Hoa which were either not large enough or did not last long enough to be recorded in the monthly order of battle reports.

From Table 1 it appears that Kien Hoa and Go Cong might show any impact of withdrawal somewhat earlier than Dinh Tuong, which had at least three battalions present through July. Also, note that Long An has gained one battalion as a result of the redeployment. Some internal shifting has occurred as ARVN units assume control of bases vacated by the US units, but by July 31 there has been no change since January in the number of ARVN battalions (13) deployed in the 9th Division area of IV Corps.

TABLE 1

9TH US INFANTRY DIVISION
MANEUVER BATTALION LOCATIONS

	1967	1968				1969			
	4Qtr	1Qtr	2Qtr	3Qtr	4Qtr	1Qtr	2Qtr	July	Aug
IV Corps									
Dinh Tuong	3	3	5	5	6	6	7	3	0
Kien Hoa	0	0	0	0	1	1	0	0	0
Go Cong	0	0	0	0	0	0	0	0	0
Subtotal	3	3	5	5	7	7	7	3	0
III Corps									
Long An	3	3	4	4	3	3	3	3	4

Source: SEAFA Computer File, from MACV Order of Battle Reports.

Effects on Security. In our July article we noted that, from January 1967 through March 1969, during periods in which HES security scores improved, the 9th Division area rate of improvement was greater than IV Corps or SVN-wide rates. The data also showed that when the 9th Division arrived in their operational area, 39% of the population was rated relatively secure as opposed to ratings of 54% for IV Corps as a whole and 61%[2] for the entire country.

2/ The countrywide rating excluded autonomous cities. Inclusion of these cities gives a higher percentage (67%).

Table 2 brings the HES ratings up through August 1969. It shows that Go Cong has surpassed the 90% A-B-C rating goal and countrywide ratings should meet the October deadline with no difficulty. Dinh Tuong and Kien Hoa will be hard pressed to attain a 90% rating by December at their current rate of progress. Lack of progress in Dinh Tuong during July was primarily due to a regression in Binh Tranh District, which straddles highway 4 between My Tho and Saigon. More than 7500 people in this primarily rural district were downgraded from relatively secure (A-B-C) to contested and VC categories during July, which dropped the A-B-C rating from 74.4% to 62.1% there. August data shows a resumption of progress for Dinh Tuong, but district level figures are not yet available.

TABL

TOTAL POPULATION RELATIVELY SECURE
(Percent A-B-C)

	1967 4Qtr	1968 1Qtr	2Qtr	3Qtr	4Qtr	1969 1Qtr	2Qtr	July	Aug
Dinh Tuong	40	37	38	36	53	66	78	78	79
Kien Hoa	43	31	30	36	51	63	64	65	67
Go Cong	68	63	71	75	82	90	92	94	96
3 Prov Total	49	39	40	45	59	69	71	72	76
IV Corps Total	54	46	50	53	65	73	76	79	81
RVN Total	68	60	63	66	76	81	85	88	89

Source: HAMDA Computer File, from MACV Monthly Pacification Status Report, Hamlet Evaluation System (HES).

Enemy Activity. Despite reports that the VC planned to target redeploying 9th Division units, such intentions were either frustrated or abandoned -- 9th Division units in IV Corps suffered a total of only 12 KIA in July-August compared to 34 KIA for June alone. VC/NVA activity in IV Corps during July and early August has been reported as generally light, with indications that current emphasis is on rebuilding the organizational structure.

In verification of reported VC manpower shortages and recruiting difficulties in IV Corps, 1000-1200 NVA fillers have been integrated into local and main force battalions in northern IV Corps. The long lead time for enemy movements of this type makes it unlikely that this was a response to the 9th Division withdrawal, but their presence enhances the enemy's capability in this critical area.

The appearance of NVA units in IV Corps for the first time is of greater significance. From four to seven battalions have been reported in the Chau Doc-Kien Giang-An Xuyen area. The timing of this movement (first reported in May) and its location (which is as far from the 9th Division area as they can get and still be in IV Corps) suggests that the NVA units are no immediate threat to ARVN units operating in the area vacated by the 9th Division. If, however, they can operate successfully with local forces in the traditionally VC Delta area, they will threaten newly pacified areas in southern IV Corps.

Data for the Terrorist Incident Reporting System (TIRS) is not only useful as a gauge of enemy activity, it can also be used to augment assessments of HES security ratings. One objective of terrorism is to disrupt the pacification program and demonstrate GVN inability to protect inhabitants of villages and hamlets. July terrorism data is available and a selected portion is displayed in Table 3.

The table shows that the 3 province area consistently accounts for about 25% of the terror incidents causing casualties in IV Corps. Moreover, the number in July declined only 6% while similar incidents declined 11% in IV Corps and 22% in the country as a whole. It is not yet clear whether this is significant.

TABLE 3

TERROR INCIDENTS a/
(Monthly Average)

	1968			1969	
	Jan-June	July	July-Dec	Jan-June	July
Dinh Tuong	24	14	20	19	19
Kien Hoa	8	3	5	7	6
Go Cong	5	1	4	7	6
Subtotal	37	18	29	33	31
IV Corps Total	148	76	119	141	125
RVN Total	552	357	464	535	415

Source: TIRS Computer File.

a/ Includes incidents causing casualties only. These comprise about 5% of the total incidents.

9th Marine Regiment

One battalion of the 9th Marines began standing down at the Vandegrift Combat Base in Quang Tri province on June 26. On July 16, the 1st battalion departed, followed by the 2nd battalion on August 1 and the 3rd battalion on August 13. Unlike the IV Corps situation, where the 7th ARVN Division units replaced US units withdrawn, the 4th US Marine Regiment expanded its operational zone to encompass the area vacated by the 9th Regiment. By

mid-December, however, the remaining 7 battalions of the 3rd Marine Division, including the 3rd and 4th Regiments, will have redeployed. Three of these battalions began departure preparation on September 22.

Table 4 shows the recorded maneuver battalion presence and HES security score for Quang Tri and for I Corps. Quang Tri has made no progress in A-B-C security ratings since December 1968, following substantial gains during the third and fourth quarters of last year. The 40% reduction in US battalions during 4th quarter 1968 and 1st quarter 1969 could be associated with the loss of momentum in security score improvement. By mid-December this year, US battalions in Quang Tri will be reduced to 3, unless a corps-wide redistribution is made.

In our June article we pointed out that Quang Tri was a province with a high level of US presence and strong correlation between security ratings and US maneuver battalions. Vietnamization programs, or other factors, seem to have countered regressive effects of the earlier reductions, but RVNAF forces must bear an increasingly large burden as current and projected withdrawals impact on the province. Enemy reaction may well be the determining factor; unlike Dinh Tuong in the IV Corps area, Quang Tri faces a heavy NVA threat with short lines of support.

TABLE 4

US MANEUVER BATTALIONS AND TOTAL POPULATION RELATIVELY SECURE
(Percent A-B-C)

	1967 4Qtr	1968 1Qtr	2Qtr	3Qtr	4Qtr	1969 1Qtr	2Qtr	Jul	Aug
Quang Tri									
US Maneuver Bns	13	18	18	19	13	11	13	12	10
Security Score	54	45	45	65	88	88	87	89	88
I Corps									
US Maneuver Bns	80	92	97	99	90	90	90	89	87
Security Score	59	50	53	54	69	74	83	86	88

Source: SEAFA Computer File.
HAMDA Computer File.

Enemy Activity. Other than scattered propaganda exploitation, there was little enemy reaction to the initial US withdrawals in I Corps. Unlike IV Corps, there were no reports that redeploying Marine units would be targeted and the withdrawal was accomplished in a period of relative quiet. Most enemy activity since the lull has been concentrated in central I Corps west of Danang.

Table 5 displays enemy terror patterns for I Corps and Quang Tri since September 1967 and can be compared to Table 3 for RVN and IV Corps data. It shows that incidents of terror causing casualties are extremely low in Quang Tri during 1969.

TABLE 5

TERROR INCIDENTS a/
(Monthly Average)

	1967	1968			1969	
	4Qtr	Jan-June	July	Jul-Dec	Jan-June	Jul
Quang Tri	31	32	17	13	3	1
I Corps	117	114	108	125	110	76

Source: VCIIA Computer File, from VNDBA.
TIRS Computer File.

a/ Includes incidents causing casualties only. These comprise about 50% of the total incidents.

VIETNAM REDEPLOYMENTS

On September 16, President Nixon announced that the authorized troop strength in South Vietnam would be reduced from the previously approved level of 524,500 to 484,000 by December 15, 1969, a total decrease of 40,500 authorized spaces. The actual strength in South Vietnam is expected to fluctuate below 484,000. Specific reductions in each Service are discussed briefly below.

Army

A total of 13,992 Army troops will be redeployed. Major elements include the 3rd Brigade, 82nd Airborne Division, 10 reserve component units, two non-divisional artillery battalions, one engineer battalion, and three hospital units. All Army personnel will return to CONUS, and approximately 14,000 personnel spaces will be inactivated.

ARMY SPACE REDUCTIONS

Infantry (includes three infantry battalions)	3,302
Artillery (includes three 105mm battalions)	2,128
Engineer (one combat engineer battalion)	977
Medical (includes three hospitals)	990
Combat Support	2,051
Signal	1,041
Transportation	709
Patient	500
TDY	200
Other	2,094
Total	13,992

Marines

The Marine Corps will redeploy a total of 18,483 personnel including 15,368 troops in the 3rd Marine Division and 3115 in the 1st Marine Air Wing. The 3rd Marine Division base and one regimental landing team with support elements (about 8,700 men) will join the 9th Regimental Landing Team on Okinawa. These Marine forces will maintain two battalion landing teams afloat in WESTPAC. One squadron of tactical aircraft and the majority of Air Wing Headquarters (approximately 900 personnel) will redeploy to Japan to provide air support for Marines on Okinawa. The remainder of the Marine Corps personnel (about 8900 men) will redeploy to CONUS. Approximately 20,000 personnel of the 5th Marine Division at Camp Pendleton will be inactivated, and about 900 out-of-country/non-effective spaces will be eliminated.

MARINE SPACE REDUCTIONS

Ground

3rd Marine Regiment (includes three inf bns)	3,752
4th Marine Regiment (includes three inf bns)	3,752
12th Marine Regt. (includes two 105mm bns, one 155mm bn)	1,970
1 tank battalion	485
2 combat engineer battalions	1,225
Logistics personnel	1,702
Out-of-country/non-effective (OOCNE)	738
Other (recon, intelligence, hq.)	1,744
Sub-total	15,368

Air

2 CH-46 helicopter squadrons	515
1 CH-53 helicopter squadron	233
1 Marine air base squadron	494
1 A-6 attack squadron	304
1 OV-10 observation squadron	274
Hq 1st Marine Air Wing, one Marine air support squadron	535
Hq and maintenance squadron	617
Out-of-country/non-effective (OOCNE)	143
Sub-total	3,115
Total	18,483

Air Force

The Air Force will redeploy 2595 personnel including two special operation squadrons and one tactical bomber squadron. In addition, the SVN authorization for the two tactical fighter squadrons whose deployment is presently held in deferment will be eliminated. Approximately 1300 USAF personnel will be inactivated.

AIR FORCE SPACE REDUCTIONS

2 F-4 fighter squadrons[a/]	418
1 B-57 bomber squadron	240
2 Special operations squadrons (A-1, C-47 & U-10)[b/]	315
Combat support	523
Maintenance	438
Other	661
Total	2,595

a/ Presently deferred.
b/ 18 A-1 aircraft will go to US units in Thailand to bring actual number of aircraft up to authorized UE level. 6 C-47, 20 U-10 will be sent to Clark Field, P_, for storage, and later use in RVNAF Modernization and Improvement campaign.

Navy

Navy support elements with the 3rd Marine Division and five Navy mobile construction battalions will be redeployed, a total of 5430 personnel. About 3800 personnel will be inactivated. About 900 Navy support personnel will accompany the Marines to Okinawa.

NAVY SPACE REDUCTIONS

5 Mobile construction battalions	3,743
USN with the 3rd Marine Division	916
USN with the 1st Marine Air Wing	24
USN support at Danang	500
Other[a/]	247
Total	5,430

a/ Includes headquarters and aviation personnel.

The following tables summarize redeployment activities by Service and by destination. The Service totals are subject to slight adjustment within the 40,500 total.

INACTIVATION SUMMARY

Service	To be Inactivated	To be Retained	Total	% of Total
Army	13,992[a/]	-	13,992	34.6
Marines	861	17,622	18,483	45.6
Air Force	1,325	1,270	2,595	6.4
Navy	3,800	1,630	5,430	13.4
Total	19,978	20,522	40,500	100.0

a/ Does not include approximately 20,000 personnel of the 5th Marine Division (-) who will be inactivated.

REDEPLOYMENT SUMMARY

Destination	Army	Marines	Air Force	Navy	Total	% of Total
Okinawa	-	8,656	-	879	9,535	23.5
Japan	-	889	-	7	896	2.2
CONUS	13,992	8,938	2,595	4,544	30,069	74.3
Total	13,992	18,483	2,595	5,430	40,500	100.0

IMPACT OF US 9TH DIVISION REDEPLOYMENT

Summary. Redeployment of the 9th US Division from IV Corps does not yet appear to have had any dramatic impact. A possible slowing of momentum in pacification was recovered by September. This reduced momentum seems to be associated with reduced RVNAF activity during the July-August transition period, followed by a marked resurgence in September. Enemy activity continued generally light with emphasis on terrorism and harassement. The brief discussions which follow are supported by attached tables of data.

This analysis concentrates on the three province area of northern IV Corps (Dinh Tuong, Kien Hoa and Co Cong) which was the primary operating area of the US 9th Division. Of the 7 US battalions operating there during the 2nd quarter of 1969, 4 redeployed during July and the remaining 3 had departed by August 31. In I Corps, the remaining Marine units expanded their operational area to compensate for the initial redeployment of 3 battalions. Thus no major impact could be expected. Completion of Phase II redeployments will create, in Quang Tri Province of I Corps, a situation more analogous to that which now exists in IV Corps and we will watch it closely.

Pacification. As ARVN units take over from redeployed US forces, and Regional Force units in turn fill the gap left by those ARVN units, we felt that resultant changes in the working environment of internal security forces (Popular Forces, RD Cadre, etc.) might temporarily depress Hamlet Evaluation System (HES) security scores or retard current rates of progress. In the 7th ARVN Division Tactical Area (DTA), security scores progressed at a rate of 1 percent per month during July and August compared to a rate of 2 percent per month during the first half of 1969. In September, however, a gain of 3 percentage points was recorded, apparently regaining lost momentum. To provide early warning, we are also monitoring the detailed HES data by district. Two districts in Dinh Tuong province regressed during July and August and we are awaiting the September district data for a more current assessment. (Table 1.)

Chieu Hoi rates for July and August, and VCI neutralization for the entire 3rd quarter continued at rates exceeding those for the 2nd quarter of this year, both countrywide and for the 7th ARVN's DTA. However, in view of the softness of both the Chieu Hoi and VCI data, we attach little significance to these figures. (Table 1.)

RVNAF Performance. The performance of the 7th ARVN Division, and Regional/Popular Force units operating in the 3 province area was analyzed in terms of effort expended and results obtained. Because of problems with SEER reports, July data is the latest available for the 7th Division, however, performance of RF/PF units was examined through September 1969.

The 7th Division data for July shows a marked increase in short operations and reversed a downward trend in small unit operations (SUO) during the first

.lf of 1969. Moreover, the percentage of short operations conducted at night shows an even greater increase. This increased effort has, however, been only moderately reflected in results. Large unit contacts and enemy KIA are up compared to the 2nd quarter, but are still below first quarter averages. Small unit and night contacts per battalion are essentially zero. Kill ratios show a continual decline during 1969. (Table 2)

The number of operations conducted by RF/PF units in the area where the 9th US Division operated appears to be closely allied to the security score for the area. During July and August the RF/PF units showed a decrease in number of operations conducted per unit both from first half 1969 averages and in comparison to the nationwide average. In neither month did operations drop below 1968 averages. In September, however, the two month trend was reversed, with RF units conducting more operations than the countrywide average and PF units achieving parity (Table 3). In operational results the RF units have been consistently higher than the countrywide average in enemy KIA per unit throughout the time period examined, but contacts per unit are somewhat lower. PF units are lower than the national average in both categories. September advisor ratings in responsiveness and leadership, when compared to June ratings showed slight increases for RF units generally equal to those in the rest of the country. During this same period PF ratings decreased both countrywide and for the three province area, with a greater decrease in responsiveness in the latter area.(Table 4)

Vietnamese Reactions. Earlier expressions of confidence on the part of VNAF officers are becoming somewhat more guarded. Reports indicate increasing concern about basic US intentions and strong convictions that US combat support will have to be retained for an indefinite period, even in areas such as southern IV Corps, which have never had a large presence of US combat troops. Civilian reactions reflect the various vested interests in the current period of uncertainty - businessmen are concerned about the economic vacuum and politicians worry about the political power vacuum. There is greater apprehension among the urban population than those in the rural areas, whose concern about security seems to be tempered by a feeling of relief that the tempo of the war is being diminished. In spite of all the concerns and caveats reflected in reports received in Washington, an impression emerges from the reports that there has been a modest resurgence of national pride and purpose.

Enemy Activity. Enemy activity data, augmented by the latest field reports, shows a decline in intensity since June, with primary reliance on terror and harassment by indirect fire (Table 1). This reduced level of activity partially accounts for continued progress in pacification and thelower productivity for RVNAF operations. Enemy units, fragmented by 9th US Division operations in the area, are generally refusing contact. The entry of NVA units into southern IV Corps, and NVA fillers in the northern portion, appears to be more in response to enemy problems of long standing rather than to US withdrawals. Nevertheless, the arrival of some 1,000 NVA fillers in northern IV Corps greatly enhances the enemy capability in the area vacated by the US forces, posing a continuing challenge to RVNAF forces in the area.

TABLE 1

GENERAL OUTPUT MEASURES[a]

	1968	1969			
		Jan-June	July	Aug	Sept
VCI Neutralized					
7th ARVN DTA	[d]	130	195	189	176
RVN		1088	1790	1839	2005
Chieu Hoi					
7th ARVN DTA		486	637	526	[d]
RVN	1514	3487	5608	3907	
HES Security Scores (End of Period Shown)					
ABC Population (%)					
7th ARVN DTA	56	74	75	76	79
RVN	76	85	88	89	91
AB Population (%)					
7th ARVN DTA	31	33	35	39	46
RVN	31	41	46	49	54
Enemy Activity					
Total Attacks[b]					
7th ARVN DTA	26	20	10	17	[d]
RVN	381	364	171	263	
Harassment/Sabotage					
7th ARVN DTA	109	111			
RVN	1345	1359			
Terror Incidents[c]					
7th ARVN DTA	33	33	31	51	[d]
RVN	508	535	416	499	

a/ Monthly averages except for HES Security Scores.
b/ Includes ambushes, assaults and indirect fire attacks.
c/ Includes incidents causing casualties only, or about 50% of the total.
d/ Data not available.

TABLE 2

1969 OPERATIONS AND RESULTS
7TH ARVN DIV, IV CORPS, RVN TOTAL
(Monthly Average Per Battalion)

	1st Qtr 1969			2nd Qtr 1969			July		
	RVN	IV CTZ	7TH DIV	RVN	IV CTZ	7TH DIV	RVN	IV CTZ	7TH DIV
OPERATIONS									
Large Unit (LUO)									
Sustained	2	2	2	2	3	1			4
Short	4	8	6	4	7	7	—	—	18
Total	6	10	8	6	10	8			22
Small Unit (SUO)									
Sustained	1	2	6	0	0	0			1
Short	46	38	16	27	14	11	—	—	19
Total	47	40	22	27	14	11			20
Night (% of Short Opns)									
LUO	13	21	0.4	8	9	5			33
SUO	70	60	4	54	56	25			88
RESULTS									
Contacts (Enemy Pltn Equivalents)									
All LUO	14	15	13	7	6	2			5
All SUO	2	1	1	1	1	1			0
Night LUO	1.8	0.8	1.0	0.4	0.5	0.3			.2
Night SUO	0.7	0.3	0.1	0.4	0.2	0.3			0
KIA									
Enemy	16	15	12	16	11	8			11
Friendly	3	4	4	3	4	3			5
Ratio	4.7	3.4	3.0	4.5	2.8	2.4			2.3

TABLE 3

RF/PF INPUT MEASURES
(Monthly Averages)

	RF					PF				
	1968	Jan-June 1969	July	Aug	Sep	1968	Jan-June 1969	July	Aug	Sep
Number of Units a/										
7th ARVN DTA b/	73	93	116	122	122	435	488	559	585	585
RVN	1019	1265	1447	1470	1472	4457	4811	5208	5358	5405
Rural Pop (000) Per Unit										
7th ARVN DTA	16.1	11.7	9.4	9.0	8.8	2.7	2.3	1.9	1.9	1.8
RVN	10.6	8.6	7.7	7.6	7.3	2.4	2.3	2.1	2.1	2.0
Primary Missions (% of Total Units)										
Hamlet/Vill Scty										
7th ARVN DTA	22	29	42	42	42	50	56	51	50	50
RVN	32	33	40	42	42	64	68	66	65	65
LOC Scty										
7th ARVN DTA	13	13	10	7	7	21	20	17	16	16
RVN	14	12	14	13	13	12	11	10	10	10
Offensive										
7th ARVN DTA	33	35	36	35	35	4	3	3	3	3
RVN	10	19	19	19	19	2	3	2	2	2
Operations Per Unit										
7th ARVN DTA	45	63	52	52	73	19	33	25	24	29
RVN	48	65	70	67	67	18	31	30	30	30
Night Operations (% of Total Opns)										
7th ARVN DTA	74	74	75	74	78	81	71	68	63	73
RVN	73	72	70	72	73	77	70	72	69	72

a/ RF Rifle Companies
PF Platoons

b/ Corresponds to US 9th Division area of Dinh Tuong, Kien Hoa, and Go Cong Provinces.

TABLE 4

RF/PF OUTPUT MEASURES
(Monthly Averages)

	RF					PF				
	1968	Jan-June 1969	Jul	Aug	Sep	1968	Jan-June 1969	Jul	Aug	Sep
Contacts Per Unit a/										
7th ARVN DTA b/	2.0	1.7	1.7	1.7	1.3	.6	.5	.3	.2	.2
RVN	1.6	2.1	2.1	2.1	2.0	.4	.7	.5	.6	.6
Night Contacts (% of Total Contacts)										
7th ARVN DTA	40	37	35	37	32	52	53	45	53	56
RVN	42	43	40	42	44	57	55	55	54	56
Enemy KIA Per Unit										
7th ARVN DTA	2.2	2.1	2.2	1.8	1.9	.4	.3	.2	.1	.1
RVN	2.0	1.5	1.2	1.2	1.3	.3	.3	.2	.2	.2
Friendly KIA Per Unit										
7th ARVN DTA	.5	.5	.4	.5	.5	.1	.1	.1	.1	.1
RVN	.4	.3	.3	.3	.3	.1	.1	.1	.1	.1
KIA Ratio (Enemy/Friendly)										
7th ARVN DTA	4.4	4.1	5.9	3.3	3.7	3.0	2.7	4.2	2.7	1.9
RVN	4.5	4.4	3.9	4.2	4.0	2.9	3.4	3.9	3.8	3.8
Enemy Weapons Cptd Per Unit										
7th ARVN DTA	.8	.8	.5	1.0	.6	.1	.1	.1	.1	.1
RVN	.7	.6	.5	.5	.5	.1	.1	.1	.1	.1
Advisor Ratings c/										
Responsiveness										
7th ARVN DTA	66	73	77	73	76	69	77	69	65	66
RVN	69	73	73	75	78	64	69	63	63	63
Leadership/Esprit										
7th ARVN DTA	53	63	62	62	68	41	51	51	48	50
RVN	54	61	61	63	65	43	49	45	45	48

a/ RF - rifle companies; PF - platoons.
b/ Provinces of Dinh Tuong, Kien Hoa, and Go Cong.
c/ Percent of units rated in the top two categories (A&B).

VIETNAM REDEPLOYMENTS1/

On September 16, President Nixon announced that the authorized troop strength in South Vietnam would be reduced from the previously approved level of 524,500 to 484,000 by December 15, 1969, a total decrease of 40,000 authorized spaces. The actual strength in South Vietnam is expected to fluctuate below 484,000. Specific reductions in each Service are discussed briefly below.

Army

A total of 14,082 Army spaces will be reduced. Major elements include the 3rd Brigade, 82nd Airborne Division, 10 reserve component units, two non-divisional artillery battalions, one combat engineer battalion, and three medical (hospital) units. Approximately 14,000 personnel spaces will be inactivated, reduced, or demobilized.

ARMY SPACE REDUCTIONS

Infantry (includes three infantry battalions)	3,302
Artillery (includes three 105mm battalions)	2,128
Engineer (one combat engineer battalion)	977
Medical (includes three hospitals)	990
Combat Support	2,051
Signal	1,041
Transportation	709
Patient	800
TDY	200
Other	1,884
Total	14,082

Marines

The Marine Corps will reduce a total of 18,465 spaces including 15,350 troops in the 3rd Marine Division and 3115 in the 1st Marine Air Wing. The 3rd Marine Division base and one regimental landing team with support elements (about 8,700 men) will join the 9th Regimental Landing Team on Okinawa. These Marine forces will maintain two battalion landing teams afloat in WESTPAC. One squadron of tactical aircraft and the majority of Air Wing Headquarters (approximately 900 personnel) will redeploy to Japan to provide air support for Marines on Okinawa. The remainder of the Marine Corps personnel (about 8900 men) will redeploy to CONUS. Approximately 20,000 spaces of the 5th Marine Division at Camp Pendleton will be inactivated, and about 900 out-of-country/non-effective spaces will be eliminated.

1/ Updated from September, 1969 SEA Analysis Report

MARINE SPACE REDUCTIONS

Ground

3rd Marine Regiment (includes three inf bns)	3,752
4th Marine Regiment (includes three inf bns)	3,752
12th Marine Regt. (includes two 105mm bns, one 155mm bn)	1,970
1 tank battalion	485
2 combat engineer battalions	1,225
Logistics personnel	1,702
Out-of-country/non-effective (OOCNE)	738
Other (recon, intelligence, hq.)	1,726
Sub-total	15,350

Air

2 CH-46 helicopter squadrons	515
1 CH-53 helicopter squadron	233
1 Marine air base squadron	494
1 A-6 attack squadron	304
1 OV-10 observation squadron	274
Hq 1st Marine Air Wing, one Marine air support squadron	535
Hq and maintenance squadron	617
Out-of-country/non-effective (OOCNE)	143
Sub-total	3,115
Total	18,465

Air Force

The Air Force will reduce 2,541 spaces including two special operation squadrons and one tactical bomber squadron. In addition, the SVN authorization for the two tactical fighter squadrons whose deployment is presently held in deferment will be eliminated. Approximately 1300 USAF personnel will be inactivated.

AIR FORCE SPACE REDUCTIONS

2 F-4 fighter squadrons a/	418
1 B-57 bomber squadron	240
2 Special operations squadrons (A-1, C-47 & U-10) b/	315
Combat support	523
Maintenance	438
Other	607
Total	2,541

a/ Presently deferred.
b/ 18 A-1 aircraft will go to US units in Thailand to bring actual number of aircraft up to authorized UE level. Six C-47, 20 U-10 will be sent to Clark Field, PI, for storage, and later use in RVNAF Modernization and Improvement campaign.

Navy

Navy support elements with the 3rd Marine Division and five Navy mobile construction battalions will be redeployed, a total of 5412 spaces. About 3,800 spaces will be inactivated. About 600 Navy support personnel will accompany the Marines to Okinawa.

NAVY SPACE REDUCTIONS

5 Mobile construction battalions	3,743
USN with the 3rd Marine Division	916
USN with the 1st Marine Air Wing	24
USN support at Danang	500
Other a/	229
Total	5,412

a/ Includes headquarters and aviation personnel.

The following tables summarize redeployment activities by Service and by destination. The Service totals are subject to slight adjustment within the 40,500 total.

MANPOWER REDUCTION

Service	To be Reduced	To be Retained	Total	% of Total
Army	14,082	-	14,082	34.7
Marines	861 a/	17,604	18,465	45.6
Air Force	1,325	1,216	2,541	6.3
Navy	3,800	1,612	5,412	13.4
Total	20,068	20,432	40,500	100.0

a/ Does not include approximately 20,000 personnel of the 5th Marine Division (-) who will be inactivated.

DESTINATION SUMMARY

Destination	Army	Marines	Air Force	Navy	Total	% of Total
Okinawa	-	8,656	-	620	9,276	22.9
Japan	-	889	-	14	903	2.2
CONUS	14,082a/	8,920	2,541	4,778	30,321	74.9
Total	14,082	18,465	2,541	5,412	40,500	100.0

a/ Includes 11,964 spaces inactivated or reduced in SVN, 2,118 spaces demobilized in CONUS.

PHASE 3 REDEPLOYMENT FROM VIETNAM

Summary

On December 15, 1969, President Nixon announced that the authorized troop strength in South Vietnam would be reduced from 434,000 to 434,000 by April 15, 1970, a total decrease of 50,000 authorized spaces. Specific reductions in each Service are discussed briefly below.

Army

A total of 29,443 Army spaces will be reduced. Major elements include the 1st Infantry Division, 3rd Brigade, 4th Infantry Division, two combat engineer battalions, one tank battalion, and four non-divisional artillery battalions. The 29,443 spaces will be inactivated, reduced or demobilized.

ARMY SPACE REDUCTIONS

Infantry (includes 9 Inf and 2 Mech Inf Bns)	11,032
Artillery (includes 8-105mm Bns, 1-55/8" Bn, and 1-155mm Btry)	5,116
Tank Battalion	615
Engineer (includes 2 Cbt Engr Bns)	2,275
Cavalry (1 Armored Cavalry Squadron)	856
Aviation (includes 1 Aviation Battalion)	461
Medical	874
Signal	1,109
Transportation	919
Headquarters (Corps level or higher)	389
Military Intel., Army Security, and MP	596
Adjutant General	677
Patient	100
Other (Spl forces, other Cbt Spt, chaplain, etc.)	4,404
U.S. Army Total	29,443

Marines

A total of 12,900 Marine Corps spaces will be reduced including 10,605 ground force spaces and 2,295 aviation spaces. Approximately 1,100 spaces including one A-4 squadron with about 20 aircraft will redeploy to Japan. A hospital detachment of 24 spaces will redeploy to Okinawa and 363 spaces will redeploy to Hawaii. About 760 out-of-country/non-effective spaces will be eliminated. The remainder of the Marine Corps spaces including one regimental landing team will redeploy to CONUS.

MARINE SPACE REDUCTIONS

Ground Forces	
26th Regimental Landing Team (3 Inf Bns)	3,788
Artillery (1-105 Bn, 1-155 Btry, 1-175 Btry, & 1-8" Plat)	1,012
Tank Battalion (-)	438
Engineer	441
Armored Tractor Battalion	707
Logistics personnel	1,897
Out-of-country/non-effective (OOCNE)	627
Eq, III MAF	50
Other	1,645
Other Ground Forces	10,605
Air	
Helicopter Sqdn (CH-46/53, 24 aircraft)	233
Fighter Sqdn (1-F-4 Sqdn, 15 aircraft)	328
Attack Sqdn (2-A-4 Sqdns, 40 aircraft)	436
Headquarters and Maintenance	1,163
OOCNE	135
Total Air	2,295
U.S. Marine Total	12,900

Air Force

The Air Force will reduce 5,607 spaces including three tactical fighter squadrons (F-4), one reconnaissance squadron (RF-4) and three civil engineer squadrons (Red Horse). The RF-4 squadron, plus support, totalling approximately 612 spaces and 18 aircraft will redeploy to Japan.

AIR FORCE SPACE REDUCTIONS

Tactical Fighter (3-F-4 squadrons, 54 aircraft)	639 a/
Reconnaissance (1-RF-4 squadron, 18 aircraft)	277 a/
Civil Engineering (3 squadrons) b/	866
Maintenance	1,265
Debits to Debit/Credit Account	1,812
Eq 7th AF	23
Other	725
Total U.S. Air Force	5,607

a/ Does not include support spaces.
b/ One civil engineer squadron's spaces is included in debits to debit/credit account.

Navy

The Navy will reduce 2,050 spaces including 1,628 support spaces who will be inactivated. The Navy will redeploy with Marines 69 spaces to Okinawa and 28 spaces to Japan. The remainder will redeploy to Hawaii and CONUS.

NAVY SPACE REDUCTIONS

Support area & Naval support area, Danang	1,628
Navy with Marine 26 regimental landing team, 1st Marine Air Wing, and 1st Marine Division	422
U.S. Navy Total	2,050

The following tables summarize redeployment activities by Service and by destination.

MANPOWER REDUCTIONS[a]

Service	To be Reduced	To be Retained	Total	% of Total
Army	29,443	-	29,443	58.9
Marines	6,019	6,881	12,900	25.8
Air Force	1,898	3,709	5,607	11.2
Navy	1,628	422	2,050	4.1
Total	38,988	11,012	50,000	100.0

a/ The numbers to be reduced or retained are subject to slight adjustment within Service totals.

DESTINATION SUMMARY

Destination	Army	Marines	Air Force	Navy	Total	% of Total
Okinawa	-	24	-	69	93	.2
Japan	-	1,091	612	28	1,731	3.5
Hawaii	-	363	-	3	366	.7
CONUS	29,443	11,422	4,995	1,950	47,810	95.6
Total	29,443	12,900	5,607	2,050	50,000	100.0

A summary of the type units in Phases 1, 2, and 3 is given below:

1. Phase 1

   a. US Army

      6 Maneuver Bns (9th Div less 1 Bde)
      3 Combat Engineer Bns
      4 Artillery Bns
      2 Helicopter Companies

   b. US Marine Corps

      3 Maneuver Bns (9th Marine Regiment, 3d Mar Div)
      2 Artillery Bns
      1 F-4 TFS
      1 Helicopter Squadron

   c. US Air Force

      None

   d. US Navy

      1 LST, 3 Barracks Ships

2. Phase 2

   a. US Army

      3 Maneuver Bns (3d Bde, 82d Airborne Div)
      1 Combat Engineer Bn
      3 Artillery Battalions (one SP 105mm; two towed 105mm)

   b. US Marine Corps

      7 Maneuver Bns (Remainder 3d Mar Div)
      2 Combat Engineer Bns
      3 Artillery Bns (two 105mm; one 155mm)
      1 A-6 Squadron
      1 Observation Squadron
      2 Medium Helicopter Squadrons
      1 Heavy Helicopter Squadron

   c. US Air Force

      2 F-4 Squadrons
      1 Bomber Squadron (B-57)
      2 Special Operations Squadrons (one U-10/C-47; one A-1)

d. US Navy

5 NMCBs

3. Phase 3

a. US Army

12 Maneuver Bns (1st Inf Div and 3d Bde, 4th Inf Div)
2 Combat Engineer Bns
9-1/3 Artillery Battalions
(8 - 105 Bns; 1 155/8" Bn; 1 155 btry)
2 Helicopter Companies

b. US Marine Corps

4 Maneuver Bns (RLT 26 and major portion of 1st Tank Battalion)
1 2/3 Artillery Bns
(1 - 105 Bn; 1 Btry 175mm; 1 Btry 155mm; 1 Plt 8")
3 Attack Squadrons
(2 V.A, A-4s; 1 VMFA, F-4s)
1 Helicopter Squadron
(Heavy CH-53/CH-46)

c. US Air Force

3 Tactical Fighter Squadrons (F-4s)
1 Tactical Recon Squadron (RF-4)
3 Civil Engineer Squadrons

d. US Navy

No units (support spaces only)

e. Summary Phase 3

	Maneuver Bns	Engineer Bns	Artillery Bns	Fixed-Wing Sqdns
Army	12	2	9 1/3	-
Marine Corps	4	-	1 2/3	3
Air Force	-	3	-	4
Total	16	5	11	7

4. Grand Summary, Phases 1-3

	Mnvr Bns	Eng. Bns	Arty Bns	Fixed-Wing Sqdns	Helicopter Sqdns
Army	21	6	16 1/3	-	4
Marine Corps	14	2	6 2/3	5	5
Air Force	-	3	-	9	-
Navy	-	5	-	-	-
Total	35*	16	23	14	9

* This will result in a reduction from a total of 112 maneuver battalions in-country on June 8, 1969 to a total of 78 rather than 77. This is because the Cavalry Squadron, previously part of the 9th US Inf Div, is now counted as a maneuver battalion.

5. Following chart depicts reductions in division equivalents, brigades/ RLTs, and maneuver battalions during phases 1 through 3:

	1 Jun 69	Phase 1	1 Sep 69	Phase 2	15 Dec 69	Phase 3	15 Apr 70
Div Equiv	11	- 1	= 10	- 1 =	9	- 1 2/3	= 7 1/3
RLT/Brigades	33	- 3	= 30	- 3 =	27	- 5	= 22
Maneuver Bns	112	- 9(+ 1)	= 104	- 10 =	94	- 16	= 78

6. The following table shows reductions in combat, combat support and combat service support during phases 1 through 3:

CATEGORY	1 Jun 69	Phase 1	15 Sep 69	Phase 2	15 De
Combat	157,362 (28.6%)	- 11,800 =	145,562	- 13,000 =	132,
Combat Support	180,667 (32.9%)	- 8,400 =	172,267	- 14,400 =	157,
Combat* Service Support	211,471 (38.5%)	- 4,800 =	206,671	- 13,100 =	193,
TOTAL	549,500	25,000 =	524,500	- 40,500 =	484,

* Includes TDY, patients and debit/credit accounts.

Helicopter Sqdns
4
5
-
-
9

wr battalions
. This is
S Inf Div,

s, brigades/

ase 3	15 Apr 70
1 2/3	= 7 1/3
5	= 22
16	= 78

pport and combat

Phase 2		1 Dec 69	Phase 3		15 Apr 70	Overall Percentage Reduction in Each Category
- 13,000	=	128,562	- 17,951 (35.9%)	=	114,611 (26.4%)	27.2%
- 14,400	=	157,867	- 15,998 (32.0%)	=	141,869 (32.7%)	21.5%
- 13,100	=	193,571	- 16,051 (32.1%)	=	177,520 (40.9%)	16.1%
- 40,500	=	484,000	- 50,000 (100.0%)	=	434,000 (100.0%)	21%

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SECURITY SITUATION IN SOUTHERN MR I

Summary. The withdrawal of US units together with continuing enemy pressure and problems with RF/PF have produced a decline in security to mid-1970 levels in the three southern provinces of MR I (Quang Nam, Quang Tin and Quang Ngai). The enemy's activities are actually below last year's levels, but lack of confidence in territorial forces has produced a general climate of pessimism, particularly in Quang Nam where the enemy continues to emphasize terrorism and shelling of population centers.

The situation may be analagous to the former area of US operations in the Delta. Security lost momentum there for about six months while ARVN units adjusted to the absence of the US 9th Division. It would appear that the security arrangements in Quang Nam province should be strengthened in order to compensate for the aggressive leadership and resources formerly provided by US Marine units.

Forces. During the past six months US forces declined in southern MR I while RVNAF and enemy units remained relatively constant. Table 1 shows that US battalions declined from 18 in December 1970 to 11 in May 1971. The last US Marine battalions left Quang Nam province in March-April, and US Army battalions shifted from Quang Tin and Quang Ngai to help fill the gap. The withdrawals are placing an added burden on the ARVN 2nd Division and 51st Regiment, and are forcing the GVN territorial forces to operate on their own (without US MAT and CAP advisors) for the first time.

TABLE 1

ENEMY AND FRIENDLY UNITS

	Quang Nam		Quang Tin		Quang Ngai		Total	
	Dec 70	May 71	Dec 70	May 71	Dec 70	May 71	Dec 70	May 71
Enemy								
Combat Bns	15	14	7	5	9	11	31	30
Separate Cos	8	9	8	9	20	20	36	38
Separate Plts	0	0	2	2	1	1	3	3
Friendly								
US Bns	6	5	6	2	6	4	18	11
FW Bns	4	4	0	0	0	0	4	4
ARVN/VNMC Bns	8	8	5	5	8	8	21	21
Total	18	17	11	7	14	12	43	36
RF Cos	62	64	38	40	54	54	154	158
PF Plts	223	223	222	226	285	283	730	732

The decline in friendly forces was felt in Quang Nam more than the other two provinces. While the number of friendly units in Quang Nam remained constant, there are indications that the changeover from US Marines to US Army/ ARVN/RF/PF responsibility may have disrupted force effectiveness there. The table below shows that friendly operations with contact declined from 1970 to 1971 in Quang Nam, but generally increased in the other two provinces.

TABLE 2

US/FW/ARVN ACTIVITY a/
(Monthly Averages)

	Quang Nam		Quang Tin		Quang Ngai		Total	
	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971
Large Unit Opns								
US/FW	3	2	6	3	10	4	19	9
ARVN	14	7	6	16	9	11	29	34
Total	17	9	12	19	19	15	48	43
Small Unit Opns with Contact								
US/FW	453	17	0	0	1	0	454	17
ARVN	19	13	24	27	26	30	69	70
Total	473	30	24	27	27	30	523	87

a/ 1971 data through May.

Territorial force performance also appears to be suffering, particularly for PF in Quang Nam province. Table 3 shows that RF/PF effectiveness in terms of contacts per 100 operations dropped off sharply in Quang Nam (from 7.3 in first half 1970 to 4.1 in 1971), but remained constant in Quang Tin and Quang Ngai (6.5). Furthermore 100% of PF platoons reporting in June 1971 in Quang Nam were operating primarily in secure areas, rather than in the consolidation zones where the enemy threat is greater and there is opportunity for contact and results. A recent report by a field grade ARVN officer also suggests a general pessimism and defensive attitude on the part of territorial forces, particularly in Quang Nam province:

TABLE 3

RF/PF ACTIVITY
(Monthly Averages)

	Quang Nam		Quang Tin/ Quang Ngai		Total RVN	
	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971
Small Unit Ops with Contact						
RF	296	195	223	536	2395	3797
PF	477	265	597	763	2989	3623
Total	773	460	820	1299	5384	7420
Contacts per 100 Operations						
RF	9.1	5.5	10.1	8.5	2.1	2.1
PF	6.4	3.4	5.8	5.6	1.3	1.2
Total	7.3	4.1	6.5	6.5	1.6	1.5
Percent of Units Operating Primarily in Secure Areas a/						
RF		28		42		26
PF		100		71		61

a/ Units reporting "not applicable" or "unknown" are excluded from consideration. Based on June 1971 data of unknown reliability.

Enemy Activity. The enemy's first half activities were generally lower in 1971 than 1970 in southern MR I, but terrorism continued unabated, particularly in Quang Nam. Enemy attacks in the three provinces declined about one-third from 1970 (48 per month) to 1971 (33 per month), and other types of incidents declined 40-60%. Terrorist incidents continued to produce about as many victims (assassinations, abductions, and woundings) in Quang Nam in the first half of 1971 (289) as in 1970 (298).

TABLE 4

ENEMY INCIDENTS AND CHIEU HOI RESULTS
(Monthly Averages)

	Quang Nam		Quang Tin		Quang Ngai		Total	
	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971	1st Half 1970	1st Half 1971
Enemy Incidents a/								
Attacks	18	14	18	4	12	15	48	38
Harassment by fire	160	92	72	21	67	41	299	104
Other Har/Ter/Sab	160	103	42	31	115	73	331	207
Total	338	159	132	56	194	129	678	344
Terror Casualties	298	289	74	56	150	127	522	472
Chieu Hoi Ralliers b/	91	38	121	70	160	66	372	174

a/ Prioritized to include data from OPREP and TIRS reporting systems.
b/ 1971 data through May 1971 only.

The patterns of enemy activity indicate a general decline in overall capability, but an increased emphasis on building guerrillas and VCI for protracted warfare. One result of the continued enemy presence in rural areas is a recent decline in the rate of Chieu Hoi ralliers in all three provinces. First half 1971 ralliers totaled 174, compared to 372 in 1970. VCI neutralizations are also lagging in many areas.

Security Results. The overall result of US withdrawals, lagging RF/PF, and continued enemy presence has been to set security back to mid-1970 levels in all three provinces. Data from the Hamlet Evaluation System (HES/71) below shows that 61.9% of the population was rated A-B in June 1971, compared to 62.6% in June 1970.

TABLE 5

HES POPULATION DATA
(% of Population Rated A-B)

	Jan 70	Jun 70	Dec 70	Mar 71	Jun 71
Quang Nam/Danang	45.6	72.2	76.9	70.7	71.1
Quang Tin	60.3	59.3	75.0	64.9	69.8
Quang Ngai	36.3	51.1	51.3	49.7	44.7
Total Southern MR I	52.0	62.6	68.1	62.5	61.9
VSSG Rural GVN Control	45.8	54.0	66.3	54.6	N/A

The VSSG rural control indicator shows a similar loss in GVN control. Detailed data shows that the loss of control is due to increased enemy companies and battalions in the populated areas, indicating lagging RF/PF effectiveness in patrolling the approaches to hamlets.

Prospects for Recovery. The situation in southern MR I is analagous in many ways to the tough situation the ARVN 7th Division faced in the Delta in mid-1969. Both areas were traditional VC strongholds, and both had been dominated for several years by a vigorous US presence (US 9th Division in the Delta, and US Marines in Southern MR I). When the US units left the Delta, it took a full six months before ARVN was able to achieve full effectiveness, and population security lagged in the interim. It wasn't until a forceful, energetic ARVN division commander took over that security resumed strong upward momentum.

In southern MR I, the burden for population security rests squarely on the RF/PF and PSDF. These forces were largely dormant under the massive US presence, and may take some time to develop their full potential. It also appears that some additional measures may be needed to strengthen security arrangements in Quang Nam to restore confidence and aggressiveness formerly provided by US units and the CAP/MAT teams which worked with the RF/PF.

April 1967

CONTRACTOR ASSISTANCE PROVIDED TO FORCES IN SVN

In view of the substantial, but heretofore unspecified, contractor assistance being utilized by the Services in SVN, OASD(SA) requested the Military Departments to furnish information on all logistic support contracts (in excess of $5,000 annually) for contractor personnel services. The request excluded the RMK - BRJ construction contract and the Alaska Barge lighterage - stevedoring contract. Reports have not yet been received from the Navy and Air Force. The Marine Corps reported it has no contracts in SVN which meet the reporting criteria. The following analysis and discussion pertains only to the data received from the Army.

Army has reported on 55 contracts which meet the reporting criteria. These have a total annual estimated cost of $137,582,000. The aggregated workforce employed by the contractors is 31,435 personnel. The distribution of the work-force is:

Nationality	Personnel	Percentage of Total
U.S.	4,098	13
Vietnamese	16,669	53
Third Country	10,668	34
	31,435	100

Based on the detailed information provided by Army, the 31,435 man contractor work-force is equivalent to 36,576 Army personnel.

Twenty of the 55 contracts are in excess of $1,000,000 estimated annual cost. These 20 (which are described in detail on the attached table) account for $132,916,000 or 97% of the total cost and 30,136 personnel or 96% of the total work-force.

Eight of the 20 contracts are with U.S. companies ($104,484,000); 10 are with Vietnamese companies ($21,500,000) and 2 are with Korean companies ($6,932,000).

Of the 8 with U.S. firms, 5 are cost-plus fixed fee ($97,464,000), 1 is cost-plus incentive fee ($2,000,000) and 2 are fixed price ($5,020,00). Of the 10 with Vietnamese companies, 9 are fixed price, indefinite quantity contracts ($20,000,000) and 1 is fixed price ($1,500,000). The two with Korean companies are fixed price contracts.

The largest contract is with Pacific Architects and Engineers (PA&E) in the amount of $58,000,000 a year for the performance of R & U (Repair and Utilities) functions, operation of Class II and IV depots and equipment maintenance. a/ This single contract accounts for 42% of the cost and 64% of the personnel associated with the 35 Army contracts. PA&E's employment of 20,000 personnel is only 17,000 fewer than the RMK - BMJ country-wide construction contract which now has 37,000 personnel.

The second largest contractor is the Vinnell Corporation which has three contracts with a total value of $38,300,000 a year. These contracts include the services of power distribution and across-the-board 1st Logistic Command functions at Cam Ranh Bay, including stevedoring, trucking, equipment maintenance and Army depot operations.

In view of the extent and types of services being performed by contractors instead of by Army units, continuing monitoring of contracts should be maintained to furnish a basis for evaluating existing force levels and any new deployment requests. If reliance on contractors is considered feasible in planning for future contingencies, division slices should be appropriately revised.

a/ Class 2 supplies are TO&E, mission essential equipment (e.g., weapons, clothing and equipment). Class 4 supplies are materials required for special missions (e.g., barbed wire, specialized clothing, and equipment for amphibious operations).

Contractor	Functions Performed	Nat'l	US Pers	SVN Pers	Third Country Pers	Total Pers	Mil. Pers Equiv.	Est. Annual Cost ($000)	Type Contract
Pacific Arch & Engineers	R&U, Operate Class II & IV depots, Equip Maint.	U.S.	3,000	10,000	7,000	20,000	22,534	58,000	CPFF
Vinnell Corp.	Land power dist. system	U.S.	200	-	600	800	1,318	17,000	CPFF
Vinnell Corp.	Stevedore, trucking, equip maint., depot ops, etc.	U.S.	600	-	936	1,536	1,815	12,000	CPFF
Vinnell Corp.	Land power dist. maint	U.S.	120	-	628	748	1,778	9,500	CPFF
Societe Vietnamienne D'Armement et Transports	Stevedore	SVN	-	1,805	-	1,805	987	6,000	Indef Qty
Han Jin Transp Co., Ltd	Trucking	Korea	-	58	488	446	1,183	4,032	Fixed Price
Han Jin Transp. Co., Ltd	Stevedoring and port clearance.	Korea	-	142	560	702	1,316	2,900	Fixed Price
Equipment Inc.	Trucking	U.S.	4	498	21	523	678	3,241	Fixed Price
Equipment Inc.	Trucking	U.S.	118	340	- 7	441	507	1,779	Fixed Price
Van Phuong	Stevedore	SVN	-	530	-	530	329	3,000	Indef Qty
Ho Viet Stevedores	Stevedore	SVN	-	529	-	529	329	3,000	Indef Qty
Philco Corp.	Operate Repair Parts Warehouse	U.S.	20	56	35	111	232	1,164	CPFF
Philco Corp.	Trucking	U.S.	18	178	600	578	843	2,000	CPFF
Trieu-Tiet Stevedore	Stevedore	SVN	-	300	-	300	165	2,000	Indef Qty
Chan Thi Hang & Co.	Stevedore	SVN	-	350	-	350	165	2,000	Indef Qty
Le Thi Hang Cuong Carrier Co.	Trucking	SVN	-	200	-	310	476	1,500	Fixed Price
Thanh-Loi Stevedore	Stevedore	SVN	-	100	-	100	165	1,000	Indef Qty
Phan Thong Stevedore	Stevedore	SVN	-	100	-	100	165	1,000	Indef Qty
Viet Hai	Stevedore	SVN	-	100	-	100	165	1,000	Indef Qty
Vietnam Stevedore	Stevedore	SVN	-	210	-	210	165	1,000	Indef Qty
SUB-TOTALS			4,072	15,447	10,997	30,116	35,315	132,916	
Various (75)			28	1,202	73	1,299	1,061	4,444	
GRAND TOTALS			4,098	16,649	10,448	31,415	36,376	137,361	

1/ Data from Department of the Army, March 23, 1967.

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VN Pers	Third Country Pers	Total Pers	Mil. Pt & Equip.	Est. Annual Cost ($000)	Type Contract	Gov't Prop/Tools	Option to Renew
,000	7,000	30,000	22,534	58,000	CPFF	100%	Yes
-	600	800	1,318	17,000	CPFF	100%	Yes
-	936	1,536	1,815	12,000	CPFF	100%	Yes
-	678	748	1,778	8,300	CPFF	100%	Yes
1,095	-	1,095	987	6,000	Indef Qty	None	No
38	400	446	1,183	4,032	Fixed Price	None	Yes
142	560	702	1,316	2,900	Fixed Price	Partial	Yes
498	31	529	676	3,341	Fixed Price	None	Yes
360	.7	445	507	1,779	Fixed Price	Trucks	Yes
530	-	530	329	3,000	Indef Qty	None	Yes
500	-	500	329	3,000	Indef Qty	None	No
56	55	111	232	1,164	CPFF	100%	Yes
170	400	510	845	2,000	CPFF	Trucks	Yes
300	-	300	165	2,000	Indef Qty	None	No
350	-	350	165	2,000	Indef Qty	None	No
200	-	200	676	1,900	Fixed Price	None	Yes
180	-	180	165	1,000	Indef Qty	None	No
100	-	100	165	2,000	Indef Qty	None	No
160	-	160	165	1,000	Indef Qty	None	No
210	-	210	165	1,000	Indef Qty	None	No
15,467	10,997	30,136	35,315	132,916			
1,202	71	1,277	1,041	4,446			
16,669	10,068	29,479	36,356	137,362			

Aug 67

DISTRIBUTION OF U.S. FORCES IN SVN BETWEEN COMBAT & SUPPORT

Lacking a uniform set of criteria for identifying personnel in combat, combat support and combat service support functions, an attempt has been made to allocate the June 30, 1967 force levels in SVN between two categories: (1) combat and directly related functions and (2) all other support.

Included in "combat and directly related activities" are functions such as: maneuver battalions, air defense, combat engineers, artillery, headquarters at Division and below, tactical communications, Special Forces, etc. Included in "all other support" are functions such as: transportation, supply, maintenance, construction, finance, medical, ordnance, headquarters above division, chemical, etc.

The results of the allocations were as follows:

Service	Total Strength in SVN 1/	Percent in Combat & Directly Related Functions	Percent in Other Support Functions
Army	283,720	49.9	50.1
Navy/Marines 2/	105,465	62.7	37.3
Air Force	55,599	24.6	75.4
TOTAL	444,784	49.7	50.3

1/ Based on June 30, 1967 strengths, excluding patients and transients where separately identified.
2/ Excludes Navy/Marine personnel afloat in 7th Fleet units.

The data must be interpreted with full recognition that differences in organization, mission and equipment account for some of the variations among the Services. Other differences undoubtedly occur because of the necessary arbitrary criteria used to classify units and personnel in the categories. For example, because bomb loaders are in ammunition dumps but artillery loaders are in combat units, this contributes to the relatively low combat to support ratio of the Air Force. However, as is well-known, relatively large numbers of bomb loaders are absolutely essential.

In addition to the substantial organic military support capability, a recent MACV briefing identified the following support augmentation in SVN:

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CONTRACTOR & DIRECT HIRE PERSONNEL
AUGMENTING U.S. FORCES IN SVN

COMPONENT	VN	TCN	U.S. 1/	TOTAL
7th AF	11,836	306		12,142
USARV	80,265	8,363		88,628
NAVFORV 2/	10,187	1,820		12,007
HQ MACV	4,154	31		4,185
OICC 3/	15,419	3,178		18,597
ARC/USO/PX	6,268	747		7,015
Sub-totals	128,129	14,445		142,574
			8,187	8,187
Totals	128,129	14,445	8,187	150,761

1/ Data on U.S. personnel from MACV msg C41813Z Aug 67. No distribution by component included.
2/ NAVFORV includes III MAF.
3/ OICC administers construction contractor who performs work for all Services.

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