The Ledo Road

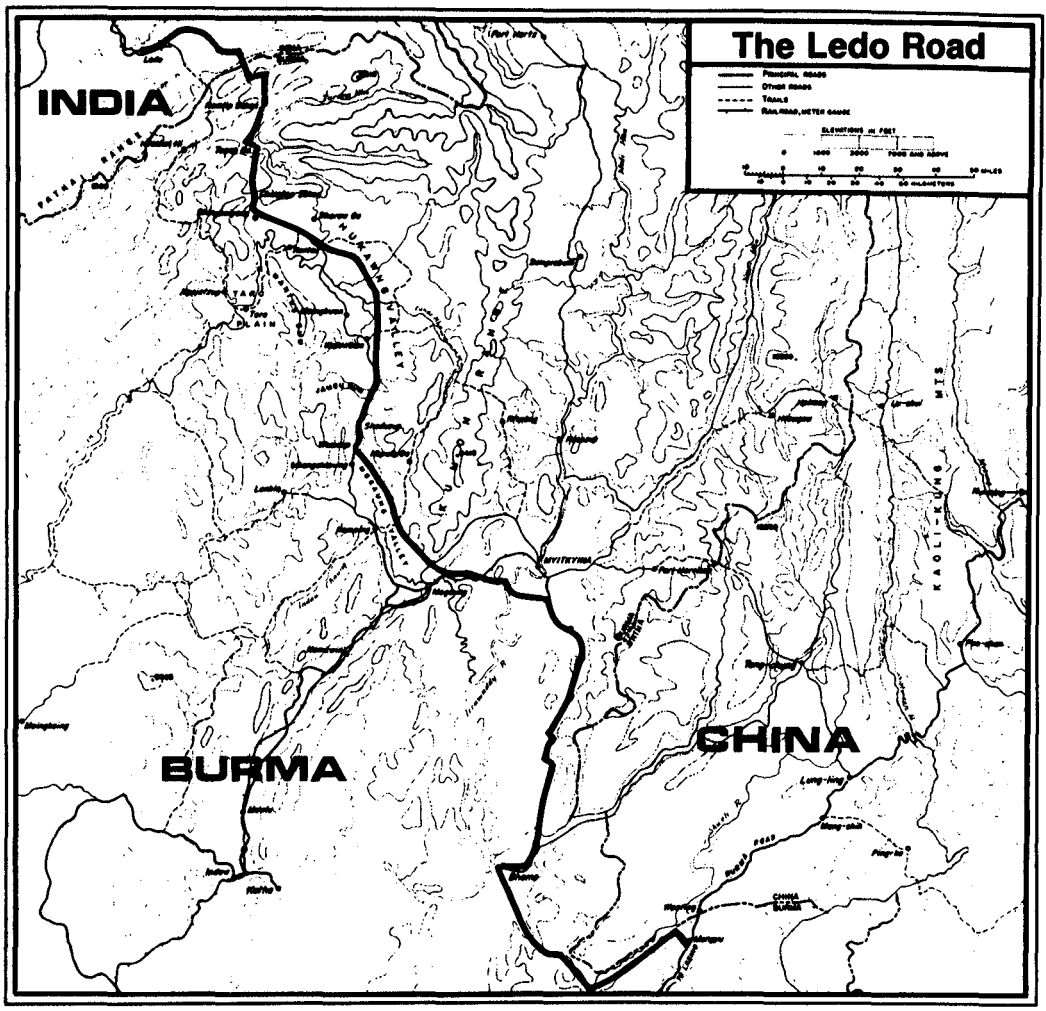
by James W. Dunn

The United States began to help China defend itself against Japanese aggression even before the attack on Pearl Harbor. President Franklin Roosevelt approved lend–lease aid for China in April 1941, and in June the United States began sending fighter planes, spare parts, and gasoline. The War and Navy departments also released over 100 pilots to form the American Volunteer Group, popularly called the Flying Tigers. A month later, the War Department established an American military mission to oversee the aid.

Approving aid to China was one thing, but getting it there was another. Japan had already seized China's coastal provinces and the Japanese move into northern Indochina in September 1941 had cut the railroad from there to Yunnan Province. That left the route from Rangoon in Burma to Yunnan as the only land supply line available to the Americans. When the Japanese threatened that route, Brigadier General John Magruder, the United States lend–lease administrator in China, sent engineer Major John E. Ausland to look for an alternate route to China from India through northern Burma. Ausland reported that the terrain there was very difficult, especially in the Patkai Mountains along the Burma–India border.

When America's entry into the war brought a request from Generalissimo Chiang Kai-shek for an American general officer to be his chief of staff, the United States sent Lieutenant General Joseph W. Stilwell. He was also named Commanding General of the United States Army Forces in the China–Burma–India theater of operations (CBI). It was as chief of staff that he first got involved in theater operations.

The Japanese seized Rangoon in March 1942 shortly after Stilwell arrived, and Chiang sent Chinese troops into Burma. He asked Stilwell to coordinate their use with the British, who were responsible for the defense of the area. This first Burma campaign was a losing effort.



The Ledo Road

Stilwell walked out of Burma in May 1942 bringing with him to India the remnants of two Chinese divisions. He still had the mission of supporting China, but he no longer had a land supply line; the Japanese offensive had cut the Burma Road. Stilwell would have to clear a path for a new road right through the terrain Major Ausland had found so difficult. Only now there was an additional challenge; the Japanese occupied most of the terrain.

By the fall of 1942, Stilwell had a plan. The British agreed to a North Burma campaign to clear the road route and assigned the area to Stilwell. In November Chiang Kai-shek approved the use of the Chinese forces and named Stilwell their commander. General George C. Marshall, Chief of Staff, U.S. Army, promised Stilwell priority for troops and equipment second only to the North African campaign, but soon found he could not keep that promise.

General Stilwell's operations officer, Lieutenant Colonel Frank D. Merrill, recommended building a road from Ledo in Assam Province, India, south and east across northern Burma to a junction with the old Burma Road. The new road would support a North Burma campaign and, when linked with the old, provide a land supply line to China. Merrill chose Ledo because it was near the terminus of the rail line from Calcutta and was at the northern end of a caravan route out of Burma. The concept was for U.S. Army Engineers to build a road generally following the caravan route from Ledo south through the Patkai Mountains and the Hukawng and Mogaung valleys, to connect with the old Burma Road east of Bhamo.

The proposed route for the road went through some of the most difficult terrain in the world. The triangular-shaped territory of northern Burma included jungle-covered mountains and swampy valleys. It was virtually uninhabited with the major towns being nothing more than frontier posts. The mountains, offshoots of the Himalayas, were formidable land barriers that rose to heights of 8,000 to 10,000 feet. The Hukawng and Mogaung valleys were tropical rain forests, dark and silent, with matted undergrowth where the clearings were really swamps covered with elephant grass 8 to 10 feet tall.

According to Dr. Gordon Seagrave, the famed "Burma Surgeon," this unattractive area was the ancestral home of the leech. He found three major types: big brown ones on the ground, red ones in the elephant grass, and green on the tree branches. While the leeches were pests, the malaria-bearing mosquitoes and typhus-carrying mites could be deadly in the absence of strict preventive medicine measures.

There are two seasons in northern Burma, wet and dry. The wet monsoon season lasts from May to October when the rainfall is heavy, averaging 140 inches in the mountains and 120 inches annually in the valleys. By comparison, the east coast of the United States gets about 45 inches in a year. Although the monsoon season produces hot, humid weather, the dry season is a very comfortable period of California-type weather.

While the terrain and weather were formidable barriers for the engineers to overcome, the enemy initially posed less of a problem. After the Japanese conquered central Burma

in early 1942, they consolidated their position during the monsoon season and did not move forces north of Myitkyina. Lieutenant General Renya Mutaguchi's veteran 18th Division, conquerors of Singapore, outposted the area but made no movement north in the Mogaung Valley.

The Chinese troops, who would face this Japanese force in the North Burma campaign, began training in India in the summer of 1942. To support them, General Stilwell organized a Service of Supply (SOS) under the command of Major General Raymond A. Wheeler. Stilwell had known Wheeler as one of his language students at West Point and had developed a high opinion of his engineering abilities. A career Army engineer, Wheeler had won recognition as a road-builder while commanding the 4th Division's engineers in the Argonne Forest campaign in World War I.

Stilwell made SOS responsible for construction in India and Burma. In response to Wheeler's request, the War Department sent him the 45th Engineer General Service Regiment and the 823d Engineer Aviation Battalion. The two units arrived at Karachi, India, in July. They did not have any of their equipment and had to use lend–lease stock earmarked for China, but they were on the ground, in the theater.

Wheeler established Base Section 3 at Ledo, made it responsible for building the road, and named the 45th Regiment's commander, Colonel John C. Arrowsmith, as base commander. Arrowsmith had his own 45th Regiment and the 823d Engineer Aviation Battalion begin the road project, putting them to work first building warehouses, hospitals, barracks, and base roads at Ledo. On 16 December 1942, they began building the double-track, all-weather Ledo Road. The 823d cleared a road trace and the 45th followed completing the grading and applying a metaling stone (any substance, usually natural gravel or crushed rock, used to stabilize a road surface in wet weather) to the roadbed.

The 45th began work with six D-4 bulldozers and no blades, but it managed to borrow one from a British engineer unit. As a result, the first part of the road was rather winding as the D-4 was too light for the rugged terrain and had to detour around obstacles. The 45th was also short of heavy rock crushers, but it did have 11 portables which it set up at the Tirap River near Ledo.

Bulldozers clear a slide in Burma, as engineers construct the Ledo Road.

By the first of the new year, the engineers were working around the clock and making good progress. The 823d's full complement of equipment had finally arrived and the unit pushed forward rapidly toward the Patkai Mountains. As it moved into the hills, progress slowed due to the difficult terrain. Continuous use of equipment without periodic maintenance and a shortage of spare parts contributed to the slowdown.

In February 1943, the engineers reached Pangsan Pass where rock outcroppings caused the 823d to increase its use of explosives. In one case, it was necessary to place charges 30 feet up a perpendicular rock face. Here one engineer hung by a rope lowered from the top to place dynamite that another engineer tossed up to him; an efficient but dangerous technique.

Through February, the 823d pushed for the India-Burma border. Company A broke trace, Company B put in culverts, and Company C widened and ditched the roadway. Only construction vehicles were allowed in the forward area. When Private Morris Humphrey stopped the SOS commander's jeep, General Wheeler commended him for carrying out his orders and walked the 2 miles to the roadhead. From long experience "Spec" Wheeler knew the ways and whims of engineers.

The 823d reached the border on 28 February. As the lead bulldozer crossed into Burma, a bugler sounded "To the Colors," and the 823d and the 45th Engineers held a retreat parade. Then they put up a sign-WELCOME TO BURMA, THIS WAY TO TOKYO.

In March, the Chinese 10th Independent Combat Engineer Regiment arrived at Ledo from its Ramgarh, India, training base. Without equipment, the unit was outfitted with hand tools and trucks and sent to the roadhead to help clear the trace. Later, when its equipment arrived, the 10th became one of the best construction outfits on the road.

March also brought early monsoon rains, and that meant trouble for the engineers. By the first week in April, the monsoon was in full swing. As the rains poured down, the engineers were constantly wet, equipment skidded off the road into ditches, and even pack animals could not transport food and gasoline to the roadhead. Airdrops became necessary for resupply.

The Japanese now reacted to the road construction. With the threat of an Allied offensive, the Japanese formed a second army in Burma and placed the 18th Division Commander, General Mutaguchi, in charge. Lieutenant General Shinichi Tanaka took over command of the 18th Division. Reacting to guerrilla activity by Kachin tribesmen,

Survey party on elephants passes a bulldozer on the Ledo Road in the jungles of north Burma.

small columns from the 18th moved north up the valleys from Myitkyina toward the Patkais and the Ledo Road. The Japanese had trouble with the terrain, and air strikes caused the contractors who provided the elephants for the pack trains to desert with their animals. Short of supplies, the Japanese withdrew south.

As the immediate Japanese threat subsided, General Stilwell in April moved the Chinese 38th Division from India into the northern Hukawng Valley. He there established the headquarters of the Chinese army in Burma which assumed, from SOS, tactical responsibility for the forward area, the path for the Ledo Road.

During the early monsoon, March to May, the road moved only 4 miles. The Japanese threat and monsoon rains were part of the problem but so too was a lack of maintenance. Constant use of equipment, a shortage of spare parts, and the lack of trained supply personnel resulted in significant downtime. By the time the 479th Engineer Maintenance Company arrived in May, two-thirds of the tractors and one-half of the trucks in the 823d Battalion were out of service. The 45th Regiment was in much the same shape with one-half of its tractors and two-thirds of its trucks down.

The situation on the road continued to deteriorate through the monsoon even as the engineers applied unorthodox solutions to the maintenance problem. Lieutenant Leo A. Vecellio, who had worked for his father's east coast construction firm before the war, borrowed a cargo plane to bring a load of spare parts from Lahore, India, to the 823d. He then located a tea planter's foundry where it was possible to forge and weld other spare parts.

Additional help came in the form of reinforcements. The 456th Engineer Depot Company arrived in March, and in May the 330th Engineer General Service Regiment came in and went directly to the roadhead. Even though one battalion was assigned to airfield construction in India, the arrival of the 330th had an immediate impact on the road situation.

The first thing it did was free the 45th and 823d for some welcome rest and relaxation at the Howrah rest camp in Calcutta. The 330th was full of experienced engineers and construction men. The commanding officer, Colonel Charles S. Gleim, was a construction engineer from New Jersey and had

supervised the building of the Lincoln and Holland tunnels as well as the George Washington Bridge across the Hudson River. Major Edmund H. Daves, Jr., commander of the 2d Battalion, had been a corporal in the 12th Engineer Combat Regiment in the American Expeditionary Force in World War I and was a railroad construction engineer between the wars. Many of the men were skilled hands from contracting firms and construction gangs in the Middle West. The experience factor paid huge dividends, and the 330th became one of the most reliable units on the road.

More help came when a visitor from the States overstayed his temporary duty but not his welcome. In June 1943, Captain Eugene R. Nelson arrived on a liaison visit from the Engineer Field Maintenance Office. He found the solutions to the spare parts requisitioning, storage, and distribution problems so time consuming that he did not get out of the theater until he rotated in the summer of 1945. Nelson determined that distribution suffered from a lack of trained personnel and accountability while a lack of space caused the main storage problem. Requisitioning troubles were caused by a system that was too formal.

The first thing he did was conduct an inventory which improved the stock records system and accountability. He changed the system to allow an equipment operator to obtain parts without a formal requisition, conducted a training program, and recommended storage space expansion.

However, such successes were limited and not always timely. From May to August, the road advanced only 4 miles. Eager to get through the Patkais by the end of the monsoon, Stilwell sent Colonel Merrill to Ledo to find out what was wrong. Merrill's June report detailed all the problems of supply, maintenance, and weather but was nonetheless highly critical of recently promoted Brigadier General Arrowsmith and the lack of organization on the road. In August, Stilwell went to look for himself, and he determined that Arrowsmith was not the one to aggressively push the road ahead against all obstacles. He asked General Wheeler to replace him with a "top-flight" man from the States. Wheeler obtained Colonel Lewis A. Pick.

A graduate of the Virginia Polytechnic Institute, Pick had commanded an engineer roadbuilding company in the Allied

Expeditionary Force. Between the wars he saw duty in the Philippines and was district engineer at New Orleans in the aftermath of the great flood of 1927. Early in World War II, Pick served as division engineer responsible for the entire Missouri River basin. From that job he came to the Ledo Road, where he found a situation that underscored the engineer maxim that drainage is the most important aspect of road construction. As a friend of his noted, the road had developed into a drainage project and drainage was his business.

Colonel Pick took over on 17 October 1943 and immediately set up his command tent near the roadhead. He said he had heard the same story all the way from the States that the road could not be built because there was too much rain, mud, and malaria. He said he wanted to hear no more such defeatist talk. The road was going to be built; "rain, mud, and malaria be damned."

As a beginning, he reinstated the around-the-clock schedule, dropped by Arrowsmith during the monsoon season. To provide adequate lighting at the roadhead, he stripped the rear of all generators, wiring sockets, and bulbs that could be spared. He even demonstrated how flares in buckets of oil—an old construction gang trick—could be used as emergency lighting.

In early November, General Stilwell inspected the road and told Pick he wanted a combat trail to Shingbwiyang by the end of the year. Pick said he could not build a combat trail because of the problems maintaining a narrow track in the swampy terrain, but he promised to build a military highway in that time. Stilwell approved and so, with the Chinese 10th and American 330th Regiments out in front, followed by the 45th Regiment and the 823d, 849th, and 1883d Aviation Battalions, the engineers began the 54-mile race to Shingbwiyang.

Pick first sent 2 officers and 16 enlisted men ahead to Shingbwiyang to prepare a depot. He had full confidence that he was going to get there on time, and he wanted a depot ready. Then, as more engineer units arrived, he jumped one and then another beyond the roadhead to open advanced sections, thereby getting the maximum possible use from an individual unit. In September, the 382d Engineer Construction Battalion arrived, followed in October by the 209th Engineer

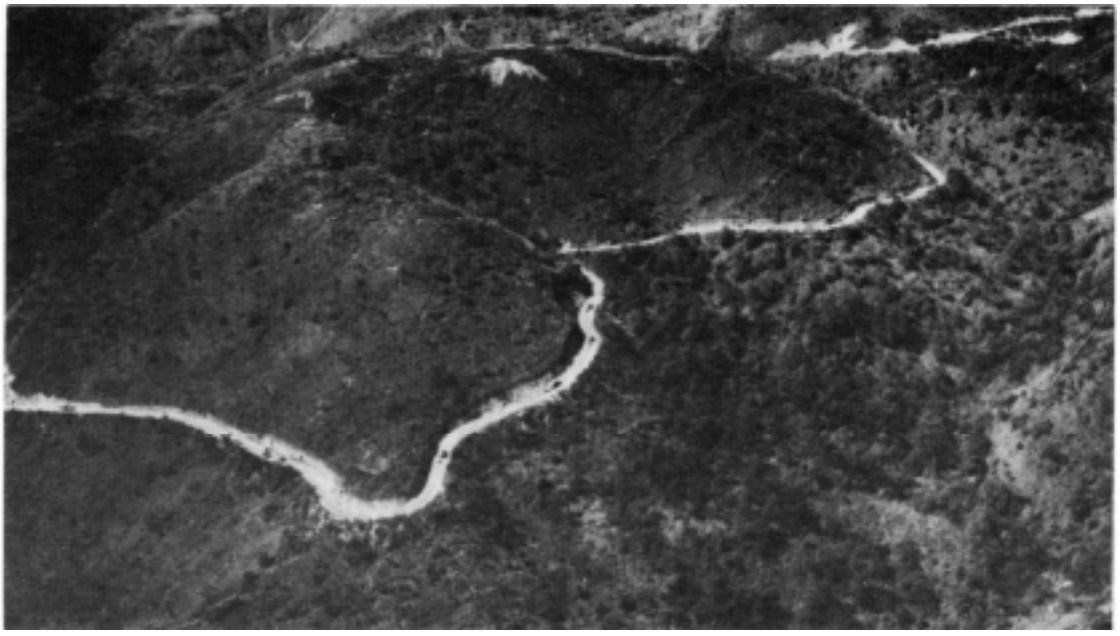
Combat Battalion, the 1905th Engineer Aviation Battalion, and the Chinese 12th Independent Engineer Regiment. By December, Pick had two more units, the 76th Engineer Ponton Company and the 236th Engineer Combat Battalion. In the meantime, he had gained an assistant, Lieutenant Colonel William J. Green, well known to sports enthusiasts as the blocking back for Red Grange at the University of Illinois in the early 1920s.

In the middle of November, the roadhead connected with an advanced section about 40 miles from Shingbwiyang, and by the end of the month had moved another 20 miles. Without the rain and the mud of the monsoon, the engineers found they could move the road about a mile a day. The good weather, new units and equipment, an around-the-clock schedule, and Pick's driving force combined to move the road along rapidly.

On 27 December 1943, five days ahead of schedule, the road reached Shingbwiyang. Finished grading and graveling remained to be done, but the 117 miles from Ledo to Shingbwiyang were open before 1 January 1944, as General Stilwell wished. Pick's celebration for the engineers omitted none of the available essentials. As he congratulated them for opening 54 miles of trace in 57 days, a convoy came rolling into Shingbwiyang with candy, doughnuts, and 9,600 cans of beer.

After reaching Shingbwiyang, the engineers' progress declined due to the tactical situation in the Hukawng Valley. In October, the Chinese 38th Division began an operation to clear the northern part of the valley, but it encountered strong opposition from the Japanese 18th Division. In late December, Stilwell assumed command of the Allied force, which now included the Chinese 22d Division. However, it was not until the first week of February that the Chinese could force the Japanese to withdraw south of the Tanai River.

With the northern Hukawng Valley cleared of Japanese, the engineers could get back to pushing the roadhead. Newly arrived units aided the drive to build as much road as possible before the monsoon arrived. In early January, the 77th Light Ponton Company joined Pick's forces, followed in February by the 71st Light Ponton Company, and the 497th Engineer Heavy Shop Company. The 497th was a unique



The Ledo Road twists its way through the Burma mountains.

organization, as many of its men came from a tractor manufacturing firm in Peoria, Illinois. Lacking cement, they fixed their heavy machine tools to wooden blocks carved from the surrounding jungle and earned a reputation for rebuilding worn parts from salvaged bulldozers and trucks.

In late January, better engineer equipment began to arrive at Ledo as a result of an October 1943 visit by Lieutenant General, and career Army engineer, Brehon B. Somervell, Chief of the Army Service Forces. During his visit, the engineers told Somervell that the D-4 tractor and the 1/2-yard shovel were too small. They asked that the table of organization and equipment for a general service regiment be changed to provide machinery of greater earth-moving capacity. Somervell agreed.

As the new equipment arrived, Pick had the opportunity to exploit fully his method of road building. With Chinese engineers out in front clearing a trace, an American engineer company followed, bulldozing the roadhead. Next an aviation battalion cleared the right-of-way to a width of at least 100 feet. Companies from a general service regiment or an aviation battalion graded sections of 10 to 15 miles and were responsible, with Chinese engineers, for installing culverts. Working with the grading units, an engineer construction or combat battalion built whatever types of bridges were necessary to span the many streams and rivers along the road

route. Finally, an aviation battalion moved in to spread gravel for the final road surfacing.

Pick no sooner got his system into high gear than the tactical situation intervened to divert significant engineer assets away from the road. In February, General Stilwell began his drive for Myitkyina, the main Japanese supply base in northern Burma that sat astride the planned route of the Ledo Road. Its seizure was the main objective of the North Burma campaign.

Stilwell planned to rely heavily in the campaign upon his U.S. Army engineers and a new infantry unit, the 5307th Provisional Composite Unit, code named GALAHAD. The correspondents referred to the latter unit as "Merrill's Marauders," after its commander, now Brigadier General Frank D. Merrill. The Marauders arrived in early February, and Stilwell sent them through the mountains to Walawbum in the southern Hukawng Valley. At the same time, he sent the Chinese 22d and 38th Divisions, supported by the Chinese 1st Provisional Tank Group under U.S. Army Colonel Rothwell H. Brown, down the valley toward Walawbum. The force in the valley needed considerable engineer support.

Stilwell wanted his valley force to use an old ox cart trail, so he directed Pick to turn it into a combat trail. Lying below the flood level, the trail had been rejected as a possible road route. Now Pick had to put his engineers to work on both the trail and the road. In early February he put the 1st Battalion, 330th Engineers, and Company A, 1883d Aviation Battalion, together with several light ponton companies, to work on the combat trail. The 76th pontoniers put a 470-foot pneumatic ponton bridge across the Tarung River and the 71st and 77th Companies built a ponton bridge of similar length across the Tanai River. To provide for aerial resupply, engineers from the 330th Regiment built a dry-weather airstrip nearby, despite the interference of Japanese artillery.

In early March, as the Marauders set a roadblock south of Walawbum, tanks and infantry attacked from the north. A detachment from the 330th, under the command of Lieutenant Albert J. Harvey, supported Colonel Brown's tanks. Harvey's force, using D-7s specially armored by the regiment's mechanics, bulldozed a path through the jungle allowing Brown's Chinese tankers to support the infantry attack

on Walawbum. It fell on 9 March as General Tanaka withdrew the 18th Division south of the Jambu Bum into the Mogaung Valley. The Hukawng Valley was open to the engineers.

As Stilwell continued his drive south into the Mogaung Valley, Pick pushed the engineers to finish as much road as possible before the monsoon arrived in May. Pick's promotion to brigadier general in February brought with it a small, single-engine airplane which enabled him to get about the road more rapidly. He also began to carry a walking stick carved from a giant jungle vine, a practice translated by the engineers into the descriptive phrase, "Pick, the man with the stick."

Pushing the roadhead, Pick rotated units to keep fresh engineers up front. Through most of March, the 45th Regiment led the way, but the 1883d Aviation Battalion moved to the point near the end of the month. After the 1905th Aviation Battalion took over in April, Company A, 330th Engineers, jumped ahead to clear a 4-mile section.

The Hukawng Valley was full of streams and rivers that required substantial bridging. In early April, Company A, 209th Engineer Combat Battalion, with the help of the 76th Light Ponton Company, built a 960-foot H-20 fixed bridge over the Tarung River while the other companies of the 209th bridged the lesser streams beyond the river. By May, Company F, 330th Engineers, had completed a 607-foot H-20 over the Tanai River.

Use of the H-20 bridge on the Ledo Road was a point of controversy with the Office of the Chief of Engineers. In January 1944, the Chief of Engineers sent a team of bridging experts to the CBI to consult with the Ledo engineers about the best bridges to use on the road. They recommended a new British-designed structure, the Bailey bridge, which was replacing the H-20 on U.S. Army authorized equipment lists. The Bailey, erected to spans of 30 to 220 feet, could be built to carry loads from 10 to 100 tons. Since the Ledo Road was being built far behind the front lines, a commercial structure —the I-beam bridge—was also suggested by the team. However, Pick opted for the H-20, arguing that the Bailey required more cargo space than the H-20 and that the I-beam could not be carried by the railway cars of India. The Chief of

Engineers accepted Pick's position and kept the H-20s coming to the Ledo Road. The only Baileys Pick used were those he got from the British in India.

The engineer successes of the dry season stretched well into May, but then came to a halt under the impact of two significant events, one predictable and the other unforeseen. The 1944 monsoon, the predictable event, rapidly gave evidence that it would be as strong as the 1943 variety. Pick decided to concentrate during the monsoon season on maintaining the road rather than suffer the frustrations of trying to forge ahead against the rain, mud, and floods.

The unforeseen event came about in late May when General Stilwell's campaign developed a need for combat engineers. Wanting to seize Myitkyina before the monsoon arrived, Stilwell sent the Chinese 22d and 38th Divisions south in the Mogaung Valley against the towns of Kamaing and Mogaung, while dispatching the Marauders and regiments from the Chinese 30th and 50th Divisions southeast across the Kumon Mountains toward Myitkyina.

As the Chinese in the Mogaung Valley pushed south against stubborn Japanese resistance, the Marauders slipped through the mountains. On 17 May they seized the airstrip on the western outskirts of Myitkyina and reached the edge of town. Company A, 879th Airborne Engineer Aviation Battalion, arrived via glider and had the airstrip ready for cargo planes that night. On 19 May, a detachment of the 504th Engineer Light Ponton Company flew in from Ledo to operate a ferry system over the Irrawaddy River southwest of Myitkyina.

Until the Chinese could seize Mogaung, Stilwell's force at Myitkyina was dependent on aerial resupply. The Japanese 56th Division on the Salween River front and the 18th Division in the Mogaung Valley had land routes to Myitkyina and could reinforce their units there more rapidly than Stilwell. By 23 May, the Japanese were strong enough to push Stilwell's force back from the edge of town and to threaten the airstrip. Needing more infantry and wanting to increase the "American flavor" in the battle, Stilwell sent in the only American combat units available, the 209th and 236th Engineer Combat Battalions.

The 209th Engineers arrived at Myitkyina on 24 May and the 236th got there by the 28th. Both units came directly from the road, and at first they were a bit rusty on the fine points of infantry combat. Catching on quickly, the 209th joined the Marauders in a 31 May operation to draw a ring around the Japanese defense system. Gaining its objective-a hamlet north of town-by 1900, the 209th then held off repeated Japanese counterattacks throughout the night.

In early June, the two battalions were formed into a provisional regiment and brigaded with the Marauders on the northern approaches to Myitkyina. The engineers attacked southward on 9 June and by the 13th were at the edge of the town. A Japanese counterattack then cut off two companies. When an initial relief effort the following day proved unsuccessful and the relief force commander was killed, engineer Captain John C. Mattina assumed command, rallied the relief force, collected the wounded, and led a withdrawal to friendly lines. After another relief effort failed, the surrounded companies successfully withdrew through the Japanese to friendly lines on 16 June.

Engineers of the 1880th Engineer Aviation Battalion scrape the thick layer of mud caused by two days of rain from a temporary bridge near Myitkyina, Burma

Repeated attacks by Stilwell's force failed to dent the Japanese defenses. When Mogaung fell on 27 June, a land route was finally open from the valley to Myitkyina and

reinforcements gradually produced a force capable of taking the town. A general offensive began on 16 July, and by the 21st the engineers were in the northwest outskirts of Myitkyina. The Japanese began to withdraw on 23 July, and with the issue no longer in doubt, the 209th and 236th Engineer Combat Battalions left for Ledo and a period of rest and recuperation.

The engineers took heavy casualties in the two-month campaign which ended on 3 August with the fall of Myitkyina. The 209th had 71 killed and 179 wounded while the 236th had 56 killed and 112 wounded. All engineer units involved in the fight at Myitkyina received the Presidential Unit Citation.

While the combat engineers were engaged at Myitkyina during the 1944 monsoon, other engineers were busy maintaining the road. As expected, the combat trail in the Hukawng Valley was soon under water and the ponton companies had to operate ferries over the numerous streams and rivers.

Keeping the road open during the 1944 monsoon required the engineers to fight what they called the "Battle of the Bridges." The first bridges to go were those over the Tarung River on 2 May. The 75th pontoniers repaired the permanent bridge while the 76th worked on the ponton bridge. In late May, the 330th Engineers built cofferdams for the Tawang and Tanai bridges as Colonel Hicks, the 330th's commander, prepared to repair expected damage caused by drifting limbs, stumps, and even whole trees. On 8 June, the surging river wrecked the Lamung River timber bridge, and Companies D and F, 330th Engineers, began a reconstruction effort immediately. In late June, the Tawang River bridge began to sag, and Companies D and F added it to their rebuilding work load. When the Numpyek River bridge gave way in early August, the 1883d Engineer Aviation Battalion happened to be working nearby. It got the rebuilding job.

Another major effort during the monsoon season was the construction of a 2-mile timber causeway required by the overflow of the Magwitang River across the road in late June. Pick brought in a drag line and a pile-driving rig and set Company E, 330th Engineers, to work on the 4th of July. Using pilings hacked out of the surrounding jungle, and

aided by two platoons from the 75th pontoniers, the company worked day and night to complete the causeway by 10 August. It stood 18 inches higher than the maximum flood level in the area.

Once the monsoon was over, Pick was ready to push the road south and east from Warazup to link up with the old Burma Road beyond Bhamo. While the Chinese 10th Engineers cleared the jungle, the 330th followed, bulldozing a trace. Behind them the 1880th Engineer Aviation Battalion did finished grading and metaling, and the 1883d and 1905th Engineer Aviation Battalions brought up the rear, performing maintenance and improvement. On 10 October, the 1304th Engineer Aviation Battalion began constructing a 560-foot Bailey bridge over the Mogaung River as the engineers pushed south out of the valley. In November, the 1875th Engineer Aviation Battalion was given the honor of linking

Construction of a Bailey bridge over the Mogaung River south of Warazup, Burma.

the Ledo Road with the road to Bhamo, a prewar, dry-weather track that ran south to the old Burma Road and needed only improvement to meet the all-weather specifications of the Ledo Road.

In mid-October, the Chinese 30th and 38th Divisions, together with the American 47th Infantry and 124th Cavalry Regiments, had begun the drive to Bhamo. It fell to the

38th Division on 15 December. The 30th Division continued the attack up the Shweli River Valley to make contact with a Chinese force that was pushing down the Burma Road from Yunnan Province.

Following close behind the attacking force were the 209th and 236th Engineers, fresh from their recuperation period after the fight at Myitkyina. While they quickly improved the Bhamo Road, the 75th Light Ponton Company built a 1,200-foot ponton bridge over the Irrawaddy River. Completed on 6 December, this 25-ton capacity bridge was at the time the third longest U.S. Army engineer structure, behind only the Union Army James River bridge of 1864 and the Third U.S. Army bridge over the Rhine in 1919.

Christmas 1944, the third on the road for the engineers, was a busy time with the Chinese and American forces pushing the attack to link up with the Chinese from Yunnan and the engineers following close behind, upgrading the final stretches of the road. However, for the men of the 1875th Engineers and the 124th Cavalry there was a brief respite. As the 124th passed through the 1875th camp, the engineers thought the cavalrymen looked as if they needed cheering up. They invited them into their camp to share the festivities of the day. Candy and cake, packages from home, PX supplies and the battalion's beer ration all combined to make it a memorable event. Then it was back to the war.

In January 1945, the 209th and 236th Battalions moved to complete the last sections of the road. When the Chinese 38th Division cleared Mongyu on 27 January, Company B, 236th Engineers, rushed in to complete the junction of the Ledo and Burma roads. That same day the 71st Light Ponton Company put a 450-foot ponton bridge over the Shweli River at Wanting on the Chinese border. The road was open.

It was none too soon for General Pick who, on 12 January, had led the first convoy out of Ledo, bound for Kunming, China. The 113 vehicles, driven by representatives of all the engineer units that had worked on the road, consisted of heavy cargo trucks, jeeps, and ambulances. Among the passengers were some 65 radio, magazine, and newspaper correspondents. The convoy reached Myitkyina on 15 January, where it stayed until 23 January because of the tactical situation. On 28 January, Pick led the convoy into Wanting where

T.V. Soong, the Chinese Minister of Foreign Affairs, welcomed him. On 4 February, the convoy reached Kunming as fire-crackers exploded, missionary nuns waved, and Chinese bands played. That night the governor of Yunnan Province gave a banquet with American operatic star Lily Pons and her husband, conductor Andre Kostelanetz, in attendance. Pick's congratulatory message to his command expressed his sincere appreciation and pride in their achievement.

By February, peace had set in along the road as the engineers improved the roadbed and emplaced permanent bridges. That month the civil government of Assam, India, established a customs house at the India-Burma border and a British staff officer from Delhi came to enter into the reverse lend-lease books the number of trees cut from the jungle. The 1905th Engineers had the opportunity to help Father James Devine, newly released from a Japanese prison camp, rebuild his St. Columba's Roman Catholic Mission in the hills east of Bhamo.

A 450-foot Bailey cable bridge supports a convoy en route to China crossing the Shweli River on the Ledo Road.

In March, Company B, 209th Engineers, completed a 450-foot Bailey suspension bridge over the Shweli River at Namhkam. They dedicated it to the engineers lost in the fight at Myitkyina.

Finally, on 20 May 1945, newly promoted Major General Pick announced formal completion of the Ledo Road, a task he called the toughest job ever given to U.S. Army engineers in wartime. Renamed the Stilwell Road at the suggestion of Chiang Kai-shek, it was known to the engineers who built it as "Pick's Pike."

Sources for Further Reading

For the campaign, see the three volumes by Charles F. Romanus and Riley Sunderland, *Stilwell's Mission to China*, *Stilwell's Command Problems*, and *Time Runs Out in CBI*, United States Army in World War II.

The basic engineer story is found in Karl C. Dod, *The Corps of Engineers: The War Against Japan*, United States Army in World War II.

The individual engineer story is available in Leslie Anders, *The Ledo Road*.