



WWII DIVISION MEMO

Date: 1 March 2010

Last Update: 9 December 2015

To: Geographic File

From: Heather Harris, Historian

Re: History of the sinking of USS *Oklahoma* (BB-37) and subsequent attempts to recover and identify her crew

This memorandum is intended to supplement information given in the DPAA Case Summaries provided to family members of casualties from the battleship USS *Oklahoma*.

At the onset of the 7 December 1941 attack, the battleship USS *Oklahoma* (BB-37) occupied berth F-5 outboard of USS *Maryland* (BB-46) in Battleship Row (see figure 1). The first torpedo hit to the ship occurred just before 0800 hours. Within minutes the ship had sustained damage from multiple torpedoes and capsized, coming to rest 151 degrees 30 minutes to port (see figure 2).¹ As the ship listed, her commander gave orders to abandon ship over the starboard side. Some of the sailors who were able to evacuate swam to USS *Maryland* and to the shores of Ford Island, while other personnel manned smaller boats and began to pull the wounded from the water. In the hours after the sinking, rescue parties were able to establish contact with some of the crew members trapped inside, ultimately cutting holes in the hull and over the next few days, rescuing thirty-two men, but the majority of sailors and marines aboard were not so lucky.²

Four hundred fifteen Navy personnel and fourteen Marine crew members of the *Oklahoma* died in the attack (see appendix 1).³ Of this number, thirty-five were positively identified and buried in the months and years immediately following the incident, leaving three hundred ninety-four buried among the unknowns at the National Memorial Cemetery of the Pacific (NMCP or Punchbowl), and making the unknowns from USS *Oklahoma* the single largest group of buried unidentified servicemen from the Pearl Harbor attack. Some number of an additional sixty-four burials of unknowns, men recovered from the harbor itself rather than a particular ship, has the potential to be associated with missing servicemen from USS *Oklahoma*,

¹ Commander Jesse L. Kenworthy, Jr., USS *Oklahoma* to Captain H. G. Bode, U.S. Navy, 16 December 1941, "Surprise Enemy Attack and Sinking of the U.S.S. *Oklahoma*," The Naval Historical Center, access date 2 April 2007, <http://www.history.navy.mil/docs/wwii/pearl/ph62.htm>.

² Stephen Bower Young, *Trapped at Pearl Harbor: Escape from Battleship *Oklahoma** (Annapolis, MD: Naval Institute Press, 1991), 153-54.

³ The discrepancies for early casualty lists arose due to the confusion generated by the attacks, the loss of paperwork for some of the ships, and erroneous assignments of some of the casualties to particular ships. In the years since, the casualty lists for particular ships have stabilized.

as they have no loss location more specific than “Pearl Harbor.”⁴ In fact in 2007, the Joint POW/MIA Accounting Command (JPAC) identified one USS *Oklahoma* sailor, Fireman Third Class (F3) Alfred Livingston, out of this group of unknowns collected from the waters of Pearl Harbor.

In the immediate aftermath of the attack on Pearl Harbor, Navy personnel recovered and buried only five unknowns associated with the *Oklahoma* in Nuuanu Cemetery from December 8 through December 16, 1941. In addition to these unknowns, twenty-nine crew members of USS *Oklahoma* were identified and buried in either Nuuanu or Halawa Naval Cemetery during this same timeframe.⁵ Six more crew members from the *Oklahoma* identified in this early period were initially listed as casualties whose ship assignment was not known. The vast majority of the unknown servicemen of the *Oklahoma* were recovered from the ship during salvaging operations. These recoveries, conducted initially by divers and salvaging crews as they prepared the *Oklahoma* for righting and continued once the ship had been re-floated, resulted in a total of fifty-two burials, representing approximately four hundred individuals. The recoveries began with the initiation of salvaging on 15 July 1942 and ended on 10 May 1944, with the majority of remains being removed from the ship after it had been righted. The last burial of USS *Oklahoma* remains occurred at Halawa, in June 1944, where they remained until 1947. In September of that year, the American Graves Registration Service (AGRS) disinterred these two cemeteries and moved the remains to the Schofield Barracks Central Identification Laboratory (Schofield CIL), located at the AGRS Pacific Zone Headquarters, in order to effect or confirm identifications and return the men to their next of kin for burial (see figure 3).

Dr. Mildred Trotter, an anthropologist working at the Schofield CIL when the unknowns from the *Oklahoma* underwent processing for identification stated that the unknowns from the ship were originally buried “in fifty-two (52) common graves consisting of bones of a kind buried together (i.e., one casket was filled with skulls, another with femurs, another with hip bones, and so on).” It is not possible that the remains would have arrived from disinterment in Nuuanu and Halawa Cemetery segregated as caskets of like parts. Each set or group of remains was buried fairly quickly after it was recovered. The medical attendants and cemetery workers responsible for these remains and burials are not on record as having buried any other group of remains in the fashion that is reported in Dr. Trotter’s narrative. Further, the different sets of remains are reported as being buried over the period 9 December 1941 to 27 June 1944, and there is no reporting of disinterment and reburial before their final removal from those cemeteries in 1947. Without an intermediate disinterment, it would have been impossible to commingle the remains buried on 9 December 1941 with the remains buried on 27 June 1944. Photographs taken in this period show instead that the remains arrived at the CIL in a highly commingled state and covered with fuel and oil from the battleship. The CIL staff cleaned the remains and arranged them in groups of like elements before beginning identification processing (see figures 4 thru 6).

⁴ These figures are taken from the Navy burial register “NAVMED HF-38,” a copy of which is located in the JPAC records repository.

⁵ These twenty-nine identified individuals have no connection to the twenty-seven later put forward for identification and discussed below in this memo.

At the time the Schofield CIL initiated processing of the *Oklahoma* remains, the staff operated under the assumption that the case would be approved by the Office of the Quartermaster General (OQMG) as a group burial. The Schofield CIL had recently finished processing another large set of remains from USS *Serpens*. In that instance, 52 sets of unsegregated remains were approved by the OQMG Board of Review to represent the more than 250 casualties that resulted when USS *Serpens* exploded while being loaded with depth charges in Guadalcanal. Other group burial cases involving unknowns from Tarawa and Wake Island also had been put forward for approval. In the case of Wake Island, the Schofield CIL, having reprocessed the already commingled remains and determined that no individual identifications could be made by segregating them, sorted them into caskets of like parts. The justification for such casketing was threefold. First, the Chief of the Mausoleum argued that casketing the remains as like parts conserved more space and utilized fewer caskets than other types of commingling or segregation. Second, in this period, the only clearly accepted means of positive identification based solely on the analysis of skeletonized remains was matching of postmortem dentition with ante-mortem dental records. The Schofield CIL staff reasoned that if, at some future date, the OQMG decided to identify only dental remains, it would be an easier task if all the skulls and mandibles for a group burial had been buried in as few caskets as possible. Third, the AGRS Pacific Zone Command, concerned about publicity problems, reasoned that casketing the remains in groups of like parts would “prevent personnel from informing the public that an arbitrary segregation had been made.”⁶

While Pacific Zone Headquarters awaited the decision from the OQMG on the Tarawa case, the Schofield CIL staff proceeded with processing of unknowns from Wake Island and USS *Oklahoma*, under the assumption that these cases would ultimately be resolved in the same manner as those of USS *Serpens* and Tarawa. This assumption was undermined when the OQMG declined to approve the burial of the Tarawa remains as a group, and instead instructed that they be declared unidentifiable and buried as unknowns.⁷ The decision by the OQMG left the AGRS Pacific Zone in a state of confusion with regards to the proper definition of a group burial and also meant that they had to reprocess those cases that had already been casketed as like parts. In the initial processing of USS *Oklahoma*, the Schofield CIL applied the definition of a group burial found in U.S. Army Technical Manual 10-281, “Permanent Interment of World War II Dead”:

Group or mass burials are those burials (including inurnments) in separate graves, in one grave, or a combination of both, of the remains of two or more individuals whose identities as a group are partially or completely known beyond reasonable doubt but whose remains cannot be individually identified.⁸

⁶ Hugh C. Munro, “Report of Travel,” 29 Jan through 12 Mar 1949, General Correspondence, Geographic File, 1949-52, Record Group 92: Records of the Office of the Quartermaster General, National Archives and Records Administration, College Park, MD.

⁷ OQMG memorandum to AGRS Pacific Zone, *Subject: Transmittal of Board Proceedings 420, 2nd Indorsement*, 26 January 1949, General Correspondence, Miscellaneous File, 1949-50, Record Group 92: Records of the Office of the Quartermaster General, National Archives and Records Administration, College Park, MD.

⁸ War Department, *AR Technical Manual 10-281: Permanent Interment of World War II Dead*, (Washington, DC: U.S. Government Printing Office, 1947), 4.

Upon learning of the rejection of the identification of the Tarawa unknown cases as a group burial, AGRS Pacific Zone Headquarters responded to the OQMG noting that they had utilized the definition above in putting the case forward for approval. The AGRS Pacific Zone Headquarters had already processed several other group remains cases in the same fashion, but they would not put them forward to the Board of Review until the OQMG issued a formal announcement of a new policy concerning the definition of group burials.

The response from the OQMG came on 18 February 1949. It began by referencing the definition set forward above but went beyond the original definition to state “that the varying conditions under which it is desirable to consider remains as a group burial do not lend themselves to definition in specific terms.” However, the OQMG specified the following necessary characteristics of a group burial:

- a. The total number of remains, or major portions thereof, on hand should closely approach the number of decedents represented by the group.
- b. The evidence in the case should show conclusively that the remains of each decedent listed by name as a member of the group can not [sic]be presumed reasonably to be interred currently apart from the group burial.
- c. The name of at least one decedent must be associated conclusively with the remains comprising the group.⁹

The memo further noted “the term ‘group burial’ was evolved primarily to apply to remains involved in air crashes and in fatalities of tank or other vehicular crews. It was not intended to apply in cases of large ship sinkings, and such cases should be considered as group burials only in exceptional circumstances on the approval of this Office.”¹⁰ So, while the OQMG had been willing to approve the case of USS *Serpens* as a group burial, they proved unwilling to do so in other instances, and explicitly wrote that the *Serpens* case represented an exception.¹¹

The Quartermaster General instructed the AGRS Pacific Zone to reprocess the group remains cases that they had been intending to put forward. General Hastings required them to segregate the remains, putting forward for individual identifications only those remains that could be securely segregated. The rest were to be processed as individual unknowns or as groups of unknowns. In contradiction to the AGRS Pacific Zone plan to bury unidentifiable remains in caskets of like parts, he stated: “In such cases, where it is not possible to assemble a reasonably complete skeleton of any one individual – such as skull plus a substantial portion of the related shoulder and rib assembly and/or pelvic and leg bones – the skulls should be comingled [sic] with the fragmented bones and all buried in the minimum [sic] number of caskets.”¹²

⁹ K.L. Hastings memorandum to Commanding Officer, American Graves Registration Service, Pacific Zone, 18 February 1949, *Subject: Transmittal of Board Proceedings (420), 3rd Indorsement [sic]*, General Correspondence, Miscellaneous File, 1949-50, Record Group 92: Records of the Office of the Quartermaster General, National Archives, College Park, MD.

¹⁰ Ibid.

¹¹ Curiously, the Wake Island remains did end up buried in the Punchbowl as an approved group burial.

¹² K. L. Hastings memorandum.

As a result of this clarification from the OQMG, the Schofield CIL began reprocessing the remains from the *Oklahoma*. The laboratory space expanded from 2000 square feet to 9000 square feet to allow for more tables upon which the processing teams could segregate the remains (see figures 7 and 8).¹³ In January 1949 Capt Greenwood, the Chief of the Schofield CIL, designated teams of embalmers to reprocess the remains and issued special instructions for dealing with the case of the *Oklahoma*. In that same month the OQMG stationed Major Stewart Abel, a Quartermaster Officer with both private and military mortuary experience, in Hawaii as the Chief of the Schofield Mausoleum. He had been specifically directed to help sort out the confusions that had arisen in the Pacific Zone over the processing of remains from mass casualty incidents. Despite these changes, the reprocessing of the *Oklahoma* remains was less than smooth.

The earlier segregation of the remains into caskets of like parts and the new directive both to undo this segregation and to attempt to put forward segregated skeletons for individual identification brought to the fore tensions that had been building within the Schofield CIL. The reprocessing of the case proceeded from January through March of 1949, and the CIL ultimately put forward twenty-seven cases for approval as individual identifications (see the names marked with asterisks in the appendix of this report). Each of the cases was disapproved by the OQMG Board of Review, because they did not contain statements from the Schofield CIL anthropologist “attesting to the proper segregation and articulation” of the remains.¹⁴ Dr. Trotter would not certify the twenty-seven segregations. She objected that “the direction for processing bodies, where group burials in which commingling of the skeletal parts had occurred, grew to be one of putting parts together which ‘could not be disproven’, thence to doing ‘the best you can’ in order to arrive at a good number of so-called ‘segregations’.”¹⁵ Dr. Trotter raised her concerns with Major Abel, who agreed to look into the situation. He found that at some point prior to his arrival, the requirement that the anthropologist sign off on the reports put forward to the Board of Review had been revoked. This occurred because Dr. Trotter would not sign statements with which she did not concur, so rather than changing the practices of the Schofield CIL to provide Dr. Trotter with analyses of which she would approve, the command instead opted no longer to require the signature of an anthropologist on the case papers.

Upon making this discovery, Major Abel turned his attention specifically to the case concerning USS *Oklahoma*. He agreed with Dr. Trotter that arbitrary segregations were occurring and that the skeletal associations being made had “very little scientific basis, [and] in fact, in many instances it could be proven that the parts did not belong together.”¹⁶ When Major

¹³ Mildred Trotter, “Operations at Central Identification Laboratory, A.G.R.S.,” no date, Mildred Trotter Papers, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO. This document is available online at: <http://beckerehibits.wustl.edu/mowihsp/words/TrotterReport.htm>.

¹⁴ Individual Deceased Personnel File for Eldon P. Wyman, Ensign, 102130, Record Group 92: Records of the Office of the Quartermaster General, Washington National Records Center, Suitland, MD.

¹⁵ Mildred Trotter letter to Col Norman E. Waldron, 18 August 1949. Mildred Trotter Papers, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO.

¹⁶ Stewart W. Abel memorandum to Chief, American Graves Registration Service APO 958, *Subject: Status of Operations with Reference to Skeletal Segregations*, 27 May 1949, Mildred Trotter Papers, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO.

Abel presented his findings to the Commander of the AGRS Pacific Zone, Colonel Waldron objected to the use of the term “arbitrary.” As a result, Dr. Trotter was called in for a conference about the USS *Oklahoma* case at which point “it was learned that she felt that it was wrong to make such ‘segregations’ and, thus, to mislead people into the belief that a group of parts placed together constituted the remains of one individual.”¹⁷ As a result of these discussions, the Pacific Zone Commander directed Major Abel to sort out USS *Oklahoma* case. Major Abel, in turn, directed that Dr. Trotter would only sign off on cases which she deemed to have scientific integrity, and that she would write narratives to accompany the cases that made clear the manner in which the segregation work had been performed. For the *Oklahoma* unknowns, Dr. Trotter agreed that she would sign either a statement attesting to the segregation of just the skulls and/or mandibles of the twenty-seven individuals, or a statement that segregation had been attempted, but not successfully completed. With this knowledge in hand, Colonel Waldron wrote the Quartermaster General that Dr. Trotter could not “execute with integrity” the signing of certificates for the twenty-seven individual segregations, but “that the reprocessing of the cases had shown that secure and attestable identifications of some of the skulls from the group remains could be put forward.”¹⁸ He concluded: “It is the opinion of this Headquarters that, where the post-cranial remains cannot be segregated and articulated with certified certainty, an identification based solely on the cranial structure is superior to a group identification or none at all.”¹⁹ Accordingly, the AGRS Pacific Zone amended the files for the twenty-seven unknowns and re-sent the paperwork to the OQMG. In the amended files, the skeletal charts for these twenty-seven had all been shaded to show the presence of only the skull and/or mandible for each, and no detailed bone list, as could be found with the other unknown files, was included.²⁰ Dr. Trotter attested to the segregations of just the skulls and/or mandibles.

The Quartermaster General did not agree with the Pacific Zone Headquarters assessment that identification of some portion of the remains was better than no identification. Responding for the OQMG, Colonel Freeman, Chief of the Memorial Division outlined the circumstances under which such an identification would be approved:

If the skull is the only portion of the remains of the decedent which can be found, then the skull alone may be considered. If other portions of the remains of the decedent (in addition to the skull) are known to have been recovered, or may reasonably be presumed to have been recovered and to be co-mingled with other portions of remains of other decedents, then the skull alone may not be considered as the sole recoverable remains of the decedent concerned. Under such circumstances, the American Graves Registration

¹⁷ Ibid.

¹⁸ Col Norman E. Waldron letter to The Quartermaster General, 19 May 1949 and 1st Indorsement [sic] in response, Col E.V. Freeman to Commanding Officer, American Graves Registration Service, Pacific Zone, 9 June 1949, Record Group 92: Records of the Office of the Quartermaster General, NARA, College Park, MD.

¹⁹ Ibid.

²⁰ Unknown file for X-232C, X-233E, X-234A, X-235A, and X-236C Halawa Cemetery, Record Group 92: Records of the Office of the Quartermaster General, Washington National Records Center, Suitland, MD. We know from the remains under discussion in this report that postcranial remains are present in the casket, but once the identifications had been disapproved, amended skeletal charts and bone lists were not created for the files.

Service can not [sic], in good conscience, deliver a skull to the next of kin, or bury it in a government cemetery, as the only recoverable remains of a person.²¹

This decision halted attempts by the Schofield CIL to put forward remains associated with the USS *Oklahoma* for possible identification. The AGRS Pacific Zone Headquarters added the names of the twenty-seven men put forward as individual segregations to the larger group of casualties listed in the board proceedings for USS *Oklahoma* and certified all the remains unidentifiable in the summer of 1949. In each of the case files for the remains, Trotter wrote:

In view of the circumstances pertaining to this undertaking, I believe that the skeletal associations of the unidentified remains which have been made are as secure as could be made. However, it is my opinion that study over a very long period (years) and under different circumstances would be necessary to insure the maximum security of segregation on a sound basis.²²

The remains awaited final burial on the shelves of Schofield Mausoleum #2. By the spring of 1950, the approximately 400 unknowns had been buried in the NMCP in sixty-two caskets interred in forty-six locations (see appendix 2). The names of the crew would later be inscribed on the Pacific Theater Tablets of the Missing and Buried at Sea.

Nothing more happened concerning the unknowns from the *Oklahoma* until Mr. Ray Emory, a Pearl Harbor survivor and researcher dedicated to studying the cases of buried unknowns, became involved in researching the unresolved casualties resulting from the attack on Pearl Harbor (see figure 9). While examining documents in the Individual Deceased Personnel File for Ensign (ENS) Eldon P. Wyman, he found a letter from the Chief of the Memorial Division in Washington, DC to the AGRS Pacific Zone Commanding Officer which acknowledged that the Pacific Zone had recommended that unknown X-234A Halawa Naval Cemetery be “redesignated as the remains of Wyman, Eldon Paul, Ensign, 102130, USNR.”²³ That letter noted that Dr. Trotter had not attested to the segregation of the remains, as discussed more fully above, and disapproved the recommended identification. In addition to the letter the file contained a list of names, including ENS Wyman’s and twenty-six others, of the *Oklahoma* crew members who had been declared unidentifiable and who needed to be appended to the list of other unidentifiable sailors and Marines from the ship.²⁴ Armed with this information, Mr. Emory contacted the U.S. Army Central Identification Laboratory, Hawaii (CILHI) in April 2003 to discuss the potential for identifying ENS Wyman and possibly the other twenty-six men listed.²⁵ The CILHI staff agreed with his assessment of the documents in ENS Wyman’s IDPF

²¹ Col E. V. Freeman letter to Commanding Officer, American Graves Registration Service, Pacific Zone, 9 June 1949, Mildred Trotter Papers, Bernard Becker Medical Library, Washington University School of Medicine, St. Louis, MO.

²² Mildred Trotter, 1 March 1949, “Narrative,” Unknown file for X-232C, X-233E, X-234A, X-235A, and X-236C, Halawa Cemetery.

²³ Col E. V. Freeman letter to Commanding Officer, American Graves Registration Service, Pacific Zone, 21 April 1949, IDPF for ENS Wyman.

²⁴ Individuals whose names were included in this list of twenty-seven are marked with an asterisk in the appendix.

²⁵ In October 2003, CILHI merged with the Joint Task Force-Full Accounting to become the Joint POW/MIA Accounting Command (JPAC).

and on 18 June 2003 the casket at Section P, Plot 1002, NMCP was disinterred and transported to the CILHI where it was accessioned as CIL 2003-116 for scientific analysis. The paperwork for that disinterment gave priority to X-234A, the case that the CILHI had wished to disinter, but it also, based on information taken from the burial card and added to the paperwork by cemetery staff, listed X-232C, X-233E, X-235A, and X-236C in parentheses as additional unknowns present.²⁶ Research conducted after disinterment revealed that the crania and/or mandibles for these unknowns had been proposed for identification as the remains of Gerald G. Lehman, Lawrence A. Boxrucker, Irvin A. R. Thompson, and Charles H. Swanson, five of the individuals on the list of twenty-seven. The identification of partial remains of these five men, along with the identification of Alfred Livingston, brings the total current number of unresolved casualties from USS *Oklahoma* to 388.²⁷

Subsequent anthropological, dental, and DNA analysis of the remains in this casket have revealed the presence of sparse remains of more than one hundred individuals, and have justified Dr. Trotter's contention that remains that had been initially very commingled, then separated into caskets of like parts, and then re-segregated into "individual" sets of remains could not possibly represent the remains of only one person. This discovery initiated a request that the service casualty offices of the U.S. Navy and the U.S. Marine Corps collect DNA reference samples from the relatives of all the unresolved crew members of the *Oklahoma* in the hopes that more of that crew might ultimately be identified. The work of collecting those reference samples is largely complete, with 84% of families contributing DNA samples for comparison with the sequences from the remains.

In 2012, the Joint POW/MIA Accounting Command put forward a proposal to disinter the remaining caskets containing unknowns from the *Oklahoma* in order to make additional identifications of her crew members.²⁸ That proposal became the subject of negotiations between agencies within the Department of Defense, the Army, the Navy, and the Veteran's Administration. After several years of failed attempts to reach a consensus for how to move forward concerning the rest of the unknowns associated with USS *Oklahoma*, the Deputy Secretary of Defense considered the arguments for and against disinterment.

On 14 April 2015, the Deputy Secretary of Defense directed the Defense POW/MIA Accounting Agency (DPAA) to disinter the rest of the *Oklahoma* unknowns in order to effect as many individual identifications of the 388 unresolved casualties as possible.²⁹ DPAA and the

²⁶ "Request for Disinterment," Department of Veterans Affairs Form 40-4970, 16 June 2003, JPAC Case File United States, Hawaii JPAC Incident 221, Joint POW/MIA Accounting Command.

²⁷ The six modern identifications of USS *Oklahoma* sailors, made by the JPAC Central Identification Laboratory, occurred on the following dates: Lawrence Boxrucker, 12 June 2008; Gerald Lehman, 11 January 2010; Alfred Livingston, 1 May 2007; Charles Swanson, 9 November 2009; Irvin Thompson, 12 June 2008, and Eldon Wyman, 12 June 2008.

²⁸ In January 2015, three elements of the Accounting Community--the Joint POW/MIA Accounting Command (JPAC), Defense POW/Missing Personnel Office (DPMO), and Life Science Equipment Laboratory (LSEL)--combined to become one agency, the Defense POW/MIA Accounting Agency (DPAA).

²⁹ Deputy Secretary of Defense Robert O. Work, Memorandum for Secretaries of the Military Departments, et al, 14 April 2015, *Subject: Disinterment of Unknowns from the National Memorial Cemetery of the Pacific*, Defense POW/MIA Accounting Agency files.

Department of Veteran's Affairs subsequently disinterred all burials of unknowns associated with USS *Oklahoma* from the National Memorial Cemetery of the Pacific. The remains from those burials are currently undergoing forensic testing at DPAA laboratories. Identifications are occurring on an ongoing basis. As identifications are confirmed, personnel from the Navy or Marine Corps Casualty Assistance Offices will communicate with the families of the identified Sailors and Marines to coordinate the return of their remains for honored burial.



Figure 1. Locations of ships anchored on Battleship Row on 7 December 1941. Image taken from Robert Sullivan, editor, *Our Call to Arms: The Attack on Pearl Harbor* (New York: Time, Inc., 2001), 69.



Figure 2. The upturned hull of USS *Oklahoma* can be seen in the bottom right corner of the photograph. Image taken from the Navy Historical Center website, access date 2 April 2007, <http://www.history.navy.mil/photos/images/g10000/g19949.jpg>.

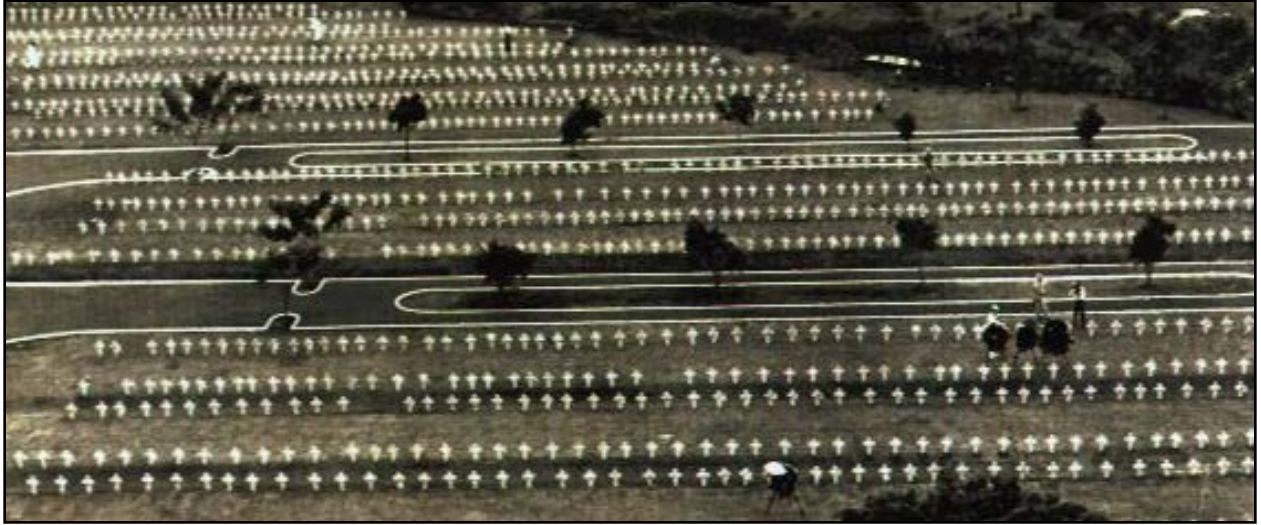


Figure 3. Halawa cemetery (pictured above). Remains of USS *Oklahoma* from both Halawa and Nu'uano Cemeteries were disinterred in 1947 and transferred to the Central Identification Laboratory (CIL) at Scholfield Mausoleum.



Figure 4. Photograph showing the state of the oil soaked remains from USS *Oklahoma* when they arrived at the Schofield CIL.



Figure 5. CIL personnel wash oil from skeletal remains to prepare them for identification processing.



Figure 6. In the course of identification processing, CIL personnel segregated the remains by type of skeletal element.



Figure 7. Additional lab space was required to attempt to re-sort remains and assemble skeletons



Figure 8. Dr. Mildred Trotter working to identify the remains of a casualty from the attack on Pearl Harbor.



Figure 9. Mr Ray Emory, Pearl Harbor survivor and research expert on unknown burials related to the attack. His research has resulted in the disinterment and identification of several Pearl Harbor unknowns, including crew members of USS *Oklahoma*.

Appendix 1: Casualty List for the *Oklahoma*

ADKINS, MARVIN B., 3813007
ALDRIDGE, WILLARD H., 3422501
ALEXANDER, HUGH, O-56955
ALLEN, STANLEY W., O-98621
ALLISON, HAL J., 2873567
ARICKX, LEON, 3214207
*ARMSTRONG, KENNETH B., 3803060
ARTHURHOLTZ, MARLEY R., 288660
ARTLEY, DARYLE E., 3857895
AULD, JOHN C., 3115437
AUSTIN, JOHN A., O-75565
BACKMAN, WALTER H., 3285369
BAILEY, GERALD J., 3931339
BAILEY, ROBERT E., 2796445
BALLANCE, WILBUR F., 3114397
BANKS, LAYTON T., 3561940
BARBER, LEROY K., 3000785
BARBER, MALCOLM J., 3001429
BARBER, RANDOLPH H., 3001377
BARNCORD, CECIL E., 3421310
BARRETT, WILBUR C., 3422188
BATES, HAROLD E., 3420334
BATTLES, RALPH C., 2723450
BAUM, EARL P., 3000781
BEAN, HOWARD W., 2017360
BELT, WALTER S. JR., 3421720
BENNETT, ROBERT J., 3215298
BLACK, WALDEAN, 309444
BLACKBURN, HARDING C., 2874039
BLANCHARD, WILLIAM E., 2682245
BLAYLOCK, CLARENCE A., 3564558
BLITZ, LEO, 3165446
BLITZ, RUDOLPH, 3165447
BOCK, JOHN G. JR., 3167160
BOEMER, PAUL L., 3371057
BOOE, JAMES B., 2671197
*BORING, JAMES B., 2797693
BOUDREAUX, RALPH M., 2744120
*†BOXRUCKER, LAWRENCE A., 3761901
BOYNTON, RAYMOND D., 3114596
BRADLEY, CARL M., 3685552
BRANDT, ORIS V., 2916225
BREEDLOVE, JACK A., 3213774
BREWER, RANDALL W., 2660013
BROOKS, WILLIAM, 2874290
BROWN, WESLEY J., 3213316
BRUESEWITZ, WILLIAM G., 3000778
BUCHANAN, JAMES R., 4120807
†BURCH, EARL G., 3213161
BURGER, OLIVER K., 2952575
BURK, MILLARD JR., 2874063
BUTTS, RODGER C., 1144738
CALLAHAN, ARCHIE J., 2238062
CAMERY, RAYMOND R., 3760152
CAMPBELL, WILLIAM V., 2956897
CARGILE, MURRY R., 2624922
*CARNEY, HAROLD F., 3212051
CARROLL, JOSEPH W., 2582913
CASINGER, EDWARD E., 3373351
CASOLA, BIACIO, 2232399
CASTO, CHARLES R., 3286365
†CASTO, RICHARD E., 2834518
CHESHIRE, JAMES T., 2866681
CHESS, PATRICK L., 3859126
CLARK, DAVID JR., 3565851
CLAYTON, GERALD L., 3165762
CLEMENT, HUBERT P., 2619359
CLIFFORD, FLOYD F., 3423274
COKE, GEORGE A., 3564982
COLLIER, WALTER L., 271385
†COLLINS, JAMES E., 2873764
CONNOLLY, JOHN G., O-56698
CONNOLLY, KEEFE R., 3001739
CONWAY, EDWARD L., 3718589
COOK, GRANT C. JR., 3166631
CORN, ROBERT L., 3932215
CORZATT, BEOIN H., 2796462
*CRAIG, JOHN W., 3466549
CREMEAN, ALVA J., 288850
CRIM, WARREN H., 2957000
CROWDER, SAMUEL W., 2868801
CURRY, WILLIAM M., 2949500
CYRIACK, GLENN G., 3285674
†DARBY, MARSHALL E. JR., O-85165
DAVENPORT, JAMES W., 2744106
DAY, FRANCIS D., 2281420

DELLES, LESLIE P., 3000566
 DERRINGTON, RALPH A., 2427553
 DICK, FRANCIS E., 3933830
 DILL, LEAMAN R., 3165555
 DOERNENBURG, KENNETH E., 3000328
 DONALD, JOHN M., 2956926
 DORR, CARL D., 2626136
 DOYLE, BERNARD V., 3166477
 DREFAHL, ELMER E., 284507
 DRWALL, STANISLAW F., 2581301
 DUSSET, CYRIL I., 2743981
 DYER, BUFORD H., 2833370
 EAKES, WALLACE E., 3684387
 EBERHARDT, EUGENE K., 2283257
 EDMONSTON, DAVID B., 3933801
 ELLIS, EARL M., 3468302
 ELLISON, BRUCE H., 3857942
 †ELLSBERRY, JULIUS, 2722289
 *ENGLAND, JOHN C., 101158
 FARFAN, IGNACIO C., 4210512
 †FARMER, LUTHER J., 2871962
 FECHO, LAWRENCE H., 3286373
 FERGUSON, CHARLTON H., 2744578
 †FIELDS, ROBERT A., 2624506
 *FINNEGAN, WILLIAM M., O-58391
 FLAHERTY, FRANCIS C., O-95690
 FLANAGAN, JAMES M., 2684826
 FLORESE, FELICISMO, 4979262
 FOLEY, WALTER C., 2239531
 FOOTE, GEORGE P., 3212545
 FORD, GEORGE C., 3214577
 †FRENCH, JOY C., 3723209
 FURR, TEDD M., 3353713
 GALAJDIK, MICHAEL, 3000679
 GARA, MARTIN A., 3721184
 GARCIA, JESUS F., 4210739
 †GARRIS, EUGENE, 2238061
 GAVER, HARRY H. JR., O-6254
 GEBSER, PAUL H., 3830334
 GELLER, LEONARD R., 3562061
 GEORGE, GEORGE T., 4110260
 GIBSON, GEORGE H., 3813371
 GIESA, GEORGE E., 2342937
 GIFFORD, QUENTIN J., 3285366
 GILBERT, GEORGE, 2915545
 GILLETTE, WARREN C., 3933371
 †GILLIARD, BENJAMIN E., 2622730
 GLENN, ARTHUR, 1610221
 *GOGGIN, DARYL H., O-81925
 GOLDWATER, JACK R., 4134201
 GOMEZ, CHARLES C. JR., 2744929
 GOOCH, GEORGE M., 3422506
 GOODWIN, CLIFFORD G., 3422147
 GOODWIN, ROBERT, 3421493
 *GORDON, DUFF, 1613815
 GOWEY, CLAUDE O., 3933293
 GRAHAM, WESLEY E., 3114634
 †GRAND PRE, ARTHUR M., 3214422
 GRIFFITH, THOMAS E., 2796467
 GROSS, EDGAR D., 2716429
 GROW, VERNON N., 6620074
 GUISSINGER, DANIEL L. JR., 3859889
 GURGANUS, WILLIAM I., 2719382
 GUSIE, WILLIAM F., 3000815
 HALL, HUBERT P., 2874159
 HALL, TED, 311258
 HALTERMAN, ROBERT E., 3000185
 †HAM, HAROLD W., 3285278
 †HAMLIN, DALE R., 2998777
 †HANN, EUGENE P., 2832234
 HANNON, FRANCIS L., 2915923
 HANSON, GEORGE, 3717045
 HARR, ROBERT J., 3000813
 HARRIS, CHARLES H., 2744892
 HARRIS, DANIEL F., 2672976
 HARRIS, LOUIS E. JR., 3115528
 *HAYDEN, ALBERT E., 1727544
 HEAD, HAROLD L., 3422520
 HEADINGTON, ROBERT W., 3114448
 HELLSTERN, WILLIAM F., 2990999
 HELTON, FLOYD D., 3763366
 HENRICHSEN, JIMMIE L., 3166556
 †HENRY, OTIS W., 286441
 †HENSON, WILLIAM E. JR., 3565883
 HERBER, HARVEY C., 3855448
 HERBERT, GEORGE, 2042717
 HESLER, AUSTIN H., 3421245
 HISKETT, DENIS H., 3166387
 *HITTORFF, JOSEPH P. JR., O-85168
 HOAG, FRANK S. JR., 3858650
 *HOARD, HERBERT J., 3363433
 HOFFMAN, JOSEPH W., 2795401

HOLM, KENNETH L., 3288668
 HOLMES, HARRY R., 2387233
 HOLMES, ROBERT K., 284571
 HOLZHAUER, JAMES W., 2658844
 *HOPKINS, EDWIN C., 2126429
 HORD, CHESTER G., 3421053
 HRYNIEWICZ, FRANK A., 2125591
 HUDSON, CHARLES E., 3754272
 HULTGREN, LORENTZ E., 3857798
 †HUNTER, ROBERT M., O-95961
 IVERSON, GLAYDON I., 3288652
 JACKSON, WILLIE N., 1541609
 JACOBSON, HERBERT B., 3003614
 JAMES, CHALLIS R., 2797788
 †JARDING, GEORGE, 3167558
 *JAYNE, KENNETH L., 2240191
 JENSEN, THEODORE Q., 3686010
 †JENSON, JESSE B., 3284950
 JOHANNES, CHARLES H., 3288444
 JOHNSON, BILLY J., 3422593
 JOHNSON, EDWARD D., 3933288
 JOHNSON, JOSEPH M., 3286832
 JOHNSTON, JIM H., 2744861
 JONES, CHARLES A., 3166694
 JONES, FRED M., 3109636
 JONES, JERRY, 2746869
 *JORDAN, JULIAN B., O-059477
 JORDAN, WESLEY V., 3212494
 †JURASHEN, THOMAS V., 3375436
 KANE, ALBERT U., 3563616
 KARLI, JOHN A., 3822239
 KEATON, VERNON P., 309484
 KEFFER, HOWARD V., 4121961
 KEIL, RALPH H., 3858607
 KELLER, DONALD G., 2833695
 KELLEY, JOE M., 3822253
 KEMPF, WARREN J., 3421180
 KENINGER, LEO T., 3214267
 KENNEDY, WILLIAM H., 3214397
 KERESTES, ELMER, 3285974
 KESLER, DAVID L., 3165562
 KLASING, WILLIAM A., 3373501
 KNIPP, VERNE F., 3721115
 †KVALNES, HANS C., 3288433
 KVIDERA, WILLIAM L., 3214378
 KYSER, D. T., 3566248
 LARSEN, ELLIOTT D., 3683231
 LAURIE, JOHNNIE C., 2721832
 LAWRENCE, ELMER P., 2874141
 LAWSON, WILLARD I., 2875104
 *‡LEHMAN, GERALD G., 3003476
 LEHMAN, MYRON K., 3166637
 LESCAULT, LIONEL W., 2123271
 LINDSEY, HAROLD W., 3822258
 *LINDSLEY, JOHN H., 3003327
 ‡LIVINGSTON, ALFRED E., 2916903
 LOCKWOOD, CLARENCE M., 3467086
 LOEBACH, ADOLPH J., 2999437
 *LUKE, VERNON T., 3851099
 MABINE, OCTAVIUS N., 2659389
 MAGERS, HOWARD S., 2875039
 MALEK, MICHAEL, 3003315
 MALFANTE, ALGEO V., 3759305
 MANNING, WALTER B., 2682384
 MASON, HENRI C., 2561650
 MAUEL, JOSEPH K., 3167381
 MCCABE, EDWIN B., 2618471
 MCCLOUD, DONALD R., 2659445
 MCDONALD, JAMES O., 3562118
 MCKEEMAN, BERT E., 3166665
 MCKISSACK, HALE, 3556833
 MCLAUGHLIN, LLOYD E., 3166678
 MELTON, EARL R., 2636153
 †MELTON, HERBERT F., 2619263
 MIDDLESWART, JOHN F., 305317
 MILES, ARCHIE T., 3932589
 MITCHELL, WALLACE G., 3822248
 MONTGOMERY, CHARLES A., 4050997
 MULICK, JOHN M., 3214754
 MYERS, RAY H., 3215202
 NAEGLE, GEORGE E., 3000291
 NAIL, ELMER D., 3422176
 *NASH, PAUL A., 2914062
 NEHER, DON O., 3422187
 NEUENSCHWANDER, ARTHUR C.,
 3282096
 NEVILL, SAM D., 3557878
 NEWTON, WILBUR F., 3760544
 NICHOLS, CARL, 2661429
 NICHOLS, HARRY E., 3213806
 NICOLES, FRANK E., 3286513
 NIELSEN, ARNOLD M., 3754182

NIGG, LAVERNE A., 3167440
 NIGHTINGALE, JOE R., 3113980
 NIX, CHARLES E., 3372656
 OGLE, CHARLES R., 3372635
 OGRADY, CAMILLUS M., 3422564
 OLSEN, ELI, 3214000
 OUTLAND, JARVIS G., 2657929
 OVERLEY, LAWRENCE J., 3820643
 OWSLEY, ALPHARD S., 2872488
 PACE, MILLARD C., 2955377
 PALIDES, JAMES JR., 3214694
 PALMER, CALVIN H., 3287011
 PALMER, WILFRED D., 3286471
 PARADIS, GEORGE L., 3858039
 PARKER, ISAAC, 3469610
 †PEAK, ROBERT H., 314300
 PEARCE, DALE F., 3423215
 †PENNINGTON, RAYMOND, 316090
 PENTICO, WALTER R., 3723404
 PEPE, STEPHEN, 2063596
 PERDUE, CHARLES F., 2579287
 †PETWAY, WILEY J., 2619271
 PHILLIPS, MILO E., 3718805
 PHIPPS, JAMES N., 3934261
 PIRTLE, GERALD H., 3422560
 PISKURAN, RUDOLPH V., 2834494
 POINDEXTER, HERBERT J. JR., 2682231
 PREWITT, BRADY O., 3422589
 PRIBBLE, ROBERT L., 2744607
 PRICE, GEORGE F., 3000811
 PRIDE, LEWIS B. JR., 100159
 PUE, JASPER L. JR., 3602040
 RAIMOND, PAUL S., 3602038
 RAY, ELDON C., 2955288
 REAGAN, DAN E., 3467092
 REGAN, LEO B., 2391740
 RICE, IRVIN F., 3113355
 RICH, PORTER L., 3164394
 RIDENOUR, CLYDE JR., 3600163
 RILEY, DAVID J., 3000770
 ROACH, RUSSELL C., 2833700
 ROBERTSON, JOSEPH M., 2797547
 ROESCH, HAROLD W., 3166238
 ROGERS, WALTER B., 3166332
 ROUSE, JOSEPH C., 2624770
 †RUSE, CHARLES L., 3813453
 RYAN, EDMUND T., 2237737
 SADLOWSKI, ROMAN W., 2125725
 SAMPSON, KENNETH H., 3421699
 SANDERS, DEAN S., 2791923
 SAUNDERS, CHARLES L., 3602696
 SAVAGE, LYAL J., 2386707
 SAVIDGE, JOHN E., 2237341
 SAYLOR, PAUL E., 2956907
 SCHLEITER, WALTER F., 2833716
 SCHMIDT, HERMAN, 3683763
 SCHMITT, ALOYSIUS H., O-83472
 SCHMITZ, ANDREW J., 2656539
 SCHOONOVER, JOHN H., 3820249
 †SCOTT, BERNARD O., 2657602
 SEATON, CHESTER E., 3858719
 *SEDERSTROM, VERDI D., 98866
 SELTON, WILLIAM L., 3686314
 †SEVERINSON, EVERETT I., 3285260
 SHAFER, WILLIAM K., 3822823
 SHANAHAN, WILLIAM J. JR., 4110811
 SHELDEN, EDWARD J., 2913403
 †SILVA, WILLIAM G., 3751881
 SKAGGS, EUGENE M., 2655757
 †SKILES, GAROLD L., 3424472
 SLAPIKAS, EDWARD F., 2237738
 SMITH, LEONARD F., 2384168
 SMITH, MERLE A., 3933239
 SMITH, ROWLAND H., 3812921
 SOLLIE, WALTER H., 2717161
 SOLOMON, JAMES C., 3562770
 SPANGLER, MAURICE V., 2916484
 STAPLETON, KIRBY R., 3214998
 STEELY, ULIS C., 2871188
 STEIN, WALTER C., 3721043
 STEINER, SAMUEL C., 3468319
 STERNS, CHARLES M. JR., O-96113
 STEWART, EVERETT R., 3758869
 *STOCKDALE, LEWIS S., 102095
 STOTT, DONALD A., 3214004
 STOUT, ROBERT T., 3720786
 †STOUTEN, JAMES, 3103576
 SURRETT, MILTON R., 2626004
 *‡SWANSON, CHARLES H., 3929519
 TALBERT, EDWARD E., 2626013
 TANNER, RANGNER F. JR., 3423950
 TAYLOR, CHARLES R., 284217

TEMPLE, MONROE, 3422575
TEMPLES, HOUSTON, 2744854
TERHUNE, BENJIMAN, 3422628
*THINNES, ARTHUR R., 3003167
THOMPSON, CHARLES W., 3372637
THOMPSON, CLARENCE, 1040142
THOMPSON, GEORGE A., 3859634
*†THOMPSON, IRVIN A. R., O-85173
THOMPSON, WILLIAM M., O-110159
THOMSON, RICHARD J., 3602566
THORNTON, CECIL H., 2722586
†THROMBLEY, ROBERT L., 2240612
TIDBALL, DAVID F., 3214489
TIMM, LLOYD R., 3288624
TINDAL, LEWIS F., 4134313
TINI, DANTE S., 3287319
TIPTON, HENRY G., 3467823
TITTERINGTON, EVERETT C., 3213741
TODD, NEAL K., 3287704
TORTI, NATALE I., 4106295
TRANBARGER, ORVAL A., 3372860
TRAPP, HAROLD F., 4102861
TRAPP, WILLIAM H., 4102862
TREADWAY, SHELBY, 2873947
TUCKER, WILLIAM D., 3214421
TUMLINSON, VICTOR P., 3601838
TURNER, BILLY, 3562203
TUSHLA, LOUIS J., 3821617
UFFORD, RUSSELL O., 3423941
VALLEY, LOWELL E., 3002542
WADE, DURRELL, 2742557
*WAGONER, LEWIS L., 3423935
WALKER, HARRY E., 2949808
WALKOWIAK, ROBERT N., 3002256

†WALPOLE, EUGENE A., 2835044
WALTERS, CHARLES E., 2797032
WARD, JAMES R., 2797555
WASIELEWSKI, EDWARD, 3114243
WATSON, RICHARD L., 2744920
WEBB, JAMES C., 3467795
*WELCH, WILLIAM E., 2797554
WELLS, ALFRED F., 2383316
WEST, ERNEST R., 3214504
WHEELER, JOHN D., 3760252
WHITE, CLAUDE, 2948177
WHITE, JACK D., 3422529
WHITSON, ALTON W., 3857403
WICKER, EUGENE W., 3564297
WIEGAND, LLOYD P., 3166775
WILCOX, GEORGE J. JR., 2916413
WILLIAMS, ALBERT L., 3373382
WILLIAMS, JAMES C., 4143915
WILLIAMS, WILBUR S., 2618872
WIMMER, BERNARD R., 2657458
WINDLE, EVERETT G., 3424560
WINFIELD, STARRING B., 4134987
WISE, REX E., 3421715
WOOD, FRANK, 2797027
WOODS, LAWRENCE E., 3563780
†WOODS, WINFRED O., 3560522
WORKMAN, CREIGHTON H., 3213730
WORTHAM, JOHN L., 2871702
WRIGHT, PAUL R., 1345301
*†WYMAN, ELDON P., O-102130
YOUNG, MARTIN D., 2874306
YOUNG, ROBERT V., 3166640
†YURKO, JOSEPH J., 2432239
ZVANSKY, THOMAS, 2825240

* These are the twenty-seven individuals whose identifications were not approved in 1949.

† Remains recovered and identified during the Return of the World War II Dead Program (1946-1950).

‡ Identified by the Joint POW/MIA Accounting Command (2003 to the present).

Appendix 2: Current Burial Locations of USS *Oklahoma* Unknowns in the NMCP

<u>Section/Plot</u>	<u>Unknowns Present</u>
P 0989	X-55 A-G Nuuanu
P 0991	X-232 ABDEFG, X-247 ABCEFG Halawa
P 0993	X-217 ADFG, X-254 A-F Halawa
P 0995	X-240 ABCDFG , X-263 B-G Halawa
P 0997	X-216 ABDEFG, X-260 A-F Halawa
P 0999	X-231 ABDEFG, X-242 ACF Halawa
P 1001	X-242 BDE, X-243 CF, X-245 F, X-254 G, X-255 F, X-260 G, X-263 A Halawa
P 1002*	X-232 C, X-233 E, X-234 A, X-235 A, X-236 C Halawa
P 1003	X-216 C, X-217 CE, X-231 C, X-237 C, X-240 E, X-241 BFG, X-265 B Halawa
P 1005	X-234 B-G, X-245 ABCDEG Halawa
P 1126	X-255 ABCDEG, X-257 ABCDEG Halawa
P 1128	X-222 ACEFG, X-241 ACDE Halawa
P 1130	X-233 ABCDFG, X-235 B-G Halawa
P 1132	X-236 ABDEFG, X-237 ABDEFG Halawa
P 1134	X-243 ABDEG, X-265 ACDEFG Halawa
Q 0001	X-219 A-F Halawa
Q 0002	X-230 A-G Halawa
Q 0003	X-56 A-G Nuuanu
Q 0004	X-223 A-G Halawa
Q 0005	X-256 A-G Halawa
Q 0006	X-251 A-G Halawa
Q 0007	X-262 A-G Halawa
Q 0008	X-258 A-G Halawa
Q 0009	X-228 A-G Halawa
Q 0010	X-266 A-F Halawa
Q 0011	X-239 A-G Halawa
Q 0016	X-342 Halawa
Q 0133	X-246 A-G Halawa
Q 0134	X-238 A-G Halawa
Q 0135	X-13 A-G Nuuanu
Q 0136	X-229 A-G Halawa
Q 0137	X-184 A-G Halawa
Q 0138	X-52 A-G Nuuanu
Q 0139	X-253 A-G Halawa
Q 0140	X-252 A-G Halawa
Q 0141	X-259 A-G Halawa
Q 0142	X-221 A-G Halawa
Q 0143	X-220 A-G Halawa
Q 0144	X-227 A-G Halawa
Q 0177	X-97 Nuuanu
Q 0323	X-244 A-G Halawa
Q 0325	X-248 A-G Halawa
Q 0326	X-249 A-G Halawa
Q 0327	X-250 A-G Halawa
Q 0495	X-299 A-U Halawa
Q 0496	X-264 A-V Halawa

*The remains originally buried at P 1002 were disinterred by the Central Identification Laboratory, Hawaii (now JPAC), and removed to the laboratory for forensic analysis and identification.