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## **Historical Report**

### **U.S. Casualties and Burials at Cabanatuan POW Camp #1**

#### **I. Introduction**

Thousands of United States soldiers, sailors, Marines, and civilians were taken prisoners of war (POW) by the Japanese in the Philippine Islands between 7 December 1941 and 8 May 1942. The saga of the battle for the Philippines and the horrible treatment the survivors received in Japanese POW camps is the subject of numerous books and articles, but there are few resources that articulate graves registration operations, especially those focused on recovering and identifying the remains of U.S. servicemen who perished at the Cabanatuan Prisoner of War Camps. The details concerning the circumstances under which U.S. prisoners held at Cabanatuan lived and died were difficult and complicated, as were the attempts to disinter and identify their remains after the war's end. As a result of these complications, when the Cabanatuan Project ended in 1951, 1,007 service members and civilians remained unidentified from among the 2,764 burials at the Camps.<sup>1</sup>

When Filipino and American Military Forces surrendered on the Bataan Peninsula on 8 April 1942, they had been fighting a defensive retreat across the Philippine Island of Luzon (see figure 1). For over four months they held off the advancing Japanese troops all the while suffering from a lack of food, medicine, ammunition, and hope. On 1 January 1942, all Filipino and American forces had been placed on half rations, and the amount of rationed food only decreased as time passed. Because of the poor quality of their diet, many suffered from night blindness and a variety of jungle illnesses, including malaria, dengue, dysentery, and hookworm. It has been estimated that over seventy percent of the men on Bataan suffered from malaria due to the lack of adequate medical supplies to treat them.<sup>2</sup>

Compounding the food and medical issues, the Japanese seriously underestimated the number of prisoners they would encounter on Bataan. Almost 75,000 (65,000 Filipino and 10,000 American) surrendered. The Japanese also expected the men to be in good physical condition—not sick and starved. However, Japanese interest lay in what was beyond Bataan—Corregidor

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<sup>1</sup> **NOTE:** Several studies of the campaigns of the Philippines and the experiences of U.S. forces who surrendered to the Japanese are cited in the footnotes of this memorandum, but they represent only a tiny fraction of the total volume of the histories and memoirs written. Readers interested in more extensive study of this history can find a wealth of resources at the website, “Center for Research: Allied POWs Under the Japanese,” <http://www.mansell.com/>. A list of more than 500 titles specifically concerning the WWII history of Luzon Island can be found in the POW resources section of the website. The casualty figures cited in the introduction are based upon the current casualty status of the individuals as tracked by the accounting community. As will become clear within this memorandum, several of those currently carried as identified cannot be verified.

<sup>2</sup> Louis Morton, *The Fall of the Philippines*, vol. 1 of *The War in the Pacific*, vol. 4 of sub series United States Army in World War II (Washington, DC: Office of the Chief of Military History, Department of the Army, 1953), 245, 254, 257, 355; John W. Whitman, *Bataan: Our Last Ditch, The Bataan Campaign, 1942* (New York: Hippocrene Books, 1990), 380-83; Calvin G. Jackson, *Diary of Col. Calvin G. Jackson, M.D.: Kept during World War II, 1941-1945* (Ada: Ohio Northern University, 1992), ii; and John E. Olson, *O'Donnell: Andersonville of the Pacific* (Self-published: John E. Olson, 1985), 14-15.

Island—not the physical condition of their new prisoners of war. Corregidor Island was situated in Manila Bay and because the fortress had not surrendered with Bataan, it posed a serious problem to the Japanese (see figure 2). They were, therefore, in a big hurry to move the surrendered Bataan soldiers and sailors out of the way in order to begin the assault on Corregidor.

The vast majority of Filipino and American forces surrendered while located on the southern tip of the Bataan Peninsula. Depending upon where the men were captured, they either waited in temporary camps or were immediately moved to concentration points. The Japanese transported some small groups of prisoners, such as the Luzon Force Headquarters and some of the patients from field hospitals on Luzon directly to Camp O'Donnell. Those who were able among the early arrivals at Camp O'Donnell began to ready the camp for the arrival of the rest of the prisoners.<sup>3</sup>

The men not taken directly to Camp O'Donnell were sorted into groups of one hundred and started on an arduous forced march. When they began the long walk (the “Death March”), they were in a horrible physical state. For eleven days the POWs were forced to walk sixty-five miles to San Fernando, enduring abuse by Japanese guards and watching the deaths of thousands of fellow soldiers. At San Fernando the Japanese stuffed hundreds of men into steel-sided boxcars for a twenty-five mile train trip to Capas. The boxcars were packed so tightly the men could not sit down. They traveled at night, but also under a sun so fierce it made the sides of the boxcars too hot to touch. Finally, the train arrived at Capas and the POWs off-loaded to march a final nine miles to Camp O'Donnell (see figure 3).<sup>4</sup>

## II. Camp O'Donnell

Camp O'Donnell was located approximately nine miles from Capas, astride the Capas-O'Donnell Road. The main road bisected the American and Filipino sections of the camp, with the Americans occupying the smaller northern portion. The first exhausted prisoners entered O'Donnell on 11 April 1942, and by 30 April 1942, the last new groups of prisoners arrived. From this point until the Camp's closure, movement into and out of the camp would be related to prisoners leaving and returning on work details rather than new arrivals.<sup>5</sup> Once inside the camp

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<sup>3</sup> No author, “Historical and Statistical Record of Camp Cabanatuan, 9 Apr 42 to 15 Nov 42; 14 pages,” Historical Statistical Records of Cabanatuan, Maps of Corregidor, and Miscellaneous, Philippine Archives Collection, RG 407: Records of the Adjutant General's Office, National Archives, College Park, MD.

<sup>4</sup> It has been estimated that as many as 62,000 Filipinos and 10,000 Americans endured the ordeal. Estimates of the death toll range from 7,000 to 10,000 Filipinos and approximately 600 Americans. Most were needless deaths, caused by heatstroke, exhaustion, and disease. E. Bartlett Kerr, *Surrender and Survival: The Experience of American POWs in the Pacific* (New York: William Morrow and Company, 1985), 52-60; Donald Knox, *The Death March: The Survivors of Bataan* (New York: Harcourt Brace Jovanovich, 1981), 151; Gavan Daws, *Prisoners of the Japanese: POWs of World War II in the Pacific* (New York: William Morrow and Company, 1994), 18-9, 74-90; James A. Cox, “The Infamous Bataan Death March,” *Marine Corps League*, 58, (Spring 2002): 36; Jesse L. Miller, *Prisoner of Hope* (Englewood, CO: Jesse L. Miller, 1988), 41-2; Hampton Sides, *Ghost Soldiers: The Forgotten Epic Story of World War II's Most Dramatic Mission* (New York: Doubleday, 2001), 91; Meirion and Susie Harries, *Soldiers of the Sun: The Rise and Fall of the Imperial Japanese Army* (New York: Random House, 1991), 315; and Lester I. Tenney, *My Hitch in Hell: The Bataan Death March* (Washington: Brassey's, 1995), 44-5.

<sup>5</sup> “Historical and Statistical Record of Camp Cabanatuan, 9 Apr 42 to 15 Nov 42; 14 pages,” National Archives.

the Japanese confiscated any personal items the men may have been able to retain during the march. Sometimes this confiscation included identification tags.<sup>6</sup>

Concerns over how and where to bury dying prisoners surfaced immediately. Initially the Japanese wanted to cremate any casualties, but because of pleas from American chaplains the Japanese agreed to allow the dead to be buried just outside the main gate north of the road to Capas. As the death toll increased another cemetery was added. The first deaths occurred on 14 April 1942. Throughout this entire time, the Japanese were selecting and transporting men on “work details” around the islands. This ranged from clearing bomb damage, to loading ships, to working on farm plots. Many times men would not return from the details, having died and been buried in proximity to the location of their death rather than in the camp cemeteries. So the numbers of men in O’Donnell fluctuated daily from work details, new arrivals, and deaths. By 31 May 1942 there were 5,679 men in the American camp and the death rate had soared to forty-four per day. On 29 May 1942, the death rate reached a pinnacle with the deaths of fifty American prisoners.<sup>7</sup>

Captain A. L. Fullerton, a U.S. Army Quartermaster Corps officer trained in graves registration, assumed charge of the burial activities at Camp O’Donnell. He established a morgue for receiving, checking and holding the dead until the next burial detail arrived. Processing a body consisted of inventorying the deceased’s possessions. If the body had two identification tags, one was retained by the graves registration section, and the other was later put on the crude wooden cross that marked the graves. The name, rank and serial number, organization, place of death, date of death, cause of death, method of identification, name and address of nearest kin, place of burial (including plot, row, and grave), date of burial, age, race, remarks, and home addresses were, if known, recorded in a report of death. In many cases, very little was known of the deceased, particularly in the early days at the camp. Three copies of the death report were made, two for graves registration and one for the camp adjutant. Then the burial details would carry the bodies to the cemetery, where a previously dispatched detail would have already dug the gravesite. Ideally, the graves were ten feet by six feet and four feet deep, in order to hold multiple bodies in a common grave, but in actual practice many of the graves were much shallower. During the dry season the soft clay was easy to work, but digging during the rainy season was problematic. Often the water would rise almost to the edge of the grave and the bodies would have to be weighted down with stones. Sometimes the digging details would encounter hard, dry, rocky soil in which they could barely scratch out a shallow grave. Prisoner Nicholas Fryzuik recalled that, “people were buried in mass graves and you could see legs, hands, or feet sticking out of the little dirt used to cover them.”<sup>8</sup>

Over 1,500 Americans and 26,000 Filipinos died during the seventy-one days of O’Donnell’s operation. One out of every six Americans who entered O’Donnell died. Because of the high death rates the Japanese ordered the camp closed on 16 May 1942. In early June, the senior

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<sup>6</sup> **NOTE:** This confiscation of valuables and personal items of interest to the Japanese occurred from the very beginning of captivity and continued as the prisoners encountered new groups of Japanese guards. An individual prisoner might have items taken from him several times over the course of his years of imprisonment.

<sup>7</sup> Olson, *O’Donnell*, 43, 63, and 235. **NOTE:** The daily death rates soared even higher in the Filipino section of Camp O’Donnell.

<sup>8</sup> Olson, *O’Donnell*, 174-75, 181-85. **NOTE:** One set of the Death Reports was buried in the Camp O’Donnell cemetery before the move to Cabanatuan.

officers relocated to Tarlac and the rest of the men moved to Cabanatuan or were assigned to work details around the islands. Camp O'Donnell, "Camp O'Death" to the men living there, finally closed on 20 January 1943. The 1,547 Americans who perished there remained in the camp cemetery until U.S. Graves Registration personnel disinterred them after Allied forces regained control of Luzon.<sup>9</sup>

### III. Camp Cabanatuan

While the men died at high rates in O'Donnell, Allied forces that had not surrendered on Luzon continued to fight the Japanese from Corregidor Island. They too fought a losing battle and surrendered on 6 May 1942. After Corregidor capitulated, the Japanese took over the island and forced the men to clear debris for two weeks. They finally left by ship, but unlike the men on Bataan, the Japanese allowed them to retain their personal effects. The nine thousand captives from Corregidor entered Bilibid Prison, where they were able to purchase supplies. They had adequate water and even showers—much different from the conditions at Camp O'Donnell. From Bilibid, the men marched three miles to the railhead, and were stuffed into those same steel-sided cars that had transported the Bataan survivors. Finally, they marched ten miles to Cabanatuan, about ninety-five kilometers north of Manila (see figure 4).<sup>10</sup>

The three Camps making up the Cabanatuan POW Camp system had been barracks and a training facility used by the Philippine Army prior to the outbreak of war. Camp #1 sat approximately nine kilometers east of the city of Cabanatuan. Situated six kilometers further east of Camp #1, Camp #2 only briefly held prisoners before they were transferred to Camp #1 due to the lack of available water. Camp #3, a further six kilometers from Camp #2, functioned from the end of May 1942 until October of the same year, when the remaining prisoners were also transferred to Camp #1. Cabanatuan Camp #1 consistently served as the single largest camp for U.S. prisoners for the duration of the war, housing as many as 10,000 prisoners on days when few groups left on work details.<sup>11</sup> By the middle of June 1942, the camp was divided into a regular area which was further subdivided into three groups and a hospital area, though as one doctor imprisoned there noted, "the hospital served to only to segregate the very ill from the less ill."<sup>12</sup>

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<sup>9</sup> Edward W. Weiss, *Under the Rising Sun: War, Captivity and Survival 1941-1945* (Erie, PA: Edward W. Weiss, 1992), 233; Kerr, *Surrender and Survival*, 65, 80-1; Knox, *The Death March*, 198; and Olson, *O'Donnell*, xiii, 110, 163-72; Abraham, Abie, *Ghost of Bataan Speaks* (New York: Vantage Press, 1971), 91, 156-160. **NOTE:** The Filipino prisoners at Camp O'Donnell did not make the move to Cabanatuan. Most of them were granted amnesty by the Japanese in exchange for signing agreements that they would not take up arms against the occupying forces.

<sup>10</sup> Kerr, *Surrender and Survival*, 52-3, 76-8; Richard M. Gordon and Benjamin S. Llamzon, *Horyo: Memoirs of an American POW* (St. Paul, MN: Paragon House, 1999), xii, xxvii; William R. Evans, *Soochow and the 4th Marines* (Rouge River, OR: Atwood Publishing Company, 1987), 85; Donald LeRoy Versaw, *Mikado no Kyaku* (Lakewood, CA: Donald L. Versaw, 1998), 7; and Knox, *The Death March*, 199-200.

<sup>11</sup> Captain P. L. Smith, 17 September 1945, "Report on Cabanatuan Camp #1," Legal Section, Manila Branch, Administrative Division, Miscellaneous (1945-1948); Supreme Commander for Allied Powers; Record Group 331: Records of Allied Operational and Occupational Headquarters, World War II; National Archives, College Park, MD; see also, "Historical and Statistical Record of Camp Cabanatuan, 9 Apr 42 to 15 Nov 42; 14 pages," RG 407, National Archives.

<sup>12</sup> John R. Bumgarner, *Parade of the Dead: A U.S. Army Physician's Memoir of Imprisonment by the Japanese, 1942-1945* (Jefferson, NC: McFarland & Co., Inc., 1995), 88.

In June of 1942, prisoners from Camp O'Donnell began to stream into Camp #1, joining the men from Corregidor and increasing the number of prisoners to over 7,300 men. Because of the poor health of the men from O'Donnell, the death rate at Camp #1 soared. By the end of the year 2,642 had perished, compared to sixty-nine in Camp #3. It was not until 15 December 1942 that Cabanatuan Camp #1 celebrated its first "zero death" day. By the end of 1942, the death rate in all of the camps slowed. The weak and wounded had not survived. The death rate continued at a much lower pace over the next two years (see figure 5). The Death March and life at O'Donnell took a heavy toll on the captives of Bataan. Former POW Lester Tenney estimated that one out of every three prisoners from Corregidor died, while two out of every three taken captive on Bataan expired. While the death rates at Cabanatuan Camp #1 soared, men were continuously moving in and out of the camp on work details. This makes it difficult to estimate the number of men in Camp #1 on any particular day, but estimates show that in 1942 and 1943 the population ranged from five to more than eight thousand prisoners.<sup>13</sup>

The work details varied in scope and length. The two largest were the farm detail and the Cabanatuan airport detail. The five hundred acre farm grew food for the prisoners and the Japanese. At the Cabanatuan airport, men worked to repair and enlarge the runway for Japanese planes. The smaller, and sometimes seasonal, work details included gathering firewood, digging latrines, preparing military defenses, and digging foxholes. Men were also transported to various other parts of the island to work on other airports, bridge-building, or repairing buildings. In October 1942, about one thousand men moved permanently to Davao Penal Colony for additional farm work.<sup>14</sup>

This was not the only movement for work details the prisoners faced. In 1942 the Japanese experienced a serious labor shortage. Prime Minister General Hideki Tojo declared that all prisoners, including officers, were to work as laborers in Japanese industries. He ordered all prisoners shipped to Japan in every available returning vessel. The Japanese military subsequently transferred large numbers of POWs to industrial sites throughout their empire—Formosa, Korea, Manchuria, China, Burma, and Siam—but most of the prisoners were sent to the one-hundred-and-sixty camps within the Japanese home islands. The conditions on these ships were so bad that they were aptly nick-named "hellships." Death due to extreme heat, thirst, or hunger was not the only problem faced on the voyage to Japan. Death due to Allied action became a major source of concern. Men aboard the hellships suffered some of the worst casualties of the war. For example, on February 25, 1944, Allied bombs sank the *Tango Maru* killing 3,000 men. On September 18, 1944, Allied planes sank the *Junyo Maru*, killing 5,640 prisoners. Of the 68,000 Allied prisoners-of-war moved to industrial camps, over 22,000 died on hellships. American deaths on the hellships totaled more than 3,800. With all the movement out of Cabanatuan, there were only about eight hundred men left there by October of 1944. Several

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<sup>13</sup> "Historical and Statistical Record of Camp Cabanatuan, 9 Apr 42 to 15 Nov 42; 14 pages," RG 407, National Archives; Captain P. L. Smith, "Report on Cabanatuan Camp #1," 17 September 1945, RG 331, National Archives; Knox, *The Death March*, 198-367; Sides, *Ghost Soldiers*, 135; Gordon, *Horyo*, 104, 107; William Paul Skelton, *The American ex-Prisoner of War*, 15th ed. (Tampa: University of South Florida College of Medicine and James A. Haley Veterans' Hospital, 1999), 14; Charles G. Roland, "Stripping Away the Veneer: P.O.W. Survival in the Far East as an Index of Cultural Atavism" *Journal of Military History*, 53 (January 1989): 92; and Kerr, *Surrender and Survival*, 79-81, 102-04.

<sup>14</sup> Captain P. L. Smith, "Report on Cabanatuan Camp #1," RG 331, National Archives.

hundred of these were transported to Fort McKinley near the end of the year and the remaining POWs in the camp were liberated on 30 January 1945.<sup>15</sup>

#### IV. Deaths and Burials at Cabanatuan Camp #1

From the first arrivals at Cabanatuan Camp #1 until its closing men continued to perish. The first official burials in the Cabanatuan Camp #1 cemetery occurred on 3 June 1942.<sup>16</sup> After this date, and through the end of 1942, the death rate remained high. In July 1942, the deadliest month, 799 U.S. prisoners died (see figure 5). The rates of death soared in the early months due to lack of medicine, inadequate food, and the general deteriorated state of the prisoners as the result of all that they had thus far endured. Situated in a rainy climate and on land formerly used for rice paddies, the camp proved to be a breeding ground for flies and mosquitos, further contributing to the spread of disease among the prisoners. John R. Bumgarner, an Army physician and Cabanatuan POW described the deplorable situation:

I could have easily predicted the rise of the death rate in view of the deficient diet and the lack of medication. For the first week or ten days at Cabanatuan there were about ten deaths per day. By the middle of June the grisly procession of dead had grown alarmingly to average 20 deaths per day - 20 men who had endured the terrible ordeal of Bataan, who were 10,000 miles from home, and who then died in the most miserable circumstances. For me, as a doctor, the most distressing thought was that they could have been saved, almost without exception, by proper diet and medical care.<sup>17</sup>

Captain Bumgarner's observation concerning proper medical care was also supported by the drop in the numbers of deaths after the arrival of Red Cross packages, additional medicines, and additional medical and dental staff in December 1942. In February 1943, U.S. dental corps personnel set up a dental clinic. Prior to opening it, they made a survey of all the prisoners not in the hospital or on work details, examining 2,725 men, 67% of whom needed dental care.<sup>18</sup>

As with other aspects of camp administration, such as the hospital and dental clinic, the organization of a system for registering and tracking the deaths of prisoners was left up to American officers within the camp. The three groups of prisoners in the main part of the camp each had a Graves Registration Officer assigned to track and report deaths from within their

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<sup>15</sup> Captain P. L. Smith, "Report on Cabanatuan Camp #1," RG 331, National Archives; Daws, *Prisoners of the Japanese*, 284-87; Kerr, *Surrender and Survival*, 112-13, 117, 237; S. P. MacKenzie, "The Treatment of Prisoners of War in World War II," *Journal of Modern History* 66 (September 1994): 514, 517, 519; Tanaka, *Hidden Horrors*, 18; Waterford, *Prisoners of the Japanese in World War II*, 37, 143-44, 167-68, 173; Linda Goetz Holmes, *Unjust Enrichment: How Japan's Companies Built Postwar Fortunes Using American POWs* (Mechanicsburg, PA: Stackpole Books, 2001), 22; and Skelton, *The American ex-Prisoner of War*, 16-18. **NOTE:** The rest of the prisoners on the hellships were British, Australian, Indian, or Dutch.

<sup>16</sup> **NOTE:** One death on 2 June was reported buried in the vicinity of the cemetery, and those who died at Cabanatuan in May 1942 were buried in isolated graves or in the Camp #3 Cemetery.

<sup>17</sup> Bumgarner, *Parade of the Dead*, 93.

<sup>18</sup> Virginia W. Lee, "Subject: Cabanatuan Project, Interim Report 22 November 1950 - 20 February 1951, Inclusive," 21 February 1951, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

group on a daily basis. In the hospital section, medical personnel kept records documenting the cause, time, and date of death, as well as information for contacting the next of kin of the casualties. If the casualty had an identification tag, it was placed in his mouth. Otherwise, a piece of paper containing his name was placed there. Prisoners moved the dead to the morgue to await a burial detail to convey them to the cemetery.<sup>19</sup>

A Camp Graves Registration Officer collected the information from the group officers and the hospital and reconciled it into one master list. All of the officers in charge of details concerning graves registration rotated duties from time to time, and especially in the early months in camp, they, like almost everyone else, often fell ill. Due to the changes in duties and to sometimes severe illnesses, graves and deaths occasionally went unregistered until months after their occurrence. In November 1942, Captain Robert Conn became the Camp Graves Registration Officer and remained in that position until his departure from Cabanatuan on 16 October 1944. As conditions in the camp improved, Captain Conn went back over early, incomplete records and conducted interviews to enable corrections or additions to the master list. As a result of this work, he created the most complete record available. His work formed the cornerstone of subsequent identification efforts. Still, he carefully noted that “due to the lack of organization, which can be attributed to many causes such as, sick and disheartened Americans, lack of materials to carry on record keeping, and a decided lack of spirit of co-operation on the part of our hosts, the records for the early days were incomplete and in some instances inaccurate.”<sup>20</sup>

Because so many men were dying, burial parties worked every day. Each morning, the men would gather at the morgue and organize into teams to begin the march to the cemetery. The camp adopted a mass internment system, burying all that died in one day in one common grave. The day consisted of a period of twenty-four hours which ran from 12:00 p.m. to 12:00 p.m. (during the period 3 June through 25 September 1942), 5:00 pm to 5:00 pm (during the period 26 September 1942 through 19 October), or 12:00 a.m. to 12:00 a.m. (during the period 19 October 1942 until Cabanatuan’s closure). The burial party would deliver the dead to the cemetery and then dig the mass grave for the next day.<sup>21</sup>

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<sup>19</sup> Captain J. F. Vogl et al., “Transcript Outgoing Telephone Call,” 29 September 1950; Virginia W. Lee, “Subject: Cabanatuan Project, Interim Report 21 September-21 November 1950, Inclusive,” 1 December 1950; R. E. Conn, Jr., letter to Captain J. F. Vogl, 3 October 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** Practices in the morgue were not without problems. Captain Conn, the Camp Graves Registration Officer noted that two U.S. enlisted men working in the morgue were caught removing gold fillings from the teeth of the dead.

<sup>20</sup> Captain Robert E. Conn, Jr., 7 January 1944, “Following is a history in chronological outline form of the Graves Registration work at Military Prison Camp No I of the Philippine Islands, Cabanatuan, Province of Nueva Ecija, Philippine Islands,” 558-2 Death Report, Cabanatuan, Testimonies and Investigation File, 1945-48; Legal Section, Manila Branch, Supreme Commander for the Allied Powers; Record Group 331: Records of Allied Operational and Occupational Headquarters, World War II; National Archives, College Park, MD. This chronological outline is appended to the end of the Cabanatuan Death Report compiled by Robert Conn. A more legible copy of the outline can be found in the following file: Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>21</sup> Mildred Trotter, “Notes: Historical in so far as the Cabanatuan burials and disposition has been made,” 24 October 1951, Mildred Trotter Papers, Special Collections of the Bernard Becker Medical Library, Washington University, St. Louis, MO; and John A. Glusman, *Conduct Under Fire: Four American Doctors and Their Fight for Life as Prisoners of the Japanese, 1941-1945*, (New York: Viking Press, 2005) 258; “1942,” undated, POWs, General Records-Cabanatuan, Philippine Archives Collection, Office of the Adjutant General; Record Group 407;

In June and July 1942, the two highest mortality months at the camp, the Japanese did not permit markers or a specific organization for the placement of the graves. After a few graves had been put in a section or plot, the odor would become so offensive that the Japanese sentry would select a new section and the burial details would dig at that location. The digging of large deep graves was impossible due to the high number of daily deaths plus the weakened condition of the men on the burial details. Heavy rains with no drainage facilities also hampered digging. Many shallow graves were dug during the early period, some so shallow that it was not uncommon for the rain to reveal portions of the buried bodies.<sup>22</sup>

On 3 August 1942, Captain Willibald Bianchi became the officer in charge of grave digging.<sup>23</sup> He instituted and maintained order in the placement of the graves. By the end of August, Japanese prison administrators had granted permission to the Chaplains to hold brief ceremonies in the cemetery and also agreed to allow for the use of grave markers. It is unclear, based both on the details available for August and on the reports of activities surrounding the beautification of the cemetery described below, exactly how the graves were marked from 27 August forward. It might be that individual graves had markers, or this may simply be a reference to being allowed to mark off areas used for a particular day's common burial. The latter seems more likely, given that no records describe a process in which known individuals were placed into annotated graves during this period. After January 1943, rates of death among the prisoners slowed enough that the burial practices changed. From this point forward, the digging teams still dug a common trench grave, but they did not fill it in any single day. Instead, once the dead for the day had been placed into the trench, they marked the end of the burials with a baffle board, returning upon the next death to resume burials in the trench at that spot.<sup>24</sup>

After many requests from the American officers administering the Graves Registration and burial process, the Japanese agreed to allow improvements in the cemetery and on 2 February 1943, they requested a plan for beautification, which they approved on 18 March. The prisoners completed beautification of the cemetery in time for a ceremony on Memorial Day in May 1943. In between the approval of the plan and the celebration, Graves Registration Officers worked with prisoners to mound graves, place crosses, create walkways, plant flower beds and erect a cement monument.<sup>25</sup>

During the process of beautification, Captain Conn worked with men who had participated in earlier burial details to determine the boundaries of the older graves. He interviewed them for

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National Archives, College Park, MD; and J. F. Vogl, et al, "Transcript Outgoing Telephone Call," Record Group 92, National Archives.

<sup>22</sup> Captain P. L. Smith, "Report on Cabanatuan Camp #1" 17 September 1945, RG 331, National Archives.

<sup>23</sup> **NOTE:** Captain Bianchi later died aboard the Japanese hellship *Enoura Maru*. Today, he numbers among our unaccounted-for casualties.

<sup>24</sup> Captain Robert E. Conn, Jr., "Following is a history in chronological outline form of the Graves Registration work at Military Prison Camp No I of the Philippine Islands, Cabanatuan, Province of Nueva Ecija, Philippine Islands," 7 January 1944; and Virginia W. Lee, "Subject: Cabanatuan Project, Interim Report 21 September- 21 November 1950, Inclusive," 1 December 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>25</sup> **NOTE:** In the source records for this information, the holiday is referred to as Decoration Day. Today Decoration Day is celebrated as Memorial Day.

details about specific placement and the dates on which they had done the work. Through this method, he felt able to securely establish grave locations for burials from August 1942 forward. In some instances, in trying to locate the boundaries of the grave, digging revealed the presence of bodies and Captain Conn adjusted the boundaries to encompass them. Captain Conn then drew a map of the cemetery to scale, along with sketches of each of the individual plots (see figure 6). He numbered the graves, noted the numbers on the map, and also added them to the master list of deaths he had created, today labeled "558-2, Death Report, Cabanatuan." He did not number the plots to correspond with dates of death, so that the earliest deaths were in plot one, later deaths in plot two, etc., in part because the original burials did not lend themselves to this kind of order. Instead, starting at the bottom of the cemetery and continuing counter-clockwise, Captain Conn numbered the plots from one to eleven, then assigning numbers to the grave within each plot. Unfortunately, due to the many circumstances outlined above, Captain Conn could not obtain reliable information concerning burials from 3 June through 29 July 1942, a period covering 1,263 deaths (45.7% of total deaths), and he did not annotate burial location numbers next to the names of these individuals in the death report for the camp.<sup>26</sup>

After the cemetery had been beautified, and until the liberation of Cabanatuan Camp #1 in January 1945, deaths among the prisoners decreased dramatically, as did the overall population in the camp. In that period, in addition to refining and clarifying the information on the "558-2, Death Report, Cabanatuan," Captain Conn collected and organized the death records for Camp O'Donnell, and also interviewed prisoners about deaths they saw both during combat and along the route of the death march. When he felt the information had veracity, he typed up an affidavit for the prisoner's signature. In the post-war years, the records created and refined by Captain Conn were used to search for missing U.S. service members and as exhibits in the trials of Japanese war criminals.<sup>27</sup>

#### **IV. Post-War Disinterment of Cabanatuan POW Camp Cemeteries**

In August 1945, the 111th Quartermaster Graves Registration Platoon visited the Cabanatuan Camp #1 Cemetery. The team cut back the encroaching vegetation that obscured the graves and replaced the crosses, adding information from identification tags, where available, and stenciling grave numbers on the back. In addition, one member of the Platoon created a sketch map for the cemetery (see figure 7). Second Lieutenant Beard noted, in his report of their activities: "The cemetery is situated in a low area, and water stands between the mounded graves after each rain. The lower end of the cemetery is under water a great share of the time."<sup>28</sup>

In December 1945 and continuing into the early months of 1946, the 111th Quartermaster Graves Registration Platoon returned to disinter the Cabanatuan Camp #1 and Camp #3 cemeteries, as well as isolated burials in the area that they had documented during their August

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<sup>26</sup> Captain J. F. Vogl, et al, "Transcript Outgoing Telephone Call," RG 92, National Archives.

<sup>27</sup> Major David M. Lynch, letter to Major Robert E. Conn, Jr., 23 July 1946, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** After his release from captivity, Robert Conn received a promotion from Captain to Major.

<sup>28</sup> Second Lieutenant Maurice S. Beard, memorandum to Quartermaster, PHIBSEC, 30 August 1945, "Subject: Report on POW Interments and Restoration of Graves," Continuing File, 1946-52, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

visit to the former prison camps. The members of the platoon examined the remains as they disinterred them. In the process, they charted the teeth present with the remains, though they did not have dental records for the deceased with them and did not make graveside assessments to match the teeth present to dental charts and records for the deceased men. The team did, however, make almost one thousand identifications based upon the presence of identification media in the form of cards or metal tags. The remains were moved to U.S. Armed Forces Manila #2 Cemetery (twelve miles north of Manila). Those with identification tags moved with a designated name. All others received unknown numbers for tracking purposes.<sup>29</sup>

Graves Registration personnel stationed in the Philippines sent copies of the dental records made by the 111th Quartermaster Graves Registration Platoon to the Memorial Division, which was situated within the U.S. Army's Office of the Quartermaster General. The Memorial Division had responsibility for coordinating with graves registration offices in the field, collecting and maintaining records about casualties and also records concerning searches for those casualties. It served as a liaison with other offices which had responsibility for issues concerning deceased military personnel, such as the Adjutant General's Office. Memorial Division personnel also served as the conduit for casualty information concerning Marine Corps and Navy losses, given that the Army, and more specifically, the Office of the Quartermaster General, had received executive agency over all WWII battle deaths, regardless of the service member's branch of service. The Identification Branch of the Memorial Division had two dental corps officers placed with them on temporary duty. Starting in December 1946, Colonel Kennebeck and Major Shenberger compared the dental records of men who had been buried in the Cabanatuan Camp #1 Cemetery against the dental charts created for the remains. Where the charts matched, the dentists stapled a certification of the comparison to the tooth chart from the disinterred remains. On 27 March 1947, the Memorial Division approved the identifications of 284 individuals who had been buried in the Cabanatuan Camp #1 Cemetery and 2 from the Cabanatuan Camp #3 Cemetery.<sup>30</sup>

## V. American Graves Registration Service Activities

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<sup>29</sup> Lenora Rowinski, "Telephone Inquiry," 13 September 1951, Memoranda and Reports, and "Alphabetical Roster," 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** Ms. Rowinski conducted a phone interview with Mr. Gilbert Zehner who had supervised the disinterment of the Cabanatuan Camp #1 Cemetery as a graves registration officer in 1945-46. The "Alphabetical Roster," was created as part of the Cabanatuan Project in 1950. It includes succinct information about how individuals were identified and was used to tally the number of identifications made using ID tags or cards. This document was also used as one of the foundational sources of the accounting community's current dataset concerning Cabanatuan casualties.

<sup>30</sup> Fisher, "Background Information Relating to the Identification of Remains from the Cabanatuan Prisoner of War Camp and the Reasons Why the Current Project was not Instigated at an Earlier Date," Continuing File, 1946-52, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** One individual was also identified from remains disinterred from the cemetery at Camp O'Donnell. The Individual Deceased Personnel Files (IDPF) for all 287 individuals proposed for identification contains a list of their names and more specifics about the identifications. See, for example, the IDPF for Sgt David A. Ahlberg, 6584381. Out of the sixty-nine burials in the Camp #3 Cemetery, only four remain unidentified today. Fifty-eight of the identifications from this cemetery were made on the basis of identification media (paper, a burial bottle, or tags) found in the cemetery. Two identifications, as discussed above, occurred as the result of dental review. Five others were approved during the period of identifications proposed by field boards of review.

In 1947, in response to the passage by the U.S. Congress of legislation to fund “The Return of the World War II Dead Program,” practices for making and processing identifications changed. Graves Registration Personnel working on the issue were reorganized under the American Graves Registration Service (AGRS). Still headquartered in Washington D.C. and managed through the Memorial Division of the Office of the Quartermaster General, the reorganization resulted in the creation of zones of responsibility for search and recovery operations for still unrecovered casualties and for the disinterment and consolidation of cemeteries across the globe. Once identified and disinterred from a temporary cemetery, a casualty’s remains would be buried in accordance with the wishes of the next of kin, either in a permanent overseas American military cemetery or shipped to the United States for burial in a stateside military or private cemetery. In the Philippines, these changes resulted in the establishment of the AGRS Manila Mausoleum to serve as a collecting point for casualties from a broad zone including all of the islands of the Philippines. The mausoleum also contained a Central Identification Point where AGRS personnel examined unidentified remains, comparing them against records of casualties to effect identification of the remains. For Cabanatuan casualties, these changes resulted in a shift of analysis for identification from the Memorial Division to the Manila Mausoleum. Memorial Division personnel shifted to reviewing proposed identifications from the field office.<sup>31</sup>

Beginning in the fall of 1947 and continuing through July 1948, Manila #2 Cemetery was disinterred and moved to the AGRS Mausoleum at Nichols Field. The remains moved through the Central Identification Point where civilian embalmers and military graves registration personnel processed them for identification. In addition to creating new dental charts for the remains, they measured long bones to produce stature estimates, and examined the remains for evidence of malformations or fractures that might have been documented during life and could serve as an additional clue to their identity. A skeletal chart showing the elements present for each set of remains was also prepared. Staff of the Memorial Division’s Identification Branch documented only twenty-nine casualties approved in this phase of the identification process for Cabanatuan: nineteen individual identifications and an additional ten individuals represented in group burials.<sup>32</sup> Many of the recommended identifications put forward to the Memorial Division for review were disapproved with the request that further study be completed on the remains. The grounds for disapproval were based upon differences in, and/or a lack of dental data for the unknown remains from the graves in which the casualties were reportedly buried. Comments from the Memorial Division to the field office regularly noted, in requesting further study or disapproving a proposal, that the Army dental records of the decedents involved were “meager and incomplete” and presented a “marked similarity which would probably compare equally well with any cross-section of remains recovered from the Cabanatuan Cemetery.” The

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<sup>31</sup> Edward Steere and Thayer M. Boardman, *Final Disposition of World War II Dead, 1945-51* (Washington, DC: Historical Branch Office of the Quartermaster General, 1957), 635-636; Fisher, “Background Information Relating to the Identification of Remains from the Cabanatuan Prisoner of War Camp and the Reasons Why the Current Project was not Instigated at an Earlier Date,” National Archives.

<sup>32</sup> **NOTE:** The figures for identifications made at different phases of the study of Cabanatuan remains are based on the “Alphabetical Roster” cited in footnote 27. Study of the Individual Deceased Personnel Files for some of these casualties suggests that the basis of their identification sometimes changed prior to the end of the attempt to identify Cabanatuan remains. For example, PFC Clayton L. Holland, Jr., 290553, was originally noted as identified as the result of an approved field board of review, but his IDPF indicates ultimate identification from remains which had been designated unknown X-2551 Manila #2, with an approval date of 2 November 1951, placing this last identification after the end of the field board submissions and suggesting that the final phase, the “Cabanatuan Project,” overturned his field board identification. Further study of the IDPFs of Cabanatuan casualties is likely to reveal more changes of this type.

Field Boards of Review continued to take the lead on identification until June 1950. If identification could not be determined, the remains were reburied as unknowns in Fort McKinley Cemetery in Manila. Maintained by the American Battle Monuments Commission, this cemetery is now known as Manila American Cemetery.<sup>33</sup>

## VI. Cabanatuan Project

In May 1950, a member of the Memorial Division staff proposed that the remains from the Cabanatuan Camp #1 Cemetery should be reviewed in a focused project. This proposal arose from concerns about the poor quality of the comparisons and suggested identifications arriving from the field boards of review. After detailing the circumstances presented in the case of common grave 316, from which ten individuals had been identified based upon the presence of identification tags, two additional men had been identified during later remains processing, and fifteen men remained unidentified with fifteen unknown remains associated, the Memorial Division staff member proposed that a sustained and detailed study of this grave and the others from Cabanatuan had the possibility of producing several hundred more identifications. The Chief of the Memorial Division approved the proposal.<sup>34</sup>

In June 1950, L. V. Monzel outlined the procedures to be followed in setting up and completing the Cabanatuan Project. The team, located in Washington, D.C., would create three rosters to be used to capture the circumstantial, physical, and dental information necessary to make associations between unidentified remains and unaccounted-for casualties. First, the team would screen all the 293 files for decedents listed on the Cabanatuan Roster.<sup>35</sup> In conducting the screening, investigators would make a sheet containing available physical, dental, and casualty

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<sup>33</sup> Steere and Boardman, *Final Disposition of World War II Dead*, 547; Fisher, "Background Information Relating to the Identification of Remains from the Cabanatuan Prisoner of War Camp and the Reasons Why the Current Project was not Instigated at an Earlier Date," National Archives; Mildred Trotter, "Notes Historical," Mildred Trotter Papers. See also field board proceedings and correspondence from the Memorial Division regarding the results in many of the IDPFs of Cabanatuan casualties (for examples see the IDPFs of Pvt Dean E. Cederblom, 20900696 or Pvt Harold S. Hirschi, 19038407). **NOTE:** By this point in the multiple processings of remains, each set of unknown remains had received at least three different unknown numbers. The earliest, a "C-number" was assigned either at the graveside or shortly after transport to Manila #2 Cemetery. The second designation, an "X-number" was assigned at Manila #2, and a third designation, also an "X-number" was assigned at the Manila Mausoleum. Today, the unknowns files associated with these remains are stored under the "X-number" assigned at Manila #2. Information about the specific numbers used for remains associated with particular common graves from the Cabanatuan Camp #1 Cemetery may be found in the more detailed analysis of that particular grave or in the case summaries written to explain the circumstances of loss of a particular unaccounted-for service member who died at the camp.

<sup>34</sup> Author's name illegible, note to Captain Cox, 19 May 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** The Cabanatuan Project personnel did not successfully resolve the cases of the 15 men then unidentified from common grave 316. They remain unaccounted-for today.

<sup>35</sup> **NOTE:** The term "293 file" in this context refers to extracts of the physical, medical, and dental information pulled from the service records of deceased individuals and compiled into a single file. Today, the "293 file" is synonymous with the Individual Deceased Personnel File (IDPF). The reference here is to a subset of the documents that make up today's IDPF.

status information for each individual. Kept alphabetically after completion, these sheets could form the alphabetical roster for the project (see figure 8).<sup>36</sup> Second, and concurrently with the creation of the screening sheets, project personnel would develop a chronological roster of deaths using “information currently in this Office. Such a roster does not now exist and is a necessity for the chronological study which will be [the] primary means through which associations will be made.” Third, the project team would create screening sheets for all the unidentifiable remains associated with Cabanatuan. Also within this phase of the project, a “special grave index should be set up reflecting the identified and unidentified remains according to the Cabanatuan grave from which they were recovered.” Finally, upon completion of the rosters and screening sheets, the team would establish associations to the unknown remains through study of the rosters and circumstantial, physical, and dental comparisons.<sup>37</sup> In concluding the recommendations for structuring the project, Monzel made the following observation: “It is obvious that errors in some of the identifications established through ID tags will seem apparent in the course of the study. However, because of the lack of processing information for the remains prior to their permanent burial, it is believed that those identified remains interred in Fort McKinley should not be disturbed unless a misidentification appears definite and th[r]ough the disinterment of the remains additional identifications can be made after processing.”<sup>38</sup>

Mrs. Virginia Lee, a civilian employee of the Identification Branch, Memorial Division, submitted the first interim report for the Cabanatuan Project on 26 September 1950. She noted that the first three phases of L. V. Monzel’s proposal had been completed and she anticipated that comparisons of the records for deceased personnel against the records for remains would begin within two weeks of her submission of the report. The proposal going forward was to study, in particular, the chronological roster of burials that the Memorial Division had recreated from Major Conn’s burial report, noting: “A preliminary study is now being made in order to ascertain the relationship between the accountable burial periods and the dates and hours of death as shown on the roster” (see figures 9 and 10). At this point, Cabanatuan Project personnel assumed a correlation between the hour of death noted in “558-2, Death Report, Cabanatuan” and the order in which burials had been made within each of the graves.<sup>39</sup>

Shortly after the submission of the first interim report, Cabanatuan Project personnel encountered several problems with their attempts to associate casualties to remains using the documentation they had gathered and created. Trying to line up deaths for the months of June and July 1942 with burials in accordance with dates and times of death revealed “overlaps” in the burials. In other words, some individuals who died on a particular day at an earlier hour were associated with burials that the Cabanatuan Project staff felt should have been made on a

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<sup>36</sup> **NOTE:** As the project evolved, the screening sheets proved to be in too high of a demand among the project staff and could not serve as the alphabetical roster. Consequently, a separate alphabetical roster was produced.

<sup>37</sup> **NOTE:** This team made dental and physical comparisons with the remains based solely upon paperwork provided from the field. Their suggestions for associations between “unknown” remains and unidentified service members were not made based upon a study of the remains themselves.

<sup>38</sup> L. V. Monzel, memorandum to Captain Cox, June 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>39</sup> Virginia W. Lee, “Subject: Cabanatuan Project, Interim Report 21 June-21 September 1950, Inclusive,” 26 September 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

subsequent day, while other, later deaths were associated with burials they thought had occurred earlier. Further, their analysis of graves and the numbers of remains removed from those graves suggested that several numbered burials, specifically 304, 313, 413, 414, 1012, 1013, and 1108 appeared not to have been recovered by the 111th Quartermaster Graves Registration Platoon when they disinterred the cemetery. With these difficulties in mind, project staff contacted Robert Conn, now a civilian living in Minnesota, and worked through some of the problems via telephone, written correspondence, and a trip by Mr. Conn to Washington, D.C. to be interviewed by Memorial Division staff.<sup>40</sup>

The conversations with Mr. Conn clarified several points of confusion for the Cabanatuan Project personnel. First, in determining who should have been buried in a particular grave, the accountable burial period, that is, the 24 hour period in which remains were collected at the morgue for burial, should be the primary consideration rather than the specific hour and date of death. Men from any particular accountable burial period would be buried together, but not systematically by their time of death. In many instances, the time of death reported on the roster represented an approximation, since many of the casualties died in the night, unattended by fellow prisoners. With this understanding in mind, the team drew up a new chronological roster, this time using the accountable burial period to group the casualties. They used information concerning identified personnel to group together unidentified individuals who should have been buried with the identified personnel along with the unknown remains recovered from the same grave (see figure 10). This new roster formed the basis for all the subsequent work of the project.<sup>41</sup>

Mr. Conn, when explaining the possibility of unrecovered graves, noted that all the graves in question would have been placed in the June-July 1942 timeframe. He found it quite possible that they had failed to actually locate the graves when marking the boundaries within the cemetery in the spring of 1943:

Let's say this – that when we went out to finally try to put the cemetery in order, I took a large number of boys out who had been on previous work details to try to locate where graves had been put in and the dates they were put in, and it is just possible that the ones you mention would have given the appearance of being a grave but in reality was nothing but a mass of ground which would look like a grave.<sup>42</sup>

He stated that these very concerns were among those that led him not to specify grave numbers for those early burials.<sup>43</sup>

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<sup>40</sup> J. F. Vogl et al., "Transcript Outgoing Telephone Call," 29 September 1950; Virginia W. Lee, "Subject: Cabanatuan Project, Interim Report 21 September-21 November 1950, Inclusive," 1 December 1950; R. E. Conn, Jr., letter to Captain J. F. Vogl, 3 October 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>41</sup> Virginia W. Lee, "Subject: Cabanatuan Project, Interim Report 21 September-21 November 1950, Inclusive," RG 92, National Archives.

<sup>42</sup> J. F. Vogl et al., "Transcript Outgoing Telephone Call," 29 September 1950; Virginia W. Lee, "Subject: Cabanatuan Project, Interim Report 21 September-21 November 1950, Inclusive," RG 92, National Archives.

<sup>43</sup> R. E. Conn, Jr., letter to Captain J. F. Vogl, RG 92, National Archives.

Mr. Conn also cautioned Cabanatuan Project staff about relying on identifications that had been made solely on the basis of the presence of identification media. The team had discovered several incidents where, based upon the date of death, a particular individual should have been buried in a grave other than the one from which they were subsequently identified. To illustrate the problem, Memorial Division personnel gave as an example, the death, burial, and identification of Sgt Barnes Olmstead, 38011833. Sergeant Olmstead's death had been reported on 10 October 1942. The "558-2, Death Report, Cabanatuan" gave his burial location as grave 512. Instead, 111th Quartermaster Graves Registration Platoon members had identified remains from grave 719 as Sgt Olmstead's based upon the presence of an identification tag. Other men recovered from grave 719 had dates of death of 17 November 1942. In explaining what might have happened, Mr. Conn proposed the following scenario:

Well now, let me tell you how it could happen. Let us say that this man passes away. The doctors or the corpsmen taking the body out of the ward ask who it is, and this man next to him positively identifies him as being Olmstead. Then, let us say that Olmstead, before he died, had given his wallet or some other means of identification to this man lying next to him. Let us say a month later this man lying next to Olmstead passes away. The wardman asks who he is and the boys say "We don't know. Let's see what he's got." They examine him and find that his identification indicates that he's Olmstead because it is the identification which Olmstead had given to him.<sup>44</sup>

When Mr. Conn visited the Memorial Division staff on 6 and 7 November 1950, he cautioned them that identifications made on the basis of tags were "not worth anything."<sup>45</sup>

With these clarifications in mind, Cabanatuan Project staff divided up the cases by grave numbers and set about analyzing the rosters they had created to match up unknown remains with unidentified casualties. In December 1950, they sent an initial request for the field to reprocess thirty-one identified remains that were then buried in Fort McKinley cemetery. The request covered burials originally made at Cabanatuan from 3 June through 6 July 1942, and asked that Central Identification Point field staff simultaneously process previously identified individuals with unknown remains in an effort to associate some of the still unidentified individuals with either mistakenly identified remains or remains currently designated as unknown.

The Central Identification Point could not consider remains that had already been identified but shipped to the U.S. for burial, so each of the reprocessing requests necessarily dealt with only a fraction of the total number of remains thought to have come from any particular grave. This request, like others that would follow, also asked the field office to consolidate any extra skeletal parts found into either the identified or the unknown remains from the grave. In this way, and from a great distance, the Cabanatuan Project staff directed the field office to make the numbers of sets of remains add up to the number of individuals originally reported buried in a particular grave. While this request was likely made in good faith, and in an effort to sort out remains presumed to be commingled due to their having been buried in common graves, it had the

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<sup>44</sup> Captain J. F. Vogl, et al, "Transcript Outgoing Telephone Call," RG 92, National Archives.

<sup>45</sup> "Notes on Conversation in Washington Office with Mr. Robert E. Conn, 6 & 7 November 1950," Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

potential unintended consequence of losing some of the individuals who may have been mistakenly documented as coming from a particular numbered grave at the time of initial disinterment. Cabanatuan Project staff seem not to have considered the possibility that some of the remains they documented as unrecovered might instead have been recovered, but noted by the 111th Quartermaster Graves Registration Platoon as having come from a different grave than that listed in the "558-2, Death Report, Cabanatuan."<sup>46</sup>

The Identification Branch continued to assign the Cabanatuan cases in chronological order and to make requests to the field for reprocessing of remains. This work resulted in some additional identifications, but it did not proceed in an uncomplicated way or at the pace originally predicted by Memorial Division staff. Misidentifications based on the presence of identification media continued to be a major concern, and as project staff reviewed common graves, they found that these misidentifications caused cascading problems both within and between graves. A misidentified set of remains incorrectly excluded the named individual from consideration when reviewing other sets of remains. In circumstances where many deceased individuals had similar physical and dental characteristics, and the staff trying to make identifications had limited tools for discriminating particular features or circumstantial evidence to establish identity, a series of misidentifications could affect all of the subsequent efforts to identify the unknowns. These issues created, and still create, additional uncertainty and doubt about the entire project.<sup>47</sup>

The interim report of the project filed on 13 April 1951 included with it a "Major Discrepancies" roster noting that, among the graves reviewed to that point, Cabanatuan Project staff suspected 110 misidentifications from 148 graves. These misidentifications, occurring as they did from common graves containing both identified and unidentified casualties, impacted a total of 1,319 remains. The report, being interim, represented an assessment of approximately 49% of the total number of remains to be examined in the course of the project. Of the cases tagged as potential misidentifications, forty-three were noted to have already been sent to the United States, all but two having been delivered for burial. The interim report was accompanied by a recommendation

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<sup>46</sup> Virginia W. Lee, with concurrence from Captain Wasson, QMC, "Subject: List of Required Reprocessings as of 21 November 1950 (Cabanatuan Project)," 8 December 1950, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** In his phone conversation with Lenora Rowinski of the Identification Branch, Mr. Gilbert Zehner, who had overseen the disinterment of the Cabanatuan Camp #1 Cemetery, reported to her that the number of remains found in any particular grave did not always correspond with the information they had concerning what they should expect to find in each location. See footnote 27. In reference to requests from Cabanatuan Project personnel regarding reprocessing of remains in Manila, it is also worth noting that none of the personnel making the requests understood the condition of the remains. Not until Dr. Trotter visited Manila to assess the project (see page 19 below) did anyone in Washington, D.C. learn that the remains were degraded and eroded to such an extent that they could not be segregated into discrete individuals.

<sup>47</sup> **NOTE:** As an example of these potential ramifications, Cabanatuan Project staff continued to have difficulty sorting out and associating groups of deceased individuals with the common graves as they had been numbered in the Camp #1 Cemetery. In particular, for the period 7-14 June, the project staff had difficulty aligning the resolved individuals with the grave numbers from which they assumed they should have been recovered. Rather than concluding that misidentifications might be playing a role in the problem, the staff concluded that the grave details had not adhered to their own burial practices. In an attempt to sort out the graves and the remains originally contained within, they sent a request to the field dated 14 September 1958 asking that all the unknowns from this period be considered and processed together. This request had the effect of combining for identification processing cases concerning 156 individuals, seventy-one of whom were not identified. They did not request inclusion of graves 1009, 1015, 1016, or 1101, which represented an additional thirty individuals. These graves were excluded from comparison because project staff considered them "cleared," meaning that no unidentified individuals continued to be associated with the grave numbers.

not to disturb those forty cases, but to only attempt to fix the problems of identification where the remains were still in the custody of the AGRS.<sup>48</sup>

By this time, the Central Identification Point of the Manila Mausoleum had employed anthropologists to help with the processing and identification of remains. Mr. Robert Fox, then the curator of anthropology for the Philippine National Museum, processed remains at the Central Identification Point until May 1951 when Mr. Charles Warren replaced him. Mr. Fox returned to the University of Chicago to complete his doctorate. The anthropologists worked strictly at the request of the records division in the field or the Identification Branch of the Memorial Division. They did not have access to the records themselves, and so did not make associations between unknowns and unidentified personnel. Rather, they responded to the requests for specific examinations of the remains, either to check for a particular trait, fracture, or malformation, or to reprocess and segregate commingled remains. They produced a report documenting their work, but as Mr. Warren would later note: “Unfortunately, there was no feedback; I never learned the results of my anthropological findings or related work nor did I experience any satisfaction from an awareness of positive contributions leading to the identification of any of the unknowns.”<sup>49</sup>

With concern growing over the complications of the project, the Memorial Division sent three Cabanatuan Project personnel, Mrs. Virginia Lee, Mrs. Marie Holden, and Major Robert Lay to Manila to work from within the Manila Mausoleum. They began work on 17 September 1951, and quickly reported finding additional records concerning Cabanatuan Camp #1 Cemetery casualties available in the Records Division of the field office.<sup>50</sup> All three worked directly with the AGRS field staff to approve identifications and “clear” graves, by identifying either individually or in groups, all the remains associated with a particular grave number. In her report from the field, Mrs. Lee noted that the additional information available sometimes “changed the picture of the graves completely, as a result of which we are now convinced that no associations should be made unless all the data for the identified remains is available.” Major Lay noted that 31 October 1952 might be best regarded as the target date for completion of the Cabanatuan Project, though it is not clear whether he was taking into account the imminent arrival of Dr. Mildred Trotter to help with reprocessing Cabanatuan cases.<sup>51</sup>

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<sup>48</sup> Chief, Identification Branch, memorandum to the Chief, Memorial Division, “Subject: Cabanatuan Project – Interim Report,” 13 April 1951, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>49</sup> Charles P. Warren, “Forensic Anthropology in a Military Setting,” *Human Organization* 40, no. 2 (1981), 173.

<sup>50</sup> **NOTE:** The additional documentation located consisted of summary forms reporting the physical and dental characteristics for some of the remains that had already been identified and that same information from some of the service records of the casualties. Until finding the records in Manila, and based upon an inability to obtain them from the records center in St. Louis, Cabanatuan Project staff had assumed they would not have these details for every case.

<sup>51</sup> Virginia W. Lee, letter to Colonel King, 13 October 1951; Colonel James Clearwater, letter to Major Robert Lay, 19 October 1951, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** In his response back to Major Lay, Colonel Clearwater remarked that he was “somewhat mystified” by the proposal that the Cabanatuan Project would end in October 1952, a date which extended the project ten months beyond the possibility of using Congressionally allocated funds to complete it. He reiterated that 31 December 1951 should be the date at which project personnel aimed to have things wrapped up.

Shortly after the arrival of the Cabanatuan Project staff in Manila, Captain John Shypula, an AGRS field officer stationed there, traveled to the site of the former Cabanatuan POW Camps to conduct a final field investigation in the hopes of recommending that a team return to the cemetery to disinter graves that might have been overlooked by the 111th Quartermaster Graves Registration Platoon. On 25 September 1951, Captain Shypula visited the site of the cemetery with Cabanatuan City Mayor, Mr. O'Campo, but nothing could be definitively established as the entire area had been converted into rice paddies and flooded with water. Captain Shypula then contacted Mr. Alejo Malcber who had been employed as a gravedigger at the cemetery during disinterment operations, but Mr. Malcber had no additional information. On the following day, Captain Shypula returned to the cemetery and determined that the former landmarks within the cemetery had been obliterated and could not be reestablished. Since no test digging could be conducted nor anything further determined, Captain Shypula departed.<sup>52</sup>

Meanwhile, Colonel Clearwater, chief of the Memorial Division, had retained Dr. Trotter, a professor at Washington University, St. Louis, as an expert anthropologist with prior experience identifying World War II dead. She first traveled to Hawaii, departing St. Louis on 8 October 1951. She worked in Hawaii for a few days at the Central Identification Laboratory (CIL) at Schofield Barracks before traveling on to Manila with Lieutenant Colonel Abel, an AGRS officer then stationed at the CIL in Hawaii.<sup>53</sup>

Lieutenant Colonel Abel and Dr. Trotter, both of whom had extensive prior experience in the identification laboratories of the Pacific theater, reviewed the Cabanatuan remains available in Hawaii and then moved on to the Philippines where they found that the identifications being put forward to the Memorial Division could not be further substantiated by studying the remains and the accompanying paperwork at the same time. Dr. Trotter was dismayed to learn the history of burials, disinterments, identifications, and reburials of the Cabanatuan casualties. She wrote:

During this entire period, I have learned some of the details of the history of these remains since they were first buried in 1942. This history includes a record of burial, disinterment, reburial, etc., etc., a series of processings with resultant papers for three or four or perhaps more successive years; signatures on the papers which do not carry weight scientifically; identifications made and the next of kin notified; questioning of the identification with recommendations for correction by personnel who study the papers at a distance of more than 8,000 miles from the remains.<sup>54</sup>

Dr. Trotter found the remains to be in a terribly eroded state, first from being buried and left in ground sodden with water for several years, and then from being handled too often during processing. She emphatically reported the remains to be “jumbled beyond belief,” “eroded much beyond a state that [could] be illustrated on a black-out chart,” and in “such a state of deterioration that evidence on which identification depends had been largely obliterated.” She

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<sup>52</sup> Captain John Shypula, “Disposition Form re: Cabanatuan Project,” 27 September 1941, Declassified Classified Miscellaneous Files; Graves Registration Service; Office of the Quartermaster General; Record Group 92; National Archives, College Park, MD.

<sup>53</sup> Mildred Trotter, letter to Col James Clearwater, 1 November 1951; Mildred Trotter, draft report, “Subject: Report of Official Travel,” 27 December 1951; Mildred Trotter Papers, Special Collections of the Bernard Becker Medical Library, Washington University, St. Louis.

<sup>54</sup> Mildred Trotter, letter to Col James Clearwater, 1 November 1951, Mildred Trotter Papers, Special Collections of the Bernard Becker Medical Library, Washington University, St. Louis.

saw no way to substantiate the identifications being proposed by Mrs. Lee and Mrs. Holden, and noted that she and Mr. Warren “came to odds when he wanted to make identifications to please the two women clerks who had been sent to Manila to shuffle and sort earlier records and who had made identifications from these earlier records.”<sup>55</sup>

Lieutenant Colonel Abel, Dr. Trotter, and Major Lay assembled a package documenting the problems of the Cabanatuan Project for Colonel Clearwater’s consideration. Lieutenant Colonel Abel seconded Dr. Trotter’s concerns about the lack of ability to prove any proposed segregations of commingled remains and noted “much evidence” of exchanges of remains in prior processings, particularly in the swapping of skulls with post-cranial remains. In addressing the attempts to have anthropologists make the identifications that Memorial Division staff assumed possible when looking only at their project rosters and associated paperwork for the remains and casualties, Lt Col Abel noted that the comparisons were impossible because estimates for stature and age could not be made from the remains present, and the dentition available with the remains did not match the available records for individuals who should be associated. Major Lay, for his part, emphasized that any attempts to “clear” graves were partial at best because too many remains had already been shipped to the U.S. He added concerns arising in working with the contractor who was attempting to finalize burials at Fort McKinley cemetery so it could be handed over to the American Battle Monuments Commission for care and maintenance, and noted that the project could not be fully completed on the timeline desired by Memorial Division leadership.<sup>56</sup>

Based upon the package put forward by Lt Col Abel, Dr. Trotter, Major Lay, and Captain Shypula, Col Clearwater “reluctantly concluded that the continuance of this project under such conditions would be neither productive or advisable.” Those families who had already been notified that the remains of their loved one had been recovered received remains for burial, and cases already in processing continued until finished. As for the rest, on 3 January 1951, Col Clearwater rendered a decision to declare the rest of the unknowns associated with the Cabanatuan Camp #1 Cemetery unidentifiable. The remains were then permanently interred in the Manila American Cemetery.<sup>57</sup>

## **VI. Current Research on Unidentified Casualties from the Cabanatuan POW Camps**

Initial work by historians of the former Defense POW/Missing Personnel Office (now part of the Defense POW/MIA Accounting Agency) reconstruct the history of the casualties of the Cabanatuan POW Camps began in 2004 with a request from a family member of an

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<sup>55</sup> Mildred Trotter, letter to Colonel James Clearwater, Mildred Trotter Papers; Mildred Trotter, letter to T. Dale Stewart, 10 November 1954, Mildred Trotter Papers; Mildred Trotter, letter to Charles Warren, 13 July 1982, T. Dale Stewart Papers, National Anthropological Archives, Museum Support Center, Suitland, MD.

<sup>56</sup> Lieutenant Colonel Stewart Abel, letter to Colonel James Clearwater and Colonel Chester Elmes, 1 November 1951, with enclosures from Captain John Shypula, Dr. Mildred Trotter, and Major Robert Lay, Cabanatuan Project; General Correspondence, Classified Miscellaneous file, 1946-52; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

<sup>57</sup> Chief, Memorial Division to Chief Identification Branch, “Intraoffice Reference Sheet,” OQMG Form 638, 6 November 1951, Cabanatuan Project; General Correspondence, Classified Miscellaneous file, 1946-52; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD; “Memorandum for Record: (Salser 72947), Subject: Cabanatuan Project,” 3 January 1952, Memoranda and Reports, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

unaccounted-for serviceman who had died in Cabanatuan Camp #1. That early research resulted, in 2005, in the first draft of this memorandum. Additional archival research, study of the memoirs of survivors, and of the histories of the war in the Philippines has continued to expand our understanding of the specific circumstances of death and burial of the casualties from these camps. Work to develop data concerning deaths in Cabanatuan, reconstruct the Cabanatuan Project, and assess the identifications made from 1946-1951 is ongoing. Documents reviewed so far confirm and reinforce the concerns expressed at the end of the Cabanatuan Project and show the impact of early misidentifications to be more widespread than Cabanatuan Project staff understood. Ongoing reviews of the Individual Deceased Personnel Files of casualties identified at the graveside by the 111th Quartermaster Graves Registration Platoon reveal many discrepancies between the physical and dental information available for the service member when compared against the physical and dental description of the remains. Further, documentation available concerning the multiple processings for identification show that, among both identified casualties and unknown remains, the teeth represented as present in 1946 at initial disinterment are often not the teeth represented as present when the remains moved through final processing.

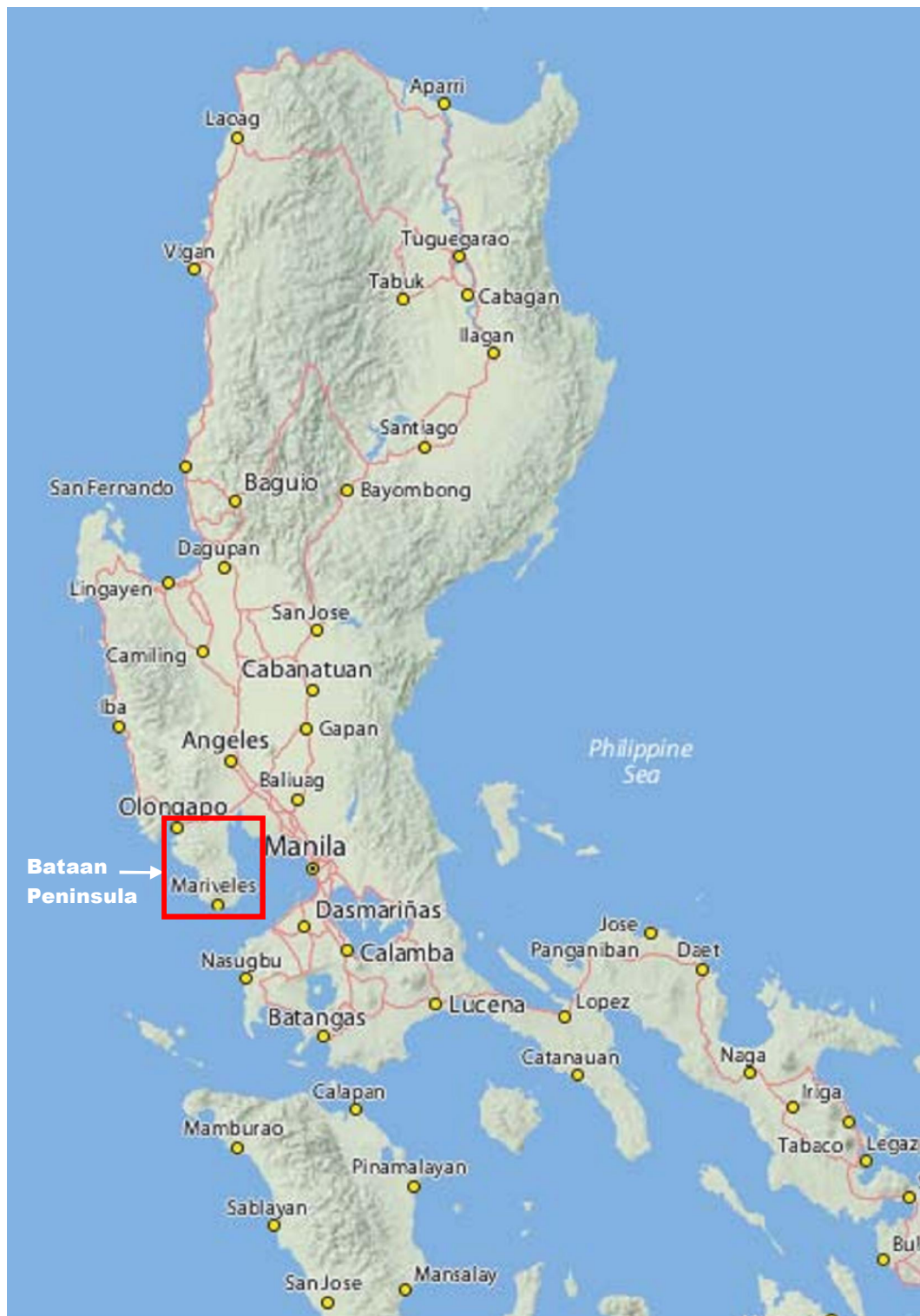
A review of cases reprocessed during the Cabanatuan Project yields further difficulties. These cases show that Memorial Division personnel sometimes corrected misidentifications and notified family members, but that they also sometimes left them in place. In one instance, paperwork showing a reprocessing of the remains associated with grave 419 appears in archival documents found at the National Archives, but does not appear in the Individual Deceased Personnel Files or the Unknown Files for the associated individual remains. This is problematic, in that it calls into question our ability to adequately reconstruct all of the attempts at identification any particular set of remains may have gone through, and, given that it is the last processing that is not present, it also suggests that the remains present in the casket might not be the remains suggested to be present by the paperwork included in the IDPF or Unknown file, making it difficult to offer assessments concerning the feasibility of current or future identifications of unknowns based on the records available. These difficulties do not preclude attempts to disinter and identify unknowns associated with the Cabanatuan POW Camp Cemeteries, but they do point to a complex set of burials, identifications, and misidentifications that make it difficult, based upon historical documentation alone, to set boundaries for disinterment projects focused on individual cases or even upon clustered groupings of cases.<sup>58</sup>

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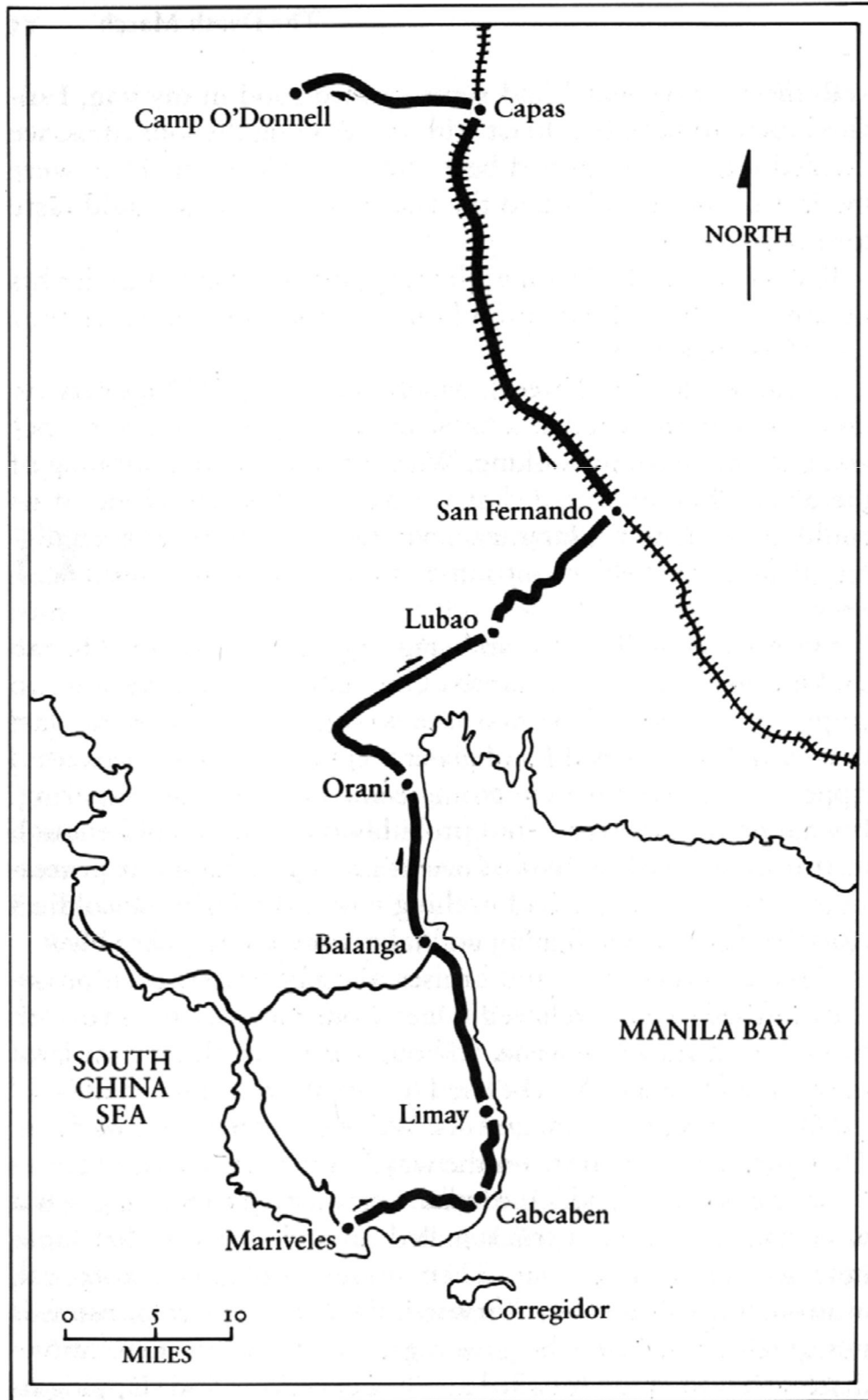
<sup>58</sup> Individual Deceased Personnel File for Pvt Earl L. Charles, 35001419, Record Group 92: Records of the Office of the Quartermaster General, Washington National Records Center, Suitland, MD; Unknown file X-1755 Manila #2, Record Group 92: Records of the Office of the Quartermaster General, Washington National Records Center, Suitland, MD; Mildred Trotter, letter to Colonel James Clearwater, 3 December 1951, Continuing File, 1946-52, 293 GRS Pacific (Cabanatuan); General Correspondence, Miscellaneous File, 1939-54; Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD. **NOTE:** For an example of a case where the family did receive notification of a misidentification, see the IDPF for Pvt Dean E. Cederblom, 20900696.



**Figure 1.** Map showing location of the Republic of the Philippines relative to Southeast Asia.



**Figure 2.** Map of Luzon Island. U.S. and Filipino forces had been distributed throughout the island at the outbreak of war. By December 1941 and until surrender, they were concentrated on the Bataan Peninsula.



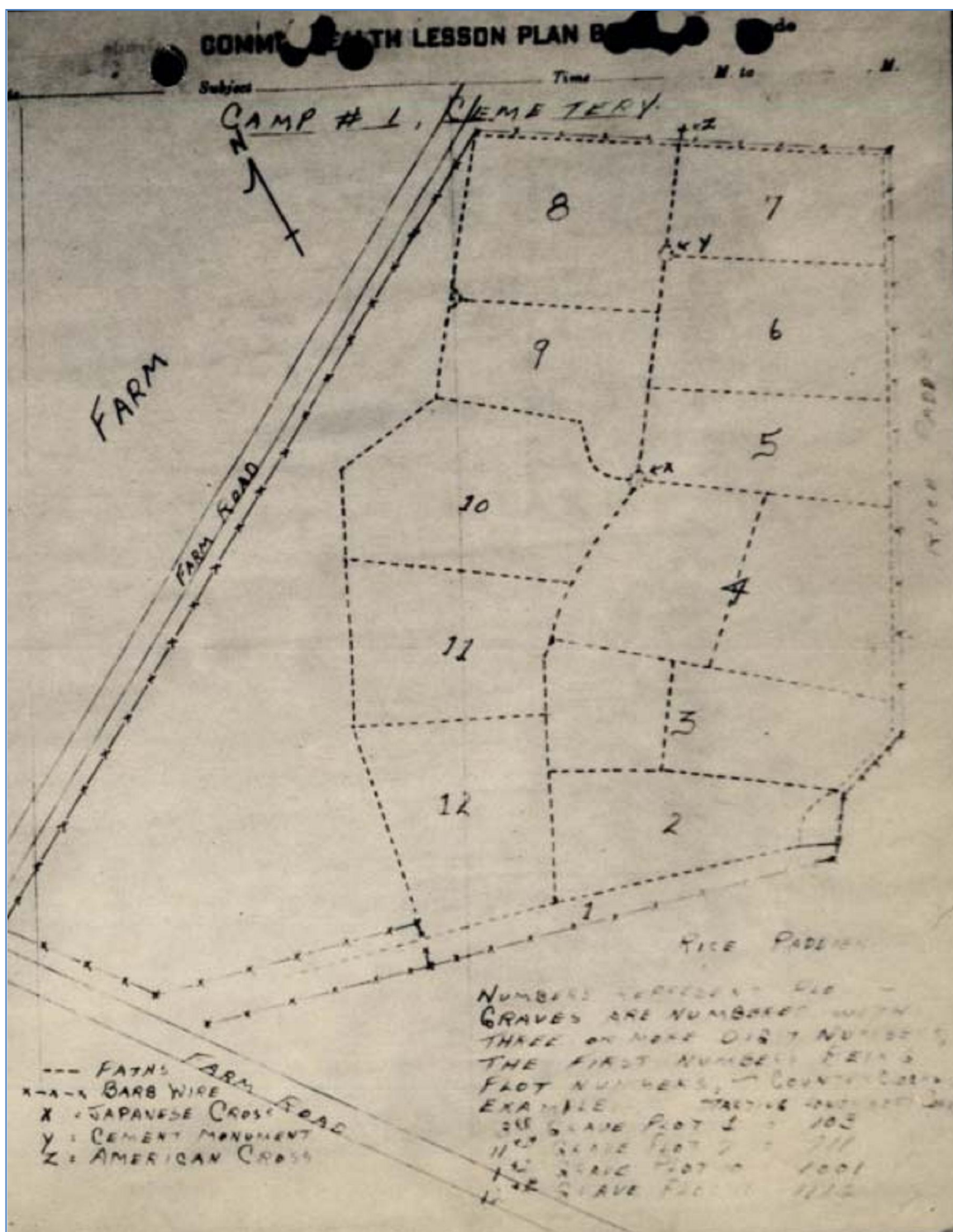
**Figure 3.** The route of the Bataan Death March. (Source: Lawton, *Some Survived*, 184.)



**Figure 4.** Satellite image of a portion of Luzon Island with the locations of O'Donnell, Cabanatuan, Manila, and the Bataan Peninsula marked. The straight-line distance between O'Donnell and Cabanatuan is 68 kilometers/42 miles.

Month and Year of Death	Number of Individual Identifications	Number of Individuals in Group Identifications	Number Unaccounted-for	Total Casualties for the Month
May 1942	11	0	2	13
June 1942	293	51	197	541
July 1942	365	11	421	797
August 1942	159	28	114	301
September 1942	196	32	49	277
October 1942	190	19	57	266
November 1942	180	16	102	298
December 1942	94	18	37	149
January 1943	57	9	12	78
February 1943	10	0	0	10
March 1943	5	0	4	9
April 1943	2	0	0	2
May 1943	2	0	1	3
June 1943	3	0	0	3
July 1943	2	0	1	3
August 1943	2	0	0	2
September 1943	0	0	1	1
October 1943	0	0	2	2
November 1943	0	0	1	1
December 1943	0	0	1	1
January 1944	0	0	0	0
February 1944	0	0	1	1
March 1944	1	0	0	1
April 1944	0	0	0	0
May 1944	0	0	0	0
June 1944	0	0	0	0
July 1944	0	0	0	0
August 1944	0	0	1	1
September 1944	1	0	1	2
October 1944	0	0	2	2
<b>Totals</b>	1,573	184	1,007	2,764

**Figure 5.** Listing of casualty figures for the Cabanatuan Prisoner of War Camps arranged by month and year of death, as well as current casualty status. The figures include deaths at Camp #1 and Camp #3, as well as isolated graves within the vicinity of the camps.



**Figure 6.** Sketch map of the Cabanatuan Camp #1 Cemetery from Captain Conn's "558-2 Death Report, Cabanatuan." This image is taken from a facsimile of the original, but even the original is difficult to read because it was buried at the camp from 1944 until after liberation.



**Figure 7.** Sketch map of Cabanatuan Camp #1 Cemetery created by the 111th Quartermaster Graves Registration Platoon in August 1945.

293 FILE		DATA ON REMAINS NOT YET RECOVERED OR IDENTIFIED		REPORTS CONTROL SYMBOL GNG-26	
NAME (Last, First, Middle Initial) BABBAIN, Joseph J.			GRADE Sgt		PRESENT SERIAL NUMBER 11 014 157
ORGANIZATION			RACE W	CREED	FORMER SERIAL NUMBER (If applicable)
DATE OF DEATH/MIA 11 Jun 42 (5:30PM)		CAUSE OF DEATH		PLACE OF DEATH OR PLACE LAST SEEN IF MIA	
DATE OF FOD					
HEIGHT 5'7"	WEIGHT 125	COLOR EYES	COLOR HAIR BROWN	SHOE SIZE	
DENTAL CHART 25 Sept 40					
UPPER RIGHT X 8 7 6 5 4 3 2 1			UPPER LEFT plate )X X 1 2 3 4 5 6 7 8		
LOWER RIGHT X X 16 15 14 13 12 11 10 9			LOWER LEFT 9 10 11 12 X X X X 13 14 15 16		
X—Extracted      O—Carious      1—Carious Non-Restorable					
FRACTURES AND/OR BREAKS			TATTOOS AND/OR BIRTHMARK		
ADDITIONAL INFORMATION					
<p>Date of Birth: 30 Jan 1915      Associated with grave 420</p> <p>Reporting Date: Not reported on Hospital Register      Cabanatuan Roster Line No. 106</p> <p style="text-align: right;"><i>File NAM Haden J.R. 29 Jan 52</i></p>					
DONG FORM 371 24 JAN 51 <i>Incl 82</i> <i>delivered to Mr. Stanley</i> <small>U. S. GOVERNMENT PRINTING OFFICE 16-51822-0</small> DATE FORWARDED TO FIELD					

**Figure 8.** Example of a “screening sheet,” or “293 file” created by Cabanatuan Project staff. Excerpted from the IDPF of Sgt Joseph Babbain, 11014157.

1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518	1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562	1563	1564	1565	1566	1567	1568	1569	1570	1571	1572	1573	1574	1575	1576	1577	1578	1579	1580	1581	1582	1583	1584	1585	1586	1587	1588	1589	1590	1591	1592	1593	1594	1595	1596	1597	1598	1599	1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620	1621	1622	1623	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1661	1662	1663	1664	1665	1666	1667	1668	1669	1670	1671	1672	1673	1674	1675	1676	1677	1678	1679	1680	1681	1682	1683	1684	1685	1686	1687	1688	1689	1690	1691	1692	1693	1694	1695	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705	1706	1707	1708	1709	1710	1711	1712	1713	1714	1715	1716	1717	1718	1719	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749	1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760	1761	1762	1763	1764	1765	1766	1767	1768	1769	1770	1771	1772	1773	1774	1775	1776	1777	1778	1779	1780	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	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