

MEMORANDUM

RM-3867-PR

MARCH 1964

SYMPOSIUM ON THE ROLE OF
AIRPOWER IN COUNTERINSURGENCY
AND UNCONVENTIONAL WARFARE:
A BRIEF SUMMARY OF VIEWPOINTS

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The **RAND** *Corporation*
SANTA MONICA • CALIFORNIA

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PREFACE

This Memorandum briefly summarizes major points of view expressed in a RAND symposium concerned with the role of airpower in counterinsurgency and unconventional warfare. Records of the individual symposium sessions are available in published Memoranda as follows:

The Role of Airpower in Counterinsurgency and Unconventional Warfare:

The Malayan Emergency, RM-3651-PR

The Philippine Huk Campaign, RM-3652-PR

The Algerian War, RM-3653-PR

Chindit Operations in Burma, RM-3654-PR

Allied Resistance to the Japanese on Luzon,
World War II, RM-3655-PR

Unconventional Warfare in the Mediterranean
Theater, RM-3656-PR.

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I. INTRODUCTION

This Memorandum attempts to convey the essence of a series of appraisals of the roles of airpower in counterinsurgency and unconventional warfare. Those roles were assessed during a symposium that is reported in greater detail in a series of RAND Memoranda (Refs. 1-6). Nineteen officers from Australia, France, The Republic of the Philippines, and the United Kingdom, together with 14 U.S. officers and six RAND staff members participated. Individual sessions of the symposium were devoted to:

- The Malayan Emergency
- The Philippine Anti-Huk Campaign
- The Algerian War
- Chindit Operations in Burma
- Allied Resistance to the Japanese on Luzon, World War II
- Unconventional Warfare in the Mediterranean Theater.

As background for the subsequent comments on airpower, we first offer a short paragraph on each of the campaigns.

In Malaya the British fought a successful 12-year campaign to rid the then-incipient Malayan Republic of the Chinese terrorists, who had almost wrecked the economy of the countryside. The campaign was led by a civilian High Commissioner with an outstanding military record, General Sir Gerald Templer, and featured carefully integrated civil and military elements that were effective against the insurgents and that had the support of the people.

In the eradication of the Hukbalahaps from Luzon, the support of the people was again a key factor, but one that was lacking in the early part of the campaign. Coinciding roughly with Ramon Magsaysay's assumption of control as the Philippine Defense Secretary, the suppression campaign began to gain popular support and to become effective. Four years later, the Huk threat had disappeared.

In the Algerian War, an effective military operation defeated the insurgents but was followed by political negotiations that resulted in Algeria's independence. An important element in this campaign was the maintenance of a successful barrier to troops, weapons, and supplies from immediately outside Algeria.

The Chindits, General Orde Wingate's forces operating behind Japanese lines in Burma, were delivered, supplied, and otherwise supported by the Number 1 Air Commando Group of the U.S. Army Air Force. This campaign demonstrated the very great utility that airpower can have in unconventional warfare.

The American-led Philippine Resistance forces on Luzon during the Japanese occupation fought a very unorthodox war that, until liberation forces appeared, was without airpower. However, these unconventional forces made very good use of air support when it did become available.

Airpower played vital roles in three types of unconventional warfare in the Mediterranean Theater in World War II. Airdrops to underground elements, supplies and assistance to the French Maquis, and liaison with the Yugoslav Partisans all made unusual demands on airpower, which were filled by sometimes unorthodox use of airpower.

II. ROLES OF AIRPOWER

In the campaigns examined by the symposium, the roles of airpower were mixed in kind and in order of importance. Perhaps the most frequent role was that of transport. Close air support generally was handicapped in applications, but was used very effectively on occasion, as in Algeria, for instance. Reconnaissance proved useful generally, and was in some situations developed to a high level of skill and effectiveness. There were few situations that permitted air interdiction, although in Algeria only the "barrages" or fences, reinforced by air and ground units, made it unnecessary. Psychological warfare operations were frequently used in some campaigns, usually in conjunction with civil authorities. The counterair role was crucial to subsequent transport operations in the Burma Chindit campaign. Similarly, USAAF destruction of Japanese airpower in Luzon was essential to the success of Philippine Resistance forces in the liberation. Air defense did not figure materially in any of the campaigns.

TRANSPORT

Under this heading can be lumped a wide variety of airpower roles in support of ground forces. For example, among the campaigns examined in the symposium were situations involving air delivery of troops by conventional aircraft that landed, by helicopters that landed or hovered, by airdrop from conventional aircraft and helicopters, and by gliders that landed. Resupply of troops was handled by regular transport aircraft, such as C-47s, by small STOL types (British Pioneers), and by L-5s, that dropped packs from wing shackles while flying at nearly shoulder height along a troop column. Wounded and sick troops were carried out of battle zones by helicopters and conventional aircraft, and in the Burma campaign, by flying boats operating from a large lake. Additionally, agents and supplies were carried to the underground elements in Europe, and Ramon Magsaysay, then the Philippine Secretary of Defense, used an L-5 to visit, inspect, and hearten soldiers in remote outposts.

In Malaya joint air-ground operation requests for air transport missions went through the JOC at Kuala Lumpur. Ground Patrols were air transported to their patrol areas and landed or airdropped. Their

retrieval--days or weeks later, according to the tactical situation-- usually required helicopters. For supply drop missions, British Army dispatchers at the RAF base did the packing, loading 200-lb packs aboard C-47s. Each aircraft often served several drop zones that had been prepared by the ground units. Small and frequent, rather than large and occasional, drops were generally made to the patrols, whose ground transport capability was limited to back-packing. Drops were made from about 200 feet above the jungle canopy, often with the surrounding terrain higher than the delivery aircraft. Drop zones were sometimes simply solid jungle above which a marker balloon floated. To avoid disclosing the positions of ground patrols, air supply missions followed ostensibly cross-country flight paths selected to permit dropping personnel and supplies unobtrusively.

The British used Pioneers, especially in support of the Malayan jungle outposts, for personnel transport, lightweight supply missions, and casualty evacuation.

Helicopters were used to reach small jungle clearings or other places where fixed-wing aircraft could not land. Very accurate parachute jumps were made from helicopters. If it appeared that the jumper would have difficulty in letting himself down from jungle canopy to ground, he could use abseil gear, a bundle of webbing developed by the British for the purpose.

Air transport operations in the Huk campaign resembled, on a much smaller scale, those of Malaya with the unique addition of Secretary of Defense Magsaysay's use of small liaison aircraft for informal surprise inspection visits at remote locations. In this way he ascertained the true state of affairs in the field and demonstrated his interest in them and their welfare to the common soldier and citizen. In another transport application, the Philippine Air Force used two L-5 aircraft to supply two battalion combat teams during a 72-day march through the rugged Sierra Madre.

In Algeria, Noratlas air transports were used extensively to move strategic reserves, to deliver alert forces in response to alarms along the barrages (fences along the Tunisian and Moroccan borders), for paratroop operations, and in routine unit movements. Ground patrols

in the Sahara Desert to the south often were sustained entirely by air. Helicopters were used in transport as well as in armed missions.

The work of Allied air in the Mediterranean Theater in aiding the Maquis and Tito's Partisans was almost entirely a night transport operation carried out by heavy bombers. Slightly modified B-17s and B-24s parachuted supply tonnage and special agents into occupied Europe by night, largely in single plane missions. In the summer of 1944, C-47s shuttled in and out of hastily prepared landing strips in Yugoslavia, bringing in needed equipment and evacuating wounded partisans.

During the Philippine liberation campaign on Luzon, two regiments of resistance forces were supplied 100 per cent by air for their offensive operations. After the Japanese airpower had been broken, C-47s began landing on improvised airstrips behind enemy lines. From there L-5s handled distribution to small units in remote localities and flew casualties to hospitals. Daylight operations were then the rule, not the exception.

During the Chindit campaign, 100 glider and 600 C-47 sorties landed 9000 men, their equipment, and more than a thousand animals 200 miles behind enemy lines in a 5-day operation. Subsequently, the Chindits required continuous air transport for months. Although C-47s carried the heavier supplies, the ubiquitous L-5s delivered material at hastily improvised strips at Chindit main camps and "retailed" 200-lb standard British drop packs (from wing shackles) while flying shoulder high along Chindit columns. These missions met the Chindits' day-to-day needs without hampering their mobility. A few Wright Field "test vehicle" helicopters evacuated some wounded soldiers, indicating the helicopter's potential, and RAF Sunderland flying boats diverted from submarine patrol flew out nearly 600 sick and wounded from Lake Indawgyi.

CLOSE AIR SUPPORT

In the counterinsurgency and unconventional warfare cases where close air support was available, the potential targets were generally small groups of the enemy in areas that also contained friendly civilians, thus constraining close support air attacks to avoid killing, injuring, or alienating civilians. Detailed, timely intelligence, close coordin-

ation between military and civilian elements in planning air operations, and direct control during strikes all contributed to making close support effective.

In the early part of the Malayan Campaign the concentrations of Chinese terrorists would have made good targets, but in Malaya British intelligence was poor, their maps were unsatisfactory, and they lacked accurate radar navigation and bombing systems. Additionally, air operations were hampered by the mountainous, jungle-covered terrain and frequently adverse flying weather. As British capabilities improved, enemy targets for close air support became scarcer. Despite efficient, expeditious procedures for requesting, approving, launching, and delivering air strikes, when ground patrols called in air support, the enemy often melted away into the jungle before the support arrived. In those cases, suspected escape routes of the enemy were often bombed to delay their escape and to prevent them from setting ambushes for pursuing ground forces. In Malaya, the most effective air strikes were carefully planned, often based on an agent's intelligence, and involved pin-point bombing of targets, usually jungle camps. Sometimes areas were bombed and strafed to clear them of the enemy, to keep the terrorists on the move, and generally to harass them. Flares were dropped to hinder enemy movement and to help friendly troops escape from untenable positions at night. Enemy crops grown in jungle clearings sometimes were sprayed with destructive chemicals. To improve air-ground coordination, aircrew members went out with Army combat units for short periods. Crews invariably returned with much better understanding of the problems the ground forces faced.

During earlier phases of the Philippine Huk Campaign, the rebels were intermixed with the population in the Central Luzon plains and few good close-support targets existed for the very small Philippine Air Force; attacks were withheld when they might endanger civilians. After the Huks had been driven into remote mountain camps, the P-51s, T-6s, and T-13s were used quite effectively, especially in bombing sorties.

Discussion of the Algerian war provided an outstanding example of close support and transport airpower used in combination with ground forces. The target was a concentration of rebels on a remote plateau

of some 10 by 10 kilometers. Planning and timing were key ingredients. First the air and ground commanders used photo-maps to select assault landing zones, interdiction flight patterns, and approach routes for ground forces. For the rebels, the first signs of the attack were six B-26s that cluster-bombed designated landing zones and 14 attack aircraft (P-47s and T-6s) that circled to prevent the rebels from escaping. Within two minutes after the bombing strike, helicopters began landing assault troops. Escorting helicopters armed with demountable 20-mm cannon and SS-11 missiles attacked rebels in or near the landing areas from a circling pattern of 1500- to 2000-foot radius. Ground forces arrived in trucks about four hours later to relieve the orbiting aircraft and to tighten the circle while the airborne assault units expanded their areas outward. Four P-47s and two T-6s remained on airborne alert overhead. The day's action cost the French two killed and 10 wounded. Rebel losses were 197 dead, 60 captured. The stand-off, circling attack of the French armed helicopters in Algeria allowed the airborne weapons to strike the rebels on the ground, but kept the helicopters out of effective range of the rebel ground fire. Adoption of this tactic required some emphasis to overcome the pilots' initial tendency to attack straight-on, in the face of ground fire--an unnecessary as well as dangerous tactic. The helicopters used thick nylon for limited protection from ground fire. The normal arrangement of one armed helicopter in five could be changed quickly as the situation demanded; the weapons could be attached (or detached) in 15 to 20 minutes, using a simple, anti-vibration side mount.

On Luzon during the liberation, close support by air compensated effectively for the Philippine Resistance forces' lack of artillery. With highly developed ground-air coordination, 500-lb bombs were dropped only 50 yards in front of dug-in friendly troops. By that time in the campaign, the 5th Air Force could provide practically unlimited, on-call support for the guerrilla regiments. The air-ground coordination surmounted such difficulties as operating out of hastily prepared strips, language differences, and improvised air-ground communication systems. Combat experience and aircrew indoctrination duty with guerrilla units both contributed to the success of the close support operations.

Although close air support was new to the Chindit commanders, once a working relationship between ground and air units was developed, ground support by P-51s, B-25s, or both was a regular part of nearly all ground operations. The 75-mm cannon mounted on some of the B-25s, while disparaged in some other theaters of war, was a highly effective weapon in Burma. For example, in assisting the defense of one Chindit position, it knocked eight guns of Japanese heavy artillery out of action before they could be fired.

RECONNAISSANCE

Reconnaissance was extremely important in the Malayan, Anti-Huk, and Algerian counterinsurgency campaigns and in the unconventional warfare operations of the Chindits in Burma.

In Malaya, photo-mapping was an early requirement because of the inadequacy of the available maps. The French did a substantial amount of photo-mapping in Algeria also. Hand-held cameras were used for most other photo-recce requirements, particularly in Algeria, Burma, and Malaya.

Perhaps the most useful aerial photographs were those taken of the Chindit landing area at Piccadilly where forty 13-man gliders were to be landed at night without lights. The photos showed row on row of large teak logs. The results of attempting to land those 40 troop gliders in the dark on that log-studded meadow can be imagined. Fortunately, the photos provided forewarning, and the gliders were dispatched to another landing area.

Light aircraft were used to detect signs of enemy presence in Malaya, Algeria, and Central Luzon (the Anti-Huk campaign). In Malaya, terrorists' garden plots were often spotted by light-recce pilots. The plots were later sprayed with destructive chemicals just before harvest time.

Against the Huks, recce by L-5 pilots contributed substantial information concerning the Huk force status. Based with Army battalions, the pilots often made several surveillance flights in a day, and sometimes flew recce at night as well. Flight patterns were varied, but specified points were checked regularly, notably the homes of agents who used the arrangement of ordinary farm objects such as gates, haymows, and plows, to inform the pilot of the strength, location, and sometimes

state of readiness of concentrations of Huks. In addition, L-5s and, occasionally, C-47s took informers aloft so they could point out locations of enemy units.

The French exploited visual and photo reconnaissance in Algeria. They found jet aircraft preferable for low-level visual patrol in flat terrain because their speed denied the enemy the opportunity to conceal his pack animals and take cover himself before being spotted from the fast-moving aircraft. Regular day and night air recce patrols were maintained along the barrages and routine air patrols in the Sahara. Pilots of light aircraft flew often over Algerian towns at irregular hours in order to learn the patterns of normal activities there. Later, unusual activities would indicate likely enemy presence; in fact, indicators of enemy action derived from these flights sometimes was weeks ahead of the same information from other sources.

Aside from the Chindit glider episode, air reconnaissance in the unconventional warfare cases played a very minor role. However, it should be mentioned that in armed recce, the Germans harassed Yugoslav Partisans with the old, slow Fieseler Storch. It could fly in a tight circle at 50 kn, permitting the gunner to use the light machine gun quite effectively against men on the ground.

INTERDICTION

In the campaigns examined in the symposium, conventional interdiction attacks of lines of communication or supply were rare, but in Algeria the barrages along the Moroccan and Tunisian borders served to interdict movement into Algeria of some 25,000 enemy troops.

The Chinese terrorists in Malaya and the Huks on Luzon were fairly well cut off from outside supply geographically and lacked any sort of air transport capability to surmount the barriers.

On the other hand, in the unconventional warfare cases, outside support contributed substantially even when extremely limited, as in the case of Allied resistance forces on Luzon. There, for a time all support was landed clandestinely by U.S. submarine and back-packed inland. Reactions to the submarines and to the Allied drops to the Maquis and Yugoslav Partisans demonstrated the importance to morale of even minor

outside aid. Moreover, in the same vein, the Maquis could not have performed their numerous acts of harassment and sabotage following the Normandy landings without the large tonnage of air delivered weapons and supplies. Until German fighters raised the losses to a prohibitive level, an Allied air lift was very effective in bringing wounded Yugoslav Partisans to safety and delivering badly needed ammunition.

PSYCHOLOGICAL WARFARE

In the Malayan and the Anti-Huk Campaigns, aircraft were used extensively to deliver written and audible psychological material to the enemy and the local population. Voice broadcasts were considered generally more effective than leaflets when directed at specified individuals or groups and when the "audience" contained a large percentage of illiterates. Psychological warfare activities were generally joint civil-military operations, often with civil authorities having the primary responsibility and the military acting only as a delivery agency.

In Malaya a psychological warfare specialist sat on the top level planning committee of the director of operations and a representative was continuously on duty to exploit situations as they arose. Aircraft dropped millions of leaflets; modified Dakota transports broadcast taped messages through loudspeakers. Sometimes broadcasts were merely loud noises to keep the terrorists awake. These were often linked with sporadic bombing, perhaps one bomb every half hour. Belts of blank cartridges with delay detonators were sometimes spread indiscriminately in enemy territory to simulate machine gun fire.

The demonstration of the existence of airpower was in itself a psychological weapon in operations against the Huks on Luzon. This display of government determination helped to win support from the people and to deter Huk recruitment.

COUNTERAIR

A counterair capability was critical in only one instance, in the earliest stage of the Chindit campaign. There the Number 1 Air Commando Group's B-25s and P-51s were very effective in reducing Japanese

air strength in Central Burma--a prerequisite to the glider and aircraft landing of thousands of troops and animals and many tons of supplies and equipment 200 miles behind enemy lines. Later, both anti-aircraft and fighter defenses at Chindit strongholds took their toll of enemy aircraft. The counterair role can be traced in other campaigns as well. The Allied resistance forces on Luzon required destruction of Japanese airpower before they could become fully effective in the liberation of Luzon. And Allied air operations on behalf of the French and Yugoslav resistance became progressively easier as the counterair effort against the Luftwaffe gained momentum.

OTHER CONSIDERATIONS

Ground forces were the principal means for seeking out and destroying the insurgents. Air and sea roles were in conjunction with or support of ground operations. It was the soldier on the ground who had to beat the guerrilla at his own game. Combat aircrewmembers did accompany ground troops on jungle patrols in Malaya and gained an appreciation thereby of the ground battle. Air controllers were active with ground elements in Burma and on Luzon.

The command and control arrangements for these campaigns were often somewhat unconventional. For example, in Malaya the command consisted of a series of committees from district (local) level on up, all working under the direction of the High Commissioner. Each committee roster included the pertinent military commander, police chief, intelligence director, and others under a civilian "chairman."

In the Anti-Huk campaign, joint operations stemmed chiefly from personal cooperation between officers of different services under the leadership of Defense Secretary Magsaysay.

The French established JOCs at Army Corps--Tactical Air Command level and additional smaller ones at ground division--advanced air command level. Helicopter or aircraft command posts served forward (task force) ground and air commanders in combat situations. Multiple repeater stations on terrain high points provided effective communications. The Air Force had operational control of the numerous Army aircraft in Algeria.

In Burma, the Number 1 Air Commandos were well integrated into the ground commander's (General Wingate) operations and concentrated their efforts on various kinds of air support for his forces, but they reported to the U.S. Eastern Air Commander, General Stratemeyer.

Command and control of air support for unconventional warfare forces involved complex arrangements. The guerrillas set the time (generally at night) and place for resupply and paradrop missions, had a major voice in determining the content of the loads carried, and marked the drop zones, or more rarely, landing zones.

III. COMMENTS ON AIRCRAFT CAPABILITIES

Transport

Symposium participants expressed preferences for three variants of transport aircraft:

1. A cargo-personnel carrier, loosely described as an "improved C-47," with increased power, a Plexiglas nose for improved forward and downward visibility, a rear, centerline delivery door for more accurate drops, and more reliable equipment for air-ground communication.

2. A small, light STOL aircraft. The British Pioneer, which could be considered a prototype of the kind of STOL aircraft that was desired, operated from crude 600-ft strips in Malaya while carrying 800-lb payloads.

3. Helicopters that could carry 12 to 20 men, had light (perhaps nylon) protection for pilot, passengers, and engine, that could have a 20-mm cannon quickly installed on a vibration-absorbing side mount, and that would have greatly improved reliability and lower maintenance demands (than models then in use).

Reconnaissance

Participants did not ask for any striking changes in recce aircraft, but held in general that photo-mapping aircraft and small, slow planes such as L-5s would meet most reconnaissance needs. The French indicated their preference for jets for armed recce over flat terrain. The speed of the jets prevented insurgents from taking cover in time to avoid detection.

Bomber

Bomber characteristics were most clearly spelled out in discussion of the Malayan Campaign. The British wanted bombers that could fly slow and low, had good loiter and maneuvering capabilities, and were equipped with reliable, easy-to-maintain electronic navigation and bombing equipment.

Fighter

The British found the jet fighter available to them, the F-86, less satisfactory than late World War II propeller aircraft for reasons of reliability, maneuverability, etc. Very high delivery accuracy was stressed, and the consensus favored two-place aircraft so that the numerous cockpit tasks could be divided.

Appendix A

SYMPOSIUM PARTICIPANTS

AUSTRALIA

Royal Australian Air Force

Air Commodore A. D. J. Garrison, O.B.E.
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Col. J. Mitterrand
Maj. J. Ferrando

French Army

Brig. Gen. A. Giroult
Col. L. M. J. Hounau
Col. R. Laure

GREAT BRITAIN

Royal Air Force

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Appendix B

SYMPOSIUM DISCUSSION OUTLINE FOR EACH CAMPAIGN

1. Introduction
 - a. Description of area and weather
 - (1) Effects and implications upon ground and air operations.
2. Broad review of planning and conduct of war
 - a. Short summary of war
 - (1) Orders of battle, dates, circumstances of beginning and ending, political environment and constraints, major occurrences, etc.
 - b. Broad concepts, aims and objectives.
 - c. Role of airpower in accomplishing these concepts, etc.
 - d. Priorities used in committing airpower to different types of missions during different phases of war.
 - e. Summary of command structure and method of planning joint military actions and air actions in war.
 - f. What effects of policy, priorities, command organization, etc., upon effectiveness of air actions.
 - g. Description of principal air efforts in campaign, and of most useful or most effective air efforts.
3. Descriptions of air efforts in different types of missions (close support, transport, recce, counterair, interdiction, psychological, etc.). Discuss one type of mission at a time, and use same general format for each discussion.
 - a. Description of what was done during campaign.
 - (1) System of priorities used for planning of different tasks to be done within one type of mission.
 - (2) Examples of missions done, with maps.
 - (3) How done--tactics and techniques
 - (4) Means of command, coordination, and control.
 - (5) What equipment used--aircraft and other
 - (6) Communications
 - (7) Results, good or bad
 - (8) Limiting factors and problem areas.
 - b. Definition of better ways and means to have accomplished these missions.

- (1) What was needed to have done these tasks better?
 - (2) How could tasks have been done better?
4. Descriptions of special projects or special operations that were done in campaign. Generally use items under paragraph 3.
 5. Summing up of main points of discussion under paragraphs 1 through 4 (include minority opinions).

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