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SOUTHEAST ASIA TRIP REPORT
PART I–THE IMPACT OF AIR POWER
IN SOUTH VIETNAM (U)
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This Memorandum is one of a series prepared for Air Force Project RAND reporting on a trip to Southeast Asia in July-October 1964 by the author and two other members of the RAND staff, W. B. Graham and A. H. Katz. The trip included visits to Japan, Okinawa, Taiwan, Hong Kong, Thailand, Malaysia, and Australia as well as a one-month stay in South Vietnam. One of its purposes was to gain a better understanding of the role, utility, and problems of employing air power in counterinsurgency conflicts.

Part I offers some hypotheses for examination and discussion; these are tentative and may or may not be corroborated by further study or new evidence.

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SUMMARY

An examination of a limited quantity of data and discussions with Vietnamese and U.S. intelligence personnel and officials have yielded interesting but tentative conclusions that possibly might have important operational implications for the use of air power in Vietnam. First, it seems that the impact of air power on Viet Cong mobility, initiative, and morale -- the chief advantages of the insurgents -- is not sufficiently known or understood. Second, the author's limited investigation suggests an urgent need for improving the intelligence collection and analysis relating to air-power effectiveness in South Vietnam. What seems to be required is a small extension of the existing intelligence effort with the special aim of finding out how to maximize the utility of air power in the area.

At present one of the main prerequisites for civilian support of the government appears to be the latter's ability to defeat the Viet Cong and to provide effective security for the population. In achieving this prerequisite, one of the problems we face is to decide how to strike a balance between attacking and destroying the Viet Cong -- a military and political necessity -- and avoiding unnecessary alienation of the population. We should try, in view of the current emergency, to maintain a realistic view of the risks of provoking adverse civilian behavior by our air attacks. The author has seen evidence suggesting that civilians in Vietnam are less prone to adverse behavior on account of air attacks than is generally
supposed. This is not to imply that we should encourage indiscriminate air strikes, but simply that we should collate and analyze the pertinent intelligence in a systematic way, in order to reappraise current ideas about civilian reactions to air operations in Vietnam.

Detailed information on the true impact of air weapons and artillery on the Viet Cong and on the civilian population might well point the way to a significant and relatively quick improvement in the military situation, which is essential if pacification measures are to succeed.
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I. INTRODUCTION

This Memorandum deals with some of the initial impressions obtained from an extended visit to South Vietnam during August-September 1964. A few observations are selected for discussion because they are believed to be especially important and timely. These relate to the question of the impact of air power on the Viet Cong and on Vietnamese civilians, a subject of primary interest to the writer during his investigation.

The observations and conclusions that follow are inferences from limited evidence: several hundred Viet Cong prisoner and defector interrogation reports and motivation studies, a number of captured Viet Cong documents, conversations and seminars with several groups of Vietnamese military intelligence interrogators,¹ and discussions with members of various U.S. intelligence collection agencies, notably the Military Interrogation Center of the ARVN (MIC), the National Interrogation Center of the Vietnamese Central Intelligence Organization (NIC), the Special Military Intelligence Activities Team of the U.S. Army (SMIAT), Det. 6, 6499th Support Group USAF, and the U.S. Embassy in Saigon.

The tentative findings described below, if borne out by more exhaustive investigation, would have significant operational implications for the employment of air power in Vietnam. It is thought desirable, therefore, despite their tentative character and the limited data on which

¹Particularly at the National Interrogation Center in Saigon, and at the headquarters of II and IV Corps.
they are based, to make these findings available for the consideration of appropriate operational authorities, as hypotheses worth evaluating.
II. THE IMPACT ON CIVILIANS

The belief is widely held that air power in Vietnam is a crude weapon system, a sort of blunderbuss that is apt to do more harm than good. Air strikes, especially by fixed-wing aircraft, have frequently been thought to provoke adverse behavior and attitudes among the civilian population in Vietnam and thereby to harm the effective prosecution of the war. Since no systematic effort has been made in Vietnam to collect and analyze relevant intelligence information in order to verify the correctness of this belief, the available data on the question are scant. The writer, while he was in Vietnam, made a concentrated effort, within the rather limited time at his disposal, to obtain information that might help clarify this question.

Interrogation reports, motivation studies, captured documents, and conversations with Vietnamese interrogators, provincial officials, and knowledgeable U.S. intelligence personnel -- all these failed to yield an instance where a Vietnamese had joined the Viet Cong as a direct result of damage or casualties to civilians caused by air or artillery bombardment. No doubt such defections have occurred, but the knowledgeable Vietnamese and Americans interviewed on the scene generally agreed that air strikes are at most a minor factor in motivating people to join or actively support the Viet Cong. On the contrary, a significant number of Vietnamese and American sources mentioned instances where the population blamed the presence of Viet Cong in the villages for air strikes or artillery bombardments. According to some reports, fear of possible strikes has led
villagers to ask the Viet Cong to leave, or has caused them to refuse to cooperate with the latter.

Available sources also cite numerous instances where the population in areas under Viet Cong control or subject to Viet Cong operations has fled to government controlled territory to escape expected or actual air attacks. People often appear to realize that their best chance to avoid the danger of air or artillery bombardment is to leave Viet Cong controlled areas, since they know that joining the Viet Cong cannot protect them or their villages against that kind of attack. When, as in some cases, the Viet Cong have tried to prevent the population from leaving after repeated air strikes, this has had an adverse effect on the attitude of the people towards the Viet Cong. Sometimes, of course, people have blamed the government for failing to recognize their plight or for disregarding their safety, but the writer found no evidence that this feeling led to significant adverse behavior. Furthermore, according to interrogation reports and captured documents, people apparently expect attacks and have taken steps to protect themselves, if they have not actually been ordered to do so by the Viet Cong.

These initial findings appear to challenge the widespread belief that collateral damage to property or the killing of civilians by air attacks inevitably result in "making more Viet Cong." Further investigation is urgently needed since the prevalence of this possibly mistaken view has intensified the arguments for strict control of air operations, target selection, and strike authorizations. These controls, in turn, may have contributed to making air power in Vietnam less responsive and effective than it could be.
On the surface, a belief in the adverse effects of air strikes involving civilians seems reasonable, especially among people of Western culture who look to governments for protection and guidance and are responsive to political and emotional appeals. In the political environment of Vietnam, however, such a belief may be out of place. By and large, Vietnamese farmers hold no strong political views. Their experience does not lead them to expect protection from either the government or the Viet Cong. The ideological apathy of the peasant, reinforced by the long duration of the war, has led most Vietnamese to concentrate on personal survival. So far as one can determine, the majority of the Vietnamese are neutral in the struggle and neither wish to take sides nor believe that they have a real freedom of choice. Consequently, a man tends to cooperate with whichever authority is in effective control of his area. This behavior seems to offer him his best chance of surviving the war.

In view of the responsiveness of the Vietnamese population to the most effective authority on the spot, the evidence examined suggests that restraint in the use of air does not necessarily increase popular support of the government and that air strikes do not automatically increase active civilian cooperation with the Viet Cong, despite some attempts of the latter to exploit the strikes for propaganda purposes. If correct, this conclusion suggests that the present restrictions on the employment of air, designed to safeguard civilians, may in fact be too inflexible and to some extent counterproductive.

There is a great deal of historical evidence to show that a population exposed to air strikes tends to blame,
not air power or the authorities in control of it, but those whose policies or activities seem to have provoked the attacks. There is also considerable evidence that people tend to credit air power with less ability to discriminate between targets than they do the ground forces. Consequently, ground force operations often provoke greater censure and hostility among civilians than far more damaging air operations. In Vietnam, accordingly, the reports and documents examined suggest that the effects of air strikes are far less significant in motivating people to join the Viet Cong or to give them active support than the mistreatment of the population by the Vietnamese army or by the provincial and local security forces that are supposed to be protecting them.
III. THE IMPACT ON THE VIET CONG

A second major impression of the visit to Vietnam is that air power could perhaps usefully play a larger role against the Viet Cong than it has done up to now. At present the Viet Cong appear by and large to hold the initiative and to be on the offensive. According to discussions with numerous persons in the theater, the Viet Cong are not subjected to the constant pressure that could render their operations ineffective. This appears due in part to the fact that the intensity and scope of Viet Cong operations have tied down a major portion of the GVN ground forces in the defense of pacified areas and important installations, so that these forces have been unavailable for offensive operations. Furthermore, despite the efforts of U. S. advisors, the Vietnamese army does not appear to engage on a sufficient scale in sustained, around-the-clock, small-unit, offensive operations and patrolling which, according to experience in other campaigns, are essential to harass insurgents, to disrupt their movements and attacks, and to keep them on the run. Large-scale ground offensive operations are often ineffective since they provide the Viet Cong with considerable advance warning, last only a short time, and fail to establish permanent control over the swept areas. There is little ground interference with the Viet Cong at night.

In these conditions, it would appear that air power in its various aspects constitutes a major offensive capability that is immediately available to the Vietnamese government and could be used to maintain continuous pressure on the Viet Cong. Attack aircraft now in the hands of the government
constitute a unique strike force whose operations the Viet Cong cannot defeat, match, or even anticipate. This force can project the government's power to all parts of the country and keep large areas under continuous surveillance. It can strike the Viet Cong in their strongest and most remote positions, that is, in areas where the Vietnamese army fears to tread.

At present the effectiveness of air power in Vietnam is assessed primarily in terms of the number of confirmed kills and the amount of damage that it inflicts on the Viet Cong. This number has been considerable and apparently represents a very substantial portion of the total Viet Cong casualties. It appears, however, that this criterion for assessing the impact of air power, especially in a counterinsurgency conflict, is too narrow.

Unlike regular field armies, guerrillas do not attempt to hold and defend territory or population. Since they operate as a rule against government forces that are more numerous and better equipped, guerrillas must depend for their survival and successes on retaining the maximum freedom of mobility and initiative, together with good discipline and morale. In the absence of effective and continuous pressure on them, the Viet Cong have been able to maintain and exploit these critical advantages in full measure and even to concentrate large forces for offensive operations. Because guerrillas are mobile, fleeting targets, unencumbered by heavy equipment or elaborate logistic and service support, and because they do not attempt to defend fixed positions, the more ordinary and obvious criteria for assessing the effectiveness of military operations against them are insufficient. In counterinsurgency,
possibly more than in any other type of war, the effectiveness of operations must be measured not only in terms of damage and casualties inflicted on the guerrillas but, equally important, also in terms of adverse effects on their mobility, morale, and ability to mount effective operations and to recruit new members from the population. All counterinsurgency experiences to date point to the fact that one basic requisite for winning is to change the guerrilla from the hunter into the hunted.

In trying to ascertain the effectiveness of air power in Vietnam, the writer paid special attention to its impact on Viet Cong mobility, initiative, tactics, and morale. Here, too, it was found that no systematic effort had been made to collect and coordinate relevant intelligence. Fortunately, however, disconnected pieces of information could be found in prisoner and defector interrogation reports. This information had been gathered largely in pursuit of lines of inquiry other than the one we are concerned with here. The study of captured Viet Cong documents and discussions with Vietnamese military intelligence interrogators yielded additional valuable data. The author was able to reach the following tentative conclusions:

1. The Viet Cong are more sensitive and devote more attention and effort to countering the air threat in all its aspects than any other. Supporting this thesis are: (a) the studies of the air threat and its weapons contained in captured Viet Cong documents; (b) the efforts made by the Viet Cong to organize an antiaircraft capability; (c) the requirement for Viet Cong members to use camouflage and to dig shelters or even deep tunnel systems when in camp or during longer rest stops on the march; (d) similar
requirements for the civilian population under Viet Cong control; (e) the sensitivity of the Viet Cong to air reconnaissance and to air attacks while on the move; (f) the specific concern of the Viet Cong over the effect of air on morale; (g) the decline in Viet Cong offensive activities when air is present in the vicinity, owing to fear of air intervention during their attacks and ambushes.

The impact of air weapons and tactics varies, and the Viet Cong seek ways of reducing their effectiveness. According to captured documents, the Viet Cong leadership attempts to carry out detailed evaluation and operation analysis studies of air weapons and tactics in order to find means of defense against them. The studies indicate considerable concern over flares, napalm, and rockets. They note, for example, that while rockets inspire fear they "cause less damage than a 60 mm mortar shell." Other reports indicate that strikes with heavy bombs in some areas have forced the Viet Cong to build increasingly elaborate and deep shelter systems.

2. Air operations have a significant impact on Viet Cong morale by causing casualties, by disrupting Viet Cong movements, plans, and operations, by intensifying fear and discomfort, and by harassing the Viet Cong in their bases and "safe" areas. Captured documents and interrogation reports indicate that Viet Cong fighters fear aircraft more than any other weapon system used against them. For example, a captured document records that the personnel of a certain Viet Cong unit "were afraid to die, afraid of aircraft, afraid of rockets, and dared not fire their weapons." Many units have suffered substantial casualties from air attacks; others have been forced to disperse. As a result
some Viet Cong members, including infiltrators from North Vietnam, have become demoralized and have taken the opportunity to defect.

Air operations seriously aggravate the hardships of Viet Cong life. This is especially significant since according to prisoner and defector interrogations these hardships are a major cause of Viet Cong defection and surrender. Viet Cong units in camp or on the march are forced to take cover or disperse when aircraft appear in the vicinity; thus the mere presence of aircraft may disturb the men's sleep or disrupt their activities. The air threat has forced the Viet Cong to move at night and to restrict the cooking of food to the hours of darkness. Units may go hungry when aircraft are about at night as well as by day. Food collecting and carrying parties are delayed or dispersed by air activities. The Viet Cong are aware that their food crops are vulnerable to chemical spray from the air, and individual guerrillas are often afraid of being poisoned by eating sprayed food.

Air activities frequently force the Viet Cong to move their base camps, supply dumps, hospitals, and other facilities. They interrupt the training of new recruits and exercises in preparation for attacks. Dispersed units lose time and effort reassembling in new locations. The intervention of air during Viet Cong attacks contributes to their failure and inevitably affects the morale of the units engaged. Prisoner interrogations indicate that the ability of air to make the Viet Cong feel insecure, even in their most remote and "secret" bases, has shaken Viet Cong morale.

At present air provides the most visible evidence of Vietnamese government power in areas under complete
Viet Cong control. It may be the only effective instrument for disrupting Viet Cong exploitation and control of the population in those areas, should the GVN ground forces be tied down. By providing observable evidence of the dangers of guerrilla life, it may contribute to deterring the population, especially younger people, from joining the Viet Cong.

3. Air operations disrupt or restrict Viet Cong mobility. According to captured documents, the Viet Cong are instructed to stop all movement when aircraft appear in the vicinity and to remain under cover or immobile as long as the aircraft are present or until they have been identified as harmless. In most instances the Viet Cong will cease their activities and movements altogether in the presence of air. If the movement of a Viet Cong unit is delayed too long, however, its commander may order a smaller group to break cover and expose itself in order to lead the aircraft away from the main body and so allow the latter to proceed undetected. Fear of detection from the air has tended to force the Viet Cong to move primarily at night and to carry various camouflage devices. Air has disrupted Viet Cong movements on rivers and canals and along the sea coast.

4. Air power inhibits Viet Cong initiative and disrupts their plans and operations. Fear of being discovered by aircraft frequently leads Viet Cong to engage in rash or erratic behavior that prematurely reveals their position or hiding place. According to available information, Viet Cong units deploying to attack may postpone or abandon their plans if their movements have been delayed by air activities, if they believe themselves to have been observed
by aircraft, or if they expect strike aircraft to arrive before their mission can be completed. One evidence of this is the decline in the number of ambushes of supply convoys and trains when the convoys are escorted by aircraft. Air intervention during attacks by the Viet Cong often forces them to break off the action and to disperse. Reconnaissance flights or air strikes with delayed-fuse bombs force the Viet Cong to move their command posts and base camps, and disrupt their supply system.

5. Air is an effective instrument for the destruction of Viet Cong crops. It is significant that in some areas, notably in Central Vietnam, the Viet Cong spend four-fifths of their effort in raising food, and that a substantial proportion of the infiltrators from North Vietnam is made up of production units charged with growing food for the Viet Cong in South Vietnam. A common theme of Viet Cong prisoners and defectors is the vulnerability of the Viet Cong to food crop destruction. The destruction of Viet Cong crops in remote areas that can only be reached by aircraft appears to have reduced Viet Cong ability to keep supplied and operating. Many prisoners and defectors mention that the Viet Cong suffer from food shortage. The destruction of crops thus contributes to lowering Viet Cong morale and to encouraging their defection and surrender.

Although the more intangible effects of air power are difficult to measure, the available information indicates that air operations, even under present constraints, have a significant impact on Viet Cong mobility, initiative, plans, operations, and morale. Additional information and analysis is needed to verify these observations and to assess the effectiveness of various air operations, tactics, and weapons.
If the opportunity for air power in Vietnam were fully exploited, the impact on the Viet Cong might be great enough to facilitate a more intensive ground offensive and create favorable conditions for an effective pacification program. Existing air power in the area could perhaps be more effectively used in an intensive and continuous campaign of surveillance, strikes, and harassment.
IV. REAPPRAISAL OF INTELLIGENCE

There is, the author believes, an urgent need to use the existing intelligence collection and analysis facilities in Vietnam in order to develop a better understanding of the impact of various weapons, ground and air, on the Viet Cong and on the Vietnamese population. Little systematic effort appears to have been made to analyze the relevant information that does exist in the captured documents and in reports compiled for other purposes.

The reasons for the apparent inadequacies of intelligence on the impact of air operations are: (a) the absence of a specific collection requirement; (b) the present emphasis by most intelligence agencies on the collection of Order of Battle information; (c) the dependence of most U.S. intelligence agencies on Vietnamese sources of information and on army-trained Vietnamese intelligence personnel for the interrogation of POWs and defectors; and (d) the inadequate interrogation in depth of most prisoners and defectors, the majority of whom are not sent on to the special interrogation centers in Saigon.

Available intelligence is too scanty and fragmentary at present to permit a careful evaluation of the effectiveness of various tactics and weapons. The systematic collection and analysis of such information might lead to a more precise assessment of the utility of air power and would indicate ways of increasing its impact. For example, it is not clear at present what kinds of weapons and ammunition cause the Viet Cong the greatest harm under different conditions. The evidence is insufficient to
determine the disruptive and psychological effects of sonic booms, of various types of noise makers, or of different kinds of air-to-surface ammunition and bombs. Captured documents, however, indicate that changes in air tactics and weapons may be needed from time to time, since existing ones may progressively lose their psychological effect as the result of Viet Cong countermeasures or growing familiarity with them.

Additional intelligence collection and analysis efforts appear desirable to evaluate the effectiveness of specific types of air operations, for example defoliation or airborne broadcasts. Some of these may now be insufficiently exploited and might have a considerable impact on the Viet Cong if used more intensively while others may yield a small return in relation to their cost and the risks taken by the aircraft and crews. Some of the available information, while inconclusive, suggests that leaflet drops are useful but that airborne broadcasts may be relatively ineffective if the aircraft is flying high enough to avoid ground fire.

The systematic collection of weapon-impact intelligence would also provide information concerning weaknesses in operational procedures and tactics. For example, Viet Cong prisoners and documents indicate that the effectiveness of fighter strikes is reduced when the fighters, as they often do, find themselves forced by the present rules of engagement to delay the attack and circle while an L-19 (O-1E) aircraft marks the target. This delay gives the Viet Cong time to disperse and leave the target area or to take cover in prepared shelters. Moreover, the present shortage of L-19 aircraft in Vietnam means that
fighter strikes may not be launched or may be greatly delayed because no L-19 arrives to identify and mark the target for them.

There is also evident need for the collection and analysis of information on the impact of air, and possibly also of artillery, on civilian behavior and attitudes. At this critical stage of the war, the relevant question appears to be how such operations affect the behavior rather than the morale of the population. Attacks causing collateral civilian damage or casualties undoubtedly frighten people, but unless such actions result in driving them to give active support to the Viet Cong they may be justified if they also significantly hurt the Viet Cong or disrupt their plans and activities. At present one of the main prerequisites for civilian support of the government appears to be the latter's ability to defeat the Viet Cong and to provide effective security for the population. In achieving this prerequisite, one of the problems we face is to decide how to strike a balance between attacking and destroying the Viet Cong -- a military and political necessity -- and avoiding unnecessary alienation of the population. It is obviously undesirable, in itself, that the Viet Cong should be permitted to use the population as a shield. This is not to say that we should disregard the civilian population and engage in indiscriminate attacks, but simply that we should try, in view of the current emergency, to maintain a realistic view of the risks of provoking adverse civilian behavior. A careful study of this problem is urgently needed, and the first step is to collate and analyze the relevant intelligence.
Additional information is needed to indicate ways of exploiting air power so as to induce desirable behavior on the part of the population. Whatever negative effects air attacks may have, they could be further reduced if better information were available for the development of a more effective psychological warfare program. This might not only give warning and explain why air attacks are necessary but also offer the villagers reasonable alternatives that would channel their behavior in desirable directions.

The fear of air attacks and the association of the threat of attack with the presence of Viet Cong troops might be exploited so as to induce the population to give intelligence about the Viet Cong and to cooperate more with the government forces. At present people are not penalized for withholding information on the Viet Cong; consequently they tend to fear the insurgents more than the government.

Better intelligence could suggest more effective uses of threatened or actual air attacks to force civilians to leave Viet Cong controlled areas for government controlled territory, where they could be more effectively screened and administered. It is also desirable to determine how air power can reinforce the population's feeling of security in pacified areas.

The acquisition of the information needed to assess more precisely the impact of air operations on the Viet Cong and on civilians would probably not be a major problem. Several sources of information are available.

Prisoners and defectors possess much relevant information and experience that might be tapped if appropriate requirements and questionnaires were given to the collection
agencies. Vietnamese interrogators have revealed that a large proportion of Viet Cong prisoners and defectors have been exposed to some type of air action. The same interrogators, however, stated that, in the absence of specific intelligence collection requirements, they tend either to ignore this line of inquiry or to omit relevant information divulged by prisoners and defectors from their reports.

Information on civilian reactions to air operations (and to artillery bombardment) appears to be available from prisoners and defectors, Vietnamese sector and province chiefs, and various U.S. and Vietnamese agencies. At present few of these agencies are specifically required to report on the effects of air operations on civilians.

The military importance of the operational implications derived from the limited data so far examined points to the urgent need for an intensive and systematic effort by appropriate intelligence agencies to collect and analyze relevant information. It remains to be seen whether the new information so obtained would substantiate the argument of this study. But the need for a better appreciation and documentation of the full impact of air and ground operations in Vietnam can hardly be doubted.