Wings Over Burma: 
Air Support in the 
Burma Campaign

by Troy J. Sacquety

A C-47 careens through a narrow jungle-covered valley bordered by towering mountains. The crew finally spots the ground signal, and after determining that the drop zone (DZ) is correct, the "kickers" push the cargo out the door. First, bags of rice free fall to the ground. As they land with a thud, the airplane circles for another pass. Ammunition and other supplies float to earth under multi-colored parachutes. The airplane then makes a beeline for home, keeping low to the ground while the crew watches for Japanese fighters. This was a daily event in north Burma during WWII. The following article gives a brief overview of how aerial resupply overcame the logistical difficulties of north Burma operations, and then explains how it was utilized by a specific unit, the paramilitary Detachment 101 of the Office of Strategic Services (OSS). It is relevant today because the pioneering efforts in the skies over north Burma influenced how aerial resupply would be done in numerous post-WWII conflicts.

The rugged, trackless, jungle-covered terrain that dominated north Burma made aerial resupply necessary. The lack of roads made it the best solution to meet the American-led Northern Combat Area Command’s (NCAC) logistics requirements. This was despite the Japanese air threat, which was significantly reduced when NCAC forces captured the Myitkyina airfield on 17 May 1944.1 North Burma was the one major American operational theater where aerial resupply to non-airborne ground forces was a routine practice. Cargo was delivered by the United States Army Air Forces (USAAF) in three ways; by landing and unloading an airplane at an airstrip; by free-dropping supplies; or by parachuting cargo bundles. By 1945, the ability to conduct aerial resupply in north Burma was so well-developed that the USAAF drop squadrons sustained five Chinese and one British division, the MARS Task Force, numerous service troops, and 10,000 OSS-led guerrillas.2

The USAAF accomplished this difficult task by applying modern industrial assembly-line principles. Drop crews simply could not customize each supply run. Instead, most drops consisted of standard
In operations in Burma, U.S. troops required the most expensive rations, as shown above. Other troops, such as the Chinese, lived predominately on more simple fare like rice.

Differing food items for each of the multi-ethnic Allied groups fighting in north Burma required separate rations for each. For instance, Hindu troops would not eat beef, Muslim troops would not eat pork, Chinese troops required large amounts of rice, and American troops ate pre-packaged rations. Regardless of the nationality or ethnic group they were intended for each ration had basic components. They were nutritionally balanced and had the equivalent of a grain, a vegetable or fruit, and a meat or protein. These ration loads were loaded separately into the drop aircraft depending on the receiving unit and in the order that they went out of the airplane. Free-dropped items were loaded last so they could be dropped first and not foul parachute dropped supplies.

Aircraft were loaded overnight so they could take off early the next day, drop their load, and return to conduct a second supply mission if time allowed. Not only did this enable more supplies to get into the field, but it also maximized the use of scarce drop aircraft. First Lieutenant (1LT) Bernard M. Brophy, serving with OSS Detachment 101, recalled the grueling schedule. To load the aircraft he said, “we would be down at the airstrip at about four or five o’clock in the morning.” By the time that they returned he said, “you could be out fifteen hours a day.” While the aircraft were loaded, ground crews performed maintenance checks and refueled them. Around the clock operations were necessary. The number of troops requiring support, the limited number of cargo aircraft, and the unpredictable weather—especially during the monsoon season—dictated that supplies reach the field whenever possible.

Corporal George W. Patrick of the 475th Infantry Regiment of the MARS Task Force, recalled that they received air drops every three days. But, the efficiency of the USAAF made aerial resupply look easier from the ground than it was. Getting the supplies out to the field
A B-25 Mitchell makes a supply drop to an OSS Detachment 101 group near Htinnan, Burma, in late 1943 or early 1944. B-25s were used for the more dangerous supply runs, which required a faster, well-armed aircraft.
Unbreakable and bulky items, like rice or clothing, were free-dropped. For rice, the most common practice was to sew a half-full sack weighing thirty-five pounds into a second burlap bag. This prevented the bag from “exploding” when it hit the ground. Animal feed and salt were dropped the same way. The kickers on the drop aircraft had to be especially careful when free-dropping. An errant sack could easily demolish an indigenous hut, or basha, or kill personnel and pack animals. Although most Allied troops tried to get under cover during a free drop, some Asian troops did not understand the danger. Chinese troops in particular were indifferent when trying to “steal” supplies dropped to other groups. First Lieutenant Joseph E. Lazarsky, serving as an Air Drop Officer with OSS Detachment 101 in early 1944 recalled, “You had to really train the Kachins [the north Burma ethnic group working with the OSS] that rice is coming down ... don’t try to catch it or you would be digging your own hole.” Nevertheless, he recalled that the Chinese tried to steal what they could from airdrops and often were “out there trying to catch the rice and were killed.”

*Above left, a C-47 conducts a free-drop. Below, another has landed for a medical evacuation (ambulances in foreground.) Free drops packed in burlap sacks accomodated less fragile supplies such as clothing (shown below center left) while gasoline was dropped in fifty-five gallon drums padded with rice hulls or sawdust (below center.) The "country basket," a cheap, locally produced container, was used for fragile items. A logistician packs eggs in layers of sawdust or rice hulls to buffer the landing impact (shown below center right).*
PFC Richard W. Hale, 475th Infantry Regiment, MARS Task Force. The 5332nd Brigade (Provisional), known as the MARS Task Force, was a U.S. Army Long Range Penetration Group (LRPG) that served in Burma from late 1944 through mid-1945. It was then sent to China to help train Nationalist Chinese soldiers.

The rugged terrain made collection and transportation of airdropped supplies difficult. Despite the twentieth century marvel of delivering supplies by air, ground transportation was nineteenth century. Supplies were carried by the soldiers themselves, indigenous porters, or by pack animals, usually mules. Standard twenty-five pound grain rations, supplemented with salt and minerals, were dropped to feed the mules. Generally, these techniques worked well with the conventional Allied forces in Burma.

“...don’t try to catch it or you would be digging your own hole.”

Aerial resupply was crucial to the American ground campaign in north Burma. It allowed the infantry to conduct offensive combat operations against an enemy that had to rely on ground transportation for resupply. This enabled the Allies to attack the Japanese forces far behind their lines. Private First Class (PFC) Richard W. Hale, 475th Infantry Regiment, said; “EVERYTHING came by parachute, except free dropped grain for the mules! There were times on the trail when we missed some drops and missed a meal or two, but where it was really important ... the Air Corps did a great job. We did have one complaint about the packers back in Myitkyina: We had heard that the “K” rations had changed “Corned Pork and Egg (Yuck) Yolk” to “Ham and Eggs” for breakfast, and “Hamburger” for supper instead of some potted meat. We never saw any of that. We found out later that the peckerwood packers were pulling the new rations out of the packages and saving them for their snacks, and putting the old crap in the drop packages.

Before and after photos of a basha struck by an errant drop. A falling sack of rice could easily kill a soldier or a mule.
We would have shot them if we could have. On the other hand, one time the bakers in Ledo [India] made up a ton of fresh bread, and they dropped enough in bamboo baskets that we each got a loaf!”¹¹ Aerial resupply made it possible to drive the Japanese out of Burma. Although fighting was still going on in Southern Burma and to the east near the Thai border, by March 1945—five months before Japan surrendered—NCAC conventional forces were being withdrawn for missions in other theaters. Only the American-led indigenous guerrilla troops of OSS Detachment 101 remained in Burma.

**Detachment 101**

Detachment 101 had unique supply requirements. The unit had numerous assignments behind Japanese lines. It recruited, armed, and led indigenous guerrilla troops, while its agents were the most valuable intelligence collectors on the battlefield. They regularly found hidden targets for 10th USAAF bombers and rescued downed Allied aircrews. Called “the most effective tactical combat force in OSS,” Detachment 101 was awarded a Presidential Unit Citation for its service in north Burma.¹² It was the OSS unit that most closely mirrored the capabilities found in today’s U.S. Army Special Forces Groups. Its Air Drop Section was the key element to sustaining field operations. It provided “guides” and supply kickers that flew aboard USAAF cargo aircraft.

Established late in 1943 to better resupply Detachment 101 groups behind the lines, the Air Drop Section conducted eighteen airdrops to deliver 84,000 pounds of supplies in its first two months of operations, (November to mid-December 1943).¹³ Supply requirements grew as the OSS guerrilla force expanded. By October 1944, the Air Drop Section was preparing and “kicking” more than a million pounds of supplies into the field monthly. By March 1945, the increased supply requirements of Detachment 101 caused the 10th USAAF to dedicate ten C-47s to that mission.¹⁴

Resupply began in the Detachment 101 Supply Section. Requests from units in the field were drawn out of stocks at Detachment 101 headquarters in Nazira, India, and shipped to Dinjan, where the USAAF drop squadrons were stationed.¹⁶ Later in the war, the OSS established warehouses at Dinjan to hold mission-specific and general use items. The group divided its storage facilities by the supplies or functions in each. One warehouse was dedicated for packing parachutes and bundles; two for arms and ammunition; and the remainder for other supplies which included silver Indian rupees and opium to pay the indigenous troops. Ammunition was stocked for a multitude of weapons; British .303 caliber Enfield Rifles and Bren light machineguns; .45 caliber Thompson submachineguns; .30-06 caliber M1 Garand and M1941 Johnson Rifles; .30 caliber M1 Carbines; and 9mm Sten and Marlin UD-42 submachineguns.¹⁶ This arrangement reduced the packing time. By March 1945, the Detachment had sixteen warehouses at Dinjan to store a two-month supply reserve; 2,225,925 pounds of rations and 1,000,000 pounds of ordnance and quartermaster supplies.¹⁷ These stores were often rapidly depleted. In March 1945 alone, 249 C-47s, 7 B-24s, and 9 B-25 sorties delivered 1,476,942 pounds of supplies; more than half of the on-hand reserve.¹⁸

The 2nd Troop Carrier Squadron (TCS) was one of the USAAF units that provided valuable support to
Detachment 101. The aircrews—all experienced and skilled volunteers—were given a security brief and told never to reveal the location, cargo, or personnel dropped. The role of Detachment 101 Air Drop personnel was demanding. 1LT Joseph E. Lazarsky, who directed the Air Drop Section in early 1944 before commanding a field unit, worked at the 2nd TCS headquarters at Dinjan. “I stayed with them, and I ate with them. My relationship with the 2nd was so good ... we became priority number one.”

First Lieutenant Oliver A. Ryder, another Air Drop officer who worked with the 2nd Combat Cargo Squadron in 1945, said, “I had flown a lot more than the aircrews ... simply because there was only one of me.” Ryder flew so much that the squadron’s flight surgeon grounded him because he was so worn out after more than 600 hours of flight time. While hospitalized, Ryder had a Distinguished Flying Cross with Oak Leaf Cluster pinned on his pajamas.

Supply requests from the units in the field came to Detachment 101 headquarters. From there, and depending on where the flight was to go, the orders went either to Dinjan, or to supplementary Air Drop personnel based at Myitkyina (after June 1944.) Airplanes were loaded by indigenous laborers. 1LT Bernard Brophy, working out of Myitkyina in mid-1944, balanced each unit’s ration supply on the size of the group and the time since their last drop. “We had a formula for food. We knew how much we had to get in there.” Brophy recalled, “It took a couple of hours” to pack each airplane. “Some of the things would come in
already packaged with the parachute on it. Other times we had to put it in boxes or crates, attach the parachute to it, and make sure we had the right weight. You didn't want it too heavy otherwise some of the panels on the chute would blow, come down too fast, smash-up, and ruin the drop. So, we had to be careful about that … most of the time everything went fine.”

Brophy said that the weight distribution aboard the C-47 was also a concern. “You had to make sure that you had the weight on both sides the same and not too much in the tail. You had to distribute it evenly throughout the fuselage so that you had good take offs and good landings.”

ILT Ryder, at Dinjan said, “You could not tell from one time to the next what the hell it [the load] would be.” Then, it was simply a matter of getting the aircraft into the air.

Early in the war, Detachment 101 could dedicate few personnel for door kicking. By 1944, however, there were several OSS kickers on each drop aircraft, usually an officer and some enlisted men. Ryder remembered, “We would take off before dawn. I will never forget that. I would stand between the pilot and copilot to see the beautiful dawn. It was a gorgeous and beautiful sight. They reminded me of sunrises over Nags Head, North Carolina.”

Once the drop aircraft reached north Burma, “the jungle looks all the same from up above. But, even where it was bad [no landmarks], I knew where the [OSS] guys were,” said ILT Lazarsky.

The OSS personnel on the ground were to signal the incoming drop if they had seen any Japanese fighter aircraft in the area. Otherwise, unarmed drop airplanes would have been sitting ducks if intercepted. Should the Japanese appear, the drop aircraft turned around, because it was “not worth it … you get your ass shot down and that’s it,” said Lazarsky.

This reality had been driven home on 18 January 1944. Japanese “Zero” fighters shot down three 2nd TCS C-47s as they tried to resupply Detachment 101’s FORWARD Group. Seventeen airmen and six OSS men were killed, including Second Lieutenant (2LT) Thomas R. Riley, then chief of the Air Drop Section.

By 1945, when 1LT Ryder was flying Air Drop out of Dinjan, the Allies had air superiority so Japanese fighters were not a factor. “I knew the targets, having been there more than they had. I was an aerial observer in a sense. To get to the DZ, you had to recognize certain landmarks, like rivers, landforms, and villages. You simply learned your way to the DZ. [Once] we got over the target … it was pretty much up to me. The pilots would fly circles over the area and make runs … one, two, three, four. You kind of half-ass knew when to get it out the door. We knew when we were in the target area and you just give the green light kick signal and out it would go. It was reasonably accurate,” said Ryder. The regularity of the runs enabled him to recognize particular OSS men on the ground. ILT Daniel Mudrinich, “was always standing out on the dropzone. I got to know him as a little black haired kid. I would stand in the door and have the pilot make another pass to wave goodbye and he would wave back. I got to know him through those drops.” It was only years later that the two met one another at a postwar reunion.

1LT Brophy, flying Air Drop out of Myitkyina in mid-to-late 1944, had shorter flights. “It would take maybe six to eight hours off the airdrop time. Guys were only 150 or as close as 25 miles away … It made it a lot easier to get stuff to them,” recalled Brophy. However, there could also be problems during an airdrop. “The pilots were good. They knew how to come into the DZ and how to maneuver the airplane to keep the tail up, so that the stuff going out the door did not hit the tail. With a new pilot the stuff going out would hit the tail and [the wind would cause it to] hang there … until he slowed the plane down to a point that it would fall off.”

Tremendous wind gusts, especially over mountainous terrain, caused other problems. Brophy recalled, “Sometimes it got a little tricky. You would be carrying a bag of rice and hit a downdraft. The bag of rice would go up in the air and you could hold it up with one finger. On the other hand, you'd hit an updraft and [the rice sack]...
...the stuff going out the door would hit the tail and hang there...until the pilot slowed the plane down to a point that it would fall off.”
that happened, we were on our own. We had to hang on with our arms. One of the kickers got his foot caught [in the cargo] and he starting to go out of the plane. I reached out and was lucky. I grabbed him around his waist and held on for dear life. At the last minute his foot released from the cargo,” said Banker. “He could have been pulled out of the door. We had no parachutes because they would have been in the way.”37 No matter what might occur on a drop, after it was finished, the kickers went back to base, got some sleep, because “early the next morning you were doing the same thing,” recalled Brophy.38 Most drops were done in daylight, but some were made at night.

Night drops required more preparations by the receiving personnel. On 9 March 1944, during the Myitkyina campaign, the FORWARD Group desperately needed a resupply drop. That night, the OSS personnel positioned kerosene by their campfires to quickly raise the flames when the drop aircraft were heard approaching. As the group was sitting down to eat at dusk, the airplanes showed up. 1LT Daniel Mudrinich wrote in the group’s daily log, “They had a little trouble at first. They were circling way east of us. Finally, the third [C-47] saw our fires and panel. He let go with a free drop which went well beyond the target. I got a flashlight and redirected them … It took over 30 minutes for the entire drop to come down. All hands worked until 10 P.M.,” to collect the supplies. By noon the next day, Mudrinich reported that all loads had been stored away and that “everyone was tired as hell.”39

Detachment 101 elements inadvertently performed Civil Affairs. The indigenous people had been unable to obtain basics like cloth, salt, and yarn since the Japanese invasion in 1942. The OSS included these basic essentials in their supply requests and endeared themselves to the locals. The drop parachutes were often “gifted” to the people as thanks for supporting the Allies. These simple presents greatly helped the Allied effort.

Aerial resupply was the lifeline for Detachment 101 of the OSS. Operating in enemy-occupied territory, the group could not rely on the local population for support.

“A USAF C-47 ‘buzzes’ the field after completing a drop to a Detachment 101 group in Burma, 1944-1945.
Detachment 101: Air Drop by the Numbers...

1. Supply warehouse at Detachment 101 Headquarters in Nazira, India.

2. Air Drop personnel pack supplies outside an improvised warehouse.

5. Technical Sergeant Steven J. Wargo (center facing) checks drop containers at Nazira, India, (late 1943). These were later replaced by more economical and practical versions.

6. Detachment 101 personnel load cargo into a C-47 Skytrain.

9. OSS personnel demonstrate how they pushed supplies out of the aircraft. Notice there are no safety straps and the parachute is simply boxed.

10. Two supply bundles for an OSS Detachment 101 group float to earth in north Burma, 1944.

12. An ammunition crate after landing. Note how the “boxed” parachute was secured to the crate.
While logistics in Detachment 101 got little recognition, aerial resupply was the unit’s most dangerous mission. The vast majority of fatalities in Detachment 101 were from aircraft accidents. Of these, most were personnel involved in supply drops. Without its Air Drop Section, Detachment 101 could not have armed and supplied the 10,000 indigenous troops fielded in early 1945.

Aerial Resupply Costs in Burma

Aerial resupply solved many Allied logistical problems in Burma and helped to end the war there much sooner. But, it came at a high cost. American nylon parachutes cost $72.00 in 1945 (the equivalent of $860 in 2008 dollars). Even with burlap parachutes, the price to air drop a ton of supplies—without including the average flight costs of $1,285 per sortie ($15,300 in 2008)—was $1,909.65 (or $22,800 in today’s dollars). Free dropping supplies—excluding the sortie cost—was only $94.07 ($1,123 today). Considering that 30,000 tons of supplies were parachuted, another 33,000 free dropped, and 90,000 tons air landed by the USAAF supporting NCAC from April 1943 to March 1945, it was expensive, but vital.

Special thanks go to Detachment 101 veterans Harold “Bud” Banker, Joe Lazarsky, Oliver “Red” Ryder, Daniel Mudrinich, and Bernard Brophy; and to MARS Task Force/475th Infantry Regiment veterans Richard W. Hale and George W. Patrick for their time, assistance, photographs, expertise, and help. Thanks also go to William Chandler, Mrs. Zafero Tsikerdanos and to Brian’s Squadron Patches of WWII at www.Fly.To/WWII for use of photos and patches.

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Endnotes


3 Romanus and Sunderland, Stilwell’s Command Problems, 104-106.

4 Bernard Brophy, telephone interview by Dr. Troy J. Sacquety, 9 April 2008, Fort Bragg, NC, digital recording, USASOC History Office Classified Files, Fort Bragg, NC.

5 George W. Patrick, interview by Dr. Troy J. Sacquety, 23 April 2008, Fort Bragg, NC, digital recording, USASOC History Office Classified Files, Fort Bragg, NC. Patrick was an infantryman in B Company, 1st Battalion, 475th Infantry Regiment. The MARS Task Force was the second American Long Range Penetration Group in Burma. Merrill’s Marauder’s was the first.

6 Romanus and Sunderland, Stilwell’s Command Problems, 99-100.


9 Joseph E. Lazarsky, interview by Dr. Troy J. Sacquety, 26 March 2008, Middleburg, VA, digital recording, USASOC History Office Classified Files, Fort Bragg, NC.

10 Romanus and Sunderland, Time Runs Out in the CBI, 97.

11 Richard W. Hale, e-mail to Dr. Troy J. Sacquety, 3 April 2008, subject MARS Task Force, USASOC History Office Classified Files, Fort Bragg, NC.


15 Harold “Bud” Banker, telephone interview by Dr. Troy J. Sacquety, 14 April 2008, Fort Bragg, NC, digital recording, USASOC History Office Classified Files, Fort Bragg, NC. Banker was the Non-Commissioned Officer in charge of the Nazira supply warehouse in India.


19 Dow S. Grones to Quinn, “Air Drop and Air Activities, January Report,” 30 January 1945, F 20, B 34, E 190, RG 226, NARA.


21 Oliver A. Ryder, telephone interview by Dr. Troy J. Sacquety, 9 April 2008, Fort Bragg, NC, notes, USASOC History Office Classified Files, Fort Bragg, NC.

22 Ryder interview, 9 April 2008.


26 Ryder interview, 9 April 2008.

27 Lazarsky interview, 26 March 2008. Joseph Lazarsky was later awarded the Distinguished Flying Cross for actions in Burma for taking the controls of a damaged C-47 from a wounded pilot.


30 Ryder interview, 9 April 2008.

31 Ryder interview, 9 April 2008.

32 Brophy interview, 9 April 2008.

33 Brophy interview, 9 April 2008.

34 Brophy interview, 9 April 2008.


36 Brophy interview, 9 April 2008.

37 Banker interview, 14 April 2008.

38 Brophy interview, 9 April 2008.

39 FORWARD Daily Log January 23 to April 8 [1944], 9 March [1944], copy in author’s possession.