

# Jungle Skippers

The 317th Troop Carrier Group in the Southwest Pacific and Their Legacy

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John D. Poole  
Major, USAF



**Air University**

Steven L. Kwast, Lieutenant General, Commander and President

**School of Advanced Air and Space Studies**

Thomas D. McCarthy, Colonel, Commandant and Dean

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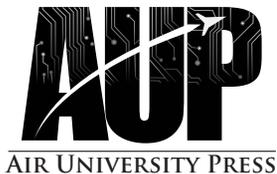
*Design and Production Manager*  
Cheryl King

Air University Press  
600 Chennault Circle, Bldg. 1405  
Maxwell AFB, AL 36112-6010  
afri.aupress@us.af.mil/

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Commandant and Dean  
School of Advanced Air and Space Studies  
125 Chennault Circle  
Maxwell AFB, AL 36112-6026  
Tel: (334) 953-5155  
DSN: 493-5155  
saass.admin@us.af.mil

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## **About the Author**

Maj John Poole was commissioned in the US Air Force through the ROTC program at Texas A&M University in 2000. He graduated from Specialized Undergraduate Pilot Training in 2002 and then went on to various operational flying and staff assignments within Air Mobility Command. He is a senior pilot and weapons officer with over 3,000 flying hours in the C-130H and C-130J. Major Poole has flown 1,303 combat hours over multiple deployments in support of Operations Enduring Freedom and Iraqi Freedom. He holds a bachelor's degree in environmental design from Texas A&M University, a master of arts in military history from Norwich University, a master of military operational art and science from the Air Command and Staff College, and a master of philosophy in military strategy from the School of Advanced Air and Space Studies. He is married with children.



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## **Abstract**

This study examines the 317th Troop Carrier Group's (TCG) experience in the Southwest Pacific during World War II to identify its long-term effects. The work focuses on the 317th TCG's role in two specific events, the Battle of Wau in January 1943, and the airborne assault at Nadzab the following September. Each event highlights the combat airlift dichotomy of airland and airdrop. In airland, troops are moved by aircraft and disembark from the aircraft on the ground. In airdrop, troops are moved by aircraft and landed using parachutes.

The author assesses how the convergence of opportunity, capability, and conditions enabled the 317th TCG to employ airland and airdrop to make a successful contribution beyond the immediate battlefield. This study demonstrates that the 317th TCG's actions in both the Battle of Wau and the assault at Nadzab directly contributed to success at the engagement, campaign, theater, and institutional levels. Failure and limited successes in similar, contemporaneous operations in the European theater give the actions at Wau and Nadzab lasting significance. The troop carriers' performance represents the first truly successful execution of combat employment through airland and airdrop respectively. Together, they represent the point of origin of today's combat-employment mission. From here, we can see the doctrinal persistence and recurring themes of this application of airpower.



## Chapter 1

### Introduction

*We gather no glory.  
Our names are unknown.  
But together we fly,  
Together we've won.*

—SSG Paul F. Maujean  
317th Troop Carrier Group (TCG)  
“Troop Transport”

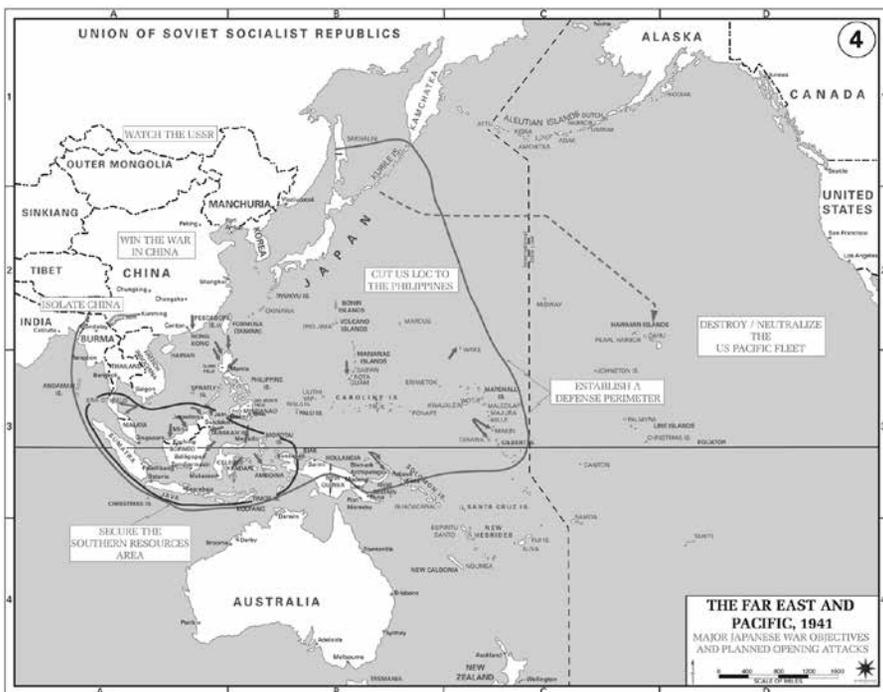
No student of strategy or history can fully grasp the triumph of Gen Douglas MacArthur, wading ashore at Luzon in October 1944 to utter his immortal words, “I have returned,” without an understanding of the events that brought him there. Seventy years later, we can identify 1943 in the Southwest Pacific as a turning point in the war. The road to General MacArthur’s iconic return began that year in New Guinea, where a small outpost of Australian troops valiantly defended a grass landing strip in the mountains from an overwhelming enemy force while unarmed transports braved hostile fire to deliver reinforcements and prevent the surrounded airfield from falling. The Japanese tide was stemmed at the Battle of Wau, and the strategic initiative shifted to the Allies, who launched their first major offensive with a paratrooper assault on Nadzab. Air mobility was a key to this success, but its role remains poorly understood. Specifically, the men of the 317th TCG (United States Army Air Forces [USAAF]) played an essential role in both actions; however, their accomplishments had more lasting effects than making General MacArthur’s eventual return possible. So what is the long-term significance of the 317th TCG’s experience in the southwest Pacific during World War II?

The Southwest Pacific Area (SWPA) represented an important theater for both the Axis and the Allies. Japan planned to fight a war of limited objectives. Once it gained what it wanted, Tokyo expected to negotiate for a favorable peace. Japan sought to capture the British, French, and Dutch colonial holdings in the East Indies. If the Japanese could force the Europeans out of Asia, Tokyo would hold exclusive access to the vast natural resources of the “Southern Resource Zone.” These resources would fuel the manufacturing centers of Japan, Manchuria, and occupied China to provide the geopolitical power necessary for Japan to recast itself as a modern, industrial hegemon. Additionally, extending Japanese power into Burma would further isolate

## INTRODUCTION

China in an attempt to force a favorable negotiated end to the conflict between the two Asian nations.

Japan believed the United States would oppose with force any attempt to seize European colonial possessions. To that end, the Japanese developed a strategy to neutralize the US Pacific Fleet at Pearl Harbor, eliminate the US base in the Philippines, and seize Wake Island and Guam to sever the US line of communication across the Pacific. Japan then planned to consolidate its forces and form a colossal perimeter defense of the home islands, the recently annexed Southern Resource Zone, and the crucial shipping lanes that connected them. Planners in Tokyo expected the Allies to negotiate peace quickly once the costs of engaging in a protracted war of attrition against an entrenched enemy became apparent (see fig. 1 below). Japan would then lead all of the former colonies it “emancipated” from European masters in a “Greater East Asian Co-Prosperity Sphere” to eclipse the economic and industrial power of the West.



**Figure 1. Japanese war objectives in World War II.** (Reprinted from University of North Carolina School of Education, “Japanese War Objectives and Planned Opening Attacks in World War II,” LEARN NC: K–12 Teaching and Learning from UNC School of Education, <http://www.learnnc.org/lp/multimedia/13426>.)

New Guinea became essential to the Japanese strategy because of its location in relation to Australia. Unlike the myriad atolls that dotted the central Pacific, Australia represented a considerable threat to Japan's defensive perimeter. It could support a sizable force for an Allied invasion and produce significant military manpower and materiel. If Japan could take control of Port Moresby on the southern coast of New Guinea, its land-based airpower could potentially sever the sea lines of communication between Australia and the United States. If Japan allowed the Allies to retain control of Port Moresby, Allied bombers could strike Rabaul, the primary Japanese stronghold in the region. If Rabaul fell, the Allies would have a clear path to the Philippines leaving the Southern Resource Zone vulnerable.

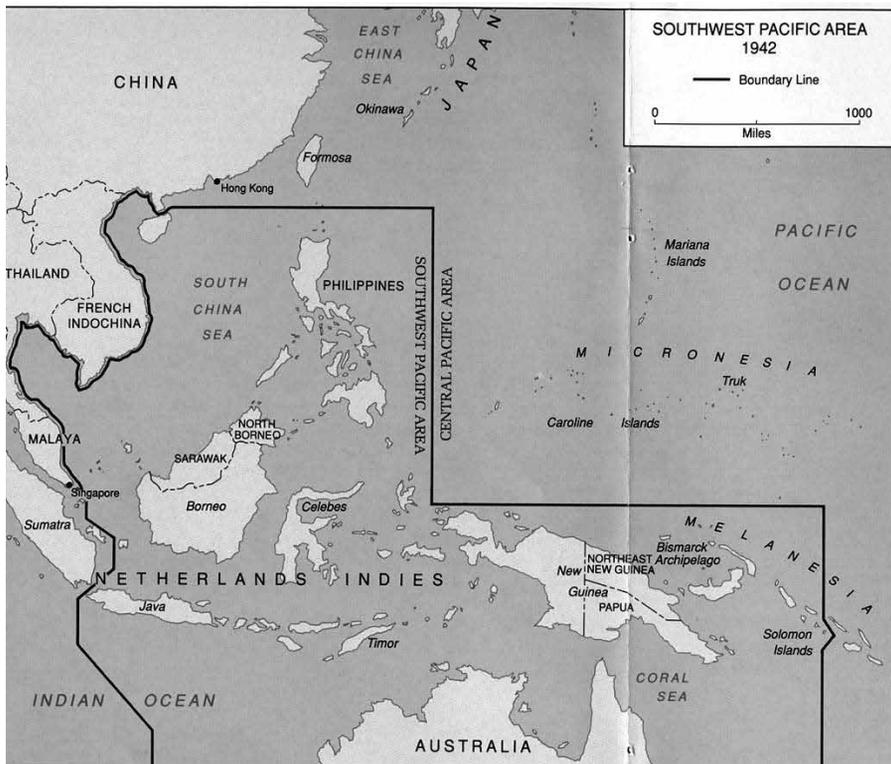
Leaders in Tokyo felt compelled to seize or neutralize Port Moresby. The Imperial Japanese Navy conducted the first attempt and met defeat in the Battle of the Coral Sea. The Japanese army made the second attempt over the rugged Owen Stanley Mountains via the Kokoda Track. The Allies fought them to a bitter standstill just 20 miles from Port Moresby, and the ensuing Papuan Campaign pushed the Japanese forces back to Buna on the north coast of the island.

Port Moresby and New Guinea were important to the Allies as well. General MacArthur, the commander of all Allied land, sea, and air forces in the SWPA, understood Port Moresby represented an essential foothold on New Guinea necessary to protect Australia from Japanese raids, but also for an advance against Japanese bases along the northern New Guinea coast, and an eventual capture of Rabaul. With Rabaul neutralized, the Philippines would be open for an Allied assault (see fig. 2 following). General MacArthur believed a return to the Philippines would allow the Allies to cut the Japanese lines of communication to the Southern Resource Zone, and the islands would serve as the ideal base to launch an offensive against the home islands. A return would also represent a personal vindication for General MacArthur. Unfortunately for him, the SWPA was not the strategic priority for the Allies.

As the Papuan Campaign unfolded over the second half of 1942 in the SWPA, the Allies simultaneously engaged the Axis powers in several other theaters. The Russians grappled with Germany on the Eastern Front in Europe. In November 1942, British Prime Minister Winston Churchill cabled Pres. Franklin D. Roosevelt that the "paramount task" was the invasion of North Africa to secure the Mediterranean, and to prepare bases on the African shore for a "strike at the underbelly of the Axis . . . in the shortest time." This focus on the Mediterranean would lead to the invasions of Sicily and Italy to eliminate Italy from the war, and deprive the Nazis of a primary ally. It also opened a second front on the European continent to aid the Russians by diverting German resources and attention

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away from the Eastern Front. Preparations were under way for the Anglo-American Combined Bomber Offensive, a strategic operation against Germany in the middle of 1943. The Allies also concentrated on securing shipping in the Atlantic from German attacks. In the central Pacific, the US Navy engaged the Japanese fleet to secure Allied lines of communication. To keep China in the war, the Allies sought to recapture Burma and establish a supply route to assist the armies under Generalissimo Chiang Kai-shek. US and British leaders stated their strategic goals for 1943 as to “conduct the strategic offensive with maximum forces in the Atlantic Western European theater at the earliest practicable date, and to maintain the strategic defensive in other theaters with appropriate forces.” Essentially, defeating Germany held the top priority, and the SWPA would receive minimal resources as a result.



**Figure 2. Map of Southwest Pacific Area.** (Reprinted from University of Texas Libraries, “Southwest Pacific Area, 1942 from the Papua Campaign Brochure by Charles R. Anderson,” in the Perry-Castañeda Library Map Collection: World War II Maps, Asia-Pacific Theater, [https://www.lib.utexas.edu/maps/historical/southwest\\_pacific\\_1942.jpg](https://www.lib.utexas.edu/maps/historical/southwest_pacific_1942.jpg).)

In this context, airpower emerged as a useful asset, serving in a variety of roles in each of the theaters of the war. Air mobility was no exception. In addition to ferrying aircraft and supplies between and within the theaters, the Allies developed methods to deliver troops into battle. Initially employed by the Germans, the concept of airborne assault also took hold with the Allies. The result was the creation of the US Troop Carrier Command to support the airborne divisions. Field manuals at the time outlined two methods of delivering troops to the combat area: airdrop, where troops are moved by air transport and landed by parachutes, and airland, where troops are moved by powered aircraft or gliders and disembark from the aircraft on the ground. These methods of combat employment depended primarily on the delivery and support of specialized paratroopers. Allied attempts to conduct airborne assaults in North Africa in November 1942 and Sicily in July 1943 suffered severe problems and produced limited results. Gen Dwight D. Eisenhower, Supreme Allied Commander in Europe, began to doubt the efficacy of large-scale airborne assault as a concept. US Army Chief of Staff Gen George C. Marshall selected Maj Gen Joseph Swing to convene a board and investigate the viability of large-scale airborne operations during the fall of 1943.

Against this backdrop, the 317th arrived in the SWPA in January 1943. The 317th consisted of four squadrons, the 39th, 40th, 41st, and 46th Troop Carrier Squadrons (USAAF) equipped with a total of 52 C-47 Skytrains. The men of the 317th deployed straight out of the training pipeline, and within their first two weeks in the Pacific, were awarded the Distinguished Unit Citation for their decisive actions in the Battle of Wau. Their employment at Wau represents a unique development in the use of transport aircraft to directly influence a battle, as well as the initial validation of airland as a tactical employment concept. Over the next eight months, the unit gained valuable experience in theater, and at Nadzab executed a successful airdrop of airborne troops with theater and strategic implications. This period set a foundation for the use of airlift in the SWPA as a unique expression of airpower that underwrote the campaigns for New Guinea and the Philippines.

By 1944, the 317th were known as the "Jungle Skippers," from a newspaper article that commented on the low approaches they flew at treetop level to land at forward airstrips carved out of the jungles and kunai grass. The 317th emblazoned the name in large gold letters on the fuselage of each of their aircraft, visually distinguishing themselves from other troop carriers. They developed a reputation as the veteran combat airlift unit in the theater and conducted all of the major paratrooper airdrops in the Pacific, including the airborne assault on the island fortress of Corregidor. They were awarded a second Distinguished Unit Citation for their role in that battle.

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The enduring significance of this history is that the SWPA troop-carrier experience shaped the combat employment of airlift today. The troop-carrier group's role at Wau and Nadzab in some ways mirrors modern airlift operations in Baghdad and Mosul, Iraq. By defining and examining early combat airlift, we can see the doctrinal persistence and recurring themes of this dangerous and controversial application of airpower.

The origins of combat airlift have not been well documented. The majority of the literature on the SWPA and Fifth Air Force centers on the contributions of the fighters and bombers. Airlift history is largely about the origins of strategic airlift, the "Hump" operations in the China–Burma–India Theater during World War II, or the Berlin Airlift at the beginning of the Cold War, and the progression from Air Transport Command to Air Mobility Command. Army history centers on the airborne infantry and its commanders, and usually relates the planning and strategy or the troops' actions once they arrive on the ground with only a passing mention of events in between the plan and the arrival. At best, troop-carrier units become faceless presences operating in the background or *dei ex machina* to expedite the plot. At worst, they were excised from the story altogether.

The story of the troop carriers in the SWPA is one that is seldom told and studied even less. The six-volume official history of the USAAF in World War II offers one of the most detailed accounts of Wau on one page, with most other works serving up the same details or less. The classic *Eagle Against the Sun*, by Ronald Spector, deals with Wau in a single sentence. No scholarly works draw attention to Wau as a departure from doctrine or airlift employment in the Mediterranean or Europe, or as the culmination of a developing tactical airland capability. The official USAAF history's treatment of Nadzab is similar. Few authors connect the success of the drop to the verdict of the Swing Board that ultimately saved the concept of large-scale airborne assault as a feasible method to employ forces. The handful that make the connection credit the 503rd Parachute Infantry Regiment (PIR) (United States Army) with a successful jump at Nadzab, but offer little or no recognition of the 317th TCG's accuracy during the drop as a key to that success.

This is a study of the 317th TCG and its role in two specific events, the Battle of Wau in January 1943, and the airborne assault at Nadzab the following September. Each event highlights a specific half of the dichotomy of combat airlift: airland and airdrop. Sources include primary and secondary sources including unit records of the individual squadrons, the group, the wing, the Fifth Air Force, the ground units, and headquarters involved in the events, as well as memoirs and accounts by the participants.

The project is organized to meet both intermediate goals of the writing: a narrative of the events from the perspective of the 317th TCG, and an analysis and evaluation of their role in those events. Both goals lead to answering the main research question posed at the beginning of this section. To that end, the second chapter

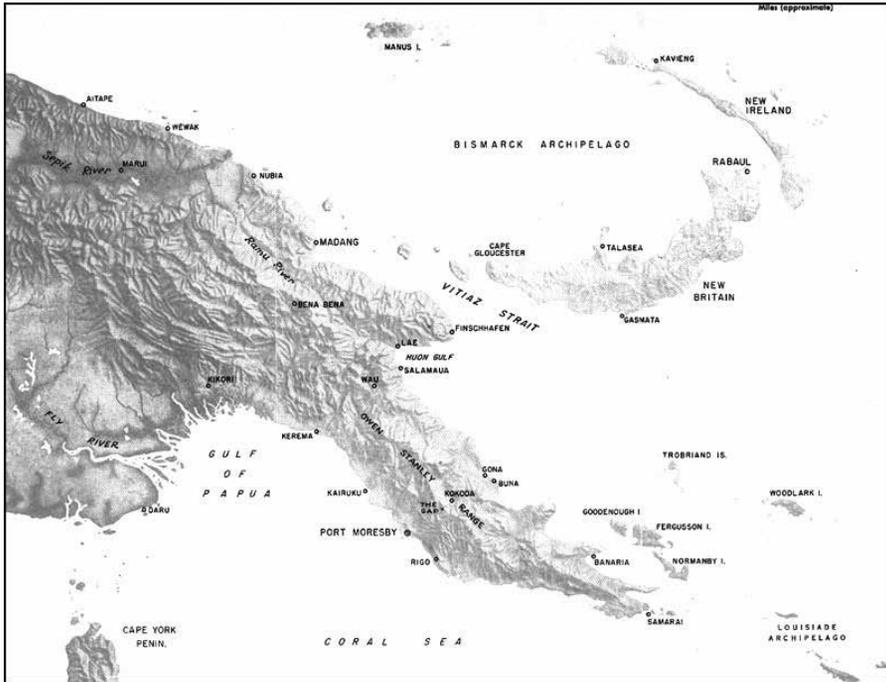
- examines the situational context and development of the campaign strategy that required an airland solution in the Battle of Wau;
- explains how the 317th TCG became an integral unit to the event;
- recounts the troop carriers' actions to employ airland during the battle;
- analyzes why this airlift effort differed from contemporary Allied efforts in North Africa and Europe; and
- evaluates the success of the airlift and its impact on the campaign, the theater, and the war as a whole.

The third chapter

- studies the situational context and development of the campaign strategy that required an airborne assault at Nadzab;
- explains how the 317th TCG became the unit to plan and lead the airdrop;
- relates the group's experience during the airdrop;
- analyzes why this airborne effort succeeded when Allied efforts in North Africa and the Mediterranean failed; and
- evaluates the success of the airdrop and its impact on the campaign, the SWPA, and beyond.

The conclusion looks across both events to explain why they matter today. Ultimately, this thesis argues that the convergence of opportunity, capability, and conditions enabled the 317th TCG to employ airland and airdrop with success to contribute beyond the immediate battlefield (see fig. 3 following).

## INTRODUCTION



**Figure 3. Map of the New Guinea–Bismarck Sea area.** (Reprinted from *Biennial Reports of the Chief of Staff of the United States Army to the Secretary of War, 1 July 1939–30 June 1945*, CMH Publication 70-57, Center of Military History, 1996, <http://www.ibiblio.org/hyperwar/USA/COS-Biennial/maps/COS-Biennial-2.jpg>.)

### Notes

1. MacArthur, *Reminiscences*, 216.
2. Morton, *United States Army in World War II: War in the Pacific: Fall of the Philippines*, 52; MacArthur, *Reports of General MacArthur*, vol. 2, part 1, *Japanese Operations in the Southwest Pacific Area*, 44; and Bergerud, *Touched with Fire*, 3–4.
3. Morton, *Fall of the Philippines*, 52; MacArthur, *Reports of General MacArthur*, vol. 2, part 1, 44; and Bergerud, *Touched with Fire*, 4–5.
4. MacArthur, *Reports of General MacArthur*, vol. 2, part 1, 124–127; and Bergerud, *Touched with Fire*, 15–16.
5. *Ibid.*
6. MacArthur, *Reports of General MacArthur*, vol. 1, *Campaigns of MacArthur in the Pacific*, 45–46; and Bergerud, *Touched with Fire*, 19–20.
7. Matloff and Snell, *Strategic Planning for Coalition Warfare*, 363.
8. Miller, *Cartwheel*, 6–8; and Matloff and Snell, *Strategic Planning for Coalition Warfare*, 376–378.

9. Matloff and Snell, *Strategic Planning for Coalition Warfare*, 376.
10. Field Manual 100-5, *Field Service Regulations, Operations*, 241.
11. Craven and Cate, eds., *Army Air Forces in World War II*, vol. 2, *Europe: Torch to Point-blank*, 455.
12. History, 39th Troop Carrier Squadron, January 1945, i.
13. Craven and Cate, eds., *Army Air Forces in World War II*, vol. 4, *The Pacific: Guadalcanal to Saipan*, 137.
14. Spector, *Eagle Against the Sun*, 233.
15. Craven and Cate, eds., *Army Air Forces in World War II*, vol. 4, *The Pacific: Guadalcanal to Saipan*, 184–186.
16. The Swing Board, headed by Maj Gen Joseph Swing, convened to investigate Allied and Axis airborne operations, make recommendations and eventually conduct a large-scale exercise. The concept of the airborne division was effectively on trial, and the board's recommendation could have eliminated it from the army as Marshall and Eisenhower already expressed doubts. The airdrop on Nadzab took place while the board was convened, and provided additional input for the board to consider. See Salecker, *Blossoming Silk Against the Rising Sun*, 134–137.
17. Salecker, *Blossoming Silk Against the Rising Sun*, 134–137; Flanagan, *Angels*, 49–50; and Wright and Greenwood, *Airborne Forces at War*, 22–23.



## Chapter 2

### Wau—January 1943

#### Airland

*This engagement proved to any remaining skeptics that tactical movement of troops by aircraft had become a strong and trusty adjunct of the armed forces.*

—Gen Douglas MacArthur

#### Prologue

Tuesday, 5 January 1943, 0000 hours, 1st Lt Joseph C. Ford III, commander of the 39th Troop Carrier Squadron (TCS), taxied into position on Runway 14 at Hamilton Field, California in the northwest corner of the San Francisco Bay. He brought his C-47 to a stop on the left side of the runway. His copilot, 2nd Lt Frank S. Monk, and crew chief, Sgt Ward W. Solterbeck, helped him set the mixture, the propeller pitch, and flaps for takeoff, while his wingman, 2nd Lt Joseph L. Dunkelberger, taxied into position on his right.<sup>1</sup> Ford locked the brakes and advanced the throttles. The built-up roar of Ford's engines was noticeable above the drone of the other six aircraft in his formation clustered at the end of the runway. His exhaust intensified from a dull orange to a radiant white. The base enforced blackout conditions and violators faced a court-martial.<sup>2</sup> The exhaust was the only light visible on the airfield.

It was time. Ford released the brakes and applied full emergency power. His transport crept forward. Each aircraft carried additional temporary fuel tanks with a total of 1,600 gallons of fuel to allow a 20-hour flight. The troop carriers struggled under the burden of fuel, squadron supplies, and personal baggage that put them 5,000 pounds above the recommended maximum weight.<sup>3</sup> Solterbeck hovered over the pedestal, straining in the low light to read the instruments and call out the airspeed and power settings while Monk watched the oil temperatures and pressure. The aircraft lumbered down the runway. Finally, the tail wheel lifted. They raced toward the end of the airstrip. At 90 mph, Ford wrestled the C-47 into the air, and they cleared the sea wall.<sup>4</sup>

The formation followed the standard departure procedure and climbed straight ahead for three minutes, before starting a shallow left 690-degree turn

to gain altitude over the bay. The City of San Francisco imposed a brownout with all flashing or bright lights extinguished. The transports rolled out on a heading of 170 degrees and aimed for the Golden Gate Bridge.<sup>5</sup> The sky provided no light. An overcast cloud deck obscured the stars and the waning sliver of moon that was out.<sup>6</sup> The blacked out towers of the bridge loomed ahead.

As they cleared the landmark bridge, the troop carriers turned due west and climbed through the clouds into the darkness. An hour into the flight, each pilot broke the red wax seal on the envelope they were issued during the preflight briefing. The classified contents of the envelope informed each crew of their destination on this leg of the secret ferrying route across the Pacific.<sup>7</sup> Within 23 hours, the 40th TCS traced Ford's route, followed by the 41st TCS the next night and the 46th TCS on 8 January. It was the first mass flight of an entire troop carrier group, 52 aircraft, from the continental United States across the Pacific.<sup>8</sup> Most of the pilots had less than 500 hours total flying time, all "flying the beam" stateside. For most of the navigators, this was their first flight outside of a training environment.<sup>9</sup> As they forged ahead into the black void over the Pacific, the men of the 317th TCG began to realize that their training was over and for them "the real war was about to begin."<sup>10</sup>

While they crossed the Pacific, the bitter fighting of the Buna operation and the Papuan Campaign was already under way. They would soon be part of the action. By the end of the month, the convergence of opportunity, capability, and conditions would enable the 317th TCG to employ airlift successfully at a pivotal moment in the war that still resonates today. This chapter examines how that moment came to be, what happened, and why it matters.

## Opportunity

The situational context and development of the campaign strategy forced Allied leaders to design a plan that required an airlift solution as a product of three factors: terrain, precedent, and time. The treacherous terrain of the region rendered a ground solution untenable and established airlift as a viable alternative. Before the war, Wau depended almost entirely upon commercial and private aircraft for economic development. Miners discovered a valuable gold deposit in the area in 1926, but during the subsequent 17 years, no one ever built a road between the mines and the coast. A few trails, or "tracks," wound "through a maze of mountains and jungle and over razorback ridges and swamps infested with poisonous insects and disease," but these failed to provide sufficient lines of communication to the outside world.<sup>11</sup> Instead, Cecil Levien constructed a landing field in 1927 and established an air route to

Salamaua on the coast with daily air service.<sup>12</sup> Every “nail, sheet of iron, weatherboard, spot of paint, pane of glass, crock, wire, or sheet of paper” used to build the town of Wau, a community of 3,000, arrived by air.<sup>13</sup> This prewar precedent suggested men and materiel bound for Wau arrive via air.

Wartime attempts to develop a land route confirmed the validity of the prewar airlift solution. The initial deployment of Allied troops, 55 commandos from the 1st Independent Company, Australian Army (COAA), moved to Wau in March 1942. The commandos traveled northwest along the coast from Port Moresby for 225 kilometers to the Lakekamu River, before embarking in canoes “for days under the boiling sun” on a 100-kilometer journey “up torturous, snag-filled rivers” to Bulldog Camp.<sup>14</sup> From Bulldog, the platoon set out northeast on a week-long overland trek via the Bulldog Track across some of the most difficult and isolated terrain in the world. They became the first Allied army unit to cross north of the Owen Stanley Mountains by making the 9,350-foot climb over the mountains that “tested the strongest of them as they ascended into another world, walking in the clouds, the deep moss underfoot.”<sup>15</sup> The journey took its toll and 47 of the 55 commandos were hospitalized upon reaching Wau. Any reinforcements to Wau via a ground route would have to follow this same course, which threatened to undermine their effectiveness when they reached their destination. Native porters struggled to deliver three tons of cargo per week over land to the garrison at Wau.<sup>16</sup> A single C-47 could achieve this in one sortie.

The Allies embraced airlift as the solution to the problem created by the harsh terrain of the Wau region. In April 1942, the Allies established Kanga Force to conduct operations in the Wau–Salamaua–Lae area. Kanga Force consisted of local militia from the Wau area, the platoon from the 1st Independent CAA that had made the overland trek and the newly formed 2/5th Independent CAA, which would be transported and maintained by air.<sup>17</sup> The movement of the 2/5th Independent CAA’s 17 officers and 256 soldiers marked the war’s first deployment of a complete Allied ground unit by air and set a precedent for the Allied use of airlift as the sole means to reinforce and sustain the garrison at Wau.<sup>18</sup>

Additionally, theater air leaders advocated and demonstrated the use of airlift to transport larger units for combat during the Buna operation of the Papuan Campaign. Brig Gen Ennis Whitehead, the commander of the advanced echelon (ADVON) of the Fifth Air Force (USAAF), proposed to move the entire US 32nd Infantry Division (ID) by air to outflank the main Japanese army engaged with the 7th Division, Australian Army (DAA), on the Kokoda Track. The plan utilized hastily prepared airstrips hacked from the grassy steppes near Wanigela Mission and promised to deliver troops in fighting

condition free of the fatigue and disease produced by a long march through the jungle.<sup>19</sup> Due to objections raised by his staff, General MacArthur approved a compromise plan for one battalion to travel overland, while two regiments went via air. On 5 October 1942, troop carriers landed an entire battalion of 1,000 Australians at Wanigela Mission in a single day to secure the area.<sup>20</sup> A week later, transport aircraft started to move the US 128th Infantry Regiment (IR), but torrential rains rendered the strips unusable for two weeks and delayed the completion of the movement of the 128th IR and 126th IR. Once the regiments were in place, the infantry moved out to attack the enemy positions near Buna.<sup>21</sup> The airlift represented the first deployment of US troops into combat by air. Despite the success of the air movement, the flanking maneuver failed to envelop the enemy. Allied opposition on the Kokoda Track and Milne Bay stalled both prongs of the Japanese attempt to capture Port Moresby in a pincer movement. Supply problems forced a Japanese retreat, but scouting reports of the airlift likely hastened their withdrawal to avoid Allied encirclement.<sup>22</sup> By 1943 the rugged terrain of the region drove Allied leaders to accept plans that featured airland as both a viable option to reinforce Wau and to deploy combat troops.

In January 1943, Allied leaders developed a plan to reinforce Wau by air in response to a buildup of Japanese troops in the area. With losses at Guadalcanal and Buna, the Japanese Eighth Area Army moved to consolidate a strategic defensive line from eastern New Guinea north of the Owen Stanley Mountains to New Britain and the northern Solomon Islands. As a result, they reinforced Wewak and Madang and improved the airfields at Lae and Salamaua. Maj Gen Toru Okabe, Imperial Japanese Army (IJA), led the 102nd Infantry Regiment (IRIJA), and a field artillery battalion in the single largest Japanese reinforcement effort to that date in New Guinea. Their mission was to secure the right flank of the new defensive perimeter by taking Wau, which controlled access to key inland tracks north to Lae and Salamaua and south to Mambare and Kokoda. The airfield at Wau represented a continuous danger to the Japanese bases at Lae and Salamaua and served as an important outpost in the Allies' plan to defend Port Moresby. In Japanese hands, Wau offered a staging base for another advance south to seize Port Moresby, as well as added defense for their other positions in New Guinea.<sup>23</sup> Allied intelligence intercepts and reconnaissance confirmed the Japanese landing at Lae on 7 January. The next day at New Guinea Force, Australian Army (AA), headquarters (HQ), Gen Thomas A. Blamey (AA) ordered Brigadier Murray J. Moten (AA) to deploy the his 17th Brigade (BDAA) to Wau and take command of Kanga Force (AA) "to meet this threat or as the spearhead of an advance in this area."<sup>24</sup>

General Blamey understood the strategic value of Wau and his plan to reinforce it by air was the product of three factors: terrain, precedent, and time.

- Regarding terrain, no viable land or sea option existed. The Australians were building a road from Bulldog to Wau, but construction would not be complete for another nine months.
- Regarding precedent, prewar and wartime airland movement to Wau became the preferred solution since the troop carriers had already demonstrated the ability to move larger units in the Buna operation.
- In terms of time, the Japanese regiment was only 30 miles away at Lae. With reinforcements located further away from Wau than the enemy forces, the Allies could not wait to explore or develop alternate plans. Airlift was the only real option. Weather impeded the air movement of troops into Wau and exacerbated the issue of time. By 28 January most of Kanga Force had fallen back to form a defensive perimeter around the airstrip.<sup>25</sup> Once the weather cleared, troop carriers were essentially landing directly on the battlefield to deliver reinforcements and supplies into combat, making this use of airland a tactical application to directly influence the outcome of the battle.

## Capability

The 317th TCG became integral to the battle because it represented a fresh source of desperately needed manpower and aircraft. At the start of the Buna operation, Fifth Air Force had only the 21st and 22nd TCSs cobbled together from crews and assorted worn-out aircraft that happened to be in theater when the war started. In late November 1942, the 6th and 33rd TCS arrived from the United States to form the 374th TCG.<sup>26</sup> US Army Air Forces Lt Gen. George C. Kenney's repeated advocacy of airlift to move combat forces and sustain them during the Papuan Campaign created more demand than his transports could supply. He temporarily resolved the issue by borrowing aircraft from the Australian airlines and using some of his bombers as transports.<sup>27</sup> The strain on the 374th TCG grew intense and their task of maintaining an aging, overworked fleet became "an extreme test of endurance by both men and aircraft."<sup>28</sup> The 374th TCG lost 15 planes during the campaign.<sup>29</sup> The system strained to meet the current requirements of the Papuan Campaign, where troops were still conducting "mopping up" operations. Existing assets would be challenged to meet an additional surge in requirements to reinforce Wau.

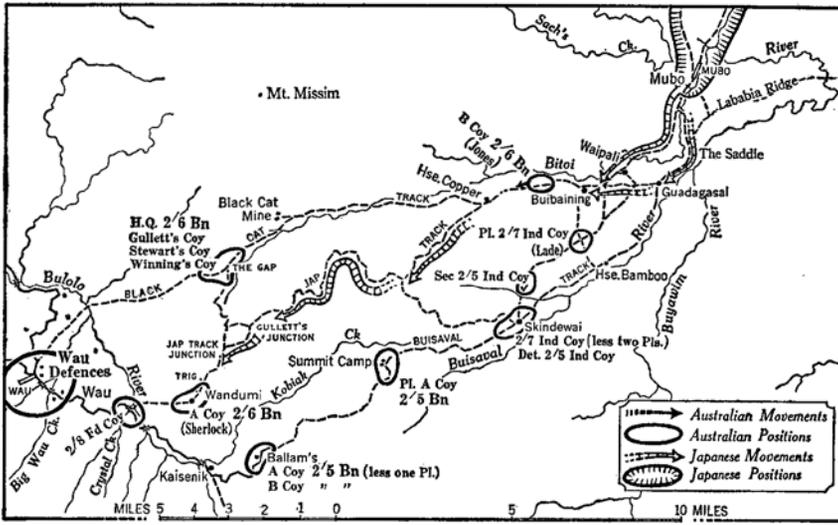
Fortunately, the air echelon of the 317th TCG arrived in Australia on 15 January 1943 with 52 new C-47s and fresh crews when they were needed most. The group was immediately attached to the 374th and moved forward to Port Moresby to support operations at Buna and Wau.<sup>30</sup> The arrival of the 317th TCG increased the aircraft dedicated each day to support Wau from 10 to 40.<sup>31</sup> The 374th integrated 317th TCG crewmembers and aircraft to bring their units to full strength at a time when the battle for Wau placed a maximum demand on their resources.<sup>32</sup> After the demand had subsided, the 317th TCG's new aircraft were transferred to the veteran 374th in exchange for their worn assorted transports and the 317th TCG moved back to Australia.<sup>33</sup> Pragmatically, the 374th was remaining forward and needed reliable aircraft to meet the challenges of combat flying in New Guinea, while the 317th TCG could accept less reliable aircraft while supporting logistics in Australia. However, several 317th TCG pilots remained attached to fly with the 374th for long periods over the next seven months, and the relationship proved mutually beneficial.<sup>34</sup> The 374th kept its units at full strength while the 317th TCG gained valuable combat experience and seasoning.

### **Employment: The Gathering Storm**

On 22 January, Kanga Force (AA) received its first indication of the enemy moving toward Wau with reports that Japanese troops occupied the Saddle area south of Mubo, and a patrol was spotted moving east along the Bitoi River.<sup>35</sup> For the next two days, 30 C-47s arrived each day to deliver supplies, the remainder of the 2/6th Battalion, (BNAA) and the advance elements of the 2/5th BNAA. Brigadier Moten (AA) dispatched the new arrivals to positions along the two tracks that crossed the Wau Valley and climbed the ridge-line on the far side to the two eastern entrances to the valley. However, a force of 3,000 Japanese soldiers, acting on information provided by a German miner "who had been under surveillance by Australian authorities before Pearl Harbor," traveled via an unknown track to avoid detection. Despite some intermittent contacts with Kanga Force (AA) the Australians did not realize Wau was the target of a major assault until 27 January when the Japanese converged on Wandumi, just six miles across the valley from Wau.<sup>36</sup>

Both sides launched immediately into a sprint for the possession of Wau. General Okabe (IJA) drove a veteran infantry group of the 51st Division (DIJA) over the harsh terrain in an attempt to seize the airfield before his unit's supplies ran out. Brigadier Moten led Kanga Force (AA) to hold the airstrip with an initial group of 500 men while troop carriers delivered rein-

forcements as quickly as possible.<sup>37</sup> To buy time, Moten pushed the majority of his forces forward to intercept the Japanese before they reached the airfield, committing his reserves based on the assumption that more troops would arrive in the morning (see fig. 4 below).<sup>38</sup>



**Figure 4. Dispositions, Wau area: dawn, 28 January.** (Reprinted from John McCarthy, *Australia in the War of 1939–1945*, series 1: Army, vol. 5, *SWPA—First Year*, ch. 18, “Wau,” Canberra, Australia: Australian War Memorial, 1961, 549, <https://www.awm.gov.au/images/collection/pdf/RCDIG1070146--1-.pdf>.)

The morning of 28 January began at Port Moresby with reveille at 0400. By 0500, the troops had breakfast and assembled to load onto the C-47s bound for Wau. Five formations with six transports each would carry the remainder of the 2/5th BNAA, the 2/7th BNAA, plus rations and stores. The troop carriers planned 30 minutes between each formation arrival.<sup>39</sup> The first flights departed from Ward’s and Jackson’s Dromes at Port Moresby at 0800. The weather was poor and visibility correspondingly bad. Low clouds obscured the mountains and blocked the valleys and passes the planes needed to transit. Only the first four transports made it through to Wau before the weather closed in across the Owen Stanley Mountains and prevented any more landings. The remaining flights had to turn back. One logbook recorded: “Everyone was heartily disgusted and disappointed.”<sup>40</sup>

At Wau, Kanga Force (AA) immediately sent the newly arrived elements of the 2/5th with the Brigade Major Robert A. C. Muir (AA) to bolster Capt Wilfrid “Bill” Sherlock’s (AA) position at Wandumi. “A” COAA, 2/6th BNAA

under Captain Sherlock (AA) had been engaged by heavy Japanese mortar and machine-gun fire since the predawn hours. At 1055, Brigadier Moten (AA) signaled New Guinea Force (AA) HQ at Port Moresby: "Flying conditions perfect. What about more planes?"<sup>41</sup> Sufficient reinforcements waited beside the troop carriers at Port Moresby. Fighter patrols over Wau continued to evaluate the weather conditions, and reported the approaches to the Wau Valley were "closed tight by a dense barrier of cloud."<sup>42</sup> At 1358, Kanga Force (AA) received word from Port Moresby that "flying ceased, owing weather."<sup>43</sup> Brigadier Moten (AA) would have to defend Wau with the resources he had on hand.

Despite slowing the Japanese advance for the past 11 hours, Captain Sherlock's (AA) company could not hold back the tide indefinitely. At 1455, the captain reported he was cut off and looked like his position was being overrun. Fifteen minutes later, he sent an update that "things [were] very hot, any help sent may be too late. One platoon was overrun, and he was countering now." At 1535, Brigadier Moten (AA) signaled New Guinea Force, AA: "Enemy attacking in force at Wandumi about four hours from Wau . . . no reserve force left in Wau. You must expedite arrival of troops this area."<sup>44</sup>

At 1700, Captain Sherlock (AA) reported that the "game was on again," and the Japanese engaged with severe grenade and mortar fire. The mist started to intensify over the area. Large numbers of Japanese poured past Captain Sherlock's (AA) position by 1810. At 1823, the captain signaled: "Don't think it will be long now. Close up to flank and front, about 50 yards in front."<sup>45</sup> Kaisenik villagers had anticipated the Japanese advance and left their village to seek safety in the mountains. After the Japanese had passed, the villagers gathered on a nearby ridge to watch the battle taking place across on Wandumi Ridge. The tribesmen recalled that night of the Japanese soldiers, "they came like the rain."<sup>46</sup>

At 1830, Kanga Force informed Port Moresby "troops must arrive ready for action as early as possible 29 January." The first indication of Japanese penetration into Wau occurred 30 minutes later when a truck driver reported seeing a body of enemy troops marching down the road three-quarters of a mile east of the Big Wau Creek that bordered the airfield. The enemy fired at the truck driver. By 2000 hours, isolated Japanese patrols had infiltrated the Wau town area. Capt A. R. Ross (AA) organized his motor pool personnel to defend a position along the banks of the Big Wau Creek near the bridge a half mile east of the runway.<sup>47</sup> At 2200, Lt Col Danny Starr (AA) led his 2/5th BNAA HQ, "A," and "B" Companies on a forced march back from Ballam's on the Buisaval Track to defend Wau Drome. An hour later, one platoon from "C" COAA, 2/5th BNAA, arrived to bolster the airfield defense.<sup>48</sup> Both parties

moved toward Wau even though “pitch black and heavy rain had set in, [and] visibility was nil.”<sup>49</sup> At the same time in Port Moresby, New Guinea Force (AA) HQ briefed the complete situation and provided details on the Wau area to prepare the reinforcements for transport the next morning. Work in preparation for the airlift continued past 2330.<sup>50</sup>

The entire defense of Wau rested on seven platoons. The four platoons of transport troops from the motor pool maintained positions along the road southeast of the airfield from the bridge over the Big Wau creek about a half mile from the runway. The guard platoon from Kanga Force (AA) HQ occupied the upper east corner of the field. A small detachment from the 2/6th BNAA held the bottom east corner of the field, while the platoon that just arrived from “C” COAA, 2/5th BNAA, occupied the lower northwest corner of the field by the town. Seven platoons cobbled together from support troops and remainders from the dispatched infantry units were all that stood between two Japanese battalions and the Wau Drome.<sup>51</sup>

Capt John May (AA) with the 2/2nd Field Ambulance (AA) observed as the battle crawled inevitably toward the airfield:

The sounds of fighting were much closer now and looking out the shutters at the darkening velvet of the tropic night one could see the flashes of explosions and the angry speeding tracers. The dual loudness of the mortars, their firing and landing, bursts of machine gun fire, the crack of rifles intensified then calmed off to start up again louder and each time a little closer. You could see the enemy in the blackness of night fighting their way along the valley floor to the drome by their flashes and the noise of the increasing battle. Suddenly I realized our isolation and the fact that without the airstrip we were finished.<sup>52</sup>

During the night, Kanga Force (AA) HQ personnel loaded all classified documents into trunks and concealed them in a ravine in the dense jungle. The intent was to clear them out of the buildings in case they were overwhelmed before they could destroy the papers and fall back to the airfield. As a precaution, HQ personnel left their position in a house on the ridge overlooking the airfield for a more sheltered position 200 feet lower.<sup>53</sup> At 0115, Port Moresby informed Kanga Force (AA) that 30 planes would be landing at Wau in the morning. The plan consisted of five flights of six planes to land at 30-minute intervals to deliver the last of the 2/5th BNAA, the 2/7th BNAA, ammunition, and rations. New Guinea Force (AA) HQ transmitted: “5 AF [Fifth Air Force, USAAF] and ourselves using every means available and will continue. All troops ready for action. Advise by most immediate message signal you will use to indicate safe for aircraft to land [at] Wau. Best of luck.”<sup>54</sup> That was it.

## The Battle Begins

At 0430 on 29 January, Colonel Starr's (AA) party passed Crystal Creek and marched west "down the same road almost parallel to, and simultaneous with, the Japanese advance." The darkness, the rain, and the mist masked their movements. The Japanese seem to have mistaken them for friendly troops and did not open fire. This incident is "typical of the confused patrol activity" over the next few days.<sup>55</sup>

At the same time, reveille sounded at Port Moresby. The men of the 317th TCG awoke at the transient camp at Arcadia. They were in a hollow between two hills near Jackson's Drome at Port Moresby. The camp was "notorious for swarms of ants, lack of water, bully beef and field rations."<sup>56</sup> Sleep was usually hard to get because the enemy made constant raids. This had been the first night in the last six without one. The crews spent most of the five previous nights in slit trenches.<sup>57</sup> Lt John F. Feck Jr., a chemist from Cincinnati, Ohio, saw his plane struck and demolished by a Japanese bomb earlier that week.<sup>58</sup> Japanese aircraft raided the airfields at Port Moresby around 0330, and dropped between 20 and 30 bombs.<sup>59</sup> A Japanese daisy cutter caught Feck's C-47, the "Frigid Midget," amidships, and destroyed it in its parking spot on Jackson's Drome. An enlisted man sleeping in the tail of the parked plane walked away miraculously uninjured.<sup>60</sup>

At 0530, a scheduled truck shuttled 317th TCG personnel to the flight line.<sup>61</sup> Troops from the 2/7th BNAA began moving down to the airfields where the details from the 2/5th BNAA were already waiting. The final elements of the 2/5th BNAA held the priority for the movement.<sup>62</sup> At the morning briefing, crews were told:

We will be landing at an old gold mining field, one of the richest goldfields in the world. The Germans had hacked out an airstrip on the north side of a 12,000-foot mountain. There are both headhunters and cannibals in nearby villages at the upper south end of the field, and a branch of the Bulolo River is on the north end. The clearing is 3,300 feet long, but only the last 700 feet of the strip is usable due to the many bomb and mortar craters . . . The Aussies have barrels along the side of the dirt strip at the touchdown point of the usable part of the landing strip. We will have no trouble landing in that short distance on this field! When the Allied Forces are not using the airstrip, the barrels are moved across the clearing so enemy aircraft cannot land. There will be NO, REPEAT, NO ATTEMPTED GO AROUNDS. Either you make it on the first and only try or you WILL crash and all aboard will be killed. This is one short uphill landing field . . . the usable part of the strip we will be landing on is a rocky, grass field with filled in bomb crater holes and is on a 12-14-degree uphill slope! That is over an 84-foot rise in the 700 feet of usable landing space. As if this is not enough, at the very end of the uphill side is a 12,000-foot mountain! . . . Now pay attention or you will not make it! . . . All landings are uphill into the mountain and all take offs are down hill to the river. The Japanese

Infantry will be shooting at you and trying to knock you out of the sky. Remember, no pilot has ever lived to make a go around at Wau. At least one Junker, one B-17, a B-24, a P-38, two AT-6s, two C-47s and two Bettie Bombers are permanent land marks to remind you that one cannot go around. This is why we are paid FLIGHT PAY, so let's go and earn our pay.<sup>63</sup>

At Wau, the Japanese now held their goal within view. Almost four inches of rain fell during the night. The morning promised to bring worse weather. At 0700, thick clouds engulfed the entire valley. It appeared unlikely that any troop carriers would arrive with crucial reinforcements.<sup>64</sup> However, the weather enabled Colonel Starr's (AA) party to pass successfully through a Japanese ambush to the airfield. They prepared for an immediate defense.<sup>65</sup>

The Japanese opened fire on the airfield with mortars and small arms. Mortar shells landed on the lower north end of the airstrip. By 0800, the defenders could hear American fighter aircraft above the clouds sent to investigate the weather and report conditions to Port Moresby. Not long after, the vast cloud banks over Wau suddenly started to disperse, revealing blue sky.<sup>66</sup> The sun beat down, and steam started rising from the airfield.<sup>67</sup> The fighter pilots in the weather ships, "tensely aware of what this meant, signaled the transport base at Port Moresby."<sup>68</sup> At 0815, Kanga Force informed New Guinea Force HQ, "Wau drome still ours. Valley open. Send troops immediately."<sup>69</sup>

At Port Moresby, 374th TCG operations controlled each takeoff for every formation or single transport. They limited takeoffs for destinations in New Guinea to hours of daylight. Two factors drove this policy: first, the lack of accurate weather data prior to dawn, and second, fighter escort or cover was virtually impossible during hours of darkness.<sup>70</sup> They waited until the fighters could transmit any information on the weather conditions in the mountains. Around 0815, they started releasing formations for departure from Ward's and Jackson's dromes every 30 minutes. C-47s loaded with critical reinforcements took to the skies almost immediately.<sup>71</sup>

Flight Officer (FO) Dallas E. French, from Idaho Falls, flew as the copilot on one of the 317th TCG crews that launched from Jackson's Drome. FO John L. Natho, from LeFors in the Texas Panhandle, flew as the pilot.<sup>72</sup> Flight Officer Natho had worked as a wheeler in high school and joined the Air Corps right after graduation in 1940 while Flight Officer French attended Sioux Falls College, where he had been elected as the homecoming king one fall.<sup>73</sup> Sgt Earl L. Berg served as the crew chief, and Cpl Harry J. Schultz was the radio operator. They had flown together as a crew since they left California with no operational experience to cross the Pacific at the beginning of January.<sup>74</sup>

The crew departed Jackson's Drome to the southeast, and climbed out over the ocean south of Port Moresby. The vastness of the Coral Sea was visible

beyond the harbor. As the plane turned northwest, the shore swung back into view on the right. Port Moresby sat at the end of a small peninsula. A long valley stretched out behind the town, forming a mosaic of military camps and airfields with an interlaced network of roads and vehicles.<sup>75</sup>

Flight Officers Natho and French joined the other planes from their flight, formed up into a six-ship formation as planned, and headed west over the lowlands of New Guinea's south coast. Only the twisting arc of a river bend or occasional oxbow offered a break in the dense jungle canopy. These water features appeared "like enormous horseshoe prints in the moist earth."<sup>76</sup> From the cockpit, the Gulf of Papua was visible through Flight Officer Natho's window. On Flight Officer French's side, the Owen Stanley Mountains towered almost three miles in height. Along their route, "the clouds were well formed and built up exceptionally high, causing rain in various areas."<sup>77</sup>

After a while, the formation turned toward the pass. This was their third trip through the pass in six days.<sup>78</sup> Up to the last minute, there was "always a question of whether you would get through."<sup>79</sup> Abrupt vertical cloud development happened often with little warning. Clouds frequently "built up in front of a plane faster than the plane could climb." Fog, rain, and haze constantly plagued crews.<sup>80</sup> Tremendous buildups of cumulus clouds started usually around midday. Flying through them became dangerous because of the extreme turbulence they contained, and the jagged peaks they obscured. To the aircrews operating near the Owen Stanley Mountains, the weather could be just as lethal as enemy aircraft.<sup>81</sup>

Any flight across the Owen Stanley Mountains could expect an attack by Japanese fighters. Troop carrier pilots flew as low as possible to blend in with the terrain and leverage the natural camouflage. They used the cloud cover to their advantage and tried to avoid presenting silhouettes against the sky.<sup>82</sup> Flight Officers Natho and French, and their radio operator, Corporal Schultz, a coal miner from Latuda, Utah, continuously monitored the radio for any information on enemy activity in the area. They carried grid maps, ready to note immediately the position of any unidentified or hostile aircraft mentioned on the radio. Like the other crews, Flight Officers Natho and French, and their crew chief from Kossuth County, Iowa, worked together to keep a constant visual watch for enemy aircraft. Sergeant Berg, a door-to-door salesman for Watkins Products before the war, positioned himself at the unused navigator's station so that he could step up into the Plexiglas astrodome in the top of the cabin to look for Zeros. The troop carriers considered any unidentified aircraft hostile, and immediately took evasive action when they spotted threats.<sup>83</sup>

One observer noted the presence of their fighter escorts: "I looked up and saw our fighters. You always hoped they were there, but seldom saw them. I

felt much better.”<sup>84</sup> Troop-carrier formations underway to Wau traveled under the protection of a dedicated fighter escort that varied in size depending on the number of transports. Later transport formations sometimes traveled in flights of 12 to 18 aircraft accompanied by 12 to 15 “close-cover” fighters and four to eight “top-cover” fighters. The troop carriers flew in tight, stepped up “javelin” formation, where the first three-ship element formed a “V” with the lead in the center and his wingmen slightly aft on either side, and a second three-ship element close in trail and a little higher. The close-cover P-39s and P-40s moved back and forth in a sweep just above the transport formation. The top cover, usually P-38s, conducted its patrol several thousand feet above the rest of the package. The “top cover” passed valuable information about the weather conditions ahead along the route, especially regarding cloud formations. Overall, the troop carriers believed the fighter cooperation and protection they received was excellent.<sup>85</sup>

Part of the credit for the efficiency of this effort belongs to the Royal Australian Air Force’s (RAAF) No. 4 Fighter Sector at Port Moresby. No. 4 held the responsibility to coordinate the operation. At its peak, transport formations contained up to 18 C-47s and potentially 25 escorts. Sometimes, three of these formations successfully transited the area in one morning. No. 4’s management of this volume of air traffic under such difficult conditions provides “one of the most remarkable examples of efficient air traffic control in the Pacific theater during the war.”<sup>86</sup>

The formation approached the pass northeast of Bulldog Camp and the Lakekamu River. To avoid Japanese aircraft, veteran pilots from the 374th TCG had instructed the new arrivals that “it was much smarter to go toward Wau at a rather low altitude, staying out of the high mountains on our side until we came to a pass that we could take and still remain at a level below the mountaintops.” However, pilots needed to recognize the correct pass to enter by sight. Aircraft entering a wrong pass would soon run out of space. A quick turnaround was manageable with a single transport if the pilot saw the end of the valley in time. Unfortunately, most of the wrong passes did not have enough room to turn around an entire formation.<sup>87</sup>

The transport formations surged into the pass. The troop carriers twisted through the canyons and raced amid the rock faces between the jagged ridges. Summits loomed above them on either side. Looking out the window, one observer noted, “You would think you were riding a fast passenger train the way trees slipped by wing tips.”<sup>88</sup> Updrafts shook the C-47s, and jostled the Australians about the cabin. Below, the Bulldog Track snaked upward through the jungle toward Wau. The channel funneled them onward. Finally, the formation

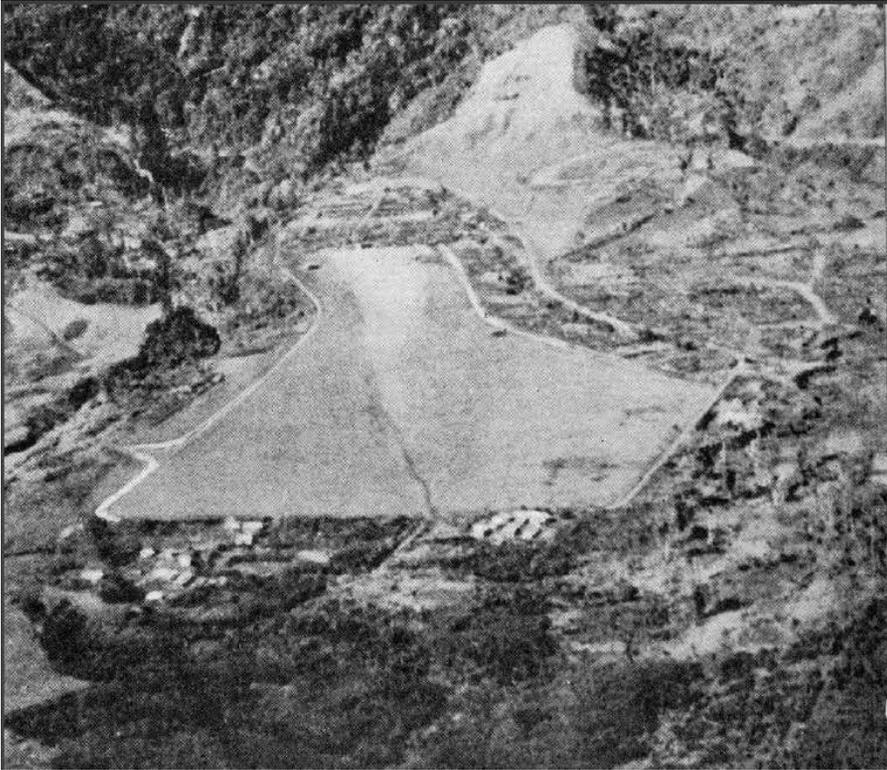
crested the last ridgeline and swept down over the gold fields as they emerged from the pass at the south end of the Wau Valley.<sup>89</sup>

After crossing the range, pilots descended quickly to reach treetop level. They rarely flew more than 300 feet above the jungle canopy. Operating closer to 50 feet above the treetops became the standard during the fighting, even when executing a steep turn.<sup>90</sup> They also maintained strict radio silence because of their proximity to the Japanese airbase at Salamaua.<sup>91</sup> As they approached the field, several crews experienced doubt as they questioned which side had control of the field.<sup>92</sup> They searched for the green Aldis light on the drome that signified that it was safe for aircraft to land.<sup>93</sup>

The formation circled to the right in the center of the valley two miles north of the airfield. In pairs, the C-47s pitched out to the left, and came in over the Bulolo River in a loose trail formation with half-mile spacing between aircraft. This gave the lead plane time to land and taxi clear at the end of the strip before the next plane landed. The planes on approach headed south with the landing gear down and flaps set at full, and drove straight at the mountain going 90 mph. As they crossed the Big Wau Creek at the lower, north end of the field, pilots aimed for the touch-down point marked by the barrels. Flight Officer Natho called for the flaps, and Flight Officer French moved them to the up position. The aircraft began to sink on cue. At the same time, Flight Officer Natho compensated by pulling the nose up to a takeoff attitude and applying maximum power. It almost became a controlled crash. They had no trouble stopping the aircraft going up the inclined runway. One hour had passed since they departed from Port Moresby (see fig. 5 following).<sup>94</sup>

At 0915, the first C-47s touched down. Each flight of six planes split into pairs for landing and taxied uphill to the upper end of the airfield. They turned 90 degrees into the grass to clear the runway and then turned back 180 degrees to stop facing perpendicular to the runway.<sup>95</sup> Many of the transports received bullet holes during the approach and landing because of the fighting taking place at the edge of the field.<sup>96</sup> The crews kept their engines running. Sergeant Berg opened the doors, and the Australian troops started jumping out with their gear and assembling to move out. Someone from the airfield informed the crew that “the Japs were a few yards from the runway, and Aussies were shooting snipers out of nearby trees.” The crew received a backload of wounded men to deliver to the ambulance crews back at Jackson’s Drome.<sup>97</sup>

Captain May explained, “It was all movement now. The gray Douglas transports turning and facing down the runway, their sides clanging open, the unhurried speed of the soldiers disembarking and grouping ready for battle, the heavy World War I stretchers being lifted into the planes.”<sup>98</sup>



**Figure 5. Aerial view of Wau Airfield.** (Reprinted from *Australian Army at War*, vol. 1, *The Battle of Wau*, Australia: Army Directorate of Public Relations, 1943, 3.)

Within 15 minutes, the first planes were ready for departure. At the upper end of the strip, each plane in sequence turned 90 degrees onto the runway, ran up the engines, and started downhill for takeoff. They had been briefed that “if you release the brakes at normal taxi power, 800 rpm, the airspeed will be 90 mph before reaching the barrels.” While interesting, all crews still used full power for takeoff.<sup>99</sup>

Cpl Fred Wilshire (AA) a commando who had been wounded the night before, was placed in a slit trench near the runway until he could be evacuated to Port Moresby. He had watched the first troop carriers land. Soon he was loaded onto one of those aircraft. Someone advised him to sit in the jump seat between the pilots as a safety measure. He observed, “As we lifted into the air, the underside of the plane received several bursts of automatic fire from the Japanese, on the other side of the aerodrome. Bullets whizzed through the body of the plane. We had great admiration for the Yank pilot, as he skimmed over the treetops handling the plane like a car.”<sup>100</sup>

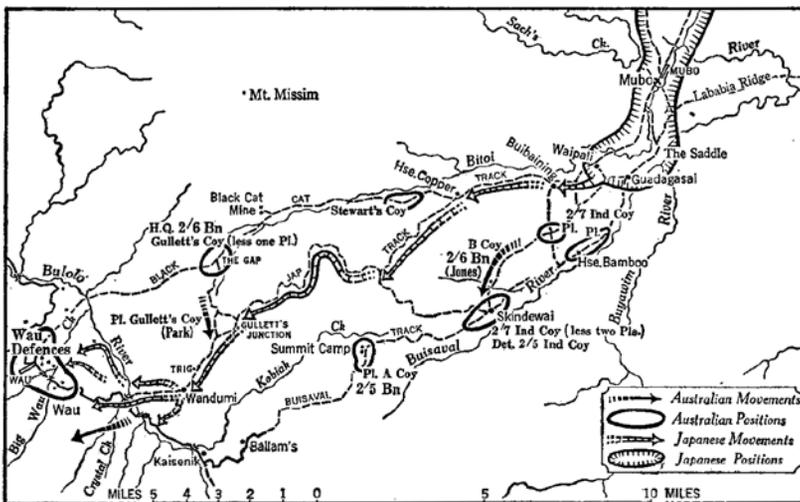
At 0930, Major Muir (AA) who had taken elements of the 2/5th BNAA to reinforce Captain Sherlock's position the day before, signaled that an enemy force of 300 to 500 troops was on their front at Wandumi. He reported that "large numbers had also moved to their left flank, bypassing their positions and moving down the deep reentrant to Wau. An attack forward was impossible as it meant moving up a razor back which was enfiladed by fire. Each rise was overlooked by another." Major Muir (AA) suggested a withdrawal to the Wau side of the Bulolo River but said he would continue to hold his position pending approval from Brigadier Moten, AA. The brigadier instructed Major Muir (AA) to withdraw, but the message did not get through. The 17th BDAA logbook records: "This was the last contact with Major Muir [AA]."<sup>101</sup> At 0950, Kanga Force (AA) reported to Port Moresby, "Weather perfect. Thanks for troops. Send more."<sup>102</sup>

The recognizable sound of the troop carriers resonated across the Wau Valley for the rest of the day while the C-47s continued to flow in. The approach brought them in low, right over the enemy. Several jungle clearings formed a chessboard of no man's land under the transports' path. At the top of the field, metal doors swung open, and the Australian soldiers jumped down and moved immediately into prepared defensive positions. The troop carriers deposited their passengers within the effective small-arms range of the attackers. Some reinforcements traveled immediately back to Port Moresby as casualties on the same plane that brought them to Wau. Often, the ammunition flown in would be in use before the plane could take off to return.<sup>103</sup>

Stephan Murray-Smith (AA) watched through his field glasses from a position up on the Black Cat Track northeast across the valley. He observed: "One formation at a time they would circle low, then one by one turn in to the left and slowly lose altitude as they approached the drome . . . they seemed to crawl across the dark green scrub of the coffee plantation as they dropped down onto the runway and ran up to the top, turning into line as they did so . . . the thin streams of our reinforcements were plainly visible as they formed up and moved down the sides of the drome to go straight into defensive positions."<sup>104</sup>

In rapid succession, the transports continued to land throughout the day, disembark their troops with the engines still running, and depart to make way for the next aircraft. The distinct crack of rifle shots continued to echo closer to the airfield. The Australians spread around the perimeter, and into the coffee plantations off the approach end of the runway.<sup>105</sup> The troop carriers completed 59 landings at Wau on 29 January. Each of the 30 C-47s made two trips, except one that suffered some damage during the initial landing.<sup>106</sup> They successfully brought in 814 troops to aid the beleaguered Kanga Force, AA.<sup>107</sup>

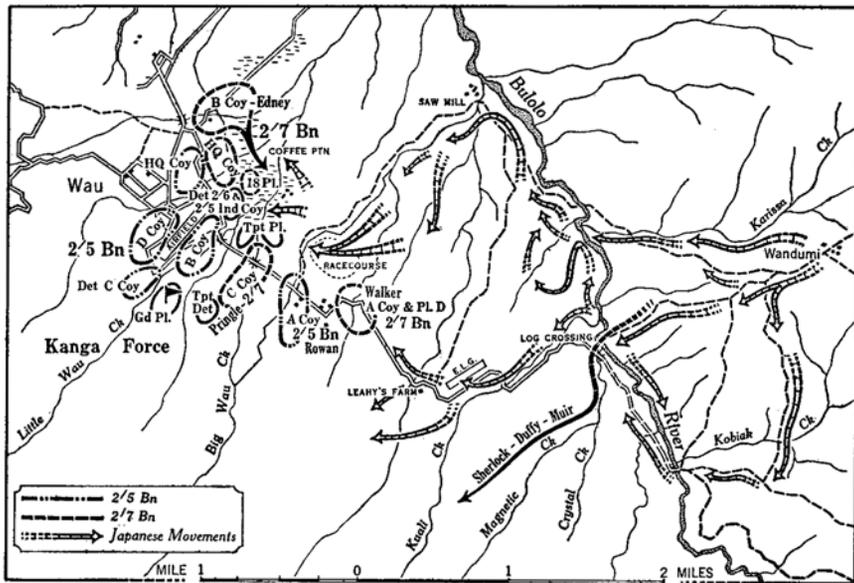
The Japanese encircled the airfield, and snipers assumed positions in the trees all around the perimeter, but the enemy did not attempt a direct assault on the field.<sup>108</sup> By 1530, transports completed the airlift of the entire 2/7th BNAA after they delivered the remainder of the 2/5th BNAA.<sup>109</sup> The personnel of 2/5th BNAA had been trickling in from Wandumi and the Crystal Creek area throughout the day.<sup>110</sup> On arrival, the 2/7th BNAA sent four platoons forward to occupy a position at Crystal Creek. They encountered Japanese troops west of the area, and a “sharp engagement ensued.”<sup>111</sup> Instead of a handful of platoons anxiously standing guard over possible approaches to the field, the entire 2/5th “now formed an iron ring around the airstrip.”<sup>112</sup> Six men from Captain Sherlock’s (AA) party arrived from Wandumi in “exhausted condition” before dusk.<sup>113</sup> The captain led the remnants of his unit back toward the airfield but died trying to eliminate a Japanese machine gun nest at the top of an embankment as his men crossed the river three miles from Wau. His tenacity at Wandumi had delayed the Japanese assault, and bought valuable time for the defenders at Wau. His tenacity at Wandumi had delayed the Japanese assault, and bought valuable time for the defenders at Wau.<sup>114</sup> Night fell with Kanga Force (AA) in a much better position, but the crisis was far from over. Brigadier Moten (AA) directed his troops to “stand to all night and hold drome against attacks.” The Japanese made several attacks at the east end of airfield through the night (see fig. 6 below).<sup>115</sup>



**Figure 6. Dispositions in the Wau area: dawn, 30 January.** (Reprinted from John McCarthy, *Australia in the War of 1939-1945*, series 1: Army, vol. 5, *SWPA—First Year*, chapter 18, “Wau,” Canberra, Australia: Australian War Memorial, 1961, 552. <https://www.awm.gov.au/images/collection/pdf/RCDIG1070146—1-.pdf>.)

## The Assault

Just before dawn on 30 January, the Japanese began their assault on Wau. Their attack on “A” COAA, 2/7th BNAA on the road west of Leahy’s Farm allowed them to press within 400 meters of the runway.<sup>116</sup> By first light, the Japanese under Lt Col Kuro Kitamura had maneuvered to the north in an attempt to outflank “A” COAA. They encountered “C” COAA, 2/7th BNAA on the steep, muddy slopes leading up to the side of the airfield area. The defense held, and the Japanese shifted the axis of their attack further to the right. Commandos from the 2/5th Independent CAA plus two regular platoons engaged the enemy along the Big Wau Creek at the end of the Wau Drome.<sup>117</sup> The Japanese were mounting a decisive push to overwhelm the defenders and capture the airfield. Fortunately, the Allies did not have the weather working against them as well (see fig. 7 below).<sup>118</sup>



**Figure 7. The Japanese assault on Wau: dawn, 30 January.** (Reprinted from John McCarthy, *Australia in the War of 1939-1945*, series 1: Army, vol. 5, *SWPA—First Year*, chapter 18, “Wau,” Canberra, Australia: Australian War Memorial, 1961, 553. <https://www.awm.gov.au/images/collection/pdf/RCDIG1070146--1-.pdf>.)

At Port Moresby, the men of the 317th TCG went through similar actions as on the previous morning. The major difference in the briefing was that they expected the weather at Wau to be better, and the fighting to be worse. The purpose of the mission was “to deliver the onboard infantrymen, artillery-

men, their supplies and to air evacuate the wounded. This was not a rescue or evacuation mission.” The crews understood their task to deliver ground troops to engage the enemy at the very edge of the runway.<sup>119</sup> Essentially, they would be landing their planes on the battlefield.

The commander of the 39th TCS led the morning’s first formation out of Jackson’s Drome around 0815. The now Captain Ford, from Cadillac, Michigan, graduated from Wake Forest with an aeronautical engineering degree, and then flew for some time in Panama and Central America before the war. The first officer assigned to the 39th, he had led the unit since its activation, and received a promotion in the few weeks since he led his squadron across the Pacific. Over the course of the war, he developed a reputation for frequently flying the most hazardous missions. Today, Captain Ford carried one of the most valuable cargoes of the battle: a 25-pounder mountain howitzer and men from A Troop of the 2/1st Field Regiment (FRAA).<sup>120</sup>

On his wing, Lt George E. Bland, the son of a Los Angeles policeman, transported the other 25-pounder and gunners. Lieutenant Bland joined the Air Corps right out of high school in 1940. His father served in combat in both the Spanish–American War and World War I. Lieutenant Bland was about to carry on the family tradition.<sup>121</sup>

The steady stream of troop-carrier formations and their fighter escorts repeated the previous day’s route over the jungle-covered swamps of New Guinea’s south coastal lowlands and then turned toward the pass through the hulking Owen Stanley mountain range. One Australian war correspondent confessed:

I flew several times across the range in these transports. But I can’t remember any trip when my stomach didn’t feel as if it were doing slow rolls or when the hair at the nape of my neck was not bristling with fear. I could never get accustomed to driving through a gray rain cloud, seeing a vaguely darker shape ahead, realizing sickeningly that it was the side of a mountain wall just as the plane lurched violently and nearly rolled over as it turned to get out of trouble. . . . The men who flew the transports crossed the range six, eight or ten times a day . . . that took guts and stamina and morale and willpower and all the other things that are easy to write about. Yet the main topic of conversation among these kids was how much stuff they could get through to the troops.<sup>122</sup>

Captain Ford’s formation slipped down from the pass and followed him across the Wau Valley at treetop height. Like the day before, the transports set up an orbit north of the river in the center of the valley and circled no more than 200 feet over the jungle canopy. Captain Ford and Lieutenant Bland left the holding pattern to fly the approach, heading directly for the mountain. They flew low over the Japanese lines, over the machine-gun and mortar fire. Captain Ford crossed the Big Wau Creek and drove straight ahead in a landing attitude until the landing gear made contact with the ground. The plane

quickly slowed as he taxied up the grassy strip to the top. Lieutenant Bland landed next. Enemy fire was hitting the airfield as the aircraft taxied to a stop. The escort fighters shuttled between the aircraft in the orbit and the planes on the field to protect both groups. It was 0915.<sup>123</sup>

In parking, the aircraft doors opened. The Australian troops leaped from Lieutenant Bland's C-47 and unloaded the pieces of their 25-pounder mountain howitzer. The lieutenant sat in the cockpit, engines running. From his seat, he could see the enemy had successfully pushed to the airfield boundary. Snipers took shots at the aircraft from the edges of the airdrome while mortar shells rained down on the runway. A radio operator from one of the other transports dropped from the open cargo door, a victim of a sniper round.<sup>124</sup>

At the same time, Captain May headed to the airfield with more wounded for evacuation. He observed: "It was soon obvious that the volume of the fighting had increased since yesterday. It seemed as though we had entered a thick invisible forest with a strong wind blowing and the hard leaves whipping in the air around us and then the crash of mortars and the surge of the automatic weapons, the speeding up of the woodpeckers, a sense of urgency."<sup>125</sup> Five minutes later, Kanga Force received a report that a native boy had spotted another "long line of enemy" approaching Wau.<sup>126</sup>

Rifle shots continued to menace the gunners as they unloaded the 25-pounders from Captain Ford's and Lieutenant Bland's aircraft.<sup>127</sup> For weeks, the artillerymen had practiced loading one of the mountain howitzers for aerial transport. They started with the outline of a C-47 drawn in the dirt and worked to fit all of the pieces within those boundaries. The unit was billeted near Jackson's Drome, and gained access to practice loading and unloading the gun parts on an actual plane. They continued to practice until a team of six gunners could successfully load a complete 25-pounder into a single transport.<sup>128</sup>

When they finished unloading the disassembled guns at Wau, the crew chief closed the door. The pilots throttled up the engines and turned downhill. They accelerated down the runway. Deep ruts were everywhere, a combination of the heavy rains and so many planes landing the day before. At maximum power, they swerved past the new craters that the Japanese mortars had made since they landed.<sup>129</sup> The aircraft picked up speed; the nose pushed forward, paused for a second, and then the grass strip dropped away below the landing gear. The transport roared directly over the attacking Japanese soldiers, the treetops, and out into the valley.

The Wau Drome was "particularly treacherous in wet weather."<sup>130</sup> Around 0930, not long after the field guns had arrived, a crew from the 21st overshot on the landing. The pilot touched down well past the barrels and applied maximum braking to stop in the remaining runway. The plane was going too fast

that close to the end. The C-47 skidded on the slippery grass and mud and hit the wingtip of a plane parked on the edge of the runway at the top of the field. The collision spun the transport head-on into a third plane.<sup>131</sup> Australian Lt Doug McCarron witnessed the accident. He noted, “They could put six aircraft on the top of the strip at the one time to be unloaded. They would face inwards and there would be three on each side, but the sixth aircraft coming in on one of these flights misjudged . . . and he ran between two others and wrote the three aircraft off.”<sup>132</sup>

When the C-47 barreled between the two that were parked, a spinning propeller severed the left leg of the pilot in the third plane below the knee.<sup>133</sup> At that moment, FO William B. Teague, “one of the squadron’s top-notch pilots,” became the 46th TCS’s only casualty in the battle for Wau.<sup>134</sup> He was not the first casualty for the 317th TCG at Wau. The 40th TCS lost a crew almost two weeks earlier on their first mission in the combat zone. Disoriented by the visual illusion created by the sloping runway, the pilot got too low on the approach, clipped the top of a tree, and cartwheeled into the jungle short of the airfield. The crash instantly killed the pilot, Lt Robert W. Sams, copilot, FO Leo V. Herrold, navigator, Lt Alois A. Hollenbach, crew chief, SSgt Harold M. Bruce, and four passengers.<sup>135</sup> The radio operator, Pvt Edward E. Johnston, a newspaper and magazine retailer from Hammond, Indiana, was the only member of the crew to survive. He suffered severe injuries and a concussion, but eventually recovered and returned to flying with the squadron.<sup>136</sup>

Landing at Wau proved difficult under ideal conditions. Attempting to do so in the middle of a battle only multiplied the degree of difficulty. One pilot recalled, “Sometimes we had to circle so the Aussies could clear Japanese troops from the edge of the runway. When we got down, the Aussie troops got out on the double. During the first days, they went right into battle. Of course, they didn’t have far to go.”<sup>137</sup> Almost as soon as the soldiers left their transports, they were in “actual ground combat exchanging rifle and mortar fire with the enemy . . . later we were told that many of the Aussie mortars were firing in less than five minutes after being offloaded.”<sup>138</sup> Enemy forces enclosed the airfield on three sides. As the Australian infantry leaped from the troop carriers, “they would run only a few yards, fall down and start firing their Bren guns . . . there were always plenty of targets to shoot at. This was the only way we were able to get in and out without being hit. Flying in and out of Wau . . . required more guts than good sense.”<sup>139</sup>

Both troop carriers and enemy firepower continued to flow into Wau Drome throughout the morning. FO William “Bill” Rogers Jr., a clerk at the local Montgomery Ward in Springfield, Vermont, safely piloted his C-47 onto the grass strip. In the short time it took his crew to taxi, park, unload, and take

off, 11 mortar shells burst on the field. The Japanese managed to kill some defenders at the lower end of the runway during the few moments Flight Officer Rogers and his plane were on the ground.<sup>140</sup> Another pilot remembered: “There were mortar rounds and small-arms fire coming in. I can tell you we got out as fast as we could. But as long as the weather held, there was another load waiting.”<sup>141</sup> Lieutenant Bland landed his plane carrying troops and heavy field guns at Wau six times during the days when the outcome of the battle was still undecided.<sup>142</sup>

In the midst of all of the activity at Wau Drome, the 39 men and three officers from A Troop of the 2/1st FRAA worked intently to assemble their two 25-pounder mountain howitzers. Capt Reg Wise (AA) and his men completed their task in less than two hours after landing despite sporadic sniper fire. After the guns had been fully assembled, they hauled them into previously selected firing positions with two jeeps. By 1130, the double thump of the 25-pounders echoed through the valley.<sup>143</sup>

Captain Wise (AA) the artillery forward observation officer, took up a position with “A” COAA, 2/7th FRAA, along the Crystal Creek Road a mile southeast of the runway. Fighting continued throughout the day. At 1650, a group of 300 to 400 enemy troops moved up the Crystal Creek Road to Leahy’s Farm.<sup>144</sup> Captain Wise stared in disbelief as the approaching Japanese column advanced into view and the scene unfolded. One man alerted the rest: “Look, what’s coming at us.” In response, Bombardier Norrie Jones (AA) observed Leahy’s Farm, 650 yards in front of them. He watched as an enemy commander with his katana gleaming marched toward their position leading a platoon of 30 men, and “then all of a sudden there’s another 30. Not long after another 30. In the end there’s just . . . 900 Japs coming and they’re coming over to take up the attack where it finished the day before. They’re doubling down the road and everybody then got back slightly on the reverse side of the hill.” The artillerymen were taking cover. Captain Wise (AA) ordered the heavy guns to fire.<sup>145</sup>

The first shells impacted right where the Japanese officer had stepped a few seconds earlier. The blast hurled him across the road. His body skidded to a stop, face down in the dirt. This opening salvo also dropped some men from the front ranks. Chaos ensued. The soldiers at the head of the advance attempted to fall back from the shelling while the troops in the rear continued to push the column forward. Bombardier Jones (AA) observed as they continued: “Now they must have seen the shelling and heard the shelling, heard the guns scream, shells screaming in even from where they started and yet they were still coming.”<sup>146</sup> Captain Wise (AA) expanded the fire zone to target the Japanese soldiers that had dispersed into the kunai grass alongside the

road. The gunners introduced phosphorous smoke rounds. The tall grass ignited and amplified the carnage. Jones (AA) explained, “In the end the fire was terrible. You’d see these blokes all caught in a ring of fire and they’re all running around in circles dying of smoke inhalation and phosphorous injury.” The Australian infantry also opened fire on the enemy column. A platoon from “A” COAA, 2/7th BNAA, “noticed a company of Japs marching down the road. All automatic weapons were brought into play and with mortar and artillery fire we accounted for quite a few of the enemy.”<sup>147</sup> Patrols in support of the 2/7th BNAA, reported success southwest of Crystal Creek Road.<sup>148</sup>

At 1720, a formation of six Beaufighters from the RAAF’s No. 30 Squadron appeared in response to an urgent request for close air support. They “arrived to strafe the area around Leahy’s Farm, now well marked by the smoke shells from the artillery shoot.”<sup>149</sup> The close air support made several low passes, and unleashed 22,000 rounds of cannon and machine gun fire on the enemy column. In the frenzy of gunfire, either the Beaufighters or the 25-pounders hit an Australian ammo dump full of high explosive near Leahy’s Farm.<sup>150</sup> One observer noted, “there was a tremendous explosion; I swear the ground jumped two feet in the air.”<sup>151</sup> The blast “rocked” the earth and annihilated the immediate vicinity. A large fireball blossomed into a smoke cloud that roiled skyward. At least 150 enemy bodies littered the area. The Japanese assault ground to a complete halt.<sup>152</sup>

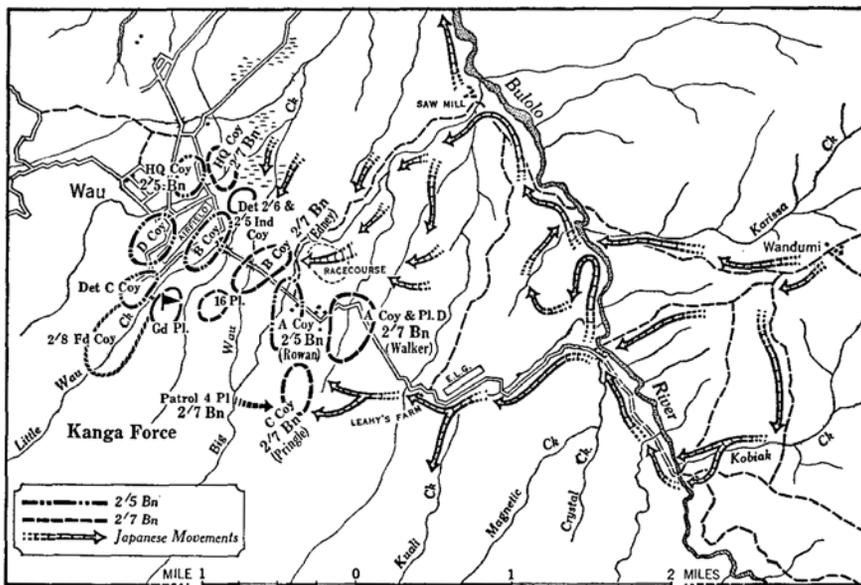
The area along the road west of Leahy’s Farm, the site of the artillery shelling and strafing, became known as the “slaughter yards.” The engagement that opened with Wise’s artillery salvo on the commander of the advancing Japanese column brought enemy casualties to around 400 for the day.<sup>153</sup> The troop carriers completed 66 sorties to Wau on 30 January. Several of the 40 C-47s made two trips during the fighting. They successfully brought in 330,000 pounds of troops, equipment, and supplies to assist the embattled defenders at Wau.<sup>154</sup>

## Denouement

As the sun rose on 31 January, the 2/7th held the primary approach to Wau. The fighting was far from over. Devastating artillery fire and air strikes had crushed the enemy’s attempt to seize the airfield. However, the Allies needed to drive the Japanese away from the airfield and out of the valley to ensure the security of Wau.<sup>155</sup> All morning, Australian patrols were active around the perimeter, clearing Japanese snipers out of the trees in the area.<sup>156</sup>

More troops arrived by plane to reinforce the defenses.<sup>157</sup> At Port Moresby, the operations officer for the 39th TCS, Lieutenant Dunkelberger, prepared

his crew to depart on another round of missions to Wau. The lieutenant, a former track star at Gettysburg College, launched from Jackson's Drome at 0930 with Lt Bedford B. Riggan as his copilot, and crew chief, TSgt D.D. Ley, from the 33<sup>rd</sup> TCS.<sup>158</sup> Their actions mirrored those of myriad crews in the previous two days. They crossed over the mass of impassable jungle and steep mountains to land at Wau around 1140. Lieutenant Dunkelberger's crew spent minimal time on the ground to unload their troops and supplies, take on wounded Australians, and depart over the Japanese lines. They arrived back in Port Moresby by 1315 (see fig. 8 below).<sup>159</sup>



**Figure 8. Dispositions, Wau area: dawn, 31 January.** (Reprinted from John McCarthy, *Australia in the War of 1939-1945*, series 1: Army, vol. 5, *SWPA—First Year*, chapter 18, "Wau," Canberra, Australia: Australian War Memorial, 1961, 556. <https://www.awm.gov.au/images/collection/pdf/RCDIG1070146--1-.pdf>.)

While the troop carriers minimized their time of exposure on the ground at Wau, they also pushed to expedite their stops through Ward's and Jackson's Dromes at Port Moresby. At that time, operations in Port Moresby were still primitive. Trucks loaded with 50-gallon drums provided gasoline service to the aircraft. The small power pumps limited the speed of refueling operations. In spite of this challenge, the troop carriers averaged less than 12 minutes on the ground during flying hours. No one stopped for meals. Crews received bully

beef sandwiches and coffee at the aircraft. A veteran with the 374th TCS recalled, “The spirit of the day was to get as much done as was humanly possible.”<sup>160</sup>

FO Peter A. Kramer of Trenton, New Jersey, and FO Richard “Dick” Lang, from Calhoun, Georgia, had flown together when the group crossed the Pacific earlier in the month.<sup>161</sup> Today, they flew two trips into Wau. Flight Officer Lang observed the Japanese still surrounded the airfield, and

Some machine guns and mortars had been set up and were firing on the field. Snipers were hidden in the trees. All in all, it was a real hot spot . . . the first trip was made through a hail of machine gun bullets and pot shots from snipers, both of whom were at the end of the runway as we came in. The second was made after the machine gun was silenced, but the snipers were still there, peppercutting us with rifle fire. Landing at Wau strip is a feat in itself, without worrying about Japs . . . one slip in landing, as many inexperienced pilots found out, meant crashing into the side of a mountain, or landing in a jungle covered ravine.<sup>162</sup>

Lieutenant Dunkelberger departed from Port Moresby at 1430 on his second trip of the day to Wau.<sup>163</sup> While his crew was en route, Wirraways at Wau strafed enemy positions from 1500 until 1600. The Japanese mortars landed a 5-inch shell near the parked planes at the top end of the field. The Australians responded quickly and silenced the mortar before the enemy did more damage.<sup>164</sup> Lieutenant Dunkelberger’s crew landed at 1645. They delivered their cargo, turned downhill and lifted away from the grassy strip at 1700. Their C-47 arrived in Port Moresby at 1820.<sup>165</sup> The perimeter defenders at Wau reported they had pushed the Japanese back, and the area was quieter that night, although there was consistent action in the 2/7th’s BNAA area near Leahy’s Farm.<sup>166</sup>

The troop carriers completed a record 71 landings at Wau on 31 January. Each of the 35 C-47s, except one, made two trips.<sup>167</sup> They successfully brought in a peak of 355,000 pounds of men and materiel to bolster the defense of Wau.<sup>168</sup> The enemy continued the brutal fighting, but that night the defenders believed that the “crisis had passed.”<sup>169</sup>

The next morning at 0600, Col Yasuhei Maruoka (IJA) disseminated orders to the Japanese forces in the Wau Valley. In the order, he recognized that the defenders retained control of the high ground south of the airfield, and that in the past two days over 130 transports had delivered reinforcements and supplies. His own supply situation had grown acute. Colonel Maruoka (IJA) consolidated his forces two kilometers northeast of the airfield to prepare for an advance, but the order also outlined an orderly withdrawal. The contradictory nature of his order reflected his realization “that the chance to capture Wau was over.”<sup>170</sup> Companies from the 2/5th continued to patrol the area around the airfield. They had no contact with the enemy. Troop carriers continued to land throughout the day.<sup>171</sup>

At Kanga Force (AA) HQ, Brigadier Moten (AA) took steps to prevent the Wau Drome from experiencing such vulnerability in the future. He arranged for two companies tasked exclusively with airfield defense to arrive via troop carrier on 1 February. The transports also delivered the 156th Light Anti-aircraft Battery (AA) to provide air defense.<sup>172</sup> Fifty-three C-47s flew in that day, carrying 265,000 pounds worth of men and materiel. Over the past 16 days, Kanga Force's (AA) strength had surged from 403 men and officers to a total of 3,166. All of the soldiers, and their arms, equipment and supplies arrived entirely via airlift.<sup>173</sup>

With a dedicated defense force to protect the aerodrome installed, Brigadier Moten (AA) detailed Colonel Starr's (AA) 2/5th BNAA and the 2/7th BNAA to mount a counteroffensive. Even though the defenders blunted the major enemy threat on their right flank, the Japanese retained strong defensive positions in the jungle high ground north of Crystal Creek Road.<sup>174</sup> By 9 February, the main Japanese opposition in the Wau area had been reduced. Fighting continued until 15 February, when the Australians expelled the last of the Japanese from the Wau Valley.<sup>175</sup> However, most of the air echelon of the 317th TCG left Port Moresby by 1 February to join the ground echelon of their group now based in Australia.

Five days, 28 January to 1 February, mark the critical days of the Battle of Wau. Four key events led to an Allied victory. First, Captain Sherlock's (AA) valiant holding action at Wandumi on 28 January delayed the Japanese advance from reaching Wau in force until early the next day. Second, the troop-carrier landings under fire on the 29th brought in the men necessary to hold the perimeter around the airfield. Third, Captain Ford and Lieutenant Bland's delivery of Captain Wise's (AA) artillery section and their two 25-pounder field guns on the 30th enabled the defenders to blunt the Japanese assault at a critical moment. Fourth, the C-47's airlift of the dedicated airfield defense units on 1 February allowed Kanga Force (AA) to go on the offensive.

By the time the Australians eliminated the last enemy from the Wau Valley on 15 February, Kanga Force (AA) had suffered 30 killed and 319 wounded. Australian troops confirmed the bodies of 753 dead Japanese soldiers, but official sources estimated 1,200 killed in combat in addition to those claimed by starvation and illness. The troop carriers lost five C-47s.<sup>176</sup>

Lt Gen Sir Iven Mackay (AA) then temporarily in command of New Guinea Force (AA) credited General Whitehead, commander of Fifth Air Force ADVON in Port Moresby, as an important contributor to the victory at Wau. General Mackay (AA) wrote to General Blamey (AA) on 4 February, "I have found Brigadier General Whitehead of the USA Air Force (sic) extremely cooperative. In fact there is no question of asking for help—he takes the initiative."<sup>177</sup> General

Whitehead, in turn, passed along the credit to the troop carriers operating out of Port Moresby. He commended their performance: “Only the efficiency of your organization and the bravery and skill of your flying personnel in moving combat troops, artillery, ammunition and food saved the valuable airdrome area of the Bulolo Valley from capture by the enemy. History is replete with historical illustrations of dramatic arrival of reinforcements on the field of battle. The operations of your group into Wau carrying men and guns while enemy mortar fire and small arms fire was reaching the landing strip adds another epic illustration in the history of the war. Your group has proven the great striking power of a properly organized and coordinated Troop Carrier Effort.”<sup>178</sup>

The inexperienced men of the 317th TCG, with only a few weeks of overseas duty behind them, “had already passed a stern test in the field under combat conditions and had gained valuable experience for the larger tasks to come.”<sup>179</sup>

## Conditions

The use of airland in the Battle of Wau differs from contemporaneous efforts in North Africa largely because of the employment concept and leadership of the operation. Doctrine in April 1942 established the primary mission of the troop-carrier units as the “conduct of operations involving the air movement of airborne infantry [and] glider troops, and to make such units available to other elements of the USAAF to meet established requirements, but the primary initial objective will be to meet specified requirements for airborne forces.”<sup>180</sup> In North Africa, troop carriers performed missions beyond the scope of airborne operations per se, including medical evacuation and moving troops and supplies through the theater.<sup>181</sup> However, by 5 January 1943, a decline in paratrooper operations caused the 51st Troop Carrier Wing’s (TCW) reassignment to Northwest African Air Service Command, and the troop carriers protested because this downgraded them from a combat unit to a “mere” service organization.<sup>182</sup> This reflects a sort of binary thinking on the part of the operators and leaders in North Africa that airlift was either tactical, in the case of airborne units, or else used for support at the operational level. In the SWPA, the lack of paratroopers in theater did not keep troop carriers from playing increasingly tactical roles during the Buna operation and the Battle of Wau.

A large factor in the difference between conceptions of airlift in each theater stemmed from the attitudes of the respective leadership. Then-Captain Kenney implemented a policy of using all airlift resources in his theater in the

most flexible way possible.<sup>183</sup> Evidence of this mindset appeared as early as 1932, when Captain Kenney “astounded his colleagues” during an exercise at Fort DuPont, Delaware, by airlanding an infantry platoon behind enemy lines.<sup>184</sup> Early on, Captain Kenney became convinced that moving troops and supplies by air was “definitely a part of modern warfare.” In contrast, other airpower leaders in other theaters possessed only rudimentary ideas about airlift, and often neglected it as an expression of airpower.<sup>185</sup>

Similarly, General Whitehead, as the commander of Fifth Air Force ADVON, is credited with having “pioneered the use of aircraft to deploy combat troops by air to positions for assaulting the enemy” during the Buna operation.<sup>186</sup> Members of General Whitehead’s staff in New Guinea later argued that General Kenney took most of the credit, while General Whitehead was “the leading tactical air genius of the Pacific War.”<sup>187</sup> The brigadier general submitted the proposal to airland troops at Wanigela Mission in a memo to Kenney on 15 September 1942,<sup>188</sup> while General Kenney recorded a conversation on 10 August with Group Capt William “Bill” H. Garing (RAAF) asking about potential airland sites near Buna, and Garing, (RAAF) recommended Wanigela Mission for the purpose.<sup>189</sup> The truth is likely that the concept of airland to tactically deploy ground troops evolved from an ongoing dialogue between General Kenney and General Whitehead, and through circumstances culminated in the Battle of Wau. The timeline suggests that General Kenney cast the vision, while General Whitehead acted as the driving force to bring these ideas to life. Regardless, the concept was unique to the SWPA at the time, and the airpower leaders effectively advocated for their ideas. Over the past five months, both generals had repeatedly lobbied and successfully convinced their respective land counterparts of the increasing utility of airlift to deploy ground troops. This becomes evident in the ground effort’s increased reliance on the troop carriers over the course of the Buna operation, and their willingness to move progressively larger units via air.

## Contributions

The success of the airlift at Wau played a significant role in the outcome of the battle, the SWPA Theater, and beyond. In terms of the Battle of Wau, the effectiveness of the airlift enabled the 17th BDAA to quickly secure the airfield and repulse the main Japanese attempt to seize the field on 30 January. On 29 January, the troop carriers used 30 planes to make 59 flights and deliver 814 men, including the 2/5th BNAA. The four companies of the 2/5th BNAA went immediately into action to form a secure perimeter around the field.<sup>190</sup>

On 30 January, the transports airdropped another 468 troops and over 200,000 pounds of supplies, including two field artillery pieces.<sup>191</sup> The artillery engaged the enemy by mid-morning, and halted the main Japanese advance. By 1230, Brigadier Moten (AA) reported, “We have the situation [at Wau] in hand.”<sup>192</sup> The enemy suffered 250 killed, including the regimental commander, and had begun to withdraw. Over four days (29 January to 1 February), the troop carriers braved direct enemy fire to fly 244 sorties, and deliver over 2,000 troops and 1,140,000 pounds of supplies to one of the most challenging airfields in the world, while suffering only three lost aircraft.<sup>193</sup> The SWPA Air Evaluation Board (USAAF) determined that “The reinforcement of troops and supplies by air was the major factor in the successful defense of Wau.”<sup>194</sup> The board concluded, “There is little doubt that but for the success of the Air Transport operations, the Wau battle would have terminated by Jap occupation of the strip.”<sup>195</sup>

In terms of the SWPA Theater, the airlift and successful defense of Wau brought about three consequences:

- it prevented a third Japanese attempt to seize Port Moresby,
- it retained a valuable strategic position for later Allied offensives in the Huon Peninsula, and
- it precipitated the Japanese convoy targeted in the Battle of the Bismarck Sea, widely viewed as one of the great airpower successes of the Second World War.

The first Japanese attempt to take Port Moresby by sea ended in the Battle of the Coral Sea. The second attempt came overland in a pincer movement from Kokoda and Milne Bay and was rebuffed in the Papuan Campaign. The 18th Army (IJA) considered an aggressive scheme to seize Wau and traverse the Owen Stanley Mountains via the Bulldog Track or the Kokoda Track to capture Port Moresby. Both routes would have bypassed the Buna-Dobodura area gained by the Allies during the Buna operation, and Japanese fighters staged from Wau would have had the effective range to cover the advance all the way to Port Moresby.<sup>196</sup> The successful defense of Wau, facilitated by air-land, frustrated this third, and final, Japanese attempt to seize Port Moresby.

The defense of Wau retained a valuable strategic position for later Allied offensives in the Huon Peninsula. Wau served as a vital logistics base to supply Australian troops as they pursued the Japanese withdrawal from Wau during the Battle of the Ridges, and the Siege of Salamaua, which acted as a magnet to draw reinforcements away from Lae, weakening it for an Allied strike in September. Wau also aided in the buildup of Tsili Tsili, and Marilinan, which

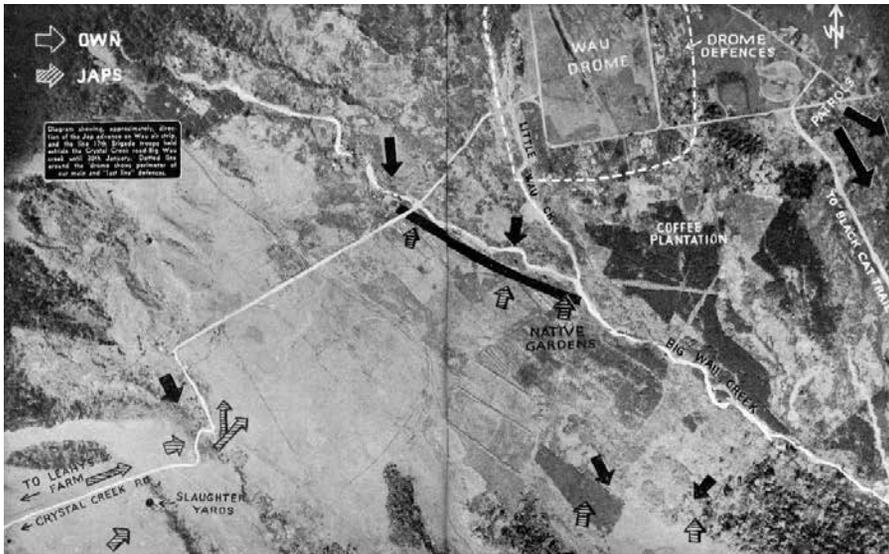
were necessary to extend fighter coverage for the airborne assault of Nadzab, the capture of Lae, and the opening of the Huon Peninsula.<sup>197</sup>

Lastly, the defense of Wau precipitated the Japanese convoy targeted in the Battle of the Bismarck Sea. Japanese leaders assessed “the failure of the attempt to take Wau had serious consequences . . . not only had the major strength of the Okabe Detachment been expended in futile fighting, but the 18th Army’s plans to strengthen the flank defenses of the Lae-Salamaua area were seriously unhinged.”<sup>198</sup> Leaders at Rabaul resolved to retain their bases at Lae and Salamaua despite the costs and recognized the need to reinforce the right flank of the strategic defensive line. They could not afford to divert the 20th DIJA and 41st DIJA from Wewak and Madang. Therefore, the Japanese leadership deployed the remainder of the 51st DIJA to Lae via convoy.<sup>199</sup> Fifth Air Force bombers destroyed this convoy in the Battle of the Bismarck Sea.<sup>200</sup>

The airlift and successful defense of Wau represented a turning point in the war, and validated the concept of airland as a tactical application to directly influence the outcome of the battle. General MacArthur observed the battle “marked the final effort of the enemy to extend his hold in New Guinea. Anticipating a major Allied advance, he now concentrated every effort in strengthening those areas he already held.”<sup>201</sup> Essentially, the battle of Wau defined the moment when the strategic initiative shifted from the Japanese to the Allies. General MacArthur also noted, “This engagement proved to any remaining skeptics that tactical movement of troops by aircraft had become a strong and trusty adjunct of the armed forces.”<sup>202</sup> The SWPA Air Evaluation Board concluded the use of airland at Wau “demonstrated that such employment of air transport provided a mature and potent weapon,” and revealed its potential as “an effective arm of the armed forces.”<sup>203</sup> The troop carriers in the Battle of Wau planted the conceptual seed that later bore fruit in the rotary-wing air assault and fixed-wing tactical airlift of modern conflicts.

Ultimately, this chapter argued that the convergence of opportunity, capability and conditions at the Battle of Wau enabled the 317th TCG to employ successfully airland to contribute beyond the immediate battlefield. The treacherous terrain of New Guinea, precedent, and time formed the situational context that drove Allied leaders to develop a plan that required an airland solution, thus creating the opportunity. The 317th TCG became essential to the battle because it provided a desperately needed source of manpower and aircraft at a pivotal moment, thus presenting the right capability. The use of airland in the Battle of Wau differs from airland efforts in North Africa largely in concept and leadership. Airland to deliver general forces into battle was a concept unique to the SWPA, and Fifth Air Force leaders effectively advocated for this idea, thus forming the conditions. Opportunity, capability,

and conditions coalesced at the Battle of Wau. They allowed the 317th TCG to use airland to contribute to the outcome of the battle, prevent a third enemy attempt to seize Port Moresby, retain an important strategic location in the theater, and helped set the conditions for the Battle of the Bismarck Sea. Most importantly, it marked a turning point in the war and validated the concept of airland as a tactical application for general-purpose forces (see fig. 9 below).



**Figure 9. Aerial View of Wau.** (Reprinted from *Australian Army at War*, vol. 1, *The Battle of Wau*, Australia: Army Directorate of Public Relations, 1943, 6–7.)

#### Notes

1. History, 39th TCS, January 1943–January 1944, 3, vii.
2. Ford, *My New Guinea Diary*, 29, 38. This book is the memoir of Staff Sergeant Ford, a pilot with the 6th TCS, 374th Troop Carrier Group (TCG). The 6th TCS preceded the 317th TCG into the SWPA by six weeks. His experience overlaps or parallels the 317th's in terms of many of the locations and events.
3. Kelly, *Allied Air Transport Operations*, 110–111. Kelly's self-published book is largely a reference volume compiled directly from unit records.
4. History, 39th TCS, January 1943–January 1944, 3, vii; and Ford, *My New Guinea Diary*, 39.
5. Ford, *My New Guinea Diary*, 31, 36, 39.
6. Atherton, "Flying Overseas." Philip R. Brinson, a son of a 317th veteran, self-published *Among Heroes*, a collection of veterans' anecdotes, including this one, from squadron newsletters and interviews at reunions.
7. History, 39th TCS, January 1943–January 1944, 3; and Ford, *My New Guinea Diary*, 36, 41.
8. History, 40th TCS, February 1942–January 1944, 14–17.

9. Ibid, 15.
10. History, 39th TCS, January 1943–January 1944, 3.
11. Watson, *Fifth Air Force in the Huon Peninsula Campaign*, 69–70.
12. Bradley, *Battle for Wau*, 1–2.
13. Watson, *Fifth Air Force in the Huon Peninsula Campaign*, 70.
14. Bradley, *Battle for Wau*, 14–16.
15. Ibid., 16.
16. Watson, *Fifth Air Force in the Huon Peninsula Campaign*, 71.
17. Bradley, *Battle for Wau*, 20–21. The 1st Independent Company was a first line unit in the regimental system. Units were raised in lines as the Australian Army expanded in World War II. The 2/5th Independent Company was raised in the 2/5 Battalion which was the second line of the base 5th Battalion hence the “2/5” notation.
18. Ibid., 23. This movement was conducted by the 21st TCS as part of the Directorate of Air Transport under Lt Gen George Brett prior to the arrival of Kenney or Whitehead in the SWPA.
  19. Goldstein, “Ennis C. Whitehead,” 112–113.
  20. Kenney, *General Kenney Reports*, 116–118.
  21. Watson, *Air Action in the Papuan Campaign*, 70–71.
  22. Ibid., 48–49.
  23. MacArthur, *Reports of General MacArthur: Campaigns of MacArthur in the Pacific*, 101; Drea, *MacArthur’s ULTRA*, 63–64; and Bradley, *Battle for Wau*, 112–113.
  24. McCarthy, *Australia in the War of 1939–1945*, 544–545.
  25. Gillison, *Australia in the War*, 680–683.
  26. Craven and Cate, eds., *Army Air Forces in World War II*, vol. 4, *The Pacific: Guadalcanal to Saipan, August 1942 To July 1944*, 114.
  27. Griffith, *MacArthur’s Airman*, 86.
  28. Gillison, *Australia in the War*, 684.
  29. Jacobson, ed., *Moresby to Manila via Troop Carrier*, 10. Richard S. Jacobson served as the public affairs officer for the 54th Troop Carrier Wing and published this volume to function similar as a yearbook for the veterans of the wing to commemorate and remember their comrades and experiences as they returned home at the end of the war.
    30. History, 41st TCS, 1 January 1943–31 January 1944, 10.
    31. Brinson, “317th at Wau.”
    32. Imperato, *374th Troop Carrier Group*, 58. Imperato was a pilot with the 374th TCG since their formation and eventually rose to command the group.
      33. Craven and Cate, *Army Air Forces in World War II*, vol. 4, *The Pacific*, 114, 137.
      34. History, 41st TCS, 1 January 1943–31 January 1944, 11 and 58.
      35. War Diary, 17th Infantry Brigade (IBGD), 8.
      36. Bergerud, *Touched With Fire*, 344.
      37. Ibid., 344.
      38. Gillison, *Australia in the War*, 681.
      39. War Diary, 17th IBGD, 11.
      40. War Diary, 2/7 Infantry Battalion (IBAT), 6.
      41. Log Diary, 17th IBGD, 16.
      42. Gillison, *Australia in the War*, 682.
      43. Log Diary, 17th IBGD, 18.
      44. War Diary, 17th IBGD, 13.

45. *Ibid.*, 14.
  46. Bradley, *Battle for Wau*, 136.
  47. War Diary, 17th IBGD, 14–15.
  48. War Diary, 2/5 IBAT, 5.
  49. Bradley, *Battle for Wau*, 167.
  50. War Diary, 2/7 IBAT, 6.
  51. Bradley, *Battle for Wau*, 169.
  52. *Ibid.*, 169.
  53. War Diary, 17th IBGD, 15.
  54. Log Diary, 17th IBGD, 28.
  55. War Diary, 17th IBGD, 14.
  56. History, 39th TCS, January 1943–January 1944, 16; and History, 40th TCS, February 1942–January 1944, 21.
  57. History, 6th TCS, Activation–January 1944.
  58. History, 39th TCS, February 1944, cii.
  59. Kelly, *Allied Air Transport Operations*, 223.
  60. History, 39th TCS, January 1943–January 1944, 19.
  61. *Ibid.*, 16; and History, 40th TCS, February 1942–January 1944, 21.
  62. War Diary, 2/7 IBAT, 6.
  63. Ford, *My New Guinea Diary*, 242–244.
  64. *Australian Army at War*, vol. 1, *Battle of Wau*, 25.
  65. War Diary, 2/5 IBAT, 5.
  66. Bradley, *Battle for Wau*, 171.
  67. *Australian Army at War*, vol. 1, *Battle of Wau*, 25.
  68. Gillison, *Australia in the War*, 683.
  69. Log Diary, 17th IBGD, 29.
  70. History, 21st TCS, January 1942–January 1944, 7.
  71. Gillison, *Australia in the War*, 683.
  72. History, 46th TCS, May 1944, App. E1.
  73. Announcement, *Pampa Daily News*, 20 August 1944, 3; and Obituary, *Billings Gazette*, 30 May, 2009.
  74. History, 39th TCS, January 1943–January 1944, xxxiv–xxxvii.
  75. History, 39th TCS, January 1943–January 1944, 17; and Frazier, *Saga of Tsili Tsili*, 159.
- This book is Everette E. Frazier's self-published account of his experience during the war.
76. Frazier, *Saga of Tsili Tsili*, 159.
  77. History, 39th TCS, January 1943–January 1944, 17.
  78. *Ibid.*, xxxiv–xxxvii.
  79. Frazier, *Saga of Tsili Tsili*, 159.
  80. History, 22nd TCS, January 1942–January 1944, 16.
  81. History, 39th TCS, January 1943–January 1944, 43.
  82. History, 21st TCS, January 1942–January 1944, 8.
  83. History, 21st TCS, January 1942–January 1944, 8.
  84. Frazier, *Saga of Tsili Tsili*, 159.
  85. History, 22nd TCS, January 1942–January 1944, 16–17.
  86. Gillison, *Australia in the War*, 684.
  87. Imperato, *374th Troop Carrier Group*, 59.
  88. Frazier, *Saga of Tsili Tsili*, 158.

89. *Ibid.*, 159; and *Imparato, 374th Troop Carrier Group*, 59.
90. History, 21st TCS, January 1942–January 1944, 8.
91. *Imparato, 374th Troop Carrier Group*, 60.
92. History, 39th TCS, January 1943–January 1944, 17.
93. Log Diary, 17th IBGD, 28.
94. Ford, *My New Guinea Diary*, 242–244; and History, 39th TCS, January 1943–January 1944, 17–18.
95. Bradley, *Battle for Wau*, 171.
96. *Imparato, 374th Troop Carrier Group*, 11.
97. History, 39th TCS, January 1943–January 1944, 17–18.
98. Bradley, *Battle for Wau*, 171.
99. Ford, *My New Guinea Diary*, 242–244.
100. Bradley, *Battle for Wau*, 173–175.
101. War Diary, 17th IBGD, 16.
102. Log Diary, 17th IBGD, 29.
103. History, 39th TCS, January 1943–January 1944, 17–18; and *Australian Army at War*, vol. 1, *Battle of Wau*, 25.
104. Bradley, *Battle for Wau*, 171–172.
105. *Australian Army at War*, vol. 1, *Battle of Wau*, 25–26.
106. History, 39th TCS, January 1943–January 1944, xxxiv.
107. Gillison, *Australia in the War*, 683.
108. War Diary, 2/5 IBAT, 5.
109. War Diary, 2/7 IBAT, 7.
110. War Diary, 2/5 IBAT, 5.
111. War Diary, 2/7 IBAT, 6.
112. Bradley, *Battle for Wau*, 172.
113. War Diary, 2/5 IBAT, 28.
114. Bradley, *Battle for Wau*, 162.
115. War Diary, 2/5 IBAT, 5.
116. War Diary, 2/7 IBAT, 8.
117. *Ibid.*; and Bradley, *Battle for Wau* 177–178.
118. Gillison, *Australia in the War*, 683.
119. Ford, *My New Guinea Diary*, 246.
120. Actually the QF 3.7-inch Mountain Howitzer was used. The “QF” designation originally came from “quick firing” but has come to designate guns that are charged with metallic cartridges. This description is a bit confusing since this mountain howitzer actually fired a shell weighing only 20 pounds. The Ordnance QF 25-pounder was actually much larger and was for a long time the primary British field artillery piece. History, 39th TCS, February 1944, Appendix C; and History, 39th TCS, May 1944, Appendix A, iv–v.
121. History, 39th TCS, February 1944, xcvi–xcviii.
122. *Imparato, 374th Troop Carrier Group*, 22.
123. History, 39th TCS, February 1944, c; *Imparato, 374th Troop Carrier Group*, 31, 59; Ford, *My New Guinea Diary*, 246; and Gillison, *Australia in the War*, 683.
124. History, 39th TCS, February 1944, xcvi–xcviii, and *Imparato, 374th Troop Carrier Group*, 59.
125. Bradley, *Battle for Wau*, 178. The “Woodpeckers” refers to the distinct sound produced by the Japanese machine guns.

126. War Diary, 17th IBGD,19.
127. Gillison, *Australia in the War*, 683.
128. Bradley, *Battle for Wau*, 180.
129. Imparato, *374th Troop Carrier Group*, 59; and Ford, *My New Guinea Diary*, 247.
130. History, 46th TCS, January 1943–January 1944, 53.
131. History, 46th TCS, January 1943–January 1944, 52.
132. Bradley, *Battle for Wau* 182.
133. War Diary, 17th IBGD,19.
134. History, 46th TCS, January 1943–January 1944, 52.
135. History, 40th TCS, February 1942–January 1944, 20.
136. History, 40th TCS, February 1944, 155–156.
137. Bergerud, *Touched With Fire*, 345–346.
138. Ford, *My New Guinea Diary*, 246.
139. Ibid.
140. History, 46th TCS, January 1943–January 1944, App. E12; and Imparato, *374th Troop Carrier Group*, 31.
141. Bergerud, *Touched With Fire*, 345–346.
142. History, 39th TCS, February 1944, xcvi–xcviii.
143. War Diary, 2/5 IBAT, 5; and Bradley, *Battle for Wau*, 180.
144. War Diary, 2/7 IBAT, 8.
145. Bradley, *Battle for Wau*, 180–181; and McCarthy, *Australia in the War*, 555–556.
146. Bradley, *Battle for Wau*, 180–181.
147. Ibid.; and War Diary, 2/5 IBAT, 5.
148. War Diary, 2/5 IBAT, 5.
149. Bradley, *Battle for Wau*, 181.
150. Gillison, *Australia in the War*, 683.
151. Bradley, *Battle for Wau*, 181.
152. Gillison, *Australia in the War*, 683; Bradley, *Battle for Wau*, 181; and History, 39th TCS, February 1944, xcvi–xcviii.
153. *Australian Army at War*, 26–27.
154. Kelly, *Allied Air Transport Operations*, 422.
155. Bradley, *Battle for Wau*, 195.
156. War Diary, 2/5 IBAT, 6.
157. Ibid.
158. History, 39th TCS, February 1944, xcix.
159. History, 39th TCS, January 1943–January 1944, xxxviii.
160. Imparato, *374th Troop Carrier Group*, 53.
161. History, 41st TCS, February 1944, 36.
162. Ibid., 43.
163. History, 39th TCS, January 1943–January 1944, xxxviii.
164. War Diary, 2/5 IBAT, 6.
165. History, 39th TCS, January 1943–January 1944, xxxviii.
166. War Diary, 2/5 IBAT, 6.
167. History, 39th TCS, January 1943–January 1944, xxxiv.
168. Kelly, *Allied Air Transport Operations*, 422.
169. Gillison, *Australia in the War*, 683.
170. Bradley, *Battle for Wau*, 196.

171. War Diary, 2/5 IBAT, 28.
172. Bradley, *Battle for Wau*, 196–197.
173. Gillison, *Australia in the War*, 683.
174. Bradley, *Battle for Wau*, 197.
175. Gillison, *Australia in the War*, 685.
176. Kelly, *Allied Air Transport Operations*, 424.
177. Gillison, *Australia in War*, 685.
178. Imperato, *374th Troop Carrier Group*, 61; and Jacobson, *Moresby to Manila via Troop Carrier*, 15.
179. History, 39th TCS, January 1943–January 1944, 19.
180. Miller, *Airlift Doctrine*, 81.
181. *Ibid.*, 83; and Craven and Cate, *Army Air Forces in World War II*, vol. 2, *Europe*, 127.
182. Craven and Cate, *Army Air Forces in World War II*, vol. 2, *Europe*, 127.
183. Miller, *Airlift Doctrine*, 63.
184. Ellis, *Airborne Command and Center*, 1.
185. Griffith, *MacArthur's Airman*, 86–87.
186. Goldstein, “Ennis C. Whitehead,” 120–121.
187. *Ibid.*, 121, 432, 436.
188. Goldstein, “Ennis C. Whitehead,” 112.
189. Kenney, *General Kenney Reports*, 41.
190. Log Diary, 17th IBGD, 18.
191. War Diary, part 1, New Guinea Force Headquarters and General (air), 142.
192. Log Diary, 17th IBGD, 20.
193. Air Evaluation Board, Southwest Pacific Area (AEB SWPA), “Air Transport Operations: Battle of Wau,” 19; Craven and Cate, *Army Air Forces in World War II*, vol. 4, *The Pacific*, 136–137; Gillison, *Australia in the War*, 683–684; and Jacobson, *Moresby to Manila via Troop Carrier*, 13.
194. AEB SWPA, Air Transport Operations: Battle of Wau, 3.
195. *Ibid.*, 22.
196. Miller, *Cartwheel: Reduction of Rabaul*, 37.
197. *Ibid.*, 38–39.
198. MacArthur, *Reports of General MacArthur: Japanese Operations in the Southwest Pacific Area*, 193.
199. Miller, *Cartwheel: Reduction of Rabaul*, 39.
200. Griffith, *MacArthur's Airman*, 104.
201. MacArthur, *Reminiscences*, 170.
202. *Ibid.*
203. AEB SWPA, “Air Transport Operations: Battle of Wau,” 2.

## Chapter 3

# Nadzab—September 1943

## Airdrop

*Gentlemen, that was as fine an example of discipline and training as I have ever witnessed.*

—Gen Douglas MacArthur, 5 September 1943

## Interlude

Friday, 20 August 1943: 2nd Lt Claude J. “Joe” Salisbury, from Springville, Utah, looked out toward the horizon as his transport departed from their base at Garbutt Field at Townsville, Australia. His pilot, 1st Lt John F. Yoder, from Aransas Pass, Texas, set a heading of true north. Lieutenant Salisbury could see the brilliant hues of the Great Barrier Reef passing beneath their C-47. Soon, the colors faded into the “infinite dark blue” of the Coral Sea. Port Moresby was four hours away.<sup>1</sup>

After the Battle of Wau, the 317th TCG returned to Australia rejoining the ground echelon that had arrived via the SS *Maui* and set up its main base at Garbutt Field. The group concentrated on three major activities from February to August of 1943. First, the 317th TCG held up one end of the theater supply system by moving troops and cargo from Air Transport Command’s western terminus in Australia forward to Port Moresby or Milne Bay in New Guinea or around the outer defense perimeter of northern Australia. The 374th TCG supported the other end of the theater supply system by distributing troops and cargo from Port Moresby or Milne Bay to the forward units.<sup>2</sup> Second, the 317th TCG augmented the 374th TCG with crews on detached service or flew periodic missions to forward locations in the New Guinea combat zone as needed.<sup>3</sup> Third, the 317th TCG trained with the 503rd PIR by performing personnel airdrops near Cairns, Australia.<sup>4</sup> All three focus areas provided valuable experiences for the men of the 317th TCG and allowed them to contribute to the war effort. The emphasis would soon change.

Two hours into the flight, Lieutenant Salisbury searched the expanse, looking for something. Just beneath the surface, a solitary reef cast in a handful of green tints materialized. A senior pilot with the 46th TCS had pointed out

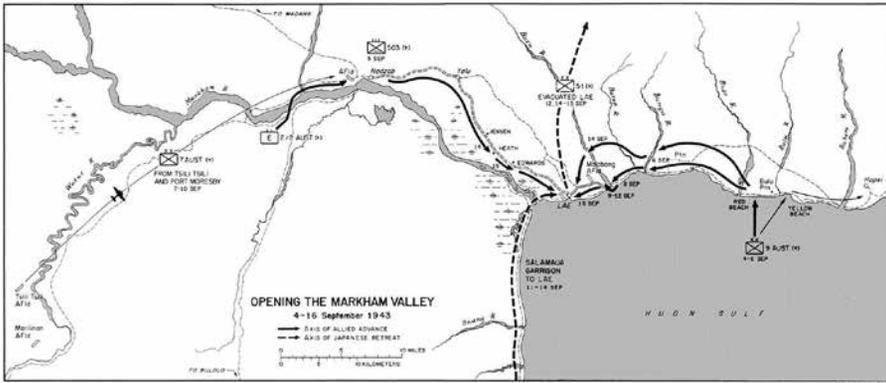
Bougainville Reef to Lieutenant Salisbury on one of his first flights in the theater. In another 28 minutes, Osprey Reef became visible. During low tide, “a white, narrow strip” of an island would jut from the water. As a new copilot, Lieutenant Salisbury spent his first few flights to Port Moresby engaged in “the scientific endeavor of estimating the time of arrival at Port Moresby” based on the time used to reach these two landmarks. He usually got within a few seconds of the actual arrival. After 50 to 55 trips across the Coral Sea, the novelty had worn off.<sup>5</sup>

An hour past Osprey Reef, Lieutenant Yoder and Lieutenant Salisbury peered ahead to the horizon. A dark cloud formed low in the distance. As they continued toward it, the cloud became darker and stretched to the edges of their periphery. It was the New Guinea coastline. Just like the 23 other crews from the 41st TCS and 46th TCS, they had made this trip multiple times over the past four days to transport the paratrooper regiment from Australia to Port Moresby.<sup>6</sup> This time was different. This time, the troop carriers were not returning to Australia. They were staying forward, under the control of Fifth Air Force ADVON. Their orders did not say for how long. Rumors hinted at significant events in September.<sup>7</sup> In just over two weeks, the convergence of opportunity, capability, and conditions would enable the 317th TCG to employ successfully airdrop at a crucial moment in the war whose influence remains today. This chapter investigates how that moment came into existence, what happened, and why it matters.

## Opportunity

The situational context and development of the campaign strategy led Allied leaders to design a plan that required an airborne assault as a key component. The bitter fighting in the Papuan Campaign convinced General MacArthur that “to push back the Japanese perimeter of conquest by direct pressure against the mass of enemy occupied islands would be a long and costly effort.”<sup>8</sup> The Allies suffered significantly more casualties and deaths in the Kokoda-Buna-Gona operations than at Guadalcanal.<sup>9</sup> The manpower and materiel costs of the Paupan Campaign left General MacArthur without the resources to pursue a strategy of direct, frontal assaults against the Japanese. The Allies’ “Germany first” approach to the war caused the Joint Chiefs of Staff to amass resources for the higher priority European Theater of Operations. As a result, minimal replacements found their way into the lower-priority SWPA.<sup>10</sup> The lessons of the Papuan Campaign and the low strategic priority of the SWPA that constrained the amount and rate of resources sent to the theater forced General MacArthur to

adopt an indirect approach in his theater strategy, the Elkton III plan. At the campaign level, General MacArthur continued to use an indirect approach in Operation Postern, the capture of Lae and the Huon Peninsula (see fig. 10 below).



MAP 13

D. Holmes, Jr.

**Figure 10. Map of the Nadzab-Lae Operation.** (Reprinted from John Miller Jr. *US Army in World War II, The War in the Pacific, Cartwheel: The Reduction of Rabaul*, Washington, DC: Office of the Chief of Military History, 1959, map 13, “Opening the Markham Valley, 4–16 September 1943,” <http://www.ibiblio.org/hyperwar/USA/USA-P-Rabaul/maps/USA-P-Rabaul-13.jpg>.)

The resources available to General MacArthur constrained and shaped the plan to take Lae. The Allies planned a pincer movement to encircle Lae while an Allied feint at Salamaua would divert Japanese assets from Lae. General Blamey, commanding the New Guinea Force and Allied Ground Forces, intended for the 9th DAA, commanded by Maj Gen George Wootten (AA) to depart Milne Bay for Buna to make an amphibious landing east of Lae. The 7th DAA, commanded by Maj Gen George Allen Vasey (AA) would travel overland along the Bulldog–Wau road into the Bulolo Valley and then the Markham Valley to approach Lae from the West. The 7th DAA’s advance into the Markham Valley included a difficult crossing of the Markham River and a “serious defile” as General Blamey termed it, which cut their lines of communication and supply.<sup>11</sup> Once in the valley, the 7th DAA would quickly need an airfield suitable for troop carriers on the north side of the river to reestablish their logistic support. To expedite the effort, General Blamey (AA) decided to seize the unused, pre-war airfield at Nadzab, 20 miles northwest of Lae.<sup>12</sup> Equipment shortages and the rugged terrain delayed the completion of the Bulldog–Wau road, and on 21 May 1943, General Blamey (AA) informed General MacArthur that the 7th DAA’s offensive was contingent on the completion of the road. On 17 June, General MacArthur offered a battalion from

the 503<sup>rd</sup> PIR to capture Nadzab so that an Australian brigade could move into the area via airland, and another could airland in the Bulolo Valley and proceed overland to the Markham Valley.<sup>13</sup> General MacArthur's solution eliminated the completion of the road as an impediment to the offensive.

The difficult terrain in the area continued to drive the airborne effort to play an increasingly pivotal role in the plan. General Vasey (AA) recognized that the terrain significantly slowed his movement, and feared that any delays along the road would give the Japanese time to respond in force. Additionally, the arduous overland trek would exhaust his soldiers by the time they reached Lae and had to engage the enemy. At the 25 July planning conference, General Vasey (AA) recommended that his entire division move by air to Nadzab.<sup>14</sup> With this change, the entire western half of the pincer movement now hinged on the airborne seizure of the airfield.

While a large-scale overland movement proved problematic, resource limitations forced General MacArthur to continue with the double envelopment of Lae. He did not possess enough ships in the SWPA to undertake the assault entirely through amphibious landings, or enough transport aircraft to conduct the assault exclusively by air.<sup>15</sup> This lack of additional options ensured the airdrop remained an essential piece of the plan.

Nadzab's position as a single point of failure for the Australian 7th DAA's portion of the offensive continued to shape the planning effort. Based on his experience against German paratroopers in Crete, General Vasey (AA) believed that a single parachute battalion was not adequate to seize and hold the airfield against possible opposition while also preparing it to receive the airland movement of the division.<sup>16</sup> The airfield was unoccupied, but Japanese movement through the Markham Valley had increased, and enemy patrols frequently transited the area.<sup>17</sup> The Nadzab flats sat in the broad mouth of the Markham Valley, which presented a wide front requiring a large number of paratroopers to provide sufficient cover. On 31 July, General Vasey (AA) approached the 503<sup>rd</sup> PIR commander, Col Kenneth H. Kinsler, with the idea of employing the whole regiment in the assault to ensure no delays in capturing and holding the airfield.<sup>18</sup> Colonel Kinsler was enthusiastic, and on 2 August, General Vasey (AA) officially requested an increase in paratroopers to include the entire regiment for the operation.<sup>19</sup> General MacArthur approved the request on 7 August.<sup>20</sup> To prevent delays in preparing and opening the airfield for landings, General Vasey (AA) charged Lt Col J. T. Lang (AA) to lead the 2/2nd Pioneer BNAA and the 2/6th Field COAA (Engineers) from Tsili Tsili and follow the Watut River to the junction with the Markham River, and then continue down the Markham where they would wait to cross the river to Nadzab shortly after the airborne assault.<sup>21</sup> Over the course of planning

for the operation, the airdrop at Nadzab had moved from logistical support to a necessary precondition for the offensive.

Resources and geographic realities may have precipitated the need for an airdrop, but Fifth Air Force leaders had been advocating an airborne solution long before there was a problem. As early as 18 September 1942, during the Buna campaign, General Kenney approached General MacArthur with an idea for landing troops at Nadzab as a way to capture Lae.<sup>22</sup> On 4 October, General Kenney brought the idea up again, and General MacArthur agreed to allow him to do some reconnaissance and initial planning. Taking Buna remained General MacArthur's priority, and General Kenney did not possess enough transports to make his idea a reality.<sup>23</sup> By 24 October, General Kenney noted that "Whitehead had sold the Aussies on the scheme of an airborne show at Nadzab to take Lae out from the back the way we were going to take Buna."<sup>24</sup> The arrival of the 503rd PIR in theater in December 1942 and the 317th TCG in January 1943 gave General Kenney the necessary assets. When ground commanders faced the problems of the incomplete Bulldog-Wau Road, logistics in the Markham Valley, and the issues associated with an overland march, it was probably not difficult to incorporate General Kenney's existing ideas as part of a solution. The context of the situation and the choices of several leaders created the opportunity for the 317th TCG to have an impact on the campaign.

## Capability

Of the assets available in the SWPA, the 317th TCG possessed the right qualifications, experience to plan, and lead the airdrop on Nadzab. Within the 54th TCW, the veteran 374th TCG formed from units that were in the Pacific at the start of the war with little or no training dropping paratroopers. The 317th TCG arrived in the SWPA almost a year later, but had spent their last three months in the United States at Fort Benning, Georgia and Maxton Field, near Fort Bragg, North Carolina, training with parachute infantry battalions and gliders. At Fort Benning, the 317th TCG and the paratroopers continued to experiment with procedures and develop airdrop techniques, including a method of airspeed control that they used at Nadzab.<sup>25</sup> The airlifters and paratroopers developed a mutual respect and trust as they refined airdrop tactics.<sup>26</sup>

During the seven months between Wau and Nadzab, the majority of the 317th TCG was stationed in Australia and spent a considerable amount of time training with the 503rd PIR near Cairns. Airborne training escalated between April and July 1943, reaching a peak in May when the group flew 572 training hours to drop 8,167 paratroopers.<sup>27</sup> The 375th TCG and 403rd TCG

both arrived in the SWPA in mid-July 1943 with airdrop qualifications earned stateside, but gained only a few weeks of experience flying in the theater by the time of the drop. Of the airdrop-qualified units in the SWPA, the 317th TCG had the most experience operating in theater and the most training with paratroopers. Maj William A. Williams, the 317th TCG operations officer, proved the logical choice to lead the airdrop planning for the troop carriers. The 317th TCG contributed 24 of the 84 transports used in the airdrop and served as the lead flight in the formation.<sup>28</sup> Their airdrop qualifications and experience in theater and with airborne operations put the 317th TCG at the right place to have an impact on the campaign.

## Employment

Sunday, 5 September 1943: “Z” day dawned.<sup>29</sup> At 0600, 24 crews from the 317th TCG reported to group operations and began to execute the plan for the day, the first airborne assault in the Pacific.<sup>30</sup> At 0630, group pilots taxied their planes to the assembly point on Jackson’s Drome at Port Moresby.<sup>31</sup> The 375th TCG moved its aircraft into position to join them.<sup>32</sup> The C-47s taxied down the steel mat surface of the 3,000-foot runway, turned 60 degrees to the left when they reached the designated spot, and parked to line up roughly wingtip to wingtip facing almost perpendicular to the runway’s main axis.<sup>33</sup> Capt Herbert Waldman, a 24-year-old statistician from Long Island, New York, looked down the runway.<sup>34</sup> Skytrains as far as the eye could see—an amazing sight.<sup>35</sup> He and his copilot, 1st Lt George Kutchie, a radio announcer from Indianapolis,<sup>36</sup> waited for the trucks carrying their paratroopers to arrive.<sup>37</sup>

Captain Waldman could see the other crews milling around at their aircraft, waiting. A few planes over, he spotted General MacArthur and his entourage. General MacArthur and his chief of staff, Maj Gen Richard K. Sutherland, were there with General Kenney, talking to Col Paul H. Prentiss, the 54th TCW commander. Colonel Prentiss was flying copilot in the lead C-47, the “Honeymoon Express.”<sup>38</sup> Photographers were everywhere.<sup>39</sup> A quiet mist hung in the air while heavy fog smothered the airfield.<sup>40</sup>

At 0700, the paratroopers arrived in trucks. A 43-truck convoy drove down the edge of the runway behind the line of aircraft; each truck packed tight with 22 troops or bundles, the exact load for one C-47.<sup>41</sup> The planes, numbered one through 43, bore large numbers scrawled in chalk on the fuselage next to the troop door. The trucks had matching numbers, and they pulled onto the runway surface behind their corresponding aircraft to unload.<sup>42</sup> A mile away at Ward’s Drome, where the second half of the troop carrier formation

assembled, and a similar process took place with aircraft and trucks marked with numbers 44 through 84.<sup>43</sup> The paratroopers climbed out of the trucks and unloaded their gear. They formed small clusters behind the planes and started putting on their chutes.<sup>44</sup> On the adjacent runway, the fighters were warming up their engines. In the background, the bombers began to taxi from their revetments “like gigantic cats slinking behind a fence toward a kill.”<sup>45</sup>

Around 0705, the leaders of the 503rd PIR began walking from plane to plane watching their troops get ready. Jumpmasters meticulously inspected each of their men, tugging on equipment, and securing loose items to prevent loss or injury during the jump. The jumpmasters lined their troops up in jump order and went over last-minute instructions. Mostly, they used their professional demeanor to project a sense of “coolness and confidence” to their men.<sup>46</sup>

Over by the Honeymoon Express, General MacArthur, complete with gold-braided cap and sunglasses, shook hands and made small talk with the jumpers. He asked their names, and their hometowns. He put his hand on their shoulders and wished them well. He let them know that he would be with them, observing their mission, and watching them jump. He continued on and took the opportunity to talk with many of the troopers at other planes as they prepared to board. General MacArthur was personal and warm, beaming with a father’s pride that encouraged the men. Troop carriers and paratroopers alike were excited that the supreme commander “had come to see them off.”<sup>47</sup>

Weather delayed the takeoff.<sup>48</sup> Clouds covered the passes of the imposing Owen Stanley Mountains blocking the formation’s route.<sup>49</sup> The crews were waiting to receive a favorable weather report.<sup>50</sup> So far, they had only incomplete reports because the B-25 weather ship’s radio was going out.<sup>51</sup> Around 0730, the fog at the field began to lift. A little later, the weather ship managed to transmit the all-clear message from a saddle in the mountains.<sup>52</sup> It was time to go.

The troopers, carrying 80 pounds of equipment, started pulling themselves up into the planes.<sup>53</sup> The maintainers and crew chiefs had properly rigged the aircraft for a parachute drop, with the doors taped, and all excess paraphernalia removed from the cargo compartment before the jumpers arrived. They finished loading men and equipment into the aircraft.<sup>54</sup> The strong coordination between the troop carriers and the paratroopers, along with the recent rehearsals, helped the assembly and loading go smoothly. While he waited, 1st Lt Courtney Faught, a 25-year-old semipro basketball player from Ohio, stuck a photo of his infant son on the instrument panel of his plane for luck.<sup>55</sup> First Lieutenant Faught piloted the number 12 ship in the formation, the “Broadway Limited.”<sup>56</sup>

The crews received a visual signal to start up.<sup>57</sup> Around 0800, the pilots cranked their engines, and the aircraft began to vibrate as the motors warmed up. The lead aircraft pulled forward out of parking, turned, and slowly taxied down the runway past General MacArthur and the gaggle of photographers and newspaper men. Each aircraft followed closely in sequence. They turned off of the runway that they used to assemble and load and followed the taxiway to the adjacent runway in a sort of elephant walk to line up for departure.<sup>58</sup>

At 0825, the tower flashed the green light for Vesper Flight for take-off, and Major Williams, the operations officer for the 317th TCG, taxied the Honeymoon Express into position on the runway, brought the plane to a stop, and advanced the throttles. Bill Williams, a 27-year-old from Brownsville, Texas, had a reputation for “superb airmanship and tactical skill.”<sup>59</sup> He had joined the Air Corps before the war and already counted years of experience as a transport pilot and instructor at Randolph Field.<sup>60</sup> Under his supervision, the group maintained high pilot efficiency and had trained extensively in air-dropping the 503rd PIR over the past seven months in Australia.<sup>61</sup> Williams and his assistants were sent to Jackson’s Drome and attached directly to Fifth Air Force ADVON, under General Whitehead, to plan and coordinate the airdrop and formation operations.<sup>62</sup> His background as an airlifter and instructor, combined with his recent airdrop experience, made him the ideal choice to plan and lead this formation.

Colonel Prentiss flew as Major Williams’ copilot in the lead ship.<sup>63</sup> Colonel Prentiss, a 48-year old career officer from San Antonio, Texas, had been a rated pilot since 1918. He previously served as the commander of the 374th TCG until the creation of the wing, and his assumption of its command. The colonel held responsibility for all troop carriers in New Guinea. He frequently flew routine combat missions and had been decorated for gallantry in action at Wau.<sup>64</sup> Lt Clair W. Chellberg, the group navigator, and the radio operator, Cpl John A. Glaros, sat at their stations.<sup>65</sup> SSgt Pete Pandozzi, the crew chief for the Honeymoon Express, was bursting with pride that his ship was about to lead the mission.<sup>66</sup>

Major Williams released the brakes, and the C-47 started to lumber down the runway. It was 0825.<sup>67</sup> In sequence, each aircraft took the runway, paused for final checks, set full take-off power, and started to accelerate across the steel matting before lifting away from the ground.<sup>68</sup> Captain Waldman went seventh; Lieutenant Faught went 12th.<sup>69</sup> The first 24 aircraft belonged to the 317th TCG. All 79 planes in the formation were airborne within 15 minutes.<sup>70</sup>

After take-off, the formation had to fly straight ahead to the southeast for 30 miles to allow all of the transports to get off the ground before the first turn.<sup>71</sup> After 30 miles, Major Williams made a wide right turn, almost 180

degrees, to fly a parallel course back to the northwest. Each follower aircraft then performed a turning rejoin to fall into position as the formation passed. The 317th TCG's flight completed their rejoin over the sunken ship in Port Moresby harbor.<sup>72</sup> From this point, the planes proceeded to the main air rendezvous over Rogers airstrip, 30 miles northwest of Port Moresby.<sup>73</sup> Captain Waldman and Lieutenant Kutchie heard a commotion from the cargo compartment, and looked back to see their plane load of paratroopers singing and stamping their feet "just as though they were on a hay ride."<sup>74</sup> Spirits were high as the crews and jumpers realized all those months of training drops in Australia, the full-scale rehearsal flights for the past three days, and study at the sand tables and briefings were about to pay off.<sup>75</sup>

After 45 minutes of flight, the transport formation completed a straight-ahead rejoin to merge all three flights into a single column of 79 troop carriers above Rogers airfield. The transports were flying in a "string of Vs" with three-ship elements, in trail, at 9,000 feet. Beneath them, a ceiling of broken clouds dotted the sky.<sup>76</sup> P-38s, P-39s, and P-47s checked in for escort duty. The entire package proceeded to the target.<sup>77</sup>

Around 0930, the troop carriers crossed the pass in the rugged Owen Stanley Mountains. The formerly boisterous paratroopers grew silent and cold.<sup>78</sup> Jumpmasters and crew chiefs conferred on common acquaintances, different aircraft, and the best places to go on leave in Sydney.<sup>79</sup> One of the pilots sent back word to the jumpmaster that they were about an hour out from the drop.<sup>80</sup>

Once through the pass, the formation proceeded north into the Watuit Valley to Tsili Tsili and began a descent to 3,500 feet.<sup>81</sup> Fifteen minutes before reaching Tsili Tsili, Colonel Prentiss called "Shadow," the command post at the remote field, on the radio and asked, "Do you have a message for me?" He received the coded reply to continue.<sup>82</sup> Over Tsili Tsili, the transports reformed into drop formation. The single "string of Vs" split into three separate columns, one for each flight. Each flight formed into six-ship elements in right echelon, with all three columns abreast.<sup>83</sup> This formation maximized the use of each drop zone's width, shortened the amount of time needed to drop all of the troopers, and reduced the length of the formation to allow the fighters to provide more effective coverage.

"A" Flight was assigned to drop 1st Battalion (BN) of the 503rd PIR directly on the airfield to clear it of any enemy troops.<sup>84</sup> "A" Flight first element lead was Lt Col John Lackey, the 54th TCW deputy commander, with Maj Don W. Smith, 66th TCS commander. Second element lead was Maj Marvin O. Callham, 65th TCS commander, and Maj A. J. Beck, 54th TCW operations officer. The entire flight was made up of aircraft and crews from the 65th TCS and 66th TCS.<sup>85</sup> "A" Flight operated under the call sign "Vesper A."<sup>86</sup> "B" Flight

was detailed to drop 2nd BN of the 503rd PIR north of the field to protect 1st BN's flank. Lt Col Joel G. Pitts, 375th TCG commander, led "B" Flight composed entirely of his planes and crews.<sup>87</sup> "B" Flight operated under the call sign "Vesper B."<sup>88</sup> "C" Flight was tasked to drop 3rd BN of the 503rd PIR east of the field to secure the village of Gabmatzung. "C" Flight, led by Major Williams and Colonel Prentiss, consisted of the 41st TCS in the first element, and the second element led by the 46th TCS commander Capt James J. Evans, and made up of his squadron.<sup>89</sup> "C" Flight operated under the call sign "Vesper C," and "Vesper" when controlling the entire formation.<sup>90</sup>

The rest of the escort fighters from strips at Dobadura, Tsili Tsili, and Marilinan joined the air armada.<sup>91</sup> Sixteen P-38s, "Hades" flight, flew ahead of the formation in a sweep between 5,000 and 15,000 feet. Sixteen P-38s, "Copper" flight, flew low cover at 2,000 feet on the right side of the transport column. Outcast, a flight of 16 P-38s flew low cover at 2,000 feet on the left side of the column. Sixteen P-47s from the 340th Fighter Squadron (FS), using "Zig-Zag" as a call sign, flew medium cover at 7,000 feet to protect the troop carriers. Twelve P-39s from the 36th FS, using the call sign "Agate," flew center low cover between 2,000 and 3,000 feet to protect the center column of transports. Sixteen P-47s from the 342d FS, call sign "Table," flew at 15,000 feet for general top cover.<sup>92</sup> The armada of 302 aircraft continued to follow the Lower Watuit River as it meandered through the valley toward the Markham Valley.<sup>93</sup>

Upon entering the Markham Valley, they descended to almost tree-top level and continued up the valley to Nadzab.<sup>94</sup> There was turbulence and transiting the pass amplified the condition. Soon, the troopers started passing the "honey buckets" around the cargo compartment for their sick counterparts.<sup>95</sup> The heat at low altitude in the valley made the situation worse.<sup>96</sup>

At 0948, the pilots sent a message back to the jumpmaster that they were about 30 minutes from the drop.<sup>97</sup> The crew chiefs opened the doors. Windblast and deafening noise filled the aircraft. Wide-eyed troopers were engrossed on what would come next. By 1000, the jumpmaster began looking out the door getting his bearings.<sup>98</sup> He gave the hand signal to the paratroopers on his plane "to buckle helmets, check leg straps, and equipment containers."<sup>99</sup>

The pilots were engaged in maintaining formation position. Each was no more than 100 feet from the wing of the nearest plane. Every wind gust, patch of turbulence, prop wash or wingtip vortex held potential for disaster. Everyone watched his wingmen as the planes inched closer together. Element leads issued commands over the radio to various wingmen to fix their position. They had trained for this since their days at Lawson Field, Georgia, or Maxton Field, North Carolina, but they could never ignore the danger involved with operating this close to other aircraft.<sup>100</sup>

The red light near the jump doors came on at 1009.<sup>101</sup> Each plane bustled with activity.<sup>102</sup> The jumpmaster yelled out, "Stand up! Hook up!" The paratroopers awkwardly rose, trying to balance 80 pounds of gear while finding their footing on the unsteady aluminum deck. They snapped the spring hooks of their static lines onto the cable just above their heads that ran the length of the cargo compartment. Each man gave the webbing a sharp jerk to make sure his line was connected. "Check equipment!" Each man inspected the parachute pack of the trooper in front of him, checking the static line attachment and its pull-out panel. "Sound off for equipment check."<sup>103</sup> "Twenty OK!" "Nineteen OK!" "Eighteen OK!" Each jumper responded in sequence from the front of the cargo compartment to the rear. The jumpmaster commanded, "Close in the door!"<sup>104</sup> The jumpers squeezed in next to each other, right hand on the shoulder of the man in front of him, left hand grasping the webbing of the static line just below the hook. The jumpmaster stood in the door with the crew chief and the bundle at his left, "the nose of the bundle sticking out of the door."<sup>105</sup> He scanned the ground in front of their plane and then concentrated on the aircraft in front of them, waiting for the first parachute canopy to appear.<sup>106</sup>

At 1016, the formation leads passed the junction of the lower Watuit and Markham Rivers and curved right around the bend into the wide Markham Valley.<sup>107</sup> The planes were low, down at tree-top level "hedge-hopping." The transports "pitched and bucked."<sup>108</sup> Back in the number 12 position, Lieutenant Faught located the target, a peaceful meadow in the valley just to the left of the Markham River, peaceful enough that it reminded him of Ohio and home.<sup>109</sup> Suddenly, "all hell broke loose as the greatest mass of airplanes" he had ever seen began their attack with "clock-like precision."<sup>110</sup> The B-25s accelerated to pull away from the formation to prepare for their strafing runs and to drop fragmentation bombs.<sup>111</sup> Each fighter and bomber had a specific mission and executed it in the time allotted, before clearing away for the next aircraft.<sup>112</sup> As the troop carriers approached the immediate target, a field six miles east of Nadzab, the medium bombers dropped their loads, and the B-25s and A-20s "operating in split-second timing," strafed the road between Nadzab and Lae. Other A-20s divided left and right of the formation and laid down a smoke screen around the target area.<sup>113</sup> The smoke screen settled, and then rose to over 1,000 feet to hide the drop zones from Japanese view.<sup>114</sup>

The troop carriers approached a bend in the Markham River that sat perpendicular across their flight path. As they reached the river bank, the pilots pulled up to 400 feet and slowed down to 100 mph.<sup>115</sup> They had approached the river bank at the normal cruising speed of 155 mph, at the same time that they pulled up to drop altitude, the pilot cut the left engine to windmilling and adjusted the right engine power to maintain an airspeed of 95 to 110

mph. The aircraft quickly decelerated to stabilize at drop airspeed.<sup>116</sup> The 40th TCS developed the technique while training with paratroopers at Lawson Field before arriving in the SWPA, and now-Major Waldman imparted several lessons to his unit after attending an exercise with the 40th TCS.<sup>117</sup> Vesper flight leveled off at drop altitude at the planned airspeed.

For the pilots, the next few minutes were the most critical to the success of the airdrop. Each crew had to provide a stable platform for its jumpers while it worked to maintain its position in formation. Doing this in a large formation compounded the degree of difficulty. Any variation in airspeed in one aircraft caused a domino effect for the aircraft behind it, which became dangerous after they slowed to drop speed and decreased their margin from a stall. If a stall occurred, the C-47 might collide with the plane next to it or descend into troopers that had already jumped from preceding planes that were now under a canopy. Also, misjudging the winds and timing for the release would put troopers in the trees or off the drop zone.<sup>118</sup> Formation airdrop demanded “the most rigid, most disciplined flying possible.”<sup>119</sup> Lieutenant Salisbury, copilot in the 14th position, watched as his pilot, now-Captain Yoder, concentrated on maintaining position. The captain fixed his attention to the right wing of his element lead, Captain Evans, the 46th TCS Squadron commander, just 20 yards to their port-forward. Both Lieutenant Salisbury and Captain Yoder listened intently on the radio for the command to give the green light.<sup>120</sup>

At 1022, the three flights reached their targets. On command, the copilots switched on the green light. Back by the jump door, lights went from red to green.<sup>121</sup> “Okay, here we go,” the jumpmaster and the crew chief pushed the bundle out of the door. The first jumper immediately followed, trailed by 19 others as quickly as they could exit.<sup>122</sup> The paratroopers cleared the aircraft in 10 seconds.<sup>123</sup> Pilots could see troopers piling out of the other transports on both sides and in front.<sup>124</sup> The jumpmaster in Major Waldman’s plane, platoon leader Lt Arthur Cartier from West Newton, Massachusetts, looked at the man next to him, said “Have a good ride,” and stepped out into the void.<sup>125</sup>

The formation maintained a heading of 035 degrees at 400 feet and airspeed between 100 and 105.<sup>126</sup> As the jumpers left the aircraft, the center of gravity shifted and the pilots had to pull back heavily on the control column to maintain level flight.<sup>127</sup> The entire formation completed the drop in four and a half minutes.<sup>128</sup> 1,700 parachutes descended toward the tall kunai grass of Nadzab.

Lt Col John J. “Jack” Tolson III, 3/503rd PIR commander, stood in the door of the Honeymoon Express. He saw the drop zone coming up and checked for the jump signal. The red light turned off, but the green light did not illuminate

as expected. He paused for a second, visually confirmed they were in the right place, and then jumped.<sup>129</sup> Colonel Prentiss thought he had turned on the green light, but by accident, he had switched the jump light from red back to the neutral position instead of getting it all the way to the green position.<sup>130</sup> As a result of Colonel Tolson's delay in the door over the light, the troopers from the plane landed a little further down the large drop zone, however, the amount of preparation before the drop enabled the leader to recognize their location and make the correct decision.<sup>131</sup>

After clearing the target, which was three miles long, the transports descended to 50 feet. The crew chiefs and radio operators began to pull in the static lines, the 15-foot-long strips of webbing attached to the parachute rip panel that deployed the canopy when the jumper exited the aircraft.<sup>132</sup> Pulling in 20 lines plus one or two for door bundles against the drag of the slipstream was difficult and became a two-man job.<sup>133</sup> After the lines had been back inside the cargo compartment, one of the men ran up to the front and told the pilots that they were all clear, and the planes accelerated. Staff Sergeant Pandozzi, the crew chief for the Honeymoon Express, could not wait to get back and tell his buddies in engineering about the mission. However, his version of events left the impression "that it was the only damn plane to go over."<sup>134</sup>

After they had cleared the drop zone, "A" and "B" flights made a wide left turn back to the west toward Tsili Tsili. They crossed the lower Watuit River and reformed into three-ship elements for a "string-of-Vs" formation.<sup>135</sup> "A" and "B" flights proceeded back to base and landed at 1204.<sup>136</sup> Some crews were excited to know that General MacArthur and General Kenney were both there watching the whole show from their B-17s circling high above the Markham Valley.<sup>137</sup>

"C" flight picked up speed and climbed over the smoke screen, and proceeded to Mumum and Yalu, 10 miles east of Nadzab, to drop decoys and dummy parachutes from 1,000 feet.<sup>138</sup> On the way back from the decoy drop, 1st Lt Harry J. Renker, the pilot in the number three position could see that the Australian pioneers and engineers had already constructed a bridge halfway across the Markham River to link up with the paratroopers.<sup>139</sup> Strafing and bombing continued throughout the day.<sup>140</sup> From this point on, each plane continued individually back to Jackson's Drome and all arrived safely.<sup>141</sup> Lieutenant Faught looked down at the picture of his baby that he had stuck on the instrument panel for luck. The child was already six months old, and his father had never seen him in person. Hopefully, his luck would continue, and he would make it home.<sup>142</sup>

Each aircraft from the 317th TCG averaged drops of 20 paratroopers, 398 miles, and 3.85 flying hours for the mission.<sup>143</sup> Approximately 95 percent of

the 1,500 troopers landed in the target area.<sup>144</sup> It was the Allies' first fully successful airborne assault of the war. Casualties were light. Two jumpers died because their parachutes failed to open properly. Another was stuck in a tree and fell to his death when he released his harness. Thirty-three men sustained injuries in the jump.<sup>145</sup>

The formation encountered no enemy fighter or ground opposition.<sup>146</sup> Four transports reported seeing tracers pass across their noses, but later decided they had come from B-25 strafers passing above.<sup>147</sup> One plane failed to drop its jumpers. As the plane approached the objective area, the crew chief was removing the door to prepare for the jumpers' exit. The door blew out of the aircraft and dragged in the slipstream, thumping on the side of the plane, threatening the life of every man had they attempted to jump.<sup>148</sup> The cargo door eventually broke free and damaged the elevator.<sup>149</sup> The plane returned safely to base.<sup>150</sup>

On 6 September, 12 planes from the 41st TCS hauled troops and cargo to Tsili Tsili, while other transports lifted the 7th DAA from Tsili Tsili to Nadzab.<sup>151</sup> By 11 September, C-47 crews, flying continuously, sleeping little, and eating in the plane delivered 420 plane loads of men and materiel to Nadzab.<sup>152</sup> The double encirclement by the 7th DAA and 9th DAA threatened to isolate the 10,000 Japanese soldiers in the area. The enemy force began to fracture into small groups, retreating into the dense jungles, as it withdrew toward the Huon Peninsula. On 16 September, the 7th DAA captured Lae.<sup>153</sup>

The crews of the 317th TCG continued landing with soldiers and supplies until 19 September.<sup>154</sup> On 20 September, the air echelon returned to Townsville in mass formation to prepare to help move the entire group to Ward's strip at Port Moresby.<sup>155</sup> For them, the next phase of the war was about to begin.

## Conditions

The group and paratroopers executed the first fully successful airborne assault of the war at Nadzab based on environmental, enemy, preparation, and planning factors. Earlier attempts in the European Theater of Operations failed or, at best, met with limited success. In November 1942, Operation Torch provided the Allied powers the opportunity to validate their airborne capabilities for the first time in combat.<sup>156</sup> A relatively small task force flew 1,100 miles from England to Algeria at night to conduct what would be "the longest range air assault of the war."<sup>157</sup> A combination of limited training, poor preparation, and heavy clouds along the route scattered the formation. Twenty-eight of the 39 troop carriers landed on a dry lake bed before reaching

the objective. Only 14 aircraft remained undamaged by enemy artillery fire once on the ground, and the US motorized units reached the objective before the paratroopers. The airborne operation failed to produce any positive combat results.<sup>158</sup>

The airdrop at Nadzab offers an interesting contrast to the better-known airdrops in the Mediterranean theater. In July 1943, Operation Husky I and II, the invasion of Sicily, employed two airdrops in concert with eight seaborne assaults.<sup>159</sup> Extremely high winds, poor visibility, and pilot reactions to flak in the area of the drop zones severely hampered the successful execution of the airdrops and led to drops that scattered paratroopers far from their intended targets.<sup>160</sup> British pilots flying American gliders without proper training, coupled with one of the worst friendly-fire incidents of the war by naval anti-aircraft gunners off the coast, also caused heavy losses for the airborne forces.<sup>161</sup> Despite significant obstacles, airborne forces created enough havoc and confusion for the Axis defenders that they effectively delayed the deployment of a panzer attack against the beachhead to prevent the landing of seaborne forces, although this was an unintended effect. Lt Gen George S. Patton and Gen Sir Bernard L. Montgomery (Royal Army) praised the airborne operations for significantly advancing the timeline of the Allied advance, and attributed the high casualty rates and employment errors to a lack of experience rather than a flawed concept.<sup>162</sup> General Eisenhower remained unconvinced and canceled or revised plans for the airborne invasion of the Italian coast, originally slated for August and September of 1943, several times due to concerns about unacceptable casualty rates and his loss of faith in the airborne-division concept.<sup>163</sup>

### ***Environmental Factors***

The troop carriers enjoyed ideal conditions during the airdrop at Nadzab that contributed to their success. The flights to North Africa and Sicily occurred at night, which reduced visibility and complicated navigation and formation flying in both operations.<sup>164</sup> The flight to Nadzab took place during the day and avoided these difficulties. Clouds over Spain and unpredictable winds caused elements of the North Africa formation to lose contact with each other and fly off course, although 33 of 39 aircraft managed eventually to reach the vicinity of Oran, Algeria.<sup>165</sup> Darkness combined with heavy winds disoriented many of the crews in Husky I and scattered the formations before they reached Sicily. As a result, less than one-sixth of the paratroopers landed near their drop zones, and some ended up as far as 50 to 65 miles from their objective.<sup>166</sup> The winds appear to have little effect on Husky II the following

night.<sup>167</sup> At Nadzab, General Kenney timed the operation to coincide with a period of clear weather along the entire route for a few days and light winds at the drop zone. Clouds covered the main Japanese base at Rabaul to prevent an enemy response.<sup>168</sup> Lightning, winds, and clouds created obstacles for effective operations in the North Africa and Sicily airdrops that were absent from the Nadzab assault.

### *Enemy Activity*

The SWPA troop carriers did not face any enemy interference during the airdrop at Nadzab that affected the other drops. The North Africa mission departed under an erroneous assumption that the French would not resist the landing at Oran's La Senia airport, and the few aircraft that attempted to land received anti-aircraft fire. Some others were forced down by French fighters. Once on the ground, most of the aircraft sustained damage from an artillery bombardment.<sup>169</sup> In Husky I, enemy anti-aircraft fire destroyed eight aircraft and damaged 10 others. Friendly fire had a much greater consequence during Husky II.<sup>170</sup> The Nadzab drop faced no enemy opposition in the air or on the ground. During the two weeks before the airdrop, Fifth Air Force destroyed 350 aircraft, two-thirds of which were fighters, in raids on the Wewak area, and the weather prevented any Japanese aircraft from leaving Rabaul.<sup>171</sup> The bomber escort that strafed the objective before the drop discouraged any ground response. The enemy fire created obstacles for effective operations in the North Africa and Sicily airdrops that were absent from the Nadzab assault.

### *Preparation*

The SWPA troop carriers benefited from extensive training and rehearsal of the airdrop at Nadzab before execution that contributed to a successful operation. In the North Africa operation, the navigators had limited training in celestial navigation and received unfamiliar equipment at the last minute. Fourteen of the 39 pilots received their aircraft late and started the mission without a proper mission brief or rest. Only a handful of crews had the right charts.<sup>172</sup> In Husky I, aircrews lacked experience in night navigation and formation flying at night. The details of Husky II did not become finalized until the day of execution, leaving minimal time to prepare.<sup>173</sup> In New Guinea, the PIR battalion commanders and troop-carrier element leaders flew over Nadzab in a bomber a week before the drop to familiarize themselves with the drop zone. On each of the three days before the assault, the entire airdrop operation participated in full-scale rehearsals at Rorona, an abandoned airfield 30 miles up the coast from Port Moresby. The bombers actually fired on

strafing runs, while the fighters practiced laying their smoke in advance of the entire troop-carrier formation loaded with the complete parachute regiment. Some troopers jumped to check the timing. The pilots were already familiar with the details of the objective areas, so rehearsals emphasized formation flying and timing between the troop carriers and their bomber and fighter escorts, and “a few minor details were corrected.”<sup>174</sup> Detailed preparation and rehearsals facilitated a successful airdrop at Nadzab while aircrews’ unfamiliarity with aspects of the North Africa and Sicily missions created problems.

### *Planning*

The troop carriers benefited from extensive coordination of the airdrop at Nadzab before execution that contributed to a successful event. In North Africa, confusion over times and frequencies rendered the two clandestine beacons near Oran useless to the troop carriers, and the few sticks of paratroopers that managed to jump mistakenly attempted to intercept an American tank column.<sup>175</sup> The short-notice nature of Husky II precluded adequate coordination with Allied ships along the route or friendly ground forces on the battlefield. Persistent friendly fire from sea and land scattered troop-carrier formations, caused premature and inaccurate drops, and created numerous casualties among the troop carriers and paratroopers alike. Twenty-three aircraft were lost and 37 heavily damaged, with 90 aircrew and 400 paratrooper casualties during the drop.<sup>176</sup> At Nadzab, close coordination between the various air and ground elements from the US and Australia during planning and rehearsals ensured that participants understood the plan, the timing, and the details. Close coordination facilitated a successful airdrop at Nadzab while inadequate coordination in the North Africa and Sicily drops created confusion and casualties.

The primary reason the Nadzab airdrop succeeded and the airdrops in the Mediterranean did not relate to the reduction of friction during execution. Environmental factors, like darkness or weather, and enemy actions created obstacles that degraded the effectiveness of the North Africa and Sicily airdrops. The troop carriers at Nadzab did not have to contend with these issues, but they did actively engage in detailed preparation, rehearsals, and close coordination in planning that facilitated a successful airdrop. Unfamiliarity with important aspects of the mission, like night flying or celestial navigation, and poor coordination produced confusion and casualties in the North Africa and Sicily drops. Essentially, the environmental, enemy, preparation, and planning factors each contributed an element of friction that compounded to

undermine the success of the airdrops in the Mediterranean, while at Nadzab, the Allies actively mitigated the effects of many of these elements.

## Contributions

The success of airdrop at Nadzab played a significant role in the success of the battle for Lae, the SWPA, and beyond. In the battle for Lae, the accuracy and effectiveness of the airdrop enabled the 503rd PIR to secure the airfield quickly for the Australian pioneers and engineers to prepare the runway for landings. At first light the following morning, troop carriers began ferrying in the entire 7th DAA, and then kept them supplied for the next 12 days. On 16 September, the division captured Lae, ahead of the Australian 9th DAA.<sup>177</sup> None of this would have been possible without the success of the tactical airdrop as a way to gain access to the area, and position the 7th DAA for victory.

### *The SWPA Theater*

The airdrop facilitated the capture of Lae, which was a necessary first step in a series of moves to secure the Huon Peninsula and increase the Allies' degree of control over the Vitiaz and Dampier Straits. Lae offered a good seaport and airfield, and engineers built Nadzab into one of the largest airfields in the region, with two 6,000-foot runways. The Allies based several fighter, bomber, and transport squadrons at the airfields for much of the rest of the war. They used them to extend the reach of their control of the air over the straits, and thereby "bring a heavier weight of metal to bear on Japanese bases, to the north and the west."<sup>178</sup>

### *Lasting Legacies*

The success of the airdrop on Nadzab proved a godsend for the survival of the airborne concept. After the dismal performances of North Africa and Sicily, General Marshall tasked General Swing to convene a board and conduct a large-scale exercise to evaluate the viability of large-scale airborne operations. The airdrop on Nadzab took place while the board was convened. The airborne division as a legitimate concept was on trial, and the board's recommendation could have eliminated it from the army. The successful use of airdrop to secure Nadzab served as powerful evidence for the airborne supporters on the board to make their case. The Nadzab case study and a successful field exercise convinced the board to endorse a favorable recommendation.<sup>179</sup> Secretary of War Henry L. Stimson took note of the successful airborne assault in New Guinea,

and in a memo, strongly recommended field commanders use the Nadzab airdrop as a model for “effective application in prospective operations.”<sup>180</sup> The airborne concept was saved.

Ultimately, this chapter argued that opportunity, capability, and conditions coalesced to enable the 317th TCG to employ airdrop successfully in a way that contributed beyond the battlefield. The situational context and development of the campaign strategy led Allied leaders to design a plan that required an airborne assault as a key component. Of the assets available in theater, the 317th TCG possessed the right qualifications and best experience base to plan and lead the airdrop on Nadzab. The troop carrier group and paratroopers executed the first successful airborne assault of the war at Nadzab based on environmental, enemy, preparation, and planning factors where earlier attempts in the European Theater of Operations failed. The environmental, enemy, preparation, and planning factors each contributed an element of friction that compounded to undermine the success of the airdrops in the Mediterranean, while at Nadzab, the Allies actively mitigated the effects of many of these elements. The success of airdrop at Nadzab played a significant role in the success of the battle for Lae, enabled a strategic gain in the SWPA theater, and saved the airborne concept as we know it today.

#### Notes

1. Kelly, *Allied Air Transport Operations*, 372; and Salisbury, “Down Under.”
2. Jacobson, *Moresby to Manila via Troop Carrier*, 29.
3. History, 41st TCS (TCS), 1 January 1943–31 January 1944, 10.
4. History, 40th TCS, February 1942–January 1944, vol. 1, 22, 37.
5. Salisbury, “Down Under”; and History, 41st TCS, February 1944, 26.
6. History, 41st TCS, 1 January 1943–31 January 1944, 120; and Ford, *My New Guinea Diary*, 79.
7. History, 317th Troop Carrier Group (TCG) Headquarters (HQ), January 1943–January 1944, vol. 2, 327; and Jacobson, *Moresby to Manila via Troop Carrier*, 31.
8. MacArthur, *Reports of General MacArthur: The Campaigns of MacArthur in the Pacific*, vol. 1, 100.
9. Reports total Allied losses in Kokoda–Buna–Gona operations at 6,645 casualties including 2,508 deaths. Allied losses at Guadalcanal totaled 5,292 including exactly 1,700 deaths. See Frank, *MacArthur*, 187.
10. MacArthur, *Reports of General MacArthur: The Campaigns of MacArthur in the Pacific, Volume I*, 100.
11. Dexter, *Australia in the War*, 268.
12. *Ibid.*, 269.
13. *Ibid.*
14. Horner, *General Vasey’s War*, 257–258.
15. Miller, *Cartwheel*, 190.

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16. Dexter, *Australia in the War*, 270.
17. Horner, *General Vasey's War*, 257–258.
18. Dexter, *Australia in the War*, 270.
19. Horner, *General Vasey's War*, 257–258.
20. Flanagan, *Corregidor*, 116.
21. Dexter, *Australia in the War*, 270.
22. Kenney, *General Kenney Reports*, 102.
23. *Ibid.*, 118–119. Kenney only had the rag-tag aircraft of the 374 TCG, as the 317 TCG had not arrived in the SWPA.
24. *Ibid.*, 128.
25. History, 40th TCS, February 1942–January 1944, vol. 1, 13, 15; and History, 41st TCS, February 1942–December 1942, 16.
26. History, 41st TCS, February 1942–December 1942, 21–22.
27. Moore, “Tactical Employment,” 18.
28. History, 317th TCG HQ, January 1943–January 1944, vol. 1, 20.
29. “Z-Day” was used instead of D-Day to prevent confusion with D-Day for the Australian 9th Division’s amphibious landing the previous day.
30. History, 317th TCG HQ, January 1943–January 1944, vol. 1, 20.
31. Jackson’s Drome was also called “7 Mile” or “7 Mile Drome” by the Americans because it was seven miles from Port Moresby.
32. History, 41st TCS, 1 January 1943–31 January 1944, 31.
33. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
34. “Lady Luck Rides the Jumpseat” in History, 41st TCS, February 1944, 33–34.
35. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
36. Interview Transcript, 1st Lt George Kutchie, in History, 41st TCS, February 1944, 23.
37. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
38. *Ibid.*, 29.
39. Adjutant’s Journal, 2d Battalion, 503rd Parachute Infantry Regiment (2/503 PIR), 5 September 1943, [http://corregidor.org/BEA503/Calendar/Week\\_at\\_a\\_Glance/4309w2.html#5](http://corregidor.org/BEA503/Calendar/Week_at_a_Glance/4309w2.html#5) September 1943 (accessed 28 January 2014).
40. *Ibid.*; and Breuer, *Geronimo!*, 105.
41. Adjutant’s Journal, 2/503rd PIR.
42. Campbell, “Operations of the 503rd Parachute Infantry Regiment (503 PIR). Campbell’s paper offers a first-hand account written only a few years later.
43. *Ibid.*
44. Adjutant’s Journal, 2/503rd PIR.
45. *Ibid.*
46. *Ibid.*
47. Breuer, *Geronimo!*, 106–107.
48. History, 41st TCS, 1 January 1943–31 January 1944, 31.
49. Breuer, *Geronimo!*, 105.
50. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
51. Beck, “Narrative Mission Report.”
52. Breuer, *Geronimo!*, 106; and Flanagan, *Corregidor*, 119.
53. Flanagan, *Corregidor*, 119.
54. History, 41st TCS, 1 January 1943–31 January 1944, 31.
55. *Ibid.*, 105.

56. *Ibid.*, 105, 119.
57. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
58. Adjutant's Journal, 2/503rd PIR.
59. History, 317th TCG HQ, May 1944, 202.
60. *Ibid.*
61. History, 317th TCG HQ, January 1943–January 1944, vol. 1, 18.
62. *Ibid.*, 20.
63. History, 41st TCS, 1 January 1943–31 January 1944, 32.
64. History, 54th TCW HQ, March 1943–January 1944, 31–32.
65. History, 41st TCS, 1 January 1943–31 January 1944, 119.
66. History, 41st TCS, 1 January 1943 – 31 January 1944, 131.
67. Beck, "Narrative Mission Report."
68. Adjutant's Journal, 2/503rd PIR.
69. History, 41st TCS, 1 January 1943–31 January 1944, 119.
70. Beck, "Narrative Mission Report"
71. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
72. History, 41st TCS, 1 January 1943–31 January 1944, 32.
73. *Ibid.*, 32. Rodgers Airfield was also known as "30-mile" or "30-mile Drome" because it was about 30 miles from Port Moresby.
74. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 29.
75. *Ibid.*, 30.
76. Beck, "Narrative Mission Report"
77. History, 41st TCS, 1 January 1943–31 January 1944, 32.
78. Adjutant's Journal, 2/503rd PIR.
79. *Ibid.*
80. *Ibid.*
81. Beck, "Narrative Mission Report"
82. History, 317th TCG HQ, January 1943–January 1944, vol. 2, 330.
83. Beck, "Narrative Mission Report."
84. The designation of "A," "B," or "C" flight was not based on formation order, but on which battalion the flights carried. Hence, the 317th lead the formation, but was called "C" flight because they carried the 3rd Battalion, 503rd PIR.
85. Beck, "Narrative Mission Report"
86. History, 317th TCG HQ, January 1943–January 1944, vol. 2, 330.
87. Beck, "Narrative Mission Report"
88. History, 317th TCG HQ, January 1943–January 1944, vol. 2, 330.
89. Beck, "Narrative Mission Report."
90. History, 317th TCG HQ, January 1943–January 1944, vol. 2, 330.
91. Breuer, *Geronimo!*, 106.
92. History, 41st TCS, 1 January 1943–31 January 1944, 32–33; HQ Fifth Fighter Command Report #171, 5 September 1943 in History, 41st TCS, 1 January 1943–31 January 1944; and Beck, "Narrative Mission Report."
93. History, 41st TCS, 1 January 1943–31 January 1944, 32.
94. *Ibid.*
95. Breuer, *Geronimo!*, 106.
96. Flanagan, *Corregidor*, 120.
97. Beck, "Narrative Mission Report"

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98. Adjutant's Journal, 2/503rd PIR.
99. Ibid.
100. Wolfe, *Green Light!*, 20.
101. Beck, "Narrative Mission Report."
102. Adjutant's Journal, 2/503rd PIR.
103. Ibid.
104. Flanagan, *Corregidor*, 120.
105. Adjutant's Journal, 2/503rd PIR.
106. Ibid.
107. Beck, "Narrative Mission Report."
108. Adjutant's Journal, 2/503rd PIR.
109. History, 41st TCS, 1 January 1943–31 January 1944, 105.
110. Ibid.
111. Ibid., 120.
112. Ibid., 105.
113. Ibid., 33.
114. Ibid., 105; and Breuer, *Geronimo!*, 106–107.
115. History, 41st TCS, 1 January 1943–31 January 1944, 33.
116. History, 40th TCS, February 1942–January 1944, vol. 1, 15–16.
117. Ibid., 15–16, 21.
118. Lester, *Frontline Airline*, 43.
119. Wolfe, *Green Light!*, 18–20.
120. Salisbury, "Tempest over Nadzab."
121. Beck, "Narrative Mission Report."
122. Adjutant's Journal, 2/503rd PIR.
123. Beck, Narrative Mission Report.
124. Beck, "Narrative Mission Report."
125. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 30.
126. Beck, "Narrative Mission Report."
127. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 30.
128. Breuer, *Geronimo!*, 107.
129. Ibid. The US Army abbreviates unit designations in a different way than the Austrians. Here "3/503rd PIR" refers to the 3rd Battalion of the 503rd Parachute Infantry Regiment.
130. Flanagan, *Corregidor*, 121.
131. Breuer, *Geronimo!*, 107.
132. Wolfe, *Green Light!*, 96.
133. Ibid.
134. History, 41st TCS, 1 January 1943–31 January 1944, 131.
135. Beck, "Narrative Mission Report."
136. Ibid.
137. History, 41st TCS, 1 January 1943–31 January 1944, 105.
138. Interview Transcript, Capt Herbert Waldman, in History, 41st TCS, February 1944, 30; and History, 41st TCS, 1 January 1943–31 January 1944, 33 and 120.
139. Diary Extract, 1st Lt Harry J. Renker, in History, 41st TCS, 1 January 1943–31 January 1944, 120.
140. Ibid.
141. History, 41st TCS, 1 January 1943–31 January 1944, 33.

142. Ibid., 105.
143. Ibid., 33.
144. Beck, “Narrative Mission Report.”
145. Breuer, *Geronimo!*, 108.
146. Beck, “Narrative Mission Report.”
147. Ibid.
148. Campbell, “The Operations of the 503rd PIR.”
149. Beck, “Narrative Mission Report.”
150. Ibid.
151. History, 41st TCS, 1 January 1943–31 January 1944, 33.
152. Breuer, *Geronimo!*, 108.
153. Ibid.
154. History, 41st TCS, 1 January 1943–31 January 1944, 34.
155. History, 317th TCG HQ, January 1943–January 1944, vol. 1, 21.
156. Breuer, *Geronimo!*, 25–26.
157. Miller, *Airlift Doctrine*, 81–82.
158. Bowen, et al., *USAF Airborne Operations*, 3–4.
159. Ingrisario Jr., *Valor without Arms*, 35–37.
160. Breuer, *Geronimo!*, 75; and Miller, *Airlift Doctrine*, 84.
161. Ingrisario, *Valor without Arms*, 37–42; Breuer, *Geronimo!*, 94; and Miller, *Airlift Doctrine*, 84–87.
162. Miller, *Airlift Doctrine*, 87–88.
163. Breuer, *Geronimo!*, 100–101; and Miller, *Airlift Doctrine*, 89–94.
164. Bowen, et al., *USAF Airborne Operations*, 3, 11.
165. Ibid., 3.
166. Ibid., 11.
167. Ibid., 12–13.
168. Kenney, *General Kenney Reports*, 287.
169. Bowen, et al., *USAF Airborne Operations*, 2–4.
170. Ibid., 11–12.
171. Kenney, *General Kenney Reports*, 284.
172. Bowen, et al., *USAF Airborne Operations*, 3.
173. Ibid., 11–12.
174. Kenney, *General Kenney Reports*, 288, and Dexter, *Australia in the War*, 338.
175. Bowen, et al., *USAF Airborne Operations*, 3–4.
176. Ibid., 12–13.
177. Kenney, *General Kenney Reports*, 294–296.
178. Miller, *Cartwheel: The Reduction of Rabaul*, 221.
179. Flanagan, *Angels*, 49–50.
180. Breuer, *Geronimo!*, 109–110.



## Chapter 4

### Conclusion

*The men who flew the transports . . . that took guts and stamina and morale and willpower and all the other things that are easy to write about. Yet the main topic of conversation among these kids was how much stuff they could get through to the troops.*

—Australian war correspondent, George Johnston

The central argument coursing through this thesis is that the convergence of opportunity, capability and conditions enabled the 317th TCG to employ airland and airdrop to make a successful contribution beyond the immediate battlefield. This chapter analyzes the opportunities, capabilities, conditions, and contributions examined in the earlier chapters on the 317th TCG's actions in the Battle of Wau and the assault at Nadzab. From this analysis, this chapter suggests some implications. Ultimately, this chapter answers, "What were the long-term impacts of the 317th TCG's experience in the southwest Pacific during World War II?"

### Analysis: Opportunity

Regarding opportunity, the situational context and the development of the campaign strategies going into both the Battle of Wau and the assault at Nadzab forced leaders to design a plan that required an airlift solution. The harsh New Guinea terrain, the prior use of air transport at Wau and the Buna operation, and the urgency of the situation shaped the decision to employ airland to save the Allied garrison at Wau. The rugged terrain also prevented a large-scale overland movement to Lae, and resource limitations necessitated the double-envelopment plan. Both factors facilitated the decision to employ airdrop to take Nadzab. Additionally, Fifth Air Force leaders had been advocating an airlift solution long before the situations at Wau or Nadzab became critical.

In both cases, the imposing terrain of New Guinea lies at the heart of the matter. Large-scale overland movement in New Guinea often proved impractical. The terrain and scarcity of roads and trails increased the time associated with ground movement, and the same conditions significantly decreased the combat effectiveness of ground units that traveled overland for any appreciable distance. Air transport offered a more effective alternative. The decision to

pursue an airlift solution remains consistent with the economic principle of substitution. The principle of substitution “holds that if two goods yield comparable benefits, users will drift, *ceteris paribus*, toward the good with the relatively lower price.”<sup>1</sup> Inversely, the principle also explains that if the costs are comparable, users will drift to the good offering a higher benefit. In New Guinea, Allied leaders used air transport as a substitute for ground transport because of the greater benefits it provided regarding decreased transit times and increased combat effectiveness of the ground units that arrived by air.

It is important to understand that substitution exists in degrees. Some substitution is total as it was then at Wau. All troop movement went via airlift. Some substitutions will not work. A lack of resources prevented an entirely amphibious or an entirely airborne approach to the Lae operation. Incremental substitution exists somewhere between the two options. For example, somewhat less of A is substituted for somewhat more of B based on lower cost or higher benefit, but neither A nor B is eliminated.<sup>2</sup> Nadzab offers an example of an incremental substitution. Lae was the Allies’ primary objective, but the movement of the 7th DAA to Lae via ground proved infeasible. However, an airborne assault on the Japanese stronghold of Lae would have been costly in terms of casualties. Allied leaders employed an incremental substitution by seizing the airfield and airlanding at lightly defended Nadzab, and then proceeding overland to Lae.

The use of airdrop to seize and open Nadzab for the airland mission offers additional examples of incremental substitutions. The airdrop of the 503rd PIR to take the airfield offered greater benefits of speed and surprise over General Blamey’s initial plan for a ground-based assault. However, an airborne assault requires paratroopers and troop carriers qualified in airborne operations, and both assets existed in limited quantities in the SWPA. Allied leaders in New Guinea did not have an entire airborne division to airdrop as a total substitute for employing the 7th DAA. Instead, they opted for an incremental solution with an initial airdrop of the 503rd PIR followed by the deployment of the 7th DAA via airland. Additionally, field engineers were better than paratroopers in preparing and opening the airfield for landings, but the Australian engineers were not jump-qualified. The Allies used another incremental solution by inserting the 2/2nd Pioneer BNAA and the 2/6th Field COAA (Engineers) via surface travel to assist the paratroopers in opening the runway at Nadzab.

The degree of substitution of airlift for ground movement at Wau and Nadzab offers an interesting point of comparison. The terrain’s effect on ground travel served as the cause of both substitutions. Time constraints contributed to both decisions. Reinforcements had to arrive at Wau before the Japanese

took the airfield. At Nadzab, the Allies could not wait to complete the construction of the Bulldog-Wau Road, and the 7th DAA's execution timetable had to be compatible with the amphibious assault by the 9th DAA for the pincer movement to work. The advocacy of Fifth Air Force leaders facilitated both substitutions.

The difference between the degree of substitution at Wau and Nadzab primarily concerned available resources. At Wau, the Allies possessed enough troop carriers to make a total substitution of airlift for ground transport. The incremental substitutions associated with Nadzab stem from a lack of specific resources to effect a total substitution. The SWPA had only one regiment of paratroopers at the time; therefore, the planners could not pursue airdrop as a total substitution for an operation that required more than a regiment of soldiers. The Allies also did not possess jump-qualified detachments of field engineers or other specialized troops that could deploy via airdrop with the paratroopers to make an entirely airborne solution possible.

The underlying theme in this discussion of limited resources and incremental substitution is specialization. Airlanding general-purpose troops required very little specialization in the air or ground assets. Airborne assault required specially qualified troops and aircrews, plus any required supporting elements. Given the resource constraints in the SWPA, the degree of substitution of airlift methods over ground deployment became a function of the specialization required.

### *Capability*

The Battle of Wau and the assault at Nadzab levied different capability requirements based on the type of mission. The large-scale airland operation required little specialization, only an ample supply of able troop carriers. The air echelon of the 317th TCG proved vital as the only untapped source of C-47s in the SWPA at that time, and thus became integral to the airland effort at Wau. As the lead unit at Port Moresby, the veteran 374th TCG provided the specialized knowledge the 317th TCG needed to operate in the combat area of New Guinea while key 317th TCG personnel were attached to the 374th TCG. In contrast, the airdrop at Nadzab required a greater degree of specialization by requiring aircrews qualified in airborne operations. Of the assets available in theater, the 317th TCG possessed the right qualifications, but so did the newly arrived 375th TCG and 403rd TCG. However, the 317th TCG had significantly more combat experience than the other groups, and it had spent the past several months training specifically with the 503rd PIR. In addition to specialized qualification, the 317th TCG became integral to the assault

at Nadzab because it possessed the specialized experience to plan and lead the airdrop.

The difference between the 317th TCG's roles at Wau and Nadzab offers an interesting point of comparison. At Wau, it played the role of newly initiated follower that provided the brawn to complement the veteran leader's brains. At Nadzab, it functioned as the veteran leader and brains of the operation that harnessed the brawn of newly initiated followers. This shift in roles ties back to specialization and reflects the timing of the unit's formation. The veteran 374th TCG formed from units that were in the Pacific or had arrived shortly after the start of the war with little or no training dropping paratroopers. The 317th TCG arrived in the SWPA almost a year later, when airborne operations had become institutionalized within the troop-carrier training pipeline. The transition from the follower to the leader that the 317th TCG demonstrated between Wau and Nadzab also reflects the strategic priorities of the war. The "Germany first" priority that drove the distribution of resources in the war had created a six-month gap before the next troop carrier group was sent to the SWPA. It was six months of valuable combat and airdrop training experience for the 317th TCG.

### *Conditions*

At the Battle of Wau and the assault at Nadzab, the 317th TCG operated under a different set of conditions than their counterparts experienced in the European Theater of Operations. The use of airland in the Battle of Wau contrasted with contemporary efforts in North Africa largely based on the concept and leadership. Inclement weather and inexperienced aircrews were present in both North Africa and at Wau. The major difference was that General Kenney and General Whitehead held unique ideas on using airland with regular infantry in increasingly tactical roles. They effectively advocated for their ideas, and this concept reached fruition at Wau. Leaders in North Africa viewed troop carriers primarily regarding their relationship to airborne forces. They gave little thought to using them in battle without paratroopers.

The execution of the airdrop at Nadzab contrasted with contemporary efforts in the European Theater of Operations based on the conditions of the environment, the enemy, preparation, and planning. Environmental factors, such as darkness, weather, and enemy action, presented significant obstacles in the North Africa and Sicily airdrops. The effectiveness of these operations suffered as a result. At Nadzab, the troop carriers did not have to contend with these issues. Beyond this, however, the SWPA planners proactively used detailed preparation, rehearsals, and close coordination in planning to facilitate

a successful airdrop. In contrast, unfamiliarity with important aspects of the mission, and poor coordination created confusion and casualties in the Mediterranean drops. The environmental, enemy, preparation and planning conditions each contributed an element of friction that compounded to undermine the success of the airdrops in North Africa and Sicily. The Allies in the SWPA actively mitigated the effects of many of these conditions in the Nadzab airdrop and thus reduced friction.

The nature of the conditions that influenced the events in the SWPA and their counterparts in the European theater varied based on the type of mission. The conditions that differed from the use of airland at Wau and its use in North Africa are abstract in nature. In contrast, the differing conditions in the airborne assault on Nadzab and those in the Mediterranean appear more concrete in nature. This distinction between abstract and concrete conditions corresponds to the difference in specialization between airdrop and airland. The airborne assault required specialization, and a byproduct of this specialization was a codified doctrine to govern its use. Doctrine emphasized the employment of paratroopers via troop carrier, with minimal discussion of airland with regular infantry.

Specialization and formalized doctrine reduced the abstract differences between the Nadzab and Mediterranean airdrops. The paratrooper drops in both theaters were similar in concept because they were based on the same doctrine. Leadership advocated for the use of airborne assault in both theaters, especially in Europe, where troop-carrier leaders viewed their primary mission as training for or executing paratrooper missions in accordance with doctrine. The concrete conditions that affected the airdrops' execution became the dominant variable because doctrine had already eliminated the possible abstract differences.

In contrast, ambiguous doctrine and a lack of required specialization allowed the airland at Wau and in the Mediterranean to diverge over abstract conditions. Specialized doctrine did not constrain leaders in the SWPA, and they had the freedom to conceptualize and adapt airland to their needs. Also, they were able to advocate for their version of airland because existing doctrine did not rule it out. Thus, the adaptability of airlift methods became a function of the specialization required. Greater specialization yielded less latitude for adaptation.

### ***Contributions***

Regarding contributions, the 317th TCG's actions in both the Battle of Wau and the assault at Nadzab directly contributed to success at the engagement,

campaign, theater, and institutional levels. Part of this is because both case studies have significance across multiple levels. The men of the 317th TCG successfully employed airland and airdrop on an almost daily basis to contribute to the outcome of specific engagements or to meet campaign or theater objectives. However, only a handful of these moments transcended the war to provide a more enduring legacy. The Battle of Wau and the airdrop at Nadzab represent two of these moments.

The ability of the airlift efforts at Wau and Nadzab to transcend the war is a function of their uniqueness compared to similar events in the European theater. In turn, the uniqueness that provides the institutional utility of these events stems from the abstract and concrete differences in the conditions between the SWPA events and their counterparts on the other side of the globe. If the Mediterranean paratroop drops had been more successful or if the same material conditions had hampered the Nadzab drop, the 317th TCG's actions would not have had the same effect on the deliberations of the Swing Board. Perhaps if the earlier airdrops had been more effective, General Eisenhower would not have felt the need to convene a board to assess the viability of the airborne concept in the first place. Either way, the role of the 317th TCG in preserving the airborne division concept would have been either reduced or eliminated. Similarly, if leaders in North Africa and Sicily had embraced ideas about the use of airland similar to those of General Kenney and General Whitehead, their actions would have reduced the exceptionality of its use at Wau. If this were the case, the 317th TCG's execution of the airland operations would not represent the culmination point of a developing concept, and, therefore, would not have had the same lasting impact beyond the war.

## Implications

### *Doctrinal Concepts*

The 317th TCG's actions in the Battle of Wau or the assault on Nadzab conform closely to today's concept of an airlift combat-employment mission. Current US joint military doctrine outlines that "[t]he basic mission of airlift is passenger and cargo movement. This includes combat employment and sustainment, AE, special operations support, and operational support airlift."<sup>3</sup> It goes on to explain, "Combat airlift missions are missions that rapidly move forces, equipment, and supplies from one area to another in response to changing battle conditions. Combat employment missions allow a commander to insert surface forces directly and quickly into battle and to sustain

combat operations.”<sup>4</sup> The phrase “directly and quickly into battle” marks the important distinction that differentiates combat employment from other airlift missions. It also separates the use of airland in the Battle of Wau from any of the previous airland actions in either theater.

The 317th TCG’s role in the SWPA highlights additional similarities to current doctrine. Today’s joint doctrine for air mobility operations asserts that “[t]here are two basic methods of delivery: airland and airdrop.”<sup>5</sup> It explains that with “the airland delivery method, airlifted personnel and materiel are disembarked, unloaded, or unslung from an aircraft after it has landed or, in the case of vertical takeoff and landing aircraft, after it has entered a hover.”<sup>6</sup> Subsequently, with “the various airdrop methods, airlifted personnel and materiel are deployed from aircraft still in flight.”<sup>7</sup> The doctrine highlights, “another important aspect of combat employment and sustainment is the concept of forcible entry. In performing this mission, airlift forces are usually matched with airborne, air assault, light infantry, or special forces specifically designed for delivery by air. This mission normally involves inserting airborne forces via airdrop; however, carefully planned airland assault operations can be equally effective.”<sup>8</sup> Today’s two methods of airlift delivery and the forcible-entry concept offer no substantive differences with the ideas presented in troop-carrier doctrine in 1943. The current doctrine also alludes to the specialization required for airborne operations discussed earlier. However, the larger point to recognize is that the troop carriers’ performance at the Battle of Wau and the assault on Nadzab represents the first successful execution of combat employment via airland and airdrop respectively. Together they represent the origin point of today’s combat employment mission. From here, we can see the doctrinal persistence and recurring themes of this application of airpower.

### ***Evolution***

In some ways, the story of the 317th TCG in the Battle of Wau and the assault on Nadzab has been a story of problem solving. Operating in the harsh terrain of New Guinea represents the crux of the problem, and both cases examine Allied attempts to resolve the tension between specialization and limited resources to substitute airlift as a solution. The technology of the C-47 facilitated that solution. There is nothing new here, nor is it exclusive to the SWPA. General Eisenhower famously observed the LST or landing ship, tank,<sup>9</sup> and “four other pieces of equipment that most senior officers came to regard as among the most vital to our success in Africa and Europe were the bulldozer, the jeep, the 2½-ton truck, and the C-47 airplane. Curiously enough, none of these is designed for combat.”<sup>10</sup> In that vein, the use of C-47-equipped

troop-carrier units to solve the problem of terrain in New Guinea proves consistent with the work of science and technology theorists Wiebe Bijker, Thomas P. Hughes, and Trevor Pinch. They explain, “technological systems solve problems or fulfill goals using whatever means are available and appropriate; the problems have to do mostly with reordering the physical world in ways considered useful or desirable, at least by those designing or employing a technological system. A problem to be solved, however, may postdate the emergence of the system as a solution.”<sup>11</sup> This is the case of the 317th TCG in 1943.

### *Legacy*

This has not been a story about the C-47 or troop carrier aviation. At its core, this has always been a story about people and human actions. To understand the origin of today’s combat airlift with its concepts of combat employment and forcible entry, we must first understand the people who helped bring it into being. That is why the author constructed the narrative of the Battle of Wau and the assault on Nadzab from the perspective of the 317th TCG. The narrative offered insight into the identity and circumstances of these men, and explained why they succeeded in this innovation at *this* point in history, as opposed to another group at a different time and place.

Airlift played a decisive role in the Battle of Wau and the assault on Nadzab, but the story is never that simple. It was not airlift concepts, nor the C-47, nor a specific decision by a leader, nor the conditions of New Guinea, nor the capability of the 317th TCG, which answers the question. The confluence of all these things shaped the actions of the men of the troop carrier group. It was these men and their actions that helped stem the tide of Japanese aggression, aiding the first steps toward victory. Their efforts facilitated a turning point in the war and helped lead to General MacArthur’s triumphal return. Beyond that, their actions in the airdrop at Nadzab helped preserve the airborne as a military institution, and with the airland at Wau, they solidified concepts that continue to underwrite US force projection and war fighting today. These were the long-term impacts of the 317th TCG’s experience in the Southwest Pacific during World War II. This is their legacy.

## **Epilogue**

Some of the themes evident in this work connect to themes present in a larger study of airpower. Of these, four stand out as the most important: the

significance of airfields, joint and combined operations, threat mitigation, and the role of training.

The Battle of Wau and the airborne assault at Nadzab were designed to retain or seize an airfield for a larger purpose beyond that immediate engagement. The unique terrain of New Guinea forced a substitution of air transport for ground transport because using air lines of communication proved more efficient than using those on the ground. This choice elevated the significance of controlling airfields to equate with controlling the high ground or important crossroads in land warfare or straights and harbor entrances in sea warfare. The possession of airfields drives strategy and makes things possible in these cases. In this way, New Guinea in 1943 serves as a microcosm of the Pacific during World War II. Most of the fighting aimed at the control of various islands, not because of their inherent value, but because of the airfields they contained, and the corresponding strategic actions that they enabled. Guadalcanal proved valuable because of Henderson Field, which allowed land-based airpower to either threaten or protect the line of communication between the United States and Australia. Tinian and Saipan held significance because B-29s operating from airfields on those islands could strike targets on the Japanese home islands. Much of the “island-hopping” that the Allies pursued in both the SWPA and the central Pacific sought to move the “bomber line” closer to Japan.

The Battle of Wau and the airborne assault at Nadzab offer compelling examples where success on the battlefield hinged on successful joint and combined cooperation. Necessity and leadership precipitated a helpful combined environment in New Guinea. Both cases integrated American airpower and Australian ground forces, with support from specialized units from both nations. The relatively low strategic priority of the SWPA influenced the type of resources available for these two engagements. Necessity, based on resources, forced a high degree of cooperation between the two nations. The Australians needed American airpower to reinforce Wau and provide mobility at Nadzab. The Americans, at the time, had limited ground forces in the theater, already being used elsewhere, and therefore, were unavailable for these operations. Leadership also helped ease the friction; General Vasey (AA) worked directly with Colonel Kinsler to articulate the need for the entire PIR to seize Nadzab. The Australian leaders noted Whitehead’s initiative and proactive support of their efforts. While not entirely frictionless, the spirit of cooperation between the Allies in New Guinea appears in stark contrast to the degree of rivalry and competition among the Allies in the European theater.

Both the Battle of Wau and the airborne assault at Nadzab were inherently joint endeavors. Airpower was the only means of delivering men and materiel

necessary to hold the Wau Drome, but the transports relied on the ground forces to secure the airfield and suppress the enemy threat to allow operations. Without either joint partner, the operation would have failed. At Nadzab, the paratroopers needed airlift for mobility to the objective, and the troop carriers required ground forces to seize and open the airfield for the follow-on airland of the Australian division. This operation takes on another level of cooperation when viewed in conjunction with the amphibious landing near Lae as the two arms of the pincer movement to envelop the Japanese. Both the Wau and Nadzab cases evidence a symbiotic relationship between air and ground forces intrinsic to the combat-employment mission.

The inherent jointness of the combat-employment mission resonates with the centrality of airfields to strategy in the Pacific. Most airfields required cooperation between air, sea, and land forces to seize control, and secure them for continued operations. The importance of the airfields also illuminates a paradox for airpower leaders. On one hand, they wanted to extend the range of their bombers to hit strategic targets and provide a decisive result to the war to validate their case for an independent service. On the other hand, to extend their range eventually to strike the Japanese home islands, they had to rely almost entirely on joint operations to gain access to the necessary airfields that would provide the desired range. In this way, many airpower leaders saw joint operations as a short-term means to an independent, long-term end.

The Battle of Wau and the airborne assault at Nadzab demonstrated effective force packaging. In both cases, the Japanese held general air superiority over the objective areas. However, by force packaging the troop-carrier formations with an appropriate number of escort fighters, the Allies were able to exercise temporary localized command of the air when and where they needed it to achieve their objectives at Wau and Nadzab. The air armada over Nadzab included bombers to reduce the threat posed by Japanese ground forces to the transports and paratroopers. This force packaging facilitated success in the operations in the SWPA while the lack of it impeded operations in the Mediterranean. French fighters forced down, and anti-aircraft fire damaged, many of the transports in the airdrop in North Africa because of the lack of force packaging to neutralize these threats. In the Sicily airdrops, both friendly and enemy anti-aircraft fire undermined the effectiveness of the airdrops. This idea of force-packaging fighters and bombers with troop-carrier formations echoes J. F. C. Fuller's idea of the relationship between the physical elements of war. Fuller identifies a tension between offensive action and security that, if resolved in a cooperative manner, results in movement.<sup>12</sup> In this case, combat employment via troop carriers acts as the offensive action that

cooperates with the security provided by the fighter and bomber escorts in the package. The result is a successful movement to seize or reinforce the objective.

The Battle of Wau and the airborne assault at Nadzab highlight both short-term and long-term implications of the role of training. In the short-term, the airdrop cases illuminate the value of training and rehearsals. The Mediterranean drops suffered from several issues, like unfamiliarity with equipment and night formation flying that were mitigated in the SWPA with training and rehearsals. Perhaps rehearsals would have led to better coordination with sea and ground forces in the area to prevent friendly fire during Husky II. The assault at Nadzab reduced the friction associated with many of these points through rehearsal and familiarization, and as a result increased the accuracy and effectiveness of the airdrop.

In the long-term, the Battle of Wau and the airborne assault at Nadzab demonstrate the effectiveness of the training pipeline. Each member of the 317th TCG came from a unique location and background. The training pipeline took men with a variety of flying experience and produced a standardized product that was able to function successfully in combat. These men had little experience outside the training environment when they left San Francisco to cross the Pacific, yet they were able to employ effectively airland to prevent the fall of Wau. The airdrop training they received stateside allowed them to take the primary role in the assault on Nadzab. At that point, training produced units as standardized products interchangeable with other units depending on the desired capability. This idea of standardized products and interchangeable parts also works at the individual level. Individual 317th TCG crewmembers were able to augment the 374th TCG after Wau. This idea also illuminates a deeper truth about the relationship between airpower and the United States.

Airpower grew as an expression of American industrial society. In both the production of aircraft and the training of aircrews, resources in the respective forms of materiel and men were brought in from a variety of locales, and the output is standardized units that became parts of a much larger US war machine. The ability to produce in a war between industrial powers then becomes a key determinant of victory. The Allies were able to produce adequate numbers of pilots and aircraft throughout the war while both Germany and Japan could not effectively continue the production of pilots in sufficient numbers, which eventually cost them necessary control of the air.

The significance of airfields, joint and combined operations, threat mitigation, and the role of training offer four themes to consider how the Battle of Wau and the airborne assault on Nadzab connect to a larger study of airpower. Combat employment represents a highly specialized mission that addresses a

specific set of circumstances. It is important to understand how opportunity, capability, and conditions and these four themes interacted in the SWPA during 1943 because they offer a starting point to think about future uses of combat employment. Historian Marc Bloch observes, “By examining how and why yesterday differed from the day before, [history] can reach conclusions that will enable it to foresee how tomorrow will differ from yesterday. The traces left by past events never move in a straight line, but in a curve into the future.”<sup>13</sup>

### Post-Script

Some of the major players in this drama lived long into retirement; others would never see the victory they worked so hard to bring about. Major Williams, who led the airdrop at Nadzab, left the SWPA in November 1943 to attend Command and General Staff College. He did not return to the 317th TCG. He died at the age of 94 at his home in Hawaii.<sup>14</sup> Captain Waldman, the commander of the 41st TCS, eventually moved up to take Williams’ position as the group operations officer. Lieutenant Faught replaced Waldman as commander of the squadron. He made it home to meet his young son. After the war, he remained in the service and eventually rose to the rank of major general and chief of staff, Headquarters Military Airlift Command.<sup>15</sup> Colonel Prentiss, the 54th TCW commander, pinned on one star shortly after the airdrop. In 1953, he retired to his hometown, San Antonio, where he was found dead one night in his backyard. He accidentally electrocuted himself while using a 220-volt circular saw.<sup>16</sup>

Flight Officer Teague, who lost his leg in the accident at Wau, returned home to Anson, Texas, and within the year successfully ran for county clerk. He went on to serve four years in the Texas State Legislature.<sup>17</sup> After the war, radio operator Corporal Schultz returned to Utah, completed school and went back to run the coal mines. After the mines closed in 1966, he became a community activist in the “war on poverty.” During his 20 years with the Salt Lake area Community Action Program, Schultz oversaw the implementation of food assistance programs, housing placement, foreclosure-avoidance counseling, and job training for low-income people in crises. An area school for underprivileged children bears his name.<sup>18</sup>

Then-Capt Joseph C. Ford, III lost his life in a crash at Finschhafen, New Guinea in May 1944. One of his engines failed on take-off. His C-47 sheared the tops of the trees for 100 yards beyond the departure end of the runway before the plane rolled left and impacted on the pilot’s side of the cockpit. Captain Ford was conscious when they removed him from the wreckage. He

died in surgery. He was buried in a squadron ceremony in the SWPA the next day. Lieutenant Dunkelberger, was flying copilot with Captain Ford, and survived the crash, but broke his arm, leg, and jaw in the accident.<sup>19</sup>

Flight Officer French returned to Sioux Falls and married the homecoming queen. They remained together for 42 years until he passed away.<sup>20</sup>

Our living connection to these events is reaching its end. The legacy of the leaders and the led of the 317th TCG, however, lives on.

#### Notes

1. Brauer and Van Tuyl, *Castles, Battles and Bombs*, 245.
2. Sowell, *Basic Economics*, 83.
3. Joint Publication (JP) 3-17, *Air Mobility Operations*, xii.
4. *Ibid.*, xii.
5. *Ibid.*, I-3.
6. *Ibid.*, xii.
7. *Ibid.*, xiii.
8. *Ibid.*, IV-4.
9. An amphibious landing craft capable of carrying troops and tanks to assault a beach-head.
10. Eisenhower, *Crusade in Europe*, 163-164.
11. Bijker, Hughes, and Pinch, *Social Construction of Technological Systems*, 47.
12. Fuller, *Foundations of the Science of War*, 146, 210.
13. Bloch, *Strange Defeat*, 118.
14. 317th Veterans Group, "Col William A. Williams."
15. Department of the Air Force. "Biography of Maj Gen Courtney L. Faught."
16. "Autopsy Ordered in Death of General," *Odessa American*, 21 July 1959, 9.
17. *Abilene Reporter-News*, 1 April 1945; and *Odessa American*, 31 March 1949.
18. "Community Activist Hal Schultz Dies," *The Deseret News*, 12 November 1993.
19. *History, 39th Troop Carrier Squadron*, May 1944.
20. Obituary, *Billings Gazette*, 30 May 2009.



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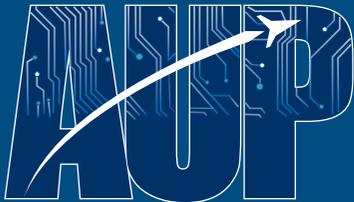
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