

VA Office of Inspector General

OFFICE OF AUDITS AND EVALUATIONS



# National Cemetery Administration

*Audit of  
Internal Gravesite  
Review of Headstone  
and Marker Placement*

February 7, 2013  
12-02223-98

## ACRONYMS AND ABBREVIATIONS

BOSS	Burial Operations Support System
MSN	Memorial Service Network
NCA	National Cemetery Administration
OIG	Office of Inspector General
VA	Veterans Affairs

**To Report Suspected Wrongdoing in VA Programs and Operations:**

**Telephone: 1-800-488-8244**

**Email: [vaoighotline@va.gov](mailto:vaoighotline@va.gov)**

**(Hotline Information: <http://www.va.gov/oig/contacts/hotline.asp>)**



# Report Highlights: Audit of NCA's Internal Gravesite Review of Headstone and Marker Placement

## Why We Did This Audit

The National Cemetery Administration (NCA) mission is to honor veterans with final resting places in National shrines with lasting tributes commemorating their service to our Nation. In October 2011, the Deputy Under Secretary for Field Programs directed each Memorial Service Network to conduct gravesite reviews of headstone and marker placements at VA National cemeteries. At the request of the Chairman of the House Committee on Veterans' Affairs, we conducted this audit to determine if NCA adequately identified and addressed issues found during its Phase One internal gravesite review.

## What We Found

NCA's Phase One review procedures did not identify and report all misplaced headstones and unmarked gravesites. At four of 12 National cemeteries, we identified seven misplaced headstones or unmarked gravesites, as well as outdated and illegible maps. This occurred because NCA did not have an impartial and independent review procedure to accurately identify and report misplaced headstones and unmarked gravesites. Further, NCA did not provide sufficient time and resources needed to conduct a review of this magnitude, and Memorial Service Networks did not provide cemetery directors with updated and accurate gravesite layout maps.

As a result, on July 5, 2012, we issued a Management Advisory Memorandum to the Under Secretary for Memorial Affairs recommending NCA revise its procedures for completing internal gravesite reviews.

After revising its procedures, NCA conducted its Phase One follow up and identified 146 additional errors at four of 12 cemeteries we reviewed.

## What We Recommended

We recommended the Under Secretary for Memorial Affairs ensure implementation of the recommendations in the Management Advisory Memorandum; take corrective actions for the additional errors identified in this report, implement procedures to assess cemetery size and director responsibility before conducting additional reviews, and implement controls to ensure gravesite layout maps are current and accurate.

## Agency Comments

The Under Secretary for Memorial Affairs agreed with our recommendations and provided an appropriate action plan. We will follow up on the implementation of corrective actions.

A handwritten signature in black ink that reads "Linda A. Halliday".

**LINDA A. HALLIDAY**  
Assistant Inspector General  
for Audits and Evaluations

# TABLE OF CONTENTS

Introduction .....	1
Results and recommendations .....	2
Finding    NCA’s Internal Gravesite Review Procedures Need Strengthening .....	2
Recommendations .....	8
Appendix A    Background .....	10
Appendix B    Scope and Methodology .....	12
Appendix C    Statistical Sampling Methodology .....	14
Appendix D    OIG Management Advisory Memorandum, July 5, 2012 .....	15
Appendix E    NCA’s Response to OIG’s Management Advisory Memo, July 25, 2012 .....	18
Appendix F    Under Secretary for Memorial Affairs Comments .....	20
Appendix G    Office of Inspector General Contact and Staff Acknowledgments.....	26
Appendix H    Report Distribution .....	27

## INTRODUCTION

### **Objective**

At the request of the Chairman of the House Committee on Veterans' Affairs, we conducted this audit to determine whether the National Cemetery Administration (NCA) adequately identified and addressed issues found during NCA's Phase One internal gravesite review.

### **Organizational Overview**

NCA's mission is to honor veterans and their families with final resting places in National shrines and with lasting tributes that commemorate their service to our Nation. In FY 2011, NCA conducted approximately 117,000 interments and processed 373,000 applications for headstones and markers for placement in cemeteries. Memorial Service Networks (MSNs) provide direction, operational oversight, and engineering assistance to the cemeteries located in their geographic areas.

### **NCA's Internal Gravesite Reviews**

In October 2011, NCA directed MSN and cemetery directors to conduct a system-wide review of all gravesites within the National cemetery system that had undergone projects to raise and realign headstones and markers. NCA conducted the review in two phases. Phase One verified headstone and marker placements in all cemetery burial sections where "raise and realign" projects had been completed. In March 2012, the Under Secretary for Memorial Affairs provided a statement to the House Committee on Veterans' Affairs concerning the progress of NCA's system-wide internal review of gravesites within the National cemetery system. According to his statement, NCA conducts raise and realign projects to ensure headstones and markers are maintained at proper height and alignment. In addition, he stated that these major renovation projects are critical to NCA's ability to meet veterans' expectations and its National shrine standards. When a headstone or marker is set on an incorrect gravesite, it is considered misplaced. When there is no headstone or marker on a gravesite, it is considered unmarked.

NCA reviewed nearly 1.6 million of 3.1 million gravesites at 93 National cemeteries during its Phase One review. Phase Two verified headstone and marker placements in the remaining cemetery burial sections where raise and realign projects were not completed. NCA completed the Phase Two gravesite review in June 2012, and expected to finalize and report the results by December 31, 2012.

Appendix A provides additional background information. Appendix B provides information about the audit scope and methodology, and Appendix C provides the statistical sampling methodology used in the audit.

## RESULTS AND RECOMMENDATIONS

### **Finding**      **NCA's Internal Gravesite Review Procedures Need Strengthening**

NCA's Phase One review procedures did not identify and report all misplaced headstones and unmarked gravesites. At 4 of 12 National cemeteries, we identified seven misplaced headstones or unmarked gravesites, as well as outdated and illegible maps. However, the cemetery directors at two of the four cemeteries where we identified errors certified the accurate placement of all headstones and did not report any discrepancies. These errors occurred because of the following:

- NCA procedures lacked sufficient controls to ensure an impartial and independent review to accurately identify and report misplaced headstones and unmarked gravesites.
- NCA did not provide sufficient time and resources needed to conduct a review of this magnitude.
- MSNs did not provide cemetery directors with updated and accurate gravesite layout maps.

As a result, on July 5, 2012, we issued a Management Advisory Memorandum recommending NCA revise its procedures for completing internal gravesite reviews. (For more information and details of these recommendations, see Appendix D.) NCA tested the new procedures at 9 of 12 cemeteries that we visited. At the completion of Phase One, NCA had identified 251 errors after reviewing nearly 1.6 million gravesites at 93 National cemeteries. After NCA revised its review procedures and conducted follow-up reviews of gravesites that were part of the Phase One review, NCA identified 146 additional gravesite errors at four of the nine cemeteries that were part of our sample.

#### ***NCA's Review Guidance***

NCA issued Policy Memorandum NCA-41A-2012-01 on October 14, 2011, instructing cemetery directors or acting cemetery directors to complete the Phase One review by December 31, 2011. The memorandum provided guidance and responsibilities to the MSN and cemetery directors for completing their Phase One review.

#### ***MSN Review Responsibilities***

The responsibilities assigned to MSN officials follow:

- Coordinate with each cemetery to identify sections that were raised and realigned.
- Review the gravesite layout maps, confirm they are the correct maps for the review, and if necessary, update the maps.

- Provide the cemetery director with correct, updated gravesite layout maps.
- Maintain a record of all discrepancies and report the location of the errors to the Deputy Under Secretary for Field Programs.

*Cemetery  
Director Review  
Responsibilities*

The responsibilities assigned to the cemetery directors follow:

- Use the gravesite layout maps provided by the MSN to conduct the review for the raised and realigned sections identified.
- Review and verify that the realigned sections match the gravesite layout map.
- Verify that each headstone or marker in the entire section matches the gravesite layout map.
- Record and report any headstone or marker discrepancies to the MSN.
- Record and report all unidentifiable headstones or markers to the MSN.

*Errors  
Reported by  
NCA for Phase  
One Review*

Before revising its review procedures, NCA identified 251 discrepancies at 13 of 93 National cemeteries at the completion of the Phase One review. NCA classified the errors as 218 misplaced headstones, 25 unmarked gravesites, and eight misplaced veteran remains. According to congressional testimony provided by the Under Secretary in March 2012, NCA notified congressional committees, contacted next of kin where possible, and implemented corrective action plans once MSN staff verified the accuracy of the errors.

*Management  
Advisory  
Memorandum*

In July 2012, we issued a Management Advisory Memorandum to the Under Secretary for Memorial Affairs because of our concerns that NCA's Phase One internal gravesite review procedures were inadequate. After completing reviews at 6 of 12 National cemeteries, we identified 4 misplaced headstones and two unmarked gravesites, as well as outdated and illegible maps.\* A description of the gravesite errors follows:

- Winchester National Cemetery, Winchester, VA, is located in the MSN 1 area of responsibility. The cemetery director certified the accurate placement of all headstones and did not report any discrepancies to the MSN. Using NCA's review procedures, we matched the headstone numbers to the gravesite map and identified two misplaced headstones and one unmarked gravesite. The cemetery director did not know why staff did not identify the errors during the initial Phase One review.
- Wood National Cemetery, Milwaukee, WI, is located in the MSN 4 area of responsibility. The cemetery director certified the accurate placement

---

\* We found a seventh gravesite error after we issued the advisory memorandum. The results of all 12 sample sites are at Appendix B.

of all headstones and did not report any discrepancies to the MSN. However, we identified two misplaced headstones by following NCA procedures and using the gravesite layout maps. The cemetery director did not know why staff did not identify the errors during the initial Phase One review.

- Philadelphia National Cemetery, Philadelphia, PA, is located in the MSN 1 area of responsibility. While reviewing our sample using the gravesite layout maps, we identified one unmarked gravesite. The cemetery director did not know why the error was not identified during the initial Phase One review.

The following table shows the number of gravesites reviewed by NCA, the errors NCA identified during its Phase One review, and the errors we identified at the same cemeteries prior to issuing the Management Advisory Memorandum. We reviewed 200 gravesites at each National cemetery.

**Table 1**

<b>Gravesite Errors Identified Prior to Issuing the Management Advisory Memorandum</b>				
<b>MSN</b>	<b>National Cemetery</b>	<b>Gravesites Reviewed by NCA</b>	<b>Errors Identified by NCA</b>	<b>Errors Identified by OIG</b>
1	Philadelphia (PA)	11,041	13	1
1	Winchester (VA)	5,097	0	3
2	Bay Pines (FL)	27,304	0	0
2	Marietta (GA)	16,960	0	0
4	Jefferson Barracks (MO)	123,851	0	0
4	Wood (WI)	25,531	0	2
<b>Total</b>		<b>209,784</b>	<b>13</b>	<b>6</b>

*Source: NCA Phase One and VA OIG results as of June 8, 2012.*

**Reasons  
Review  
Procedures  
Needed  
Modification**

We found NCA's procedures lacked controls to ensure independence and did not provide adequate time and resources to conduct a review of this magnitude. In addition, MSN staff did not provide updated gravesite layout maps to cemetery directors. During our audit work, we recommended the Under Secretary for Memorial Affairs revise the internal gravesite review procedures, complete follow-up reviews of all Phase One and Phase Two National cemeteries, determine the reasons directors' certifications did not disclose the errors we identified, and take appropriate administrative actions. NCA requested and we provided additional suggestions concerning revisions to its review procedures. This included consideration for the appropriate number of resources needed when reviewing cemeteries that differ in size, complexity, and age.



Phase Two began in April 2012, and NCA used the same procedures as the Phase One review. NCA cannot reasonably ensure that all misplaced headstones or unmarked gravesites were identified during the Phase Two review until follow-up reviews are completed using the revised procedures. Appendices D and E provides more information on the Management Advisory Memorandum and NCA's response to the advisory.

*Review  
Procedures  
Lacked  
Independence*

NCA's policy memorandum limited the review process to the cemetery or the acting cemetery director. The memorandum stated the cemetery director could request exceptions through the MSN office and forward them to the Deputy Under Secretary for Field Programs for approval.

Auditing principles and best practices state that review procedures have an independent element of checks and balances. Independent reviews increase objectivity and provide impartial judgment associated with conducting and reporting results. Assigning cemetery and MSN staff who are not directly associated with the cemetery to conduct reviews is an effective control to better identify gravesite errors and improve the accuracy and reliability of the review results.

*Adequate Time  
and Resources  
Needed To  
Conduct  
Reviews*

NCA planned the reviews without considering the variables among cemeteries, such as size, complexity, and age. Cemetery directors reviewed a range of 2,700 to nearly 124,000 gravesites for the 12 cemeteries we visited. NCA's October 2011 policy memorandum instructed each cemetery director or acting cemetery director to complete the review and certify the accuracy of the results by December 31, 2011, without considering cemetery size.

For the sites we visited, only two cemetery directors requested additional assistance in conducting the review by the completion date. During the week following the issuance of the policy memorandum, a cemetery director, who was responsible for reviewing over 123,000 gravesites at a large cemetery, requested and received approval for assistance to complete the review. According to the request, the director needed assistance due to the size of the cemetery and the geographical distance between the satellite locations assigned to him. Although the director at the second cemetery did not specify a reason, NCA granted approval for additional assistance in conducting the review of over 32,000 gravesites.

Cemetery staff at nearly every site told us that completing the review in 78 days (from October 14, 2011, through December 31, 2011), as well as continuing standard cemetery operations proved challenging. Considering the additional errors found by our auditors replicating NCA's review procedures, we determined that cemetery directors were overwhelmed and felt pressure to complete the review by the target date. As a result, the necessary due diligence was not applied to identify all errors. In addition,

some directors were responsible for reviewing not only a large cemetery but the smaller satellite cemeteries assigned to them as well.

*Gravesite Maps  
Needed  
Updating*

NCA's policy memorandum required MSN offices to review gravesite layout maps, make any necessary updates, and provide each cemetery director with the most current map to conduct the Phase One review. However, NCA did not ensure that the MSNs provided the cemetery directors with updated and accurate gravesite layout maps.

Gravesite layout maps used to conduct the review at 4 of 12 cemeteries we visited were not accurate. We found the following types of map discrepancies:

- Maps showed reserved gravesites when the burial space was occupied.
- Maps showed an obstructed gravesite when the burial space was occupied.
- Maps showed duplicate gravesites.
- Maps did not include all gravesites.

Cemetery directors' responsibilities include ensuring gravesite layout maps are maintained and updated daily. The maps reflect interment usage of gravesites and memorial sites. NCA guidance requires cemetery directors to transmit updated map information to the appropriate MSN staff at least once every 6 months. The guidance also states that MSN staff will return updated maps to the cemetery semi-annually.

At one cemetery, the gravesite layout maps were illegible and were not updated since 1970. At another cemetery, we observed four rows of headstones that were not included on the map used by the cemetery director to conduct the review. In addition, a cemetery director told us that the updated maps received from the MSN do not always include all the updates provided by the cemetery, which resulted in the continued use and reliance on inaccurate maps.

*Results of  
NCA Follow-  
Up Reviews*

In response to our Management Advisory Memorandum, NCA revised its procedures for completing internal gravesite reviews and tested its new procedures at 9 of 12 cemeteries that we visited or planned to visit during our audit. At the completion of Phase One, NCA identified 251 errors after reviewing nearly 1.6 million gravesites at 93 National cemeteries. After NCA revised its review procedures and conducted follow-up reviews of gravesites that were part of the Phase One review, NCA identified 146 additional gravesite errors at four of the nine cemeteries that were part of our sample. NCA used independent teams to conduct follow-up reviews instead of relying solely on the cemetery director.

- At Winchester National Cemetery, NCA identified 60 errors while conducting a 100 percent review of all gravesites. The MSN director advised us that the review team found 35 of 60 headstones using a probe because the headstones had sunk below ground level. Sunken headstones occur when ground conditions change and deteriorate over an extended period. In addition, two sets of markers were inadvertently switched and caused 4 of the 60 errors. The MSN director could not explain why the errors were not identified during the initial Phase One review.
- At Riverside National Cemetery, the MSN reviewed a sample of 400 gravesites and identified 52 gravesite errors. These errors occurred because one headstone was misplaced during a raise and realign project that caused 49 adjacent headstones to be offset. This resulted in placing two spousal remains in incorrect gravesites during subsequent interments. The cemetery director could not explain why the errors were not identified during the initial Phase One review.
- At Wood National Cemetery, the MSN identified 32 misplaced headstones while conducting a second review of all gravesites previously reviewed in Phase One. NCA told us the misplaced headstones were placed by mistake on the incorrect gravesites during raise and realign projects. The cemetery director could not explain why the errors were not identified during the initial Phase One review.
- At Philadelphia National Cemetery, the MSN identified two errors (one unmarked and one misplaced headstone) while conducting a 100 percent review of all gravesites. The cemetery director could not explain why the errors were not identified during the initial Phase One review.

Table 2 shows the number of gravesites reviewed and errors identified during NCA's subsequent reviews using the revised procedures.

**Table 2**

<b>Results of Subsequent Additional Errors Identified by NCA</b>			
<b>MSN</b>	<b>National Cemetery</b>	<b>MSN Gravesites Reviewed</b>	<b>Errors Identified by MSN</b>
1	Winchester (VA)	5,097	60
5	Riverside (CA)	400	52
4	Wood (WI)	25,531	32
1	Philadelphia (PA)	11,041	2
<b>TOTAL</b>		<b>42,069</b>	<b>146</b>

*Source: NCA's MSN data.*

**Conclusion**

NCA's internal gravesite review procedures were not adequate to identify all errors, which affected the validity and accuracy of the review. Consequently, NCA reported unreliable and understated results to Congress

following the completion of NCA's Phase One review. Because NCA used similar procedures during segments of the Phase Two Review, the results of that review may also be unreliable and understated. Identifying all gravesite errors and taking corrective actions will ensure VA properly honors veterans and their families with final resting places that commemorate their service to our Nation.

## Recommendations

- 1) We recommended the Under Secretary for Memorial Affairs ensure implementation of the three recommendations in the July 5, 2012, Management Advisory Memorandum.
- 2) We recommended the Under Secretary for Memorial Affairs ensure management take corrective actions regarding the additional 153 errors identified in this report, including the notification of congressional committees and contacting families when possible.
- 3) We recommended the Under Secretary for Memorial Affairs implement procedures to assess cemetery size and cemetery director responsibility to ensure adequate time and resources are available before conducting future gravesite reviews.
- 4) We recommended the Under Secretary for Memorial Affairs implement controls, including a certification, to ensure gravesite layout maps are routinely updated, accurate, and provided to the cemeteries.

### **Management Comments and OIG Response**

The Under Secretary for Memorial Affairs agreed with our recommendations and provided an appropriate action plan. NCA will ensure implementation of the recommendations in our Management Advisory Memorandum. The Phase Two review was completed in December 2012, using a more independent review process and improved procedures. MSN leadership also conducted independent gravesite reviews at every National cemetery and soldiers' lot administered by VA. NCA will research the reasons that errors occurred and take the appropriate administrative action.

In addition, NCA will assess cemetery size, staffing, and operational needs to ensure adequate time and resources before conducting future reviews. NCA will establish a certification procedure and reporting process to ensure gravesite layout maps are routinely updated, accurate, and provided to cemeteries. In the future, NCA plans to replace the legacy Burial Operational Support System (BOSS) with newer technology.

NCA will take corrective actions for all gravesite errors identified in the report. In the written comments to the draft report, NCA provided us with an explanation for two of the errors we identified. Although we appreciate NCA's diligence and timely efforts to address the findings, we believe the errors are valid and require additional research to ensure all deficiencies are

appropriately addressed to meet NCA's standards for accuracy. NCA plans to inform Congress, contact families and other stakeholders about the errors, and complete all corrective actions by the end of February 2013.

We consider those corrective actions that are completed or in process to be acceptable. We acknowledge that conducting a self-initiated review demonstrates NCA's commitment to ensuring VA-administered National cemeteries and soldier's lots continue to operate under the highest standards. The Under Secretary for Memorial Affairs comments and NCA's action plan can be found in Appendix F.

## Appendix A Background

### **Role of NCA**

In 1973, Congress passed Public Law 93-43, the National Cemeteries Act, which ordered the transfer of 82 National cemeteries from the Department of the Army to the then-Veterans Administration. Additionally, VA received jurisdiction over 32 soldiers' lots and transferred the procurement and supply of Government headstones and markers. During the Under Secretary's March 2012 congressional testimony, he stated NCA is currently experiencing the largest expansion of the National cemetery system since the Civil War. NCA has built 18 new National cemeteries from 1992 through 2010. NCA is in the land-acquisition and planning phase for five additional cemeteries.

NCA's mission is to honor veterans and their families with final resting places in National shrines and with lasting tributes that commemorate their service to our Nation. NCA's responsibilities include maintaining approximately 3.1 million gravesites at 131 National cemeteries in 39 states and Puerto Rico and 33 soldiers' lots and monuments. In addition, NCA furnishes headstones, markers, and medallions for the graves of veterans around the world; administers both the Presidential Memorial Certificate program and First Notice of Death program; and oversees the Federal grants program for the construction of state and tribal veteran cemeteries. In FY 2011, NCA conducted approximately 117,000 interments and processed 373,000 applications for headstones and markers for placement in cemeteries. Additionally, NCA provided over 7,000 headstone medallions and issued nearly 780,000 Presidential Memorial Certificates.

### **Organizational Structure**

NCA's field structure is geographically organized into five MSNs with offices located in Philadelphia, PA; Atlanta, GA; Denver, CO; Indianapolis, IN; and Oakland, CA.

### **NCA's Phase One Internal Gravesite Review**

In October 2011, NCA issued Policy Memorandum NCA-41A-2012-01 to direct MSN and cemetery directors to conduct a review to verify headstone and marker placement in all burial sections where raise and realign projects had been completed by contractors and/or NCA employees. According to the Under Secretary for Memorial Affairs statement given in March 2012, the review was to confirm that all headstones and markers in raised and realigned burial sections were in the proper location. NCA initiated the review following the discovery of 47 markers offset by one gravesite in a burial section at Fort Sam Houston National Cemetery. This resulted in placing the remains of four decedents in the wrong gravesites.

In March 2012, during the House Committee on Veterans' Affairs hearing on *Disability Assistance and Memorial Affairs*, the Under Secretary for Memorial Affairs provided a statement on the progress of NCA's system-wide internal review of gravesites within the National cemetery system. The review was conducted in two phases: Phase One included

burial sections where raise and realign projects were completed and Phase Two verified headstone and marker placements in the remaining cemetery burial sections where raise and realign projects were not completed.

***Raise and  
Realign  
Projects***

During the Under Secretary's March 2012 congressional testimony, he stated NCA conducts raise and realign projects to ensure headstones and markers are maintained at proper height and alignment. These major renovation projects are critical to NCA's ability to meet its National Shrine standards and, more importantly, to honor veterans. NCA uses contractors and NCA employees to conduct raise and realign projects.

## Appendix B Scope and Methodology

### Scope

We conducted our audit work from May through November 2012. The scope of the audit included a review of NCA Phase One review procedures performed from October 14 through December 31, 2011 and finalized the results on April 3, 2012. The universe of National cemeteries included 93 National cemeteries with nearly 1.6 million gravesites. We visited 12 National cemeteries from June through July 2012.

The following is a list of the 12 sample cemeteries, the number of gravesite errors identified by NCA during its Phase One review, and the number of gravesite errors identified by the OIG during this audit.

**Table 3**

<b>Gravesite Errors Identified by NCA and OIG</b>				
<b>MSN</b>	<b>National Cemetery</b>	<b>Gravesites Reviewed by NCA</b>	<b>Errors Identified by NCA</b>	<b>Errors Identified by OIG</b>
1	Philadelphia (PA)	11,041	13	1
1	Winchester (VA)	5,097	-	3
2	Bay Pines (FL)	27,304	-	-
2	Beaufort (SC)	17,410	4	-
2	Marietta (GA)	16,960	-	-
3	Fort Logan (CO)	62,741	-	-
3	Santa Fe (NM)	32,322	13	-
4	Jefferson Barracks (MO)	123,851	-	-
4	Wood (WI)	25,531	-	2
4	Zachary Taylor (KY)	10,655	-	-
5	Riverside (CA)	37,711	1	1
5	Roseburg (OR)	2,723	-	-
<b>Total</b>		<b>373,346</b>	<b>31</b>	<b>7</b>

*Source: NCA Phase One and VA OIG results.*

### Methodology

We interviewed NCA management and staff to obtain an understanding of NCA's Phase One review procedures. We selected a statistical sample of 12 National cemeteries to assess the quality of NCA's review procedures by performing the following steps at each location:

- Reviewing the Statements of Compliance and the Results of NCA's review.



- Interviewing the cemetery director to obtain an understanding of the Phase One review and results.
- Conducting an inventory of 200 gravesites using gravesite layout maps to ensure headstones were accurately placed.
- Comparing interment records with the inscriptions on the headstones to verify the proper location of headstones and markers.
- Identifying misplaced headstones and markers and unmarked gravesites during our physical observations of cemetery grounds.
- Verifying correction of previously reported misplaced headstones and markers and unmarked gravesites.

***Data Reliability***

We tested the reliability of computer-processed data by comparing the BOSS data with Records of Interment. We also compared BOSS data with gravesite layout maps and headstones and markers during our audit. If a gravesite in our sample did not match the gravesite layout map, we obtained BOSS data along with the Record of Interment to verify the accuracy of the information. We concluded the BOSS and the Records of Interment data were sufficiently reliable for this audit.

***Government Standards***

Our assessment of internal controls focused on those controls relating to our audit objective. We conducted this performance audit in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objective.

## **Appendix C Statistical Sampling Methodology**

We selected a stratified random sample of gravesites to determine whether NCA adequately identified and addressed issues found during NCA's Phase One internal gravesite review.

### ***Population***

The audit universe included 1,588,372 gravesites, which encompassed 93 National cemeteries within the National cemetery system. We used BOSS data provided by NCA to identify the audit universe. The records included the burial sections and gravesites reviewed during Phase One of NCA's internal gravesite review during the period October 14, 2011, through December 31, 2011. From the universe of gravesites, we identified a sample of 12 National cemeteries and 2,400 gravesites for review.

### ***Sampling Design***

We used a two-stage sampling approach. For the first stage, we stratified the universe of cemeteries into four groups based on the errors identified and the number of gravesites reviewed during NCA's Phase One review. We grouped cemeteries that identified errors during NCA's gravesite review into one stratum.

We stratified the remaining cemeteries into three groups by cumulating the sum of the square roots of the number of gravesites then splitting the cumulative value into three equal-sized groups. The second stratum included cemeteries with 141,908 to 22,299 gravesites reviewed and the third stratum included cemeteries with 22,298 to 7,428 gravesites. The fourth stratum included cemeteries with 7,427 to 1 gravesites reviewed. We computed the allocation based on an optimal Neyman allocation.

We needed a minimum of two sample units (cemeteries) per stratum. As a result, we selected four sites each for strata one and two, and two sites each for strata three and four for a total of 12. We randomly selected the sample cemeteries from the four groups.

For the second stage, we used the random sample of 12 National cemeteries from Stage 1 to select a random sample of gravesites and applied a discovery sampling method. We applied a 90 percent confidence interval and a 3 percent error rate to arrive at a required sample size of 200 gravesites per cemetery. We selected the sample gravesites in simple random order.

### ***Projections and Margins of Error***

We reviewed 2,400 gravesites from 12 cemeteries nationwide and determined there were 7 unreported errors at 4 National cemeteries from NCA's Phase One review. NCA identified 146 additional errors. As a result, we determined the Phase One results were understated and NCA's review procedures were inadequate. Given the potential for a large margin of error, a meaningful projection was not possible for the gravesites in our universe. As a result, we did not project the errors in our sample.

## Appendix D    **OIG Management Advisory Memorandum, July 5, 2012**

### **Department of Veterans Affairs**

# **Memorandum**

**Date:** July 5, 2012

**From:** Assistant Inspector General for Audits and Evaluations (52)

**Subj:** Management Advisory—Significant Issues Identified During Audit of National Cemetery Administration's Internal Gravesite Review

**To:** Under Secretary for Memorial Affairs (41)

1. We are providing this management advisory for your immediate action to address issues regarding National Cemetery Administration's (NCA) Phase One internal gravesite review procedures and reported results. Although we have only completed reviews of 6 of 12 selected national cemetery sites, we found 3 of the 6 cemeteries visited did not identify all misplaced and missing headstones and that results of NCA's reviews were inaccurately reported. We identified these errors during our audit of NCA's internal gravesite review. We are assessing whether NCA adequately identified and addressed issues found during their Phase One review. In the upcoming months, we will provide a draft report outlining our results and recommendations based upon reviews at all 12 national cemeteries selected as sample sites.
2. NCA completed their Phase One review in March 2012 and reported identifying 249 errors, consisting mostly of misplaced headstones and markers. NCA is currently conducting Phase Two, which is expected to be completed by the end of this year. The purpose of these internal gravesite reviews are to ensure that all headstones and markers in burial sections that were raised and realigned are properly located. The identification and reporting errors made by the three national cemeteries are described below:

- **Winchester National Cemetery.** Winchester National Cemetery, Winchester, VA, is located in Memorial Service Network (MSN) 1 area of responsibility. The Director of the cemetery certified that all headstones were accurately placed on the correct gravesites and reported no discrepancies to MSN 1. We identified two gravesites marked with incorrect headstones and one unmarked gravesite. The three gravesites were identified as occupied on the gravesite map. We also observed other gravesites that were not part of our review without headstones or markers which were noted as occupied on the gravesite map. The cemetery director said it was likely these headstones had sunk and that further investigation was needed.

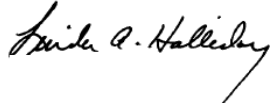
Page 2

- **Philadelphia National Cemetery.** Philadelphia National Cemetery, Philadelphia, PA, is located in the MSN 1 area of responsibility. We observed a gravesite that was not part of our review without a headstone, which should have been reported during the Phase One review.

3. We are concerned that NCA will continue to lack reasonable assurance of its accountability for gravesites if cemetery directors cannot demonstrate due diligence in fulfilling their responsibilities for ensuring the accuracy of marking of gravesites and reporting the results of their reviews. NCA's internal gravesite review procedures instructed the cemetery director or acting cemetery director to accomplish the review. NCA also required MSN offices review gravesite maps; confirm that maps were correct, update if necessary; and provide each cemetery director with the gravesite map to conduct the review. NCA should that considers the variables among cemeteries, such as size, complexity, and age. By performing a more independent review, NCA can obtain better assurance regarding the accuracy of its reported results. Increased oversight of the review process would reduce the risk of not identifying mismarked gravesites and inaccurate reporting of results.
4. We also found that MSN 1 did not confirm that Winchester and Philadelphia National Cemeteries' gravesite maps were updated and correct. Winchester National Cemetery's map had not been updated since 1956 with approximately 10 percent of new burials at the cemetery occurring after 1956. In addition, portions of the map were illegible. The Director of Philadelphia National Cemetery determined that their gravesite map had been updated locally in 2008. However, the MSN had not provided an updated map to the cemetery since 2005.
5. We recommend that the Under Secretary for Memorial Affairs take the following actions:
  - a) Revise current internal gravesite review procedures to ensure the accuracy of gravesite reviews and reporting of results.
  - b) Plan and complete another review of all Phase One and Two National Cemeteries using revised procedures.
  - c) Research the reasons the Directors' certifications did not disclose the same conditions we identified and take administrative action as deemed appropriate.

Page 3

6. Please provide your written comments to this Management Advisory by July 25, 2012. Your comments should provide an implementation plan and target completion dates for addressing the recommendations. If you have questions or wish to discuss the issues in this Management Advisory, please contact Gary Abe, Deputy Assistant Inspector General for Audits and Evaluations, or myself at (202) 461-4725. We appreciate the cooperation your staff extended to us during this audit.



LINDA A. HALLIDAY

## Appendix E NCA's Response to OIG's Management Advisory Memo, July 25, 2012

### Department of Veterans Affairs

### Memorandum

Date: July 25, 2012

From: Under Secretary for Memorial Affairs (40)

Subj: Response to Management Advisory – Significant Issues Identified During Audit of National Cemetery Administration's Internal Gravesite Review

To: Assistant Inspector General for Audits and Evaluations (52)

1. The purpose of this memorandum is to respond to your management advisory of July 5, 2012, entitled, "Significant Issues Identified During Audit of National Cemetery Administration's Internal Gravesite Review".
2. I share the concerns expressed, and NCA has taken steps to establish a more independent review process and improved procedures in order to enhance the reasonable assurance for the accuracy of the gravesites at our national cemeteries. The recommended independent review process has enabled NCA to revisit the cemeteries where your office discovered errors, as well as the cemeteries you visited the week of July 16-20, 2012. These initial actions are providing information and insights for use in developing improved gravesite review procedures, and these procedures will become part of a detailed and deliberate plan supporting another review of all our cemeteries by December 2012. I would appreciate receiving any additional information gathered by your team during visits on July 16-20, 2012, which could further inform development of our revised procedures. My staff will be requesting this information from your office in the very near future.
3. I anticipate having a revised plan in place by August 17, 2012, with the goal of providing reasonable assurance of accountability of gravesites by the end of the calendar year. Key elements of the new procedures will include the conduct of independent reviews to include improved sampling procedures and oversight by senior leadership at the Memorial Service Network level. In addition, by mid-fall 2012, the Deputy Under Secretary for Field Programs will have completed the necessary training for, and the establishment of, specialized review teams to provide an additional and higher level of review.
4. NCA is currently in the process of validating all discrepancies including those reported by cemetery directors during Phase II of the audit, those found by your team, and those found by the NCA independent reviews. Once this very thorough validation process is complete, we will report all discrepancies to families and Congress. As recommended, NCA will research the reasons for the discrepancies among the findings of the Cemetery directors, as certified by the initial audit, the findings of your auditors, and the findings of the independent review. Appropriate administrative action will be taken against employees in

Page 2.

Subject: Response to Management Advisory – Significant Issues Identified During Audit of National Cemetery Administration's Internal Gravesite Review

cases where our research indicates it is warranted. This validation period, to include external communications and the initiation of administrative actions, should be complete by August 31, 2012.

5. We in NCA believe we are the keepers of a Sacred Trust and are the guardians of the country's National Shrines. These unique and special responsibilities were the underlying motivations for the self-initiated review of gravesites—the first in the 150-year-history of national cemeteries. We are committed to providing reasonable assurance regarding the accuracy of our reported audit results and to maintaining a high level of accountability, today and in the future. We appreciate your assistance in helping us meet this goal.



Steve L. Muro

## Appendix F Under Secretary for Memorial Affairs Comments

### Department of Veterans Affairs

### Memorandum

Date: January 15, 2013

From: Under Secretary for Memorial Affairs (40)

Subj: Draft Report, Audit of NCA's Internal Gravesite Review of Headstone and Marker Placements (Project Number 2012-02223-R4-0135)

To: Assistant Inspector General for Audits and Evaluations (52)

I appreciate the opportunity to respond to the recommendations in the VA Office of Inspector General report, "Audit of Internal Gravesite Review of Headstone and Marker Placements."

For the first time in the 150-year history of national cemeteries, the National Cemetery Administration (NCA) conducted a comprehensive review of all 3.2 million gravesites within the 131 national cemeteries and 33 soldier's lots maintained by the Department of Veterans Affairs (VA). NCA conducted this self-initiated review to confirm that all headstones and markers are set at the proper location, and to ensure VA-administered national cemeteries continue to operate under the highest standards as national shrines. NCA leaders administered the review in two phases. Phase I included burial sections where "raise and realign" projects were conducted, and concluded on April 3, 2012. Phase II, which reviewed burial sections that comprise the rest of the NCA inventory, concluded on December 31, 2012.

NCA's review included 84 national cemeteries that were transferred from the Department of the Army to the Veterans Administration (now the Department of Veterans Affairs) in 1973, approximately 110 years after establishment of the first national cemeteries. Although Congress mandated the transfer of records to VA, Congress did not require any retroactive review of the transferred cemetery records. Accordingly, the audit which NCA conducted from October 2011 to December 2012 was self-initiated and the first complete review to verify the correct placement of remains and accurate marking of gravesites in the history of the national cemetery system.

#### OIG Finding and NCA response

- *The OIG found that NCA's Internal gravesite review procedures need strengthening.* This finding emanates from the IG's discovery of 7 misplaced headstones or unmarked gravesites at 4 of the 12 cemeteries that the OIG audited (issues that should have been identified by the cemetery directors during NCA's review). Additionally, the OIG describes that there were outdated and illegible maps at these cemeteries. NCA offers the following responses in detail to the finding and the OIG's analysis of the reasons for the finding:



Page 2.

- *NCA's Internal Gravesite Review Procedures needs strengthening because at 4 of 12 national cemeteries the IG found 7 misplaced headstones or unmarked gravesites in addition to outdated and illegible maps.* NCA concurs that our review procedures need strengthening. The review procedures NCA used for this self-initiated review of 164 sites was limited in scope and designed to quickly determine the prevalence of a particular error that we had encountered and self-reported. While the overall results show a low error rate after reviewing all 3.2 million gravesites, NCA's standard is that there should be no errors at all. This self-initiated first-ever review informed NCA that future reviews need to be comprehensive and must leverage information technology and NCA's robust historical records of interment to offer automated checks of the match between a gravesite, its marker, the record(s) of interment for that gravesite and the overall gravesite layout plan for that cemetery. This philosophy will be incorporated in the legacy replacement system, Memorial Applications Redesign (MAR). The MAR "Mapping" solution will include a Geo-Spatial Information System (GIS) interface that will layer the interment data, burial maps, and cemetery engineering drawings into a single view allowing a real time comprehensive review and analysis of the interment workflow process.
- *The IG discovered 7 misplaced headstones or unmarked gravesites at 4 of the 12 audited cemeteries (issues that should have been identified by the cemetery directors during NCA's review).* While NCA concurs with this finding in principal, NCA can only concur that there were 5 misplaced headstones or unmarked graves at 3 of the 12 audited cemeteries. At Winchester National Cemetery, NCA resolved one discrepancy that OIG identified as a mismarked grave. Although the inscribed gravesite number was not correct, the historic headstone accurately depicted the decedent's name. Based on the reporting instructions for the headstone and marker review, NCA did not include this finding as a mismarked grave. Additionally, the IG reported a headstone missing from a gravesite at Philadelphia National Cemetery. After an historical review and analysis, NCA determined this gravesite never existed. I will describe this situation in detail later in this response because it offers an instructive lesson on the scope of managing the 150 year old system that NCA manages today.
- *At 4 of 12 cemeteries there were outdated and illegible maps. NCA concurs in principal that gravesite layout plans were not updated to NCA standards in all cases.* NCA Gravesite Layout Plans are required to be updated semi-annually. NCA learned through this review that the focus on updating gravesite layout plans at most of our cemeteries was on burial sections with current interments and that older sections were not updated or periodically certified. As noted later in this response, NCA will establish a certification procedure and reporting process ensuring gravesite layout maps are routinely updated, accurate, and provided to the cemeteries. NCA innovators have been developing improved processes to handle gravesite layout changes before this review occurred. One such tool, the Gravesite Burial Status and Accounting Tool (GBSAT) has been particularly effective. GBSAT utilizes Excel spreadsheets to track and generate gravesite usage

Page 3.

data, which is then used to maintain full-size gravesite layout maps. The MSN that created GBSAT showed among the least problems with errors during this gravesite review. All the other MSNs are currently incorporating the GBSAT into their operations and GBSAT is being used as a leverage point for the Memorial Applications Redesign. The MSN with the most difficult map issues has hired a new engineering technician to support improvements in the gravesite layout plans.

OIG Recommendations and NCA Responses

1) "We recommend the Under Secretary for Memorial Affairs ensure implementation of the three recommendations in the July 5, 2012, Management Advisory Memorandum."

NCA concurs and implemented the recommendations as follows:

a) "Revise current internal gravesite review procedures to ensure accuracy of gravesite reviews and reporting of results."

*NCA revised the Phase II gravesite review procedural directive based on experience in implementing the Phase I gravesite review. Additionally, NCA directed that memorial service network executive leaders conduct independent gravesite reviews at every national cemetery and soldiers' lot administered by VA after the cemetery directors had completed their reviews. These leader-conducted independent reviews were designed to increase assurance in the accuracy of the overall results. MSN senior leadership conducted these reviews through scientific random sampling of gravesites or complete "re-audits" at every VA national cemetery and soldiers lot.*

b) "Plan and complete another review of all Phase One and Two National Cemeteries using revised procedures."

*As previously noted, NCA conducted independent gravesite reviews at every national cemetery and soldiers' lot administered by VA. From August to November 2012, MSN senior leaders conducted statistically-valid sampling or full re-audits of each national cemetery to increase assurance in the accuracy of the data reported in the Phase I and Phase II reviews. MSN leaders then researched and validated all discrepancies identified during these additional reviews. NCA will include the findings of the sample reviews with the Phase II results which will be reported to Congress, and will inform next-of-kin and other stakeholders about the errors. NCA plans to inform Congress and other stakeholders in January / February 2013, and complete all corrective actions by the end of February 2013.*

Page 4.

- c) "Research the reasons the Director's certifications did not disclose the same conditions we identified and take administrative action as deemed appropriate."

*NCA is researching the reasons for the discrepancies that Cemetery Directors identified during the Phase I and Phase II reviews; as well as the findings that OIG auditors and MSN leadership discovered during the independent reviews. NCA supervisors will take appropriate administrative action.*

- 2) "We recommend the Under Secretary for Memorial Affairs ensure management take corrective actions regarding the additional 153 errors identified in this report, including the notification of congressional committees and contacting families when possible."

*Except for the specific findings noted below, NCA concurs and will implement this recommendation. NCA plans to inform Congress and other stakeholders in January/February 2013, and complete all corrective actions by the end of February 2013. The exceptions are:*

- a) *At Winchester National Cemetery, Virginia, NCA employees researched and physically located 36 "Unknown Soldier" markers for Civil War era gravesites that NCA initially identified as unmarked. NCA employees discovered these historic markers had sunk beneath the turf, probably over a period of many decades. The markers were cleaned and raised to correctly mark the graves of the unknown Civil War soldiers. As the markers were found and corrected during the MSN validation process, these 36 gravesites were not included in NCA's report as unmarked graves. (NCA originally reported to OIG that employees located 35 markers. Subsequently, one additional marker was found.) Also, as previously noted, NCA resolved one other discrepancy at Winchester National Cemetery that was originally reported as a mismarked grave. Although the inscribed gravesite number was not correct, the historic headstone accurately depicted the decedent's name. Based on the reporting instructions for the headstone and marker review, NCA did not include this finding as a mismarked grave.*
- b) *At Philadelphia National Cemetery, NCA concluded that the OIG's finding of an unmarked grave is not correct – there is no gravesite # B280 despite its listing in NCA's Burial Operations Support System (BOSS). All NCA records will be annotated to ensure future employees know this gravesite does not exist. NCA's research concluded that the cemetery's gravesite layout plan correctly indicates there is no gravesite between gravesites # B279 and B281. In 1885, the United States purchased approximately 13 acres to concentrate the scattered remains of Civil War soldiers from multiple cemeteries in the Philadelphia area into one location at a new Philadelphia National Cemetery. NCA's research indicates that when remains from Glenwood National Cemetery were moved to the Philadelphia National Cemetery, the plan was to move the entire cemetery intact,*

Page 5.

*with remains and markers retaining the same numbering system and order. Historic records indicate that the remains of the soldier originally interred in gravesite 280 at Glenwood were not reinterred at Philadelphia National Cemetery; it is possible that the soldier's remains were claimed by family upon disinterment from the defunct cemetery. The layout map of Philadelphia National Cemetery "skipped" gravesite B-280 (as well as gravesite numbers of other soldiers originally interred at Glenwood who are known to have not been re-interred in the new section at Philadelphia National Cemetery.) During the 1950's, while creating a new recordkeeping system on typewritten cards, a burial record was inadvertently created for the Civil War soldier based on the handwritten ledger that documented the original interment at the defunct cemetery. This error was "re-transcribed" in 1994 when NCA created its electronic Burial Operations Support System (BOSS.) The cemetery director did not find this error that the IG reported, because the scope of NCA's review did not mandate a records review if the headstones matched the gravesite layout plan, which it correctly did.*

3) "We recommend the Under Secretary for Memorial Affairs implement procedures to assess cemetery size and cemetery director responsibility to ensure adequate time and resources are available before conducting future gravesite reviews."

*NCA concurs. NCA always assesses cemetery size, staffing and operational tempo when issuing operational tasks and will continue to do so in the future. NCA was aware that this review would challenge our leaders while they continued to operate their cemeteries to the high standards we demand of them. It was necessary, however to implement a demanding schedule in order to obtain the information we needed to advise stakeholders of the status of our cemeteries. Despite the challenge, most cemeteries, including some of the largest and busiest, were able to submit results that we have reasonable assurance are correct based on post review audits and scientific random sampling.*

4) "We recommend the Under Secretary for Memorial Affairs implement controls, including a certification to ensure gravesite layout maps are routinely updated, accurate, and provided to the cemeteries."

*NCA concurs with the recommendation. NCA will establish a certification procedure and reporting process ensuring gravesite layout maps are routinely updated, accurate, and provided to the cemeteries. Memorial Service Network (MSN) Directors will update, publish and forward open cemetery gravesite layout maps semi-annually. MSN Directors will update and publish closed cemetery gravesite layout plans annually. If there are no gravesite activity changes to specific burial sections, then these sections will be reviewed, and a new date affixed to the gravesite layout map. Each MSN will certify semiannually when these steps are completed. The first certifications will be due on March 31 and September 30, 2013.*

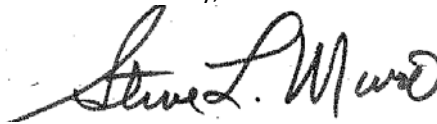
Page 6.

NCA appreciates the feedback the OIG has provided throughout this audit process. It has informed the reviews we have recently conducted and it will inform the future reviews we must complete in order to uphold our sacred trust as caretakers of the final resting places of Veterans and their families. NCA is pleased that the OIG found that our Burial Operations Support System (BOSS) and our Records of Interment were sufficiently reliable for this audit. Our experience with our own gravesite review was similar; when mismarked or unmarked graves were discovered, we were able to determine what corrections needed to be made by examining our records of interment and comparing them to our gravesite layout plans. NCA employees created the BOSS system "in-house" in 1994 reflecting an NCA characteristic of being innovative in response to the needs of Veterans. We consider ourselves fortunate to have predecessors who were innovative for we have seen other organizations struggle when they didn't take advantage of technology at the right time.

Looking to the future, NCA, with the support of VA's Office of Information and Technology, is implementing its Memorial Applications Redesign (MAR), which will replace the legacy Burial Operations Support System. The MAR is the next step in the innovation cycle to ensure mission accomplishment and it will be the system that electronically integrates over 150 years of records of interment with our gravesite layout plans. NCA will ensure accuracy of these records and interment layout plans as MAR is brought on board. This will not be easy, as we will need to conduct more gravesite and record reviews in order to accomplish this, but it will be done. NCA's formidable recordkeeping will assist current and future VA employees in fulfilling our responsibilities to account for remains and provide perpetual care for those interred in VA national cemeteries.

NCA is a proud organization that finds itself at the pinnacle of all organizations inside and outside the government in the areas of customer service and in operations and maintenance of facilities. While the number of errors discovered during our review was relatively small, any error in this area is unacceptable. NCA will use technology, training and the experience gained over the last year to create a new gravesite accounting system that will continue NCA's leadership as a world class organization, and help NCA maintain its status as a model of excellence for burial and memorials for our Nation's Veterans and their families.

Sincerely,

A handwritten signature in black ink that reads "Steve L. Muro". The signature is written in a cursive style with a large, sweeping initial "S".

Steve L. Muro

## **Appendix G Office of Inspector General Contact and Staff Acknowledgments**

---

OIG Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
-------------	-----------------------------------------------------------------------------------------------------------

---

Acknowledgments	Cherie Palmer, Director Alicia Castillo-Flores Joseph DeAntonis Kevin Gibbons Lee Giesbrecht Cynnde Nielsen Maria Stone Nelvy Viguera Butler Ora Young
-----------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Appendix H Report Distribution

### VA Distribution

Office of the Secretary  
Veterans Health Administration  
Veterans Benefits Administration  
National Cemetery Administration  
Assistant Secretaries  
Office of General Counsel

### Non-VA Distribution

House Committee on Veterans' Affairs  
House Appropriations Subcommittee on Military Construction, Veterans  
Affairs, and Related Agencies  
House Committee on Oversight and Government Reform  
Senate Committee on Veterans' Affairs  
Senate Appropriations Subcommittee on Military Construction, Veterans  
Affairs, and Related Agencies  
Senate Committee on Homeland Security and Governmental Affairs  
National Veterans Service Organizations  
Government Accountability Office  
Office of Management and Budget

This report will be available in the near future on the OIG's Web site at [www.va.gov/oig](http://www.va.gov/oig). This report will remain on the OIG Web site for at least 2 fiscal years.