U.S. Army Medical Preparations and the Outbreak of War: The Philippines, 1941-6 May 1942*

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POLLOWING the outbreak of World War II in the Pacific, the Army Medical Department had a difficult time coping with conditions in the Philippines, where repeated enemy aerial attacks had been followed by Japanese invasion. Prewar emergency planning did enable the Army's Manila Hospital Center to care for casualties during the first two weeks of the war. However, after medics, patients, and great quantities of supplies were evacuated to Bataan and Corregidor when Manila fell, food and many medicines, including stocks of quinine to fight malaria, were left behind in the capital. Without those supplies, medics were hard pressed to treat the medical catastrophes that followed, as Japanese forces inexorably advanced on the remaining American and Filipino positions in the islands.¹

[•] This essay is based on two chapters from Mary Ellen Condon-Rall, "The Army Medical Department and the War Against Japan" (July 1986), MS at the U.S. Army Center of Military History, plus comments from members of the Research and Analysis Division and referees of the Journal of Military History. An abbreviated version of this essay was presented at the 1990 Conference of Army Historians in Arlington, Virginia. Some aspects of this paper also were presented under the title "The Army Medical Department and the Fall of Bataan" at the annual meeting of the American Association of the History of Medicine in Pittsburgh in 1979. Some of this material also will be included in Mary Ellen Condon-Rall and Albert Cowdrey, The Medical Department: The War Against Japan, to be published by the Center of Military History in 1992-93.

^{1.} Little has been written on the Army's prewar medical preparations in the Philippines and the role of those arrangements in the fall of the islands. James O. Gillespie, "Malaria and the Defense of Bataan," in John Boyd Coates and Ebbe Curtis Hoff, M.D., eds., Communicable Diseases: Malaria, Preventive Medicine in

In this essay, I will first examine pre-World War II Pacific war strategy, emphasizing medical planning and preparations in the Philippines for war. Then I will show how these arrangements affected the treatment and care of casualties after the Japanese invasion of 10 December 1941. The change in war plans in late 1941, plus America's reluctance, until too late, to reinforce the Philippines and risk a costly war with the Japanese in the western Pacific, left MacArthur's forces ill-prepared for a long siege on Bataan and Corregidor; this led to a medical disaster that contributed to the fall of the Philippines.

During the 1920s and 1930s, United States strategy for war against Japan was based on the Joint Army-Navy Basic War Plan Orange. To counter Japanese expansion in the Pacific, the Orange Plans called for the U.S. Pacific Fleet based at Pearl Harbor to isolate and harass Japan through offensive sea and air operations against her naval forces and economic lifelines. The defense of the Philippines depended on the security of Hawaii and the ability of the Pacific Fleet to sortic westward from Pearl Harbor to relieve the archipelago. Thus United States Army forces in the Philippines were assigned a limited defensive role. If war came, mobile ground troops would move to the jungles of Bataan, a mountainous peninsula west of Manila, to assist the Philippine garrison in holding the entrance to Manila Bay—Corregidor and its neighboring islands—as a base for the U.S. fleet when it finally fought its way across the Pacific.²

World War II (Washington: GPO, 1963), 497-511, examines Army prewar planning for malaria control in the Philippines and the malaria problem during the siege of the Bataan peninsula. No other published piece deals with prewar medical planning in the Philippines. Several published works consider the medical consequences of supply shortages during the fall of Bataan and Corregidor. Most noteworthy are: Louis Morton, Fall of the Philippines, United States Army in World War II (Washington: GPO, 1953); Eric Morris, Corregidor: The End Of The Line (New York: Stein and Day, 1981); James H. and William M. Belote, Corregidor: The Saga of a Fortress (New York: Harper and Row, 1967); Juanita Redmond, I Served on Bataan (Philadelphia: Lippincott, 1943); Tressa R. Cates, The Drainpipe Diary (New York: Vantage Press, 1957); Richard C. Mallonee, The Naked Flagpole: Battle for Bataan (San Rafael, Calif.: Presidio Press, 1980); Philip A. Kalisch and Beatrice J. Kalisch, "Nurses Under Fire: The World War II Experiences of Nurses on Bataan and Corregidor," Nursing Research, November-December 1976, 411. The medical annexes to War Plan Orange, found at the National Archives and used in this article, have, to my knowledge, never before been consulted. This essay is based primarily on records of the U.S. Army Surgeon General at the National Archives (hereinafter NA) and the Center of Military History (hereinafter CMH), most of which have not previously been used to relate the story of medical aspects of the fall of the Philippines.

2. Louis Morton, Strategy and Command: The First Two Years, United States Army in World War II (Washington: GPO, 1962), 21-24, 33, 43; Joint Army-Navy Basic War Plan Orange, 15 August 1924, 1-2, RG 225, JB 325, ser. 228, NA;

36 \star The journal of

No one in Washington really believed that the plan would work. The nearest American base was thousands of miles away, and the Japanese would probably control the sea and air around the Philippines. Months would pass before the defenders could be relieved. Cut off from supplies, the Philippines could not hold out for long against a superior force in control of a large area of the Pacific. An Anglo-American agreement to defeat Germany first meant there would be few troops and scanty supplies and equipment left to defend or retake the Philippines. Instead of salvation by the arrival of the fleet, defeat from starvation or at the hands of an overwhelming enemy force would be the Philippines' fate.³

Notwithstanding the lack of realism of the Orange Plans, the U.S. Army Medical Department had to gear its planning to the Orange strategy. The Orange plans assumed that the Japanese attack might come as a complete surprise, but regardless of this assumption not more than twenty days would be available to mobilize. According to the plan, upon notification that war was imminent, the U.S. Army Medical Department in the Philippines would prepare to care for casualties in Manila. The department would expand one station hospital in the capital from one hundred to three hundred beds for the reception of civilians and military patients who would not be fit for duty by M-15, and collect enough supplies to maintain the facility for thirty days after the departure of the troops. If retreat to Bataan was ordered, the department would begin the withdrawal of medical personnel and supplies to the peninsula. The Army medics also would assemble supplies and equipment ready to move to Bataan with the escaping army, relocate the staff and equipment of one general and three station hospitals to the Mariveles area of Bataan, and move the Philippine Medical Supply Depot to Corregidor. When ordered to evacuate Manila, military patients would go to Mariveles by boats furnished by the quartermaster.4 In other words, the Army Medical Department would follow the Orange strategy of moving military personnel and supplies to Bataan once Manila fell to enemy forces.

Philippine Department Plan—Orange (1936 Revision), 2, 4, RG 407, AG No. 170; G-3 Annex to Philippine Department Plan, First Phase Orange, 1936, 13, RG 407, AG No. 203X. Both in NA. Joint Army-Navy Basic War Plan Orange, 28 Feb. 1939, 2, 8, RG 407, AG No. 223, NA.

^{3.} Stanley L. Falk, "Douglas MacArthur and the War Against Japan," in William M. Leary, ed., We Shall Return! MacArthur's Commanders and the Defeat of Japan, 1942-1945 (Lexington: University Press of Kentucky, 1988), 3-5.

^{4.} War Department Concentration Plan Orange, 1940, 1, RG 407; Philippine Department Plan Orange, 1936 (Revision), 1, RG 407, AG No. 170; Surgeon, Philippine Department, First Phase Plan Orange 1933, 2, RG 407, AG No. 187; The Philippine Department Plan, First Phase—Orange, 1936 (Revision), 12-13, RG 407, AG No. 200X, altered the timing of the setting up of General Hospital No. 1 at

Since Bataan was known to be highly malarial, plans were made for prophylaxis, mosquito protection, and mosquito control. Antimalarial supplies were to be stored there, but no malaria control organization was to be established. Instead certain medical personnel would be relieved of other duties to handle malaria control.⁵ Malaria control planning for Bataan was as unrealistic as military planning. Before World War II medical authorities found it economically unfeasible to control malaria on Bataan, where parasites and mosquito vectors, the twin preconditions to transmit malaria, existed in great numbers. To break the well-known life cycle of the malaria parasite on such a large scale seemed insurmountable and was not attempted. Military medical authorities in the midst of battle would be equally, if not more, unable to control malaria. Moreover, at the beginning of World War II, many medical authorities knew little about malaria's potential for disrupting military operations, and, according to one authority, "the U.S. Army had not developed the mechanics and procedures for controlling malaria among large bodies of troops in highly endemic areas." To expect the army to control malaria in a hyperendemic area like Bataan without an organization of technical experts to guide them was absurd.6

General Douglas MacArthur never accepted the defeatist attitude inherent in the Orange plans and presumed his forces would not have to retreat to Bataan. Defense of the Philippines rested with the peacetime garrison of ten thousand men plus the Philippine Army, which MacArthur had been building and training since 1936. Although deficient in supplies, MacArthur expressed confidence in the Philippine Army's ability to defend the islands. The addition of B-17 bombers would enable him to defeat the enemy on the beaches rather than withdraw his troops to Bataan, and he made little effort to prepare the peninsula for defense.⁷

Mariveles to M-10. By M-60 this hospital was to be prepared to care for twenty-six hundred patients as the situation demanded. All plans in NA. Station hospitals served local and ordinary needs, treating patients with minor ills and injuries only. General hospitals served general and special needs, treating severe or obscure diseases as well as patients who needed complicated surgery.

38 ★ THE JOURNAL OF

^{5.} Surgeon, Philippine Department, First Phase Plan Orange, 1933, 2, 3, 5, Exhibit E.

^{6.} Paul F. Russell, Malaria, an Account of its Cause, Cure and Prevention (Manila: Bureau of Printing, 1931), 37. Quotation from Thomas A. Hart and William Hardenberg, "The Southwest Pacific Area," in Ebbe Curtis Hoff, M.D., ed., Communicable Diseases, Malaria, vol. VI, "Medical Department, U.S. Army," subseries, Preventive Medicine in World War II (Washington: GPO, 1963), 513. Also, see Mary Ellen Condon-Rall, "Allied Cooperation in Malaria Prevention and Control—The World War II Southwest Pacific Experience," in press at The Journal of the History of Medicine and Allied Sciences.

^{7.} Falk, "Douglas MacArthur and the War Against Japan," 3.

His optimism affected the mood of many in Washington and led to the formulation of Rainbow 5, a new strategy that superseded Orange. The War Department's Rainbow 5 assumed that the United States, allied with Great Britain and France, would fight Germany and its Axis partners. This was the plan in effect when the Japanese attacked Pearl Harbor on 7 December 1941, bringing the U.S. into the war.⁸

Rainbow 5 had expanded the Army's role in the Philippines from protecting the Manila Bay entrance to defending the Philippine coasts. The new strategy reflected a growing belief in the War Department, fed by MacArthur, that the islands could be effectively defended by use of the B-17 heavy bomber. Medical war planning also changed as the Medical Department centralized people and supplies around Manila rather than preparing to move to Bataan. The danger of the new arrangements was that if American and Filipino forces were defeated on the beaches and had to withdraw to Bataan after all, the department would have a difficult time evacuating medical supplies to the peninsula.⁹

While new strategic plans were being developed, the United States partially mobilized its military strength in preparation for war. From July 1940 to December 1941, U.S. Army ground and air forces worldwide increased in strength from 291,000 to 1,655,000, and during the same period medical personnel expanded from 18,088 to 131,000. Although troops, supplies, and equipment flowed into Oahu after May 1940, when Hawaii became the principal base of the Pacific Fleet, the Philippines were slow to receive reinforcements. The Tydings-McDuffie Act of March 1934, which promised the Philippines independence by 1946, discouraged military expenditures in the area, and the limited number of troops and equipment then being mobilized were needed elsewhere. Under mounting pressure from military and civilian leaders in the Philippines, Congress authorized moderate increases in the Philippine garrison (the U.S. infantry, the Philippine Scouts, coast artillery, and local defenses) in early 1941, but deficiencies in arms and equipment for defense of the Western Hemisphere, as well as the great distance between the Philippines and the United States, delayed this augmentation.10

military history * 39

^{8.} Maurice Matloff and Edwin M. Snell, The War Department: Strategic Planning for Coalition Warfare, 1941-1942, United States Army in World War II (Washington: GPO, 1953), 45; Ray S. Cline, Washington Command Post: The Operations Division, United States Army in World War II (Washington: GPO, 1951), 55-59; Mark Skinner Watson, Chief of Staff: Prewar Plans and Preparations, United States Army in World War II (Washington: GPO, 1950), 103-4.

^{9.} Watson, Prewar Plans and Preparations, 440.

^{10.} Ibid., 414, 419, 422-26, 437, 439-40. Near the end of 1940, President Franklin D. Roosevelt made the decision to defend the Atlantic first. The Atlantic first decision came to be known as the Plan Dog Memorandum of 12 November

The tense international situation in mid-1941, aggravated by Japan's establishment of bases in Indochina in July, increased War Department uneasiness about Japanese intentions and enhanced the strategic importance of the Philippines. On 26 July 1941, President Franklin D. Roosevelt created U.S. Army Forces in the Far East (USAFFE), a new Army command under General Douglas MacArthur, signalling the decision of American strategists to pursue a more determined policy in regard to defending the Philippines. Modern combat aircraft, including B-17s from Hawaii, antiaircraft weapons, men and equipment, arrived in increasing numbers. Still, reinforcement of the Philippines followed the classic prescription for defeat of too little and too late. Quantities of men and supplies were awaiting transportation in the United States or were on the seas en route to the islands when war broke out.¹¹

While the Army mobilized its meager resources in the Philippines, the Medical Department prepared for war as well. To care for the Army's sick and wounded in the event of an emergency, the Medical Department relied on regular Army medical personnel in the islands, recruits obtained locally to bring existing units to war strength, and Medical Department Reserve personnel in the Philippines who could be ordered to active duty. After mid-1941 and the War Department's heightened determination to defend the islands, some medical personnel and supplies began to arrive in the Philippines, but, like the military buildup, in insufficient numbers to counter the enemy onslaught that lay ahead.

Colonel Adam E. Schlanser, senior U.S. Army Medical Department officer in the Philippines (September 1940-September 1941), initiated medical mobilization in the islands. In the winter of 1940-41, he revised medical annexes to the War Plan of the Philippine Department (the name given to the U.S. Army Headquarters in the Philippines) which his successor, Colonel Wibb Cooper (September 1941-6 May 1942), another career medical officer, adopted and carried out. A

40 \star The journal of

^{1940.} For a discussion of the memorandum, see Ibid., 118, Chapter IV, and Matloff and Snell, *Strategic Planning for Coalition Warfare*, 1941-1942, 25-28. For an early history of the Philippine Scouts, the Filipino contingent of the U.S. Army, see James Richard Woolard, "The Philippine Scouts: The Development of America's Colonial Army" (Ph.D. Thesis, Ohio State University, 1975).

^{11.} Watson, Prewar Plans and Preparations, 439; Interview, William J. Kennard, 22 August 1942, subject: "Observations on Bataan," 1, MS CMH; Morton, Fall of the Philippines, 21, 23; Morton, Strategy and Command: The First Two Years, 98. For a detailed discussion of U.S. Army expansion in the Pacific before the outbreak of war, see Stetson Conn, Rose C. Engelman, and Byron Fairchild, Guarding the United States and Its Outposts, United States Army in World War II (Washington: GPO, 1964), 151-82; Watson, Prewar Plans and Preparations, 103-4; Matloff and Snell, Strategic Planning for Coalition Warfare, 1941-1942, 67-82.

liaison officer, who provided contact with the appropriate staff members at Philippine Department Headquarters, and later at USAFFE, aided in the development of medical plans (USAFFE plans were largely those of the Philippine Department modified to meet the war needs).

Both Schlanser and later Cooper relied on the 12th Medical Regiment, Philippine Scouts (whose officers were American and enlisted men Filipino), to prepare the islands, as well as the Philippine Army, then being organized by General MacArthur, for defense. Regimental Commander Colonel Harold M. Glattly, a fourteen-year veteran of the Army Medical Department, witnessed the growth of the 12th Medical from only 200 men before 1941 to 22 officers and 399 enlisted men by 31 July. The regiment's duties were numerous. In 1940 and 1941 they participated in maneuvers with the Philippine Division, the principal U.S. Army unit in the Philippines (which consisted of the American 31st Infantry Regiment and the 45th and 57th Infantry Regiments, whose enlisted men were regular Philippine Scouts), and, in keeping with the Orange Plans, reconnoitered Bataan in order to select sites for medical support of two major defense positions and rear-area general hospitals. They taught regimental bands first aid work (bandsmen were traditionally litter bearers), provided key noncommissioned officers for medical detachments of the expanding Philippine Army, and opened specialized schools to train officers and enlisted men of the same detachments in field medicine, medical supply, and hospitalization. For the majority of their students, these three-month courses became their only serious medical training before war came. Tactical experience would be gained in the midst of battle.12

Colonel Cooper assigned a force surgeon to the headquarters of each of the three forces of the Philippine Army stationed in Northern Luzon, Southern Luzon, and on the southern islands of Visayan and Mindanao. To offset shortages of medical personnel, local physicians and nurses were commissioned in the Philippine Army, and when war began, were inducted into the service of the United States. On the southern islands, local hospitals provided care on a contract basis to the Philippine Army. The force surgeon coordinated and supervised the arrangements of the Red Cross for the evacuation and treatment of civilian casualties in the event of air raids; those arrangements later proved workable when combat began. ¹³

^{12.} Wibb Cooper, "Medical Department Activities in the Philippines from 1941 to 6 May 1942, and including Medical Activities in Japanese Prisoner of War Camps," 20–22. MS at CMH (a copy is at the History of Medicine Division, National Library of Medicine), hereinafter cited as "Medical Department Activities in the Philippines."

^{13.} Ibid., 92-95.

The problem of maintaining enough hospital beds and equipment for an emergency preoccupied medical planners during the prewar buildup. In early 1941, U.S. Army hospitals in the Philippine Islands consisted of Sternberg General in Manila; and station hospitals located at Fort William McKinley, just south of the capital; Fort Stotsenburg, near Clark Field about 50 miles north of Manila; Fort Mills, on Corregidor; Fort John Hay, near Baguio, 140 miles north of the capital; and Fort Brent on Mindanao. Three of the station hospitals and Sternberg had dental clinics. Sternberg also had a laboratory, a veterinary section, and a dispensary service. In early 1941, these installations served approximately thirty thousand American and Philippine personnel, about one fourth of whom were dependents. 14

After planners adopted Rainbow 5 in November 1941, looking to the defense of Manila rather than withdrawal to Bataan, the Medical Department began preparations to develop a hospital center around Sternberg General Hospital in the capital. They expanded Sternberg from 450 to 800 beds and selected a number of schools, colleges, and barracks for conversion into hospital annexes in the event of war. Total bed capacity of the center was to exceed 4,600. Since the War Department expected Manila to be the target of enemy air attacks, plans also called for relocation of the enlarged Medical Supply Depot in Manila to a place outside the city. Schemes were put on paper to construct subdepots at Tarlac, Los Banos, and Cebu, but the subdepots had not materialized when war broke out. Perhaps fortunately, the change in plans came too late to permit such a wide dispersion of supplies. Outside of the capital, Cooper transformed the old hospital building at Fort William McKinley into a 250-bed station hospital with adequate medical and surgical staffs, but without up-to-date equipment; and began to build a 750-bed addition to the well-equipped 350-bed station hospital at Fort Stotsenburg near Clark Field. 15

Corregidor and Bataan also received some attention. In late 1941, Colonel Cooper guided the alteration and renovation of existing structures at Fort Mills, including the use of Malinta Tunnel as hospital space in the event of war. There was no permanent hospital structure on Bataan, but during the autumn, equipment for one general hospital of one thousand beds was stored in a warehouse at Limay on the peninsula. 16

42 \star The journal of

^{14.} Annual Report, Surgeon, Philippine Department, 1940, 1, MS, CMH.

^{15.} Cooper, "Medical Department Activities in the Philippines," 47; Charles M. Wiltse, *Medical Supply in World War II* (Washington: GPO, 1968), 399-400. See Mary Ellen Condon-Rall, "The U.S. Army Medical Department and the Attack on Pearl Harbor," *Journal of Military History* 53 (January 1989): 65-78.

^{16.} Cooper, "Medical Department Activities in the Philippines," 47.

A few weeks before Pearl Harbor, equipment for two general hospitals and five station hospitals arrived in the Philippines, the result of timely requisitions made upon the Surgeon General by Colonel Schlanser. Other supplies remained tantalizingly out of reach. When hostilities began, ninety regimental dispensaries either were being prepared for shipment or were already en route to the Philippine Islands. The same was true of new medical chests and equipment for the units of the Philippine Division, which took the field with 1917-type medical chests. Though medical units of the Philippine Army had practically complete equipment, it was obsolete, with almost no reserve, making them entirely dependent on the Philippine Department's Medical Supply Depot for replacement of all classes of items. Similarly, they depended on civilian vehicles, since they were equipped with only about onefourth of their organic transportation. Absence of a laboratory section in the clearing company of the 12th Medical Battalion seriously handicapped efforts to control and treat intestinal infections and malaria.¹⁷

By 8 December 1941 (7 December in the United States and Hawaii), the strength of the U.S. Army Medical Department, including Army Air Force medics, in the Philippines stood at 1,536, with 247 Medical Department officers, 717 enlisted men, and 572 Philippine Scouts. Medical Department personnel were about 5 percent (instead of the authorized 7 percent) of the total U.S. Army garrison which itself was 2 percent below Table of Organization levels. Upon medics would fall a formidable burden. Despite all efforts, in the Philippines as in Hawaii and at home, the buildup to meet the oncoming storm had scarcely begun. 18

On the same day the Japanese attacked Pearl Harbor, their naval and air forces struck the American territories of Guam, Wake Island, and the Philippines. At 12:20 on the afternoon of 8 December (Philippine time), more than ten hours after the attack on Pearl Harbor, Japanese bombers and Zero fighters flying out of Formosa struck Clark Field, north of Manila. They destroyed nearly all of MacArthur's air force on the ground, smashed buildings, and killed and wounded hundreds in an hour-long attack. Simultaneously, a second Japanese formation raided Iba Field, forty miles west of Clark, knocking out a squadron of P-40s returning to base, wrecking buildings, and destroying equipment. These attacks were the first of a series of air assaults on the Philippines which continued throughout the month of December. Before dawn on 9 December, the enemy struck Nichols Field near Manila with deadly results. By 10 December Japanese bombs had demolished Cavite Navy Yard leaving Admiral Hart no recourse but to evacuate the fleet. Sub-

^{17.} Ibid., 5, 22, 23.

^{18.} Ibid., 7; Annual Report, The Surgeon General, 1941, 153.

sequent raids wiped out American air power in the Philippines. Meanwhile, Japanese troops landed on Luzon, advanced quickly and forced the defenders back toward Manila.¹⁹

The first major casualties confronted by the U.S. Army Medical Department resulted from the bombing and strafing of Clark Field on 8 December. Fort Stotsenburg Station Hospital at the edge of the airfield admitted 300 to 350 victims suffering from burns, shrapnel, and bullet wounds suffered in the attack. Medical teams treated burn cases in the first aid room, while Army surgeons, working at three operating tables in a small room at the hospital, attended to the more seriously injured. As in Hawaii, the use of sulfanilamide in great quantities resulted in little infection and quick healing even of the deepest wounds. Casualties, however, soon overwhelmed this small station hospital and its staff, and Stotsenburg began to evacuate patients by train to Sternberg General Hospital in Manila twice a week. Soon numerous casualties from Iba airfield were entering Sternberg as well.²⁰

About five miles south of Manila, Lieutenant Colonel Charles H. Moorhouse, flight surgeon of Nichols Field, prepared for casualties by setting up aid stations at four key points around the field. On the afternoon of 8 December, the first air raid casualties suffering from minor wounds appeared. As casualties mounted on 10 December, Colonel Moorhouse moved into the new barracks area (when war broke out, Nichols Field was in the midst of a construction program that included barracks, quarters, hangars, and runways), and set up a field dispensary. The temporary dispensary and much equipment was strafed, and one ambulance almost destroyed. The surgeon then moved onto a road between Nichols and Fort McKinley, and operated there until the field was evacuated. For about two weeks, enemy aircraft raided Nichols Field almost daily, killing a total of 50 men and wounding 150 others.²¹

Until the annexes of the Manila Hospital Center could be established to carry some of the burden, Sternberg General Hospital, the center's main facility, admitted most of the attack victims. On 9 December, Tressa Cates, a civilian nurse at Sternberg, wrote in her diary:

44 \star The Journal of

^{19.} Morton, Fall of the Philippines, 84-87; Samuel Elliot Morrison, The Rising Sun in the Pacific, 1931-April 1942, History of United States Naval Operations in World War II (Boston: Little Brown and Company, 1963), 3:168-74.

^{20.} Letter, Willa L. Hook to P. J. Carroll, Chief Surgeon, USASOS, SWPA, 5 February 1943, subject: History of Medical Department Activities in the Philippine Campaign, 1; Catherine L. Nau, "History of the War, Philippines 1941-1945," 40. Both MSS at CMH.

^{21.} Letter, Charles H. Moorhouse to the Surgeon General, 20 January 1943, subject: Medical Service in the Philippines, December 8, 1941 to March 10, 1942, 1-3; Nau, "History of the War, Philippines, 1941-1945," 4. Both MSS at CMH.

Today was like a ghastly dream. Beds that were empty yesterday were now occupied by mangled horribly burned patients. . . . We couldn't quite believe what had happened!

As bombing raids increased in severity during the following days, wounded poured in from Iba, Clark Field, Stotsenberg, Nichols Field, Cavite Naval Base, Manila, and later from the Luzon fronts, keeping the surgical teams that Cooper had organized on the first day of hostilities busy. During peak periods, surgeons, nurses, and corpsmen slept at the hospital and often worked forty-eight hours without rest. Many of the patients suffered from severe trauma like complicated fractures, severe burns, and head wounds. Since the hospital stood across the street from Philippine Army headquarters, the medical facility observed blackout regulations every night and its personnel dug slit trenches on the grounds for the protection of their patients and themselves. The staff had the added burden of treating an ever-increasing number of victims of traffic accidents resulting from the blackout in Manila and elsewhere.²²

The city of Manila was a scene of mass confusion. Constant air attacks and rumors that the Japanese were closing in on the doomed capital accompanied mounting casualties. Traffic jams symbolized the hysteria as people tried to escape. Some indulged in wild sprees; others became hysterical. As casualties increased, hospital activities became disorganized and chaotic. While treating patients, medics experienced wailing sirens, unfamiliar lights, bursting flares, and rifle fire from troops shooting at any unusual light or sound. False reports spread of parachute invasions, gas attacks, and spy infiltrations.²³

Philippine Army physicians and dentists, trained by American medical officers of the Philippine Scouts, joined the center's staff. So did many civilian doctors and nurses who worked harmoniously and untiringly with the military for as long as the center was in existence. On 13 December the staff of the Fort William McKinley Station Hospital combined with Sternberg's when the former hospital closed down as a result of Japanese bombardment. Similarly, Fort Stotsenberg Station Hospital staff moved to Sternberg on 24 December. With the help of these reserves, the center was able to treat about two thousand military and civilian patients during the first three weeks of the war.²⁴

- 22. The quotation is from Cates, *The Drainpipe Diary*, 18; Cooper, "Medical Department Activities in the Philippines," 48-49.
- 23. W. H. Waterous, "Reminiscences of Dr. W. H. Waterous pertinent to World War II in the Philippines," 17; hereinafter referred to as "Reminiscences." James O. Gillespie, "Recollections of the Pacific War and Japanese Prisoner of War Camps, 1941–1945," 8; hereinafter referred to as "Recollections." Both MSS at CMH.
- 24. Cooper, "Medical Department Activities in the Philippines," 48-50. Records on all casualties during the first weeks of the war in the Philippines were brief as a result of the tremendous volume of work and shortage of personnel. Also, most

MILITARY HISTORY \star 45

As Manila's fall became imminent, General MacArthur declared the capital an open city and ordered the withdrawal of American and Filipino forces to Bataan. With his medical plans now gutted (there was no need for a medical center in the capital when a campaign would have to be waged on Bataan), Colonel Cooper began to evacuate medical facilities and personnel, including patients capable of travelling, to the peninsula. On the afternoon of 23 December the staff and patients of the Manila Hospital Center joined the caravan of military vans, civilian vehicles, and fleeing refugees crowding the one road leading through the city of San Fernando and south into Bataan. On Christmas Eve, Colonel Cooper left Manila to set up the office of the Chief Surgeon, U.S. Army Forces in the Philippines, on Corregidor, where MacArthur and the rest of the USAFFE staff had retreated. While the Army established two hospitals at previously selected sites on Bataan, Major Peter Kempf, Sternberg's Medical Supply Officer, moved supplies and equipment from the various annexes in Manila and from Fort McKinley Station Hospital to Corregidor Island by barge and to the Bataan peninsula by truck. He placed a medical depot a short distance from General Hospitals Number One and Number Two on the Mariveles road. Despite his efforts, Bataan was sadly lacking in supplies.²⁵

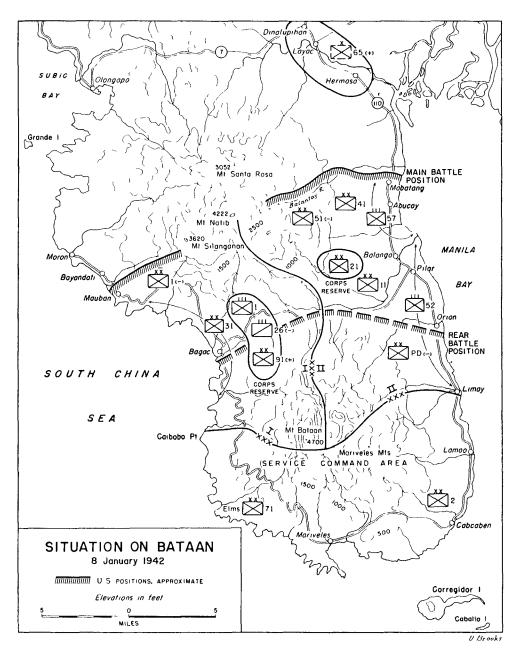
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Bataan was ideally suited for a defensive war. Mountainous and covered with jungles, the peninsula juts out from the mainland of Luzon in a southerly direction between Subic Bay and Manila Bay, with Corregidor and several smaller islands protecting the entrance to Manila Bay. Approximately twenty-five miles wide at its broadest part, Bataan is cut by many streams and steep ravines. Mt. Natib dominates the north and Mt. Bataan the south. In 1941 only one of Bataan's two roads was barely adequate for motor transport and then only in dry weather. Elsewhere the tropical jungle was practically impossible to penetrate, except by numerous trails. The topography that favored the defense meant also that the evacuation of wounded would be slow and arduous and at times virtually impossible.

46 ★ THE JOURNAL OF

medical records were lost when the boat on which they were being shipped was bombed.

²⁵ The above two paragraphs are based on: James W. Duckworth, "The Official History of General Hospital Number One, United States Armed Forces in the Far East at Camp Limay, Bataan: Little Baguio, Bataan and Camp O'Donnell, Tarlac, Philippine Islands: From 23 December 1941 to 30 June 1943," dated 23 September 1945, 1; Gillespie, "Recollections," 8; Cooper, "Medical Department Activities in the Philippines," 8, 53, 78-79; Kennard, "Observations on Bataan," 102. All MSS at CMH. Watson, *Prewar Plans and Preparations*, 440.



From Louis Morton, The Fall of the Philippines (Washington: GPO, 1953), p. 246.

MILITARY HISTORY \star 47

American forces completed their withdrawal to Bataan on 7 January 1942 and established a defense line running roughly from Abucay to Moron, about one-third of the way down the peninsula. Japanese sea and air forces controlled the base of the peninsula and its water approaches. Cut-off defenders had to be self-sufficient. There were approximately 80,000 soldiers and 26,000 civilians on Bataan. Three-fourths of the soldiers were Philippine Army troops; the rest were Philippine Scouts (18,000) and Americans (12,500). The civilians included 6,000 employed by the army and another 20,000 Filipino refugees. Supplies of food and medicine were totally inadequate for so many people.²⁶

On 7 January 1942, Lieutenant General Jonathan M. Wainwright assumed command of the Bataan Defense Force's West Sector—now redesignated First Philippine Corps (about 22,500 men), and Major General George M. Parker, Jr., took over the East Sector which became the Second Philippine Corps (about 25,000 men). The two corps divided the length of the peninsula from Mt. Natib to the Mariveles Mountains. The tip of the peninsula south of the mountains was known as the Service Command area and Brigadier General Allen C. McBride, General MacArthur's deputy for the Philippine Department, was responsible for its defense. Under General McBride's command was a variety of troops including Philippine constabulary troops, Air Corps troops, Navy personnel, and Marines. The Philippine Division was already on Bataan, having retreated there after War Plan Orange-3 went into effect on 23 December.²⁷

From 9 to 26 January, the Japanese, reinforced with supplies and troops, relentlessly attacked both First and Second Corps. Casualties were high on both sides. Army ambulances brought allied wounded to aid and clearing stations for emergency treatment. After such care, soldiers either were returned to the front or evacuated to hospitals, depending on the severity of the wounds. Casualties going to hospitals were taken to Hospital Number One, a planned complex of thirty-eight well-equipped barracks-type buildings at Limay, or Hospital Number Two, an improvised facility under tents, in dense jungle at Cabcaben. Hospital Number One, which was close to the front line, served more as a surgical facility than a general hospital, performing more than twelve hundred operations on battle casualties during this phase of the Bataan campaign. Hospital Number Two, on the other hand, treated mainly medical and convalescent patients. The Cabcaben site possessed good water, concealment offered by tall trees, and the medical supply depot

48 ★ THE JOURNAL OF

^{26.} Statistics are from Morton, Fall of the Philippines, 405.

^{27.} Ibid., 247-78; William J. Kennard, "Report on Philippine and Australian Activities," 7-9, MS at CMH.

nearby. The Philippine Army General Hospital, situated on the Cabcaben-Mariveles road, not far from Army Headquarters, was staffed by Filipinos and served the rear area of the Philippine Army. This facility and Hospital Number Two remained in place during the Bataan campaign. When the enemy overran the defense line during the last week in January, forcing the allies to withdraw to the Pilar-Bagac road, Hospital Number One moved from Limay to Little Baguio on the southeast corner of Bataan, about eight kilometers from Hospital Number Two at Cabcaben. 28

27 January-April 1942

As the area occupied by the defenders contracted, the role of the hospitals changed. Early in the campaign, medical evacuation followed standard practice. Collecting companies operated ambulance service between the various battalion aid stations and division clearing stations. As the Japanese advanced, ambulance drivers used the good road network with now shorter distances to move patients directly to hospitals. As the end approached, the two hospitals served increasingly as surgical or evacuation facilities, and provided a mélange of second echelon (division), third echelon (army), and fourth echelon (communications zone—outside the combat zone) care. The field manual's picture of general hospitals in the communications zone gave way to the reality of general hospitals serving front-line troops. At Little Baguio and Cabcaben, medical personnel rewrote the book under the goad of necessity.²⁹

Reorganization on Bataan followed withdrawal to the reserve battle position, as lesser commands were fused under the two corps commanders. From 23 January to 17 February the American positions on Bataan were under strong attack along the west coast (the Battle of the Points) and from two places along the reserve battle line (the Pocket Fights). During those battles Army ambulances evacuated casualties from those two sectors over narrow twisting trails, recently carved out of the jungle by Army engineers. Shortages of motor fuel and limited hospital facilities meant that only the seriously wounded could be

^{28.} Morton, Fall of the Philippines, 265-96; Duckworth, "The Official History of General Hospital Number One," 2; Cooper, "Medical Department Activities in the Philippines," 54, 68, 76-77; Kennard, "Observations on Bataan," 4. For a detailed discussion of malaria and the defense of Bataan, see James Gillespie, "Malaria and the Defense of Bataan," in Coates and Hoff, eds., Communicable Diseases, 4: 497-511.

^{29.} Cooper, "Medical Department Activities in the Philippines," 76-77. For a detailed description of the World War II medical evacuation chain, see Charles M. Wiltse, *The Medical Department: Medical Service in the Mediterranean and Minor Theaters*, United States Army in World War II (Washington: GPO, 1965), 3-5.

brought back to general hospitals. By mid-February, when the fighting had tapered off, the collecting stations resembled large field hospitals with hundreds of patients suffering from minor wounds, malaria, and dysentery. The Japanese withdrew to await reinforcements and let hunger and disease take their toll of the defenders before the final attack.³⁰

In early March, Colonel Cooper became Chief Surgeon, U.S. Forces in the Philippines, and appointed Colonel Glattly on Bataan Luzon Force Surgeon, when MacArthur abolished the USAFFE's advance command and created Luzon Force. Luzon Force included the troops on Bataan and those still hiding out in the mountains of Luzon. On 12 March, MacArthur left Corregidor for Australia, and five days later, Wainwright departed Bataan for Corregidor to take command of all U.S. forces in the Philippines.³¹

As Luzon Force Surgeon, Colonel Glattly concerned himself primarily with three problems: (1) ways and means of evacuating on very short notice the numerous patients located in forward medical installations; (2) allocating the scarce medical supplies, particularly quinine sulphate, where most needed; (3) combating the declining combat efficiency of the Luzon Force as a result of malnutrition, avitaminosis, malaria, and intestinal infections. Attrition in health and supplies was undermining the defenders even as the front appeared to be stabilizing.³²

The Japanese blockade of Manila Bay choked off all but a small portion of medicines, provisions, and equipment reaching American troops in the Philippines. Some supplies were flown in to Corregidor from Australia and the Netherlands East Indies, but never enough. Until March only one of the four B-17s that left Australia with a cargo of supplies reached Mindanao. The aircraft carried sixteen hundred pounds of badly needed medical supplies, some signal equipment, and spare parts for antiaircraft guns.³³

The most alarming factor in the situation of the eighty thousand troops on Bataan was the inadequate food supply. MacArthur wanted to send supplies from the Army depot on Cebu, which had large stocks of rations, but no transportation was available. Only about 10 percent of the ten thousand tons of food on Cebu ever reached Bataan, enough to support the troops for about four days. The presence of the Bataan natives and the civilians who had retreated with the soldiers multiplied

50 * THE JOURNAL OF

^{30.} Morton, *Fall of the Philippines*, 351-52; Cooper, "Medical Department Activities in the Philippines," 41-43.

^{31.} Morton, Fall of the Philippines, 361; Gillespie, "Recollections," 20.

^{32.} Cooper, "Medical Department Activities in the Philippines," 34-36; Gillespie, "Recollections," 20.

^{33.} Morton, Fall of the Philippines, 440; Belote, Saga of a Fortress, 80.

the demand for food and worsened the already serious shortage. Because of the lack of food, the soldier's daily ration had been cut in half as early as 6 January. From that time through February, the daily issue averaged less than thirty ounces, as compared to the peacetime garrison ration of seventy-one ounces for Americans and sixty-four for Filipinos. As the food supply dwindled, the ration was cut again and again.

On 28 March General Wainwright cabled Washington: "Bataan's most pressing need is subsistence. Troops now on 1/3 ration—only enough food to last 'til April 15." On the same day he sent another cable: "We are now slaughtering all available carabao and surplus horses and will be forced to slaughter pack mules within the next week or ten days. When this supply of meat is exhausted, the chief component of the ration will no longer be available." By April, it had been reduced to 17 ounces a day, of which only 1.2 ounces was meat, most often canned corned beef. Mildewed and moist rice, having lost its vitamin content, was substituted for wheat. Occasionally fish supplemented the meal and took the place of fresh meat. Without sufficient vitamins to compensate for a deficient diet, beriberi became prevalent, and cases of scurvy and pellagra appeared. Inadequate rations also slowed wound and bone mending. A quartermaster officer described his dinner as consisting of "one slice of bread, one slice corn beef, cup of tea, rice and that, my friend, is what we now call a good chow."34

At the hospitals, patient care was marked increasingly by expedients as supplies fell. The Little Baguio wards were two large open sheds with tin roofs and dirt floors. As the number of casualties increased, Filipino workmen built shelters and double- and even triple-decked beds of bamboo. Still the hospital spread onto the strip of ground between the two tin-roofed sheds. Meanwhile, Hospital Number Two found itself closer to the front line and had to set up additional surgical tents for the increased number of surgical cases. Hospital staff also coped with a lack of gas gangrene antitoxin; this resulted in many amputations and the loss of lives which otherwise could have been saved.³⁵

Another vital item was quinine. The Medical Department relied almost entirely on this drug for prophylaxis, and it soon became depleted.

^{34.} First quotation from Wainwright to AGWAR, Washington, for Gen. Marshall, 28 March 1942, RG 407, AG 311.23; Morton, Fall of the Philippines, 367-68; Letter, Charles H. Moorhouse to the Surgeon General, 20 January 1943, subject: "Medical Service in the Philippines, December 8, 1941 to March 1, 1942," 5; Kennard, "Observations on Bataan," 6. All MSS at CMH. Redmond, I Served on Bataan, 37; second quotation from Belote, Saga of a Fortress, 102.

^{35.} Redmond, *I Served on Bataan*, 46-47, 56; Cooper, "Medical Department Activities in the Philippines," 66; Kennard, "Observations on Bataan," 3-4. Quotation from interview, Second Lieutenants Juanita Redmond and Eunice C. Hatchitt, Army Nurse Corps, 6 July 1942, in "Philippine Interviews." MS at CMH.

A small supply of the German synthetic drug, atabrine, was quickly used up. A mosquito control program, which had baffled medical authorities in the Philippines before the war, proved hopeless in battle. Bataan's terrain and climate provided ideal conditions for the malariabearing mosquito to breed and survive. Many soldiers occupied former native villages, or barrios, with poor sanitary conditions, and the heavy population of native civilians formed a reservoir for malaria which rapidly spread to the troops. Moreover, most Filipino troops were never issued mosquito nets, and the few who received the nets discarded them when they withdrew to Bataan because they were bulky and heavy. Without antimalarial supplies and a program to control malaria, the disease soon achieved a devastating incidence among U.S. and Filipino forces. By March, some units in the front line had a malaria rate of 80 percent.³⁶

By 1 April, thousands of patients in forward areas, suffering from wounds, malaria, dysentery, and nutritional edema, strained every facility. Aid stations treated two to three hundred casualties, while clearing and collecting companies each handled six to nine hundred in violation of standard practice. With so many patients near the front lines, any shift of the battle line meant an immediate and massive evacuation had to occur. When the final Japanese push came, the jungle could provide no safety for the allied wounded and the medics who served them "without the immunity of the Red Cross emblem and within easy artillery range of the enemy." ³⁷

2-9 April 1942

On 2 April the reinforced Japanese renewed the offensive with a strong attack against the left wing of II Corps in an attempt to gain Mt. Sumat. The enemy's rapid advance threatened three clearing stations crowded with patients. Under supervision of the 12th Medical Battalion, a general evacuation took place over three nights beginning on 2-3 April. Bus convoys evacuated the II Corps front, giving priority to stations nearest the fighting. Colonel Cooper wrote that "total chaos" reigned in the forward areas. "Roads were congested beyond description. In one instance a convoy was caught directly between enemy and friendly fire." A similar evacuation occurred in I Corps. Altogether more than seven thousand patients were transported to rear areas from 2 through 7 April. The burden of caring for these casualties fell on Hospitals Number One and Number Two whose patients rose to twenty-

52 *

^{36.} Kennard, "Observations on Bataan," 14; interview, Redmond and Hatchitt, 2.

^{37.} Cooper, "Medical Department Activities in the Philippines," 32-33; quotation from Gillespie, "Malaria and the Defense of Bataan," 20.

seven hundred and six thousand respectively.38

On the evening of 8 April, Major General Edward P. King, Jr., Luzon Force commander, commented: "Already our hospital, which is filled to capacity and directly in the line of hostile approach, is within range of enemy light artillery. We have no further means of organized resistance." Hospital Number Two would clearly be overrun the next day. Under cover of darkness, most of the seventy-eight American nurses and all medical personnel not absolutely required to tend the eighty-seven hundred patients crossed the channel to Corregidor. Corpsmen remained to care for the patients, whose welfare was transferred to a small group of Japanese infantry at 5:00 p.m. on 9 April 1942—just two hours after the Luzon Force surrendered.³⁹

Three months of starvation diet, disease, and enemy bombardment had taken their toll. General King was surprised by the alert expressions on the Japanese faces and the vigor of their actions because he had grown so accustomed to the lackluster eyes and lackadaisical movements of his own men.⁴⁰

In retrospect, the medical disaster was as much a symptom as a cause of the general military defeat. The American shift in the Luzon defense plans resulted in failure to get all available supplies into Bataan. Drugs needed to prevent or combat disease were lacking. By March the combat efficiency of the troops had fallen by more than 75 percent as a result of malaria, intestinal infections, and malnutrition. On 1 April General King's surgeon had written that the combat efficiency of the troops "was rapidly approaching the zero point." Physical deterioration, resulting from poor planning and inadequate training, became a determining factor in the military situation. "Physical exhaustion," Wainwright cabled MacArthur after the surrender of Bataan, "and sickness due to a long period of insufficient food is the real cause of this terrible disaster." In turn, Japanese control of the sea and air was fundamental to the failure of supply.⁴¹

Corregidor

Bataan's surrender left the Japanese free to concentrate their might on Corregidor, the largest and most important of the fortified islands in

- 38. Cooper, "Medical Department Activities in the Philippines," 36, 37, 56.
- 39. The above two paragraphs are based on Morton, Fall of the Philippines, 458-59; the quotation is from the same pages; Cooper, "Medical Department Activities on the Philippines," 37, 56, 76-7; interview, Redmond and Hatchett, 3-4.
- 40. Quotation from Edward P. King, "Recollections of the Defense Battles in Bataan," penned copy undated, signed in notebook of James Gillespie, 79.
- 41. Quotations are from Morton, Fall of the Philippines, 404 and 463 respectively.

Manila Bay. Since the days of the Spaniards, Corregidor had been the center of the bay's defense. Fort Mills dominated the island which otherwise was wooded with numerous roads connecting the batteries located around its periphery. There were three elevations on Corregidor: Middleside, Topside, and Malinta Hill. On Middleside stood the Fort Mills Station Hospital, quarters for commissioned and noncommissioned officers, a service club, and two schools for the children of the garrison. Topside contained the headquarters, barracks, and officers' quarters grouped around the parade grounds. Malinta Hill enclosed numerous tunnels capable of providing underground shelters from enemy bombardment.

Work on the Malinta tunnel system was still underway on 29 December 1941 when the first enemy bombs fell on Corregidor. Daily bombings continued until 15 January 1942. The first attacks forced the head-quarters and the two-hundred-bed Station Hospital at Fort Mills to move underground into the uncompleted Malinta Tunnel. After Bataan fell, intense and regular bombing and shelling of Corregidor was the rule.⁴²

At the beginning of the siege, Malinta Hospital contained eleven wards in concrete-lined laterals off the main tunnel; the beds were placed close together and alternated head and foot. After the second month, military authorities opened two more large tunnels and lined the main hospital tunnel with beds. Doctors, nurses, and enlisted men were assigned to each ward, as they would be in a general hospital. Equipment was better on the island fortress than on Bataan, Juanita Redmond, a nurse evacuated to Corregidor, marvelled at the wellequipped surgical division after the crudities of Limay and Hospital Number Two. She also "couldn't get over the wonder of white enameled tables beside each bed. They seemed almost indecently luxurious." Other comforts included an auxiliary lighting plant, neon lighting fixtures, flush toilets, showers, and running water. Yet living a mole-like existence underground also had certain discomforts which Lieutenant Redmond soon realized. The roar of shells and bombs echoed and reverberated through the laterals, and the lack of ventilation made the air stuffy and hot.43

When the Japanese stepped up the bombing and shelling of Corregidor in April, casualties from beach defense duty or gun positions increased, forcing the hospital to expand into three more laterals. The luxuries of the tunnel hospital disappeared one by one. Double-decked and triple-decked beds lined the wards; civilian refugees slept in packed

54 * THE JOURNAL OF

^{42.} The above two paragraphs are based on Cooper, "Medical Department Activities in the Philippines," 80, 82; and Morton, Fall of the Philippines, 473-97.

^{43.} Quotation from Redmond, I Served on Bataan, 134.

rows on the floors; showers ceased as the reserve supply of water dwindled. Scanty rations became the rule, along with two meals a day. These were "dreadful, familiar and unmistakable signs that the end was drawing near." 44

Such conditions, though appalling, were in no way as harmful as on Bataan, where nutritional and tropical diseases abounded. Despite respiratory illness induced by confinement in damp, dust-laden tunnels, the health of the Corregidor garrison remained relatively good. Careful sanitary inspection prevented epidemics from breaking out, and food, though monotonous, was enough to carry the men through June on half rations. Canned goods gave small but balanced meals and prevented serious vitamin deficiencies. No noticeable decline in morale occurred until the final days when even the greatest optimists realized that no help was coming.⁴⁵

Although official medical records fail to list combat stress or battle fatigue as a problem on Corregidor, the ailment must have affected some of the garrison, especially antiaircraft artillery crews, when air attacks were at their most intense. Medical military authorities were slow to recognize the problem of battle fatigue early in the war, and, in 1942, a soldier's self-respect or sense of manliness would not permit him to admit an anxiety neurosis or to show fear.⁴⁶

The Japanese invaded Corregidor on 5 May 1942, landing on the north shore, which had been previously laid waste by artillery fire. Advancing in two directions, the enemy headed for the south shore and Malinta Hill, their main objective. Assisted by light artillery and tanks, they quickly gained vantage points throughout the island. Concluding that nothing was to be gained by further resistance, General Wainwright surrendered to the enemy at 10:00 A.M. on 6 May.⁴⁷

The Japanese paid a high price in casualties for the Philippines. The number of enemy casualties, including many with tropical disease and especially malaria, reached about 15,500 at the end of March, 28,000 in early May, and about 50,000 at the end of May. First aid for these patients was a matter of great difficulty, and in late April and early May, hospitals which were equipped to handle 1,000 patients had to make room for over 5,000. The 4th Division was on the verge of suspending

^{44.} Cooper, "Medical Department Activities in the Philippines," 79; Morton, Fall of the Philippines, 544-45; quotation from Redmond, I Served on Bataan, 134.

^{45.} Belote, Saga of α Fortress, 132, 142-43; Morton, Fall of the Philippines, 535; Cooper, "Medical Department Activities in the Philippines," 81, 83.

^{46.} For a recent discussion of combat stress in war, see Roger J. Spiller, "Shell Shock," *American Heritage*, May-June 1990, 75-87.

^{47.} Morton, Fall of the Philippines, 552-61.

the Corregidor operations because of malaria in late April. The paucity of Army hospitals, poor organization, and supply shortages in general were chiefly to blame. Only the surrender of American and Filipino forces and the end of hostilities in May prevented the Japanese Army from experiencing a medical calamity similar to the Americans.⁴⁸

The surrender of the Philippines brought to an end one of the great disasters of American military history. On Bataan, malnutrition, disease, and short supplies created conditions that brought the health system to the verge of collapse. Deviation from standard field medicine became the rule as station and evacuation hospitals provided second, third, and even fourth echelon care. Conditions were better on Corregidor, where most soldiers were underground and there was no debilitating food shortage. They were better still in the southern islands despite malaria, because food was plentiful. In truth, adequate supplies for a major campaign had not been laid in when war began. The enemy moved too fast, and American policy makers did little about the danger to the Philippines until it was too late. Without numbers and supplies, medical personnel faced an impossible task in treating a weakened and abandoned army.

^{48.} Japanese Monograph No. 1, Philippines Operations Record Phase 1, 6 November 1941-June 1942, 230-31, CMH.