

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
SAN ANTONIO DIVISION

JOHN A. PATTERSON, et al.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	No. 5:17-CV-00467
	)	
DEFENSE POW/MIA ACCOUNTING	)	
AGENCY, et al.,	)	
	)	
Defendants.	)	

**SECOND DECLARATION OF PAUL D. EMANOVSKY**

I, Dr. Paul D. Emanovsky, pursuant to 28 U.S.C. § 1746, declare as follows:

1. I am currently a supervisory forensic anthropologist in Defense POW/MIA Accounting Agency’s (DPAA) Scientific Analysis Directorate, and has served in that position since 2014. I am responsible for “Special Projects”, including management of the Scientific Analysis Directorate’s portion of the disinterment program. I also conduct scientific analysis of human remains, and serve as the scientific recovery expert for DPAA missions to recover remains from aircraft crashes and battlefield burial sites.

**Qualifications**

2. I have been employed by DPAA or its predecessors, the Joint POW/MIA Accounting Command (JPAC) and the Central Identification Laboratory-Hawaii (CILHI), since 2005. Prior to my employment with DPAA, I was a forensic anthropologist and archeologist/analyst in the Oak Ridge Science and Education (ORISE) Fellowship Program, working at DPAA. In 2005, I was hired as a federal forensic anthropologist, and served in that



position until being promoted to my current position in 2014.

3. I received a Ph.D in Anthropology from the University of Florida. I am a Fellow of the Physical Anthropology section of the American Academy of Forensic Sciences, and was elected section secretary in 2018, and Chair of the section in 2019. I am a Diplomate of the American Board of Forensic Anthropology (ABFA), and was elected onto the ABFA Board of Directors in 2018. I am a member of the anthropology subcommittee of the Organization of Scientific Area Committees (OSAC) administered by the National Institute of Standards and Technology to create national standards for forensic science. I have presented and published on numerous topics related to forensic anthropology and am an associate editor of the journal *Forensic Anthropology*. See Exhibit 1, Curriculum Vitae.

4. The statements contained in this declaration are based on my personal knowledge and DPAA records and information made available to me in my official capacity.

### **Anthropological Analysis**

5. In DPAA's identification program, and in forensic anthropology more generally, biological profile generation from the physical evidence (i.e., age, sex, stature, ancestry, individuating traits), has proven to be reliable for excluding implausible candidates for comparison to unidentified remains. Without some means of winnowing the field of candidates, other tests used for identification, such as DNA testing, would be impractical and cost-prohibitive due to the large numbers of unidentified remains and potential servicemembers. It also can make DNA testing more effective. For example, a common DNA sequence might leave a pool of candidates that can be further winnowed by stature comparisons.

#### **A. Stature Estimation**

6. In its recovery and identification efforts after World War II, the Army Graves

Registration Service (AGRS) used then-current scientific methods to estimate stature, which generally involved measuring certain long bones and using regression tables developed by various researchers from a 100-person sample measured by Etienne Rollet in the 1880s.

7. Limitations of these methods were observed, including by Dr. Mildred Trotter, an anthropologist from Washington University in St. Louis, Missouri, who took a leave of absence in 1948-1949 to work with AGRS at CILHI. In 1952, Dr. Trotter coauthored and published further refinements to the regression formulae based on her study of larger and more representative reference population—American casualties of the Korean War and the Terry Collection of human remains. *See* Trotter M. and Gleser G. Estimation of stature from long bones of American Whites and Negroes. *American Journal of Physical Anthropology*, Vol. 10, No. 4: 463–514 (December 1952). Dr. Trotter continued to refine her work through the 1970s.

8. DPAA currently uses the computer program *FORDISC 3: Computerized Forensic Discriminant Functions* (Jantz and Ousley 2005) for stature estimates. For World War II cases the “Trotter” database is used for the reference population, with options for “White” “Black” and “Any” (combined) populations. This approach essentially uses Dr. Trotter and Gleser’s reference population and formulae with some additional refinements.

9. DPAA has found that, while Dr. Trotter’s refinements and subsequent refinements have improved the accuracy of height estimation, the earlier methods used by AGRS were not wildly inaccurate, especially for Caucasian servicemembers.

10. In my professional judgment, it is unwise to entirely disregard long bone length and height estimates in seeking to determine whether unidentified remains could be those of a specific servicemember. Stature estimates are one of the cornerstones of biological profile development and a key data point for human identification projects. I am not aware of any

forensic anthropologists who would argue that they are not a validated, reliable, and useful tool.

11. I am not aware of any instances in which AGRS simply “disregarded” height discrepancies. Given the method in use at the time, where a point estimate was given rather than a prediction interval, it would have been common for the estimate not to be an exact match to the individual. If other evidence, such as positive dental identification and material evidence (e.g. identification tags etc.) lined up, the individual could be identified despite the absence of an exact match between the statures. But where the height discrepancy was significant, I understand that AGRS would consider the candidate less likely or entirely ruled out.

### **B. Other Aspects of Biological Profile**

12. In addition to stature estimate, forensic anthropology has developed reliable methods of distinguishing age, sex, and ancestry from ossified human remains. The methods employed by DoD anthropologists in the late 1940s and early 1950s are consistent with the methods in use today. While methodology has been refined in the intervening decades, the basic science has remained the same. For this reason, I generally accept DoD anthropologists’ assessments of likely age, sex, and ancestry at face value. It is unlikely, for example, that they would mistake remains exhibiting markers of Filipino ancestry for remains with European ancestry, and vice versa. Similarly, the known differences between the bone structures of an individual in his 20s and an individual in his 60s are readily observable. It is very unlikely that an anthropologist from the 1950s would be mistaken on such a scale.

### **Anthropological Analysis Relevant to 1LT Nininger**

13. I have reviewed the recorded anthropological evidence comparing First Lieutenant Alexander Nininger (1LT Nininger) to the remains designated X-1130 Manila #2. In my professional judgment, anthropological evidence excludes 1LT Nininger from being a

candidate for identification with X-1130.

14. Two sets of calculations were conducted for the remains designated X-1130. On January 24, 1949, the humerus, radius, and tibia were measured in centimeters, compared to regression tables, and then averaged, resulting in a height estimation of 5 feet, 2 1/8 inches. *See* QMC Form 1044, Identification Data at 3 (Jan. 24, 1949) (Exhibit 2). On September 8, 1950, the femur, humerus, radius, and tibia were measured in centimeters, compared to regression tables, and then averaged, resulting in a height estimation of 5 feet, 1 inch. *See* QMC Form 1044, Identification Data at 3 (Sept. 8, 1950) (Exhibit 3).

15. I entered the femur measurement of 41.9 centimeters from September 1950 into *FORDISC 3*. The system provided a point estimate of 63.8 inches, and a 95% prediction interval of 61.0 inches to 66.6 inches. This means that assuming the accuracy of the femur measurement, there is a 95% likelihood that the individual whose remains were designated X-1130 was between 5 feet, 1 inch and 5 feet, 6.6 inches tall.

16. This height estimate based on the 1950 femur measurement is sufficient under DPAA's current standards to exclude 1LT Alexander Nininger, whose height was measured at 5 feet, 11 inches, from being considered a reasonable candidate for identification from X-1130. The femur measurement would have to have been 47.0 centimeters to produce a prediction interval that includes 1LT Nininger's recorded height. There is no reason to expect that the measurement taken in 1950 could have been so inaccurate, especially where the other long bones consistently resulted in a much shorter height estimation.

17. In the case of comparing X-1130 to 1LT Nininger, the statures are so far off from each other that a match is highly implausible and it was reasonable for identification to be rejected on this ground alone.

### **Anthropological Analysis Relevant to COL Stewart**

18. I have reviewed the recorded anthropological evidence comparing Colonel Loren Stewart (COL Stewart) to the remains designated X-3629 Manila #2. In my professional judgment, anthropological evidence excludes COL Stewart from being a candidate for identification with X-3629.

19. The record for the remains designated X-3629 contains a set of measurements of the long bones conducted on August 1, 1949. See Exhibit 4. Using the Trotter MStats database and the “Any” male sample, the maximum length of the femur (41.8 cm), fibula (32.8 cm), and humerus (29.5 cm), when entered into FORDISC 3 give a point estimate of 62.9 inches with a 95% prediction interval of 60.2 to 65.6 inches.

20. The stature discrepancy between this estimate and the recorded height of COL Stewart is too great for him to be a plausible candidate. COL Stewart had recorded statures from six physical examinations between the ages of 32 and 37. All but one of the recorded measurements were between 67.25 and 68.5 inches. See Exhibit 5 (recording his stature as 67.25, 67.5, 67.75, 68, and 68.5). The anomalous stature record of 64.25 inches occurred on a physical examination at the age 34. See Exhibit 5. The most likely explanation for this drastic drop in stature is a typographical error, particularly due to the fact that it is in the middle of a long line of recorded statures that otherwise range at least three inches taller. Because the 95% prediction interval for the remains designated X-3629 is almost two inches shorter than the shortest plausible stature for COL Stewart (even if one were to average all of his recorded statures), he should be excluded as a candidate.

### **Anthropological Analysis Relevant to Brig. Gen. Fort**

21. On August 7, 2018, a DPAA anthropologist, Dr. Katherine Skorpinski, signed

DPAA's memorandum for the record regarding a family request to disinter X-618 Leyte #1. See Exhibit 6. I have reviewed Dr. Skorpinski's analysis and the recorded anthropological evidence comparing Brigadier General Guy Fort (Brig. Gen. Fort) to the remains designated X-618 Leyte #1. In my professional judgment, anthropological evidence excludes Brig. Gen. Fort from being a candidate for identification with X-618.

22. In March 1950, an assessment of the remains designated X-618 to indicate an age range of 23-28 years and an ancestry of "Mongoloid (Very Probably Filipino)." See Exhibit 7. These aspects of the biological profile could not be re-evaluated using data in the X-file, but are taken at face value. Brig. Gen. Fort was approximately 64 years old at the time of his death, and was of European ancestry (White). With the presence of a complete skull, it is not reasonable to expect that the remains of a 64 year old White male could be mistaken for the remains of a 25 year old Filipino using the methodology of the 1940s. Both of these non-concordances of the biological profile are grounds for exclusion.

23. In addition, Brig. Gen. Fort's recorded stature of 68.5 inches provides another basis to exclude him as a candidate. The record contains measurements of certain long bones for X-618. See Exhibit 7. I entered the femur length of 41.7 cm into FORDISC 3. The system provided a 95% prediction interval of 60.8 to 66.4 inches. Because Brig. Gen. Fort's recorded stature is almost two inches taller than the high end of this interval, he was reasonably excluded from consideration. See Exhibit 8.

\* \* \* \* \*

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed this 18th day of April, 2019.

EMANOVSKY. Digitally signed by  
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Paul D. Emanovsky, Ph.D.  
Supervisory Forensic Anthropologist



**Paul D. Emanovsky Ph.D. D-ABFA**

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 808-286-0377 (Cell)

**EDUCATION**

- 2010 **Ph.D.** in Anthropology, **University of Florida**, with a concentration in Forensic and Biological Anthropology Gainesville FL. Dissertation: *Intrinsic Variability and Scaling of the Modern Human Foot: Sexual Dimorphism, Ecogeographical Patterning, and Biomechanical Perspectives* (Dr. Michael Warren, Supervisory committee chair).
- 2002 **M.S.** in Human Biology, **University of Indianapolis**, Indianapolis IN. *A Taphonomic Analysis of Ohio Hopewellian Modified Animal Jaws from Tremper Mound* (Dr. Stephen P. Nawrocki, Advisor).
- 1998 **B.S.** in Human Biology (Interdisciplinary major Anthropology and Biology) **State University of New York at Albany**, Albany, NY.

**WORK EXPERIENCE**

2014 to present Supervisory Forensic Anthropologist, (GS-14 step 04\* special rate table #700H \*; Series: 0190 ) Defense POW/MIA Accounting Agency Central Identification Laboratory (DPAA-CIL).

In addition to responsibilities listed below, as a supervisory forensic anthropologist my duties include additional laboratory administrative and management responsibilities that contribute to maintaining a safe, productive, and creative work environment and developing a staff and atmosphere that fosters a culture of high ethical standards and scientific integrity. As functional areas I supervise several large commingled human remains (CHR) resolution projects, the Scientific Analysis Disinterment Initiative (determining the ability to identify individuals buried as "Unknowns" in various cemeteries worldwide based on historical and anthropological records), and a antemortem/postmortem database and reconciliation project ("Solvability/Resolvability project"). I am the liaison for the Laboratory for Agency Strategic Planning (a 6 year strategic plan) as well as the operational plan (a more focused 2-year planning body).

2005 to 2014 Forensic Anthropologist, (GS-13 step 07\* special rate table #700H \*; Series: 0190) Joint Prisoner of War/Missing in Action Accounting Command-Central Identification Laboratory (JPAC-CIL).

Responsibilities include:

- Recovery Leader for the forensic archeological recoveries and investigations of unaccounted-for service members from past conflicts. Duties include supervising and conducting all aspects of archaeological recoveries (worldwide; typically at remote locations), directing military (teams of ~10-15 individuals) and local work forces toward the recovery of all pertinent information at a site leading to case resolution. Over 40 deployments to date (~35-55 days each deployment), worldwide including North Korea, Vietnam, Laos, Cambodia, Germany, South Korea, and Papua New Guinea. Often deployments require negotiation and coordination at various levels within foreign governmental agencies and with local populous (e.g., village elders).
- Conducting skeletal analysis using advanced forensic anthropological techniques to aid in the identification of missing U.S. military personal. Conducting analyses of military artifacts and material evidence recovered from sites. Writing and peer review of laboratory scientific reports and case file coordination. Conducting validation studies of advanced anthropological methods.

- Auditing the CIL laboratory management system as part of a robust quality assurance program in association with ASCLD/LAB accreditation. Communicating findings to top management (e.g., Laboratory and Scientific Directors).
- Providing consultations (on forensic fieldwork, skeletal analysis, radiographic identifications) for various medico-legal offices, including the Honolulu Medical Examiner's office and the Federal Bureau of Investigation.
- Providing laboratory based instruction as well as formal lectures for Fellows enrolled in the Forensic Science Academy.
- Public affairs functions-providing tours of the laboratory/field operations to distinguished visitors (high-ranking governmental officials (domestic and foreign) and family members of the missing; giving interviews for media events and documentaries (journalists are sometimes embedded with recovery teams, other times my interaction has been via press conferences, or one-on-one interviews).
- Representing the U.S. and the DoD at international mass disasters, providing assistance and expertise in current forensic identification protocols and policies for dealing with mass casualties and human identification.
  - 2005-Member of International Disaster Victim Identification (DVI) team at the 2005-South East Asian Tsunami, Thailand. Provided expertise for identification procedures, conducted initial processing and logistical management of casualties, liaised with various stakeholders, military and civilian, during this large multinational response- for this work I received a Humanitarian Service Award.
  - 2006-World Wildlife Federation MI-17 aircraft crash, Nepal. I was the forensic anthropologist sent by the DoD at the request of the DoS to aid in the identification of 24 individuals from multiple countries (including the U.S.) who were involved in a fatal helicopter crash. I worked with Nepalese and U.S embassy officials to effect the identification and repatriation of the deceased, met with and debriefed some family members of the deceased, all in coordination with an ad hoc DVI team (two members from Finland and two from the United States, including myself).
  - 2014-Organized and moderated a symposium between JPAC-CIL and the International Committee for the Red Cross (ICRC)-Assistance Division (forensic advisors). The symposium highlighted human identification efforts in the context of the ethical and moral obligations societies have to ensure their missing are recovered and identified post mass disasters, war, and other conflicts. Further emphasis was placed on the obligations forensic practitioners and policy makers have to keep families as well as the population at large informed of the progress.

2002 to Forensic Anthropologist (ORISE Fellow), Joint POW/MIA Accounting Command-Central Identification Laboratory (JPAC-CIL)(formerly known as U.S. Army CILHI). Responsibilities are same as above.

2004 Graduate Assistant, C.A. Pound Human Identification Laboratory (CAPHIL) University of Florida. Assist with recovery, processing, reconstruction and analysis (identification and trauma analysis) of forensic human remains cases for various medico-legal offices.

2001 to Advanced Crew Member, P-III Associates, Inc. Salt Lake City UT.

2002 Responsibilities included archeological survey, recording archeological and historical properties, mapping, photography, as well as other data collection and research. (Full-time, 6 months).

2001 Field Director, Advanced Forensic Archeology Field School. Mercyhurst Archeological Institute, Mercyhurst College. Erie, PA. Responsibilities included instruction of a 2-week field school in forensic archeological field methods with a concentration on interpreting complex taphonomic scenarios. Topics included: search strategies, excavation techniques, mapping procedures, photography, and other death-scene, and mass disaster evidence collection protocols. (June 4 –15)

2000 Physicians for Human Rights Cyprus Project 2000.

Participated in continuing analysis of skeletal material obtained during the 1999 PHR mission in Cyprus (see below). Emphasis was placed on rectifying commingling issues, as well as revisitation of skeletal inventories for an internal quality control check. This mission also involved a forensic recovery in Pyrgos Village. I was the team leader of the 3-day excavation of remains from a disturbed clandestine grave context..

- 1999 Physicians for Human Rights Cyprus Project 1999.  
Participated in humanitarian mission with Physicians for Human Rights in Cyprus. This mission involved 6 weeks of fieldwork (excavation of mass graves) and 10 weeks of laboratory analysis (biological profile, trauma interpretation, etc.). An additional aspect of this mission was the training of an international team of physicians and forensic professionals (e.g. Forensic pathologists) in the basic methods and theory of Forensic Anthropology and international human rights work. Responsibilities included: excavation, analysis, assistance with training component, photography, as well as cataloging and processing of skeletal material and associated evidence. (May-August).
- 1998 to Laboratory Assistant, Archeology and Forensics Laboratory, University of Indianapolis.
- 2001 Assist with recovery, processing, reconstruction and analysis of various prehistoric, historic, and forensic human remains cases. In this capacity I assisted various medical legal and law enforcement offices with forensic anthropological tests and services. Analysis of Ohio Hopewellian modified trophy jaws from Tremper Mound. Creation of a comparative histological bone and tooth specimen collection. (Part-time)
- 1997 to Internship, New York State Museum, Albany, NY.
- 1998 Under the supervision of Dr. Brenda Baker. Assisted with the photographic documentation, reconstruction, inventory, and analysis of human skeletal remains as part of a comprehensive Native American Graves Protection Repatriation Act inventory; metric and non-metric analyses of historic remains from New York State Police, and various New York State Coroner's offices. (Part-time, 6 months).

### **TEACHING EXPERIENCE**

- 2013 Guest Lecturer, Department of Forensic Sciences, Chaminade University. *Introduction to Forensic Anthropology* (Three lectures: ancestry and discriminant function analysis, stature determination, radiographs and identification)
- 2009 Guest Lecturer, Department of Anthropology, University of Hawaii West Oahu. *Introduction to Forensic Investigations*. (Two lectures: Introduction to Osteology and Case Studies in the Detection of Clandestine Burials).
- 2007 Lecturer, Department of Anthropology, University of Hawaii West Oahu. Team taught (1/3 of semester) *Ecological Anthropology*.
- 1999 Teaching Assistant, Department of Biology, University of Indianapolis. Indianapolis, IN. Assisted with a graduate laboratory section of *Human Gross Anatomy*. Responsibilities included assisting with dissections, and preparation of laboratory practicals. (Part-time).
- 1998 to Teaching Assistant, Department of Biology, University of Indianapolis. Indianapolis, IN. Assisted with laboratory and classroom activities. Courses include: *Introduction to Biological Sciences Laboratory*, *General Biology Laboratory*, *Anatomy and Physiology Laboratory*, and *Human Evolution*. (Part-time).

### **PUBLICATIONS**

- 2016 Hayashi A., Emanovsky P., Pietruszewsky M., Holland, T., Procedure for Calculating the Vertical Space Height of the Sacrum When Determining Skeletal Height for Use in the Anatomical Method of Adult Stature Estimation. *Journal of Forensic Sciences*, Vol. 61, No. 2.
- 2015 Emanovsky P., Low velocity impact trauma: an illustrative selection of cases from the Joint POW/MIA Accounting Command-Central Identification Laboratory. Chapter in: *Skeletal Trauma Analysis: Case Studies in Context*, edited by N. Passalacqua and C. Rainwater, Wiley-Blackwell Publishing.
- 2012 Emanovsky P., and Belcher W. The Many Hats of a Recovery Leader: Perspectives on Planning and Executing Worldwide Forensic Investigations and Recoveries at the JPAC Central Identification Laboratory. Chapter in: *A Companion to Forensic Anthropology*, edited by D. Dirkmaat, Blackwell Publishing.
- 2011 Stephan C., Emanovsky P., Tyrrell A. The Use of Clavicle Boundary Outlines to Identify Skeletal Remains of US Personnel Recovered from Past Conflicts: Results of Initial Tests. Chapter in: *Biological Shape Analysis*, edited by P. Lestrel, World Scientific.

**SELECTED PRESENTATIONS**

- 2017 Emanovsky P and Parr, NM. *Population Classification Using Discriminant Function Analysis of Combined Mandibular Osteometrics and Non-Metric Traits*. Proceedings of the 69<sup>th</sup> annual meeting of the American Academy of Forensic Science, New Orleans, LA.
- 2013 Emanovsky P. *Analytical test method selection and validation of laboratory-based methods*. Proceedings of the 65<sup>th</sup> annual meeting of the American Academy of Forensic Science, Washington D.C.
- 2012 Emanovsky P. *Estimation of body mass from measurements of the calcaneus and talus*. Proceedings of the 64<sup>th</sup> annual meeting of the American Academy of Forensic Science, Atlanta GA.
- 2009 Emanovsky P. Prediction of shoe size from tarsals and metatarsals. Proceedings of the 61<sup>st</sup> annual meeting of the American Academy of Forensic Science, Denver CO.
- 2008 Nawrocki S., Emanovsky P. *Modified Hopewellian Trophy Jaws*. Paper presented at the Midwest Archaeological Conference Milwaukee WI. October 15-19 2008.
- 2007 Hefner J., Emanovsky P., Byrd J. and Ousley S. *The Value of Experience, Education, and Methods in Ancestry Prediction*. Proceedings of the 59<sup>th</sup> annual meeting of the American Academy of Forensic Science, San Antonio, TX.
- 2006 Tyrrell A., Benedix D., Dunn K., Emanovsky P., Gleisner M., and Kontanis E. *Death and Diplomacy: Multinational Forensic Responses to Mass Fatality Incidents*. Proceedings of the 58<sup>th</sup> annual meeting of the American Academy of Forensic Sciences in Seattle WA. February 20-25 2006.
- 2005 Tyrrell A., Benedix D., Dunn K., Emanovsky P., Gleisner M., and Kontanis E. *Responses To Global Mass Fatality Incidents And The Need For An International Consensus On Forensic Protocols*. Poster presented at the 36th International Congress on military medicine, St. Petersburg, Russia, June 5- 11, 2005.
- 2004 Emanovsky P. *Preliminary Results on the Use of Cadaver Dogs to Locate Vietnam War-era Human Remains*. Proceedings of the 56<sup>th</sup> annual meeting of the American Academy of Forensic Sciences in Dallas TX. February 16-22, 2004.
- 2001 Ritterskamp I., Baker A., Emanovsky P. Nawrocki S., Haskell N. *Recovery and Analysis of Two Vandalized Mausoleum Crypts in Northern Indiana*. Paper presented at the Eighth annual meeting of the Midwest Bioarchaeology and Forensic Anthropology Association. October 5-7 2001.
- 1999 Emanovsky P. and Judd L. *Forensic Anthropology in Cyprus*. Paper presented at 6<sup>th</sup> annual meeting of the Midwest Bioarchaeology and Forensic Anthropology Association. September 24-26, 1999.

**SEMINARS AND WORKSHOPS (Instructor)**

- 2014 *JPAC/ICRC Symposium on Humanitarian Forensics and Human Identification*: The symposium discussed perspectives on the current best practices employed toward the identification of the missing, and highlighted human identification efforts in the context of the ethical and moral obligations societies have to ensure their missing are recovered and identified post mass disasters, war, and other conflicts. JBPHH, HI. February 24-28. (Organizer and Moderator)
- 2002 *1st Annual Forensic Anthropology Demonstration Short Course in Spain: Documentation and Recovery of Evidence at the Outdoor, Fire, and Terrorism Crime Scene*. Taramundi, Spain. April 9-12. (Instructor)
- 2000 Indiana Coroners Association Annual Meeting. Merrillville, IN. (Guest Lecturer)
- 2001 Laboratory Methods in the Documentation, Analysis, and Interpretation of Human Remains from Forensic Contexts. Short Course presented by Mercyhurst Archeological Institute. May 29-June 2. (Assistant Instructor)
- 2001 Death Scene Archaeology: Field Methods in the Location, Recovery, and Interpretation of Human Remains from Outdoor Contexts. 10<sup>th</sup> Annual Short Course presented by Mercyhurst Archeological Institute. May 20-26.

(Assistant Instructor)

- 2000 *Crime Scene Archaeology*---A field training program in forensic archaeology and the recovery of human remains. Sponsored by the Federal Bureau of Investigation, St Louis Division, Evidence Response Team. October 2-6. (Lecturer as well as assisted with instruction of field exercises and demonstrations.)
- 2000 *Death Scene Archaeology: Field Methods in the Location, Recovery, and Interpretation of Human Remains from Outdoor Contexts*. 9<sup>th</sup> Annual Short Course presented by Mercyhurst Archeological Institute. May 22-27. (Assisted with instruction of field exercises.)

**SEMINARS AND WORKSHOPS (Participant)**

- 2014 *27th Annual Colonel Henry F. Williams Homicide Seminar*. New York State Police- the application of forensic science to death investigations, Albany NY.
- 2014 *Bias in Forensics*. An American Academy of Forensic Sciences Workshop. An American Academy of Forensic Sciences Workshop. Seattle, WA.
- 2013 *A National Forensic Sciences Enterprise and transparency in Forensic Science: Legal and Practitioner Views on Our Path Forward*. An American Academy of Forensic Sciences Workshop. Washington, DC.
- 2012 *What Did You Just Step In?! Use of Forensic Soil Examinations to Find Out*. An American Academy of Forensic Sciences Workshop. Atlanta, GA.
- 2010 *The Forensic Investigation of Human Remains from Armed Conflicts and Catastrophes*. An American Academy of Forensic Sciences Workshop. Seattle, WA.
- 2010 *ASCLD/LAB-International Assessor/Auditor Training*. A 40 hour course detailing how to assess forensic laboratories against ISO/IEC 17025:2005 and 2006 ASCLD/LAB-International supplemental requirements. Waikiki, HI.
- 2009 *ISO/IEC 17025:2005: Section 5.4.6 Estimation of Uncertainty-Is Anyone Certain What This Means?* An American Academy of Forensic Sciences Workshop. Denver, CO.
- 2007 *Forensic Science: Moving Forward through the Changing Tides*. An American Academy of Forensic Sciences Workshop. San Antonio, TX.
- 2007 *Bayesian Hierarchical Models*. A 3-day course on Bayesian hierarchical models and using WinBUGS. Imperial College, London.

**OTHER QUALIFICATIONS/AFFILIATIONS**

- 2018 Associate Editor of *Forensic Anthropology* (University of Florida Press)
- 2016 Diplomate of the American Board of Forensic Anthropology- (Elected to Board of Directors 2018)
- 2016 Member- Anthropology subcommittee for Organization of Scientific Area Committees (OSAC)
- 2015 Visiting Scientist Fellowship-Office of Chief Medical Examiner-NYC (OCME-NYC)-  
This month long fellowship provided an opportunity for immersion into various aspects of day-to-day operations within a Medical Examiner's Office (medico-legal death investigation, autopsy, grand rounds, case management, academics, etc.), with a specific focus on the role of Forensic Anthropology. The OCME-NYC is the largest Medical Examiner's Office in the United States, responsible for cases in Manhattan, Brooklyn, Queens, the Bronx, and Staten Island.
- 2011 Qualified American Society of Crime Lab Directors Laboratory Accreditation Board -International Assessor.
- 2010 American Academy of Forensic Sciences (AAFS)-  
Promoted to Fellow of the Physical Anthropology section (2017 Program Committee Chair, 2018 Section Secretary, 2019 Section Chair)

2003 to Disaster Mortuary Operational Response Team (DMORT) Region VIII

2006 On-call to offer assistance in the capacity of a forensic anthropologist/archaeologist in the event of a mass disaster or cemetery related incident. I was selected for this federal level response team designed to provide mortuary assistance under the local jurisdictional authorities such as coroner/medical examiners, law enforcement and emergency managers. Completed Disaster Medical Assistance Teams core training (e.g. Disaster Response, Incident Management System, Critical Incident stress Management, etc.) as well as DMORT core training (e.g. admitting, Tracking and Storage of Remains, Personal Effects in Transportation Incidents, Morgue Documentation etc.) through the U.S. Public Health Service online training programs. While I was on-call I never deployed on a DMORT mission.

Declassified Per E.O. 13526 dtd 5 Jan 2010

X-4685

IDENTIFICATION DATA

1. REMAINS OF UNKNOWN UNKNOWN X-4685 (Formerly X-1130 Manila #2)				2. DATE OF REPORT 24 Jan. 49	
3. NAME OF CEMETERY AGRS MAUSOLEUM, MANILA, P. I.		4. PLOT RANGER BAY	5. ROW CRYPT	7. DATE OF DISINTERMENT REINTERMENT	

PHYSICAL DESCRIPTION

8. ESTIMATED WEIGHT U.T.D.	9. ESTIMATED HEIGHT 5'2 1/8"	10. COLOR OF HAIR U.T.D.	11. RACE U.T.D.
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12. GIVE DESCRIPTION OF ANY OFFICIAL IDENTIFICATION FOUND WITH REMAINS

None

13. GIVE DESCRIPTION OF TATTOOS OR SCARS ON BODY AND/OR SUCH INFORMATION OBTAINED FROM OTHER SOURCES

None

14. WAS BODY BURNED? TO WHAT EXTENT?

YES  NO

15. WAS BODY MANGLED? TO WHAT EXTENT?

YES  NO

16. DESCRIBE EVIDENCE OF HEALED FRACTURES AND BONE MALFORMATIONS

None

17. LIST EVERY ITEM OF CLOTHING, EQUIPMENT AND PERSONAL EFFECTS FOUND, SHOWING THE TYPE, COLOR, SIZE, MARKINGS, SERVICE, ETC. (If laundry marks are indistinct such notation should be made and specimen forwarded through channels for examination when facilities are not available in the area)

None

*Final #1*

QMC FORM 1044  
REV 18 MAR 47

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

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X-4685

18. TOOTH CHART

<p><b>MISSING TEETH:</b> ALL TEETH MISSING THROUGH EXTRACTION (NOT THOSE FRACTURED OR DISPLACED BY RECENT WOUNDS) SHOULD BE "X" 'D OUT AND LABELED THUS:</p> <p><b>CROWNED TEETH:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD, PORCELAIN, SILVER OR GOLD AND PORCELAIN), THUS:</p> <p><b>BRIDGE WORK:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD BRIDGE, GOLD AND PORCELAIN BRIDGE), THUS:</p> <p><b>FILLINGS:</b> DRAW FILLING ON TOOTH AS ACCURATELY AS POSSIBLE (BLOCK IN AND LABEL GOLD, SILVER, CEMENT), THUS:</p> <p><b>CARIES (Cavities):</b> OUTLINE LOCATION AND SIZE OF CAVITY, SHADE IN THUS:</p>	<p>TOP VIEW</p>	<p>SIDE VIEW</p>
	<p>Gold Crown, Porcelain Crown</p>	
	<p>Gold Bridge</p>	
	<p>Gold Filling, Silver Filling</p>	
	<p>Cavity, Decayed</p>	

RIGHT								LEFT							
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
						⊗	⊗	⊗	⊗					⊗	
Side Views								Side Views							
Top Views								Top Views							
UPPER								UPPER							
LOWER								LOWER							
Side Views								Side Views							
						⊗	⊗	⊗	⊗						
16	15	14	13	12	11	10	9	9	10	11	12	13	14	15	16

HORIZONTALLY IMPACTED

**DENTURES (Plates):** DRAW DIAGRAM OF RELATIVE SIZE AND SHAPE OF PLATE, BLOCK IN TEETH ATTACHED AND INDICATE RETAINING CLASPS ON NATURAL TEETH WITH THE WORD, "CLASP."

Maxilla missing, loose teeth found with remains  
 I16 Horizontally impacted

Sgt. JOSEPH D. MURPHY

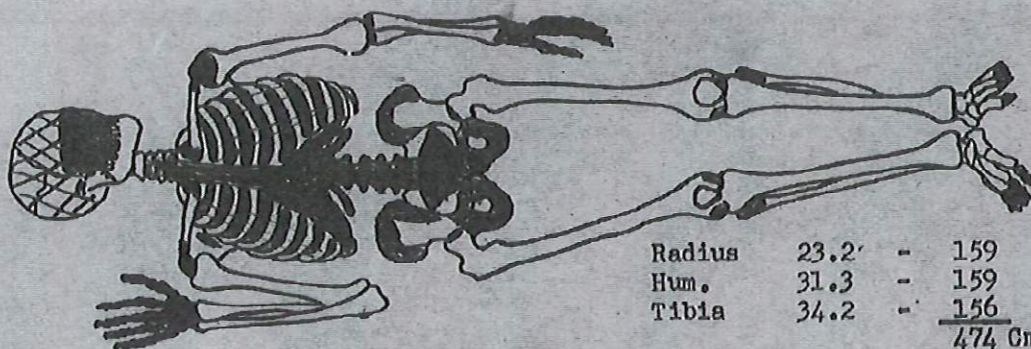


Declassified Per E.O. 13526 dtd 5 Jan 2010

X-4685

19. BLACK OUT PARTS OF BODY NOT RECORDED

and Vert Fragments



Radius	23.2	-	159
Hum.	31.3	-	159
Tibia	34.2	-	156
			<u>474</u> Gms. ox
			5' 2 1/8"

20. MASS BURIAL CERTIFICATE (IF APPLICABLE)  
(Wherein segregation in whole or parts is impossible)

I CERTIFY THAT THE GROUP REMAINS CONSIST OF PARTS OF \_\_\_\_\_ DECEDENTS BASED ON THE PRESENCE OF ONE OR MORE OF THE FOLLOWING ANATOMICAL PARTS: \_\_\_\_\_ NUMBER

\_\_\_\_\_  
SIGNATURE OF MEDICAL OFFICER

21. REMARKS AND ADDITIONAL INFORMATION

(1) one embossed tag bearing following information found with remains  
 Unknown X-1130  
 NININGER, A.R. Jr.  
 O-23761 2nd Lt.  
 57 INF. Jan. 42  
 2836-22-2

I CERTIFY THAT I HAVE PERSONALLY VIEWED THE REMAINS OF DECEASED AND THAT ALL RESULTING INFORMATION HAS BEEN RECORDED TO THE BEST OF MY KNOWLEDGE

TYPED NAME, GRADE, ARM OR SERVICE, AND ORGANIZATION

SIGNATURE

*Doc 1<sup>3</sup>*  
J. J. McDERMOTT

*J. J. McDermott*

QMC FORM 1044b  
18 MAR 47

29E-21-12-47

Declassified Per E.O. 13526 dtd 5 Jan 2010

IDENTIFICATION DATA

1. REMAINS OF UNKNOWN UNK. X-4685 (Formerly X-1130 Manila #2)			2. DATE OF REPORT 8 Sept. '50		
3. NAME OF CEMETERY AGRS Mausoleum Manila P. I.		4. PLOT	5. ROW	6. GRAVE	7. DATE OF DISINTERMENT REINTERMENT

PHYSICAL DESCRIPTION Age: 20-30 yrs.

8. ESTIMATED WEIGHT U. T. D.	9. ESTIMATED HEIGHT 5'11"	10. COLOR OF HAIR U. T. D.	11. RACE U.T.D.(probably mongoloid)
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12. GIVE DESCRIPTION OF ANY OFFICIAL IDENTIFICATION FOUND WITH REMAINS  
  
None

13. GIVE DESCRIPTION OF TATTOOS OR SCARS ON BODY AND OR SUCH INFORMATION OBTAINED FROM OTHER SOURCES  
  
None

14. WAS BODY BURNED ? TO WHAT EXTENT ?  
 YES  NO

15. WAS BODY MANGLED ? TO WHAT EXTENT ?  
 YES  NO Skull

16. DESCRIBE EVIDENCE OF HEALED FRACTURES AND BONE MALFORMATIONS  
  
None

17. LIST EVERY ITEM OF CLOTHING, EQUIPMENT AND PERSONAL EFFECTS FOUND, SHOWING THE TYPE, COLOR, SIZE, MARKINGS, SERVICE, ETC. (If laundry marks are indistinct such notation should be made and specimen forwarded through channels for examination when facilities are not available in the area)  
  
None

**"UNIDENTIFIABLE"**  
**"BY REASON OF LACK OF SUFFICIENT IDENTIFYING DATA"**

Incl 1

CMC FORM REV 18 MAR 47 1044

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

Print Army Printing Plant, Wash DC 20315

Declassified Per E.O. 13526 dtd 5 Jan 2010

18: TOOTH CHART Unk. Y 685 Mausoleum

<p><b>MISSING TEETH:</b> ALL TEETH MISSING THROUGH EXTRACTION (NOT THOSE FRACTURED OR DISPLACED BY RECENT WOUNDS) SHOULD BE "X" D OUT AND LABELED THUS:</p> <p><b>CROWNED TEETH:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD, PORCELAIN, SILVER OR GOLD AND PORCELAIN), THUS:</p> <p><b>BRIDGE WORK:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD BRIDGE, GOLD AND PORCELAIN BRIDGE), THUS:</p> <p><b>FILLINGS:</b> DRAW FILLING ON TOOTH AS ACCURATELY AS POSSIBLE (BLOCK IN AND LABEL GOLD, SILVER, CEMENT), THUS:</p> <p><b>CARIES (Cavities):</b> OUTLINE LOCATION AND SIZE OF CAVITY, SHADE IN THUS:</p>	<p>TOP VIEW</p>	<p>SIDE VIEW</p>
	<p>Gold Crown, Porcelain Crown</p>	
	<p>Gold Bridge</p>	
	<p>Gold Filling, Silver Filling</p>	
	<p>Cavity Decayed</p>	

broken

	RIGHT								LEFT							
	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
							D	X	X							X
Side Views																
Top Views																
Side Views																
							M	DLF	DLF	MLF						impacted
	16	15	14	13	12	11	10	9	9	10	11	12	13	14	15	16

mandible broken

**DENTURES (Plates):** DRAW DIAGRAM OF RELATIVE SIZE AND SHAPE OF PLATE. BLOCK IN TEETH ATTACHED AND INDICATE RETAINING CLASPS ON NATURAL TEETH WITH THE WORD, "CLASP."

Unable to determine R-16 whether X or PX due to the condition of the mandible.

**"UNIDENTIFIABLE"**

*Robert B. Fox*  
 ROBERT B. FOX  
 Anthropologist

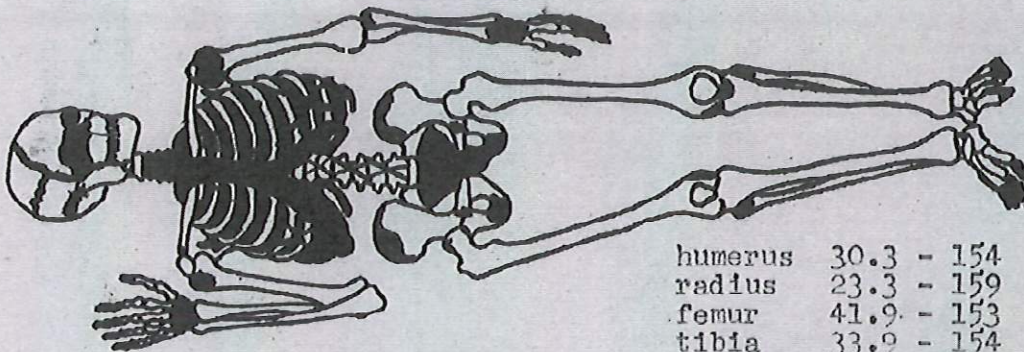
QMC FORM 18 MAR 47 1044a

29E-21-12-47 PAGE 2 OF 3

Declassified Per E.O. 13526 dtd 5 Jan 2010

Unk. X-4685 Mausoleum

19. BLACK OUT PARTS OF BODY NOT RECOVERED



Estimated height 5'11"

20.

MASS BURIAL CERTIFICATE (IF APPLICABLE)  
(Wherein segregation in whole or parts is impossible)

I Certify that the Group Remains Consist of Parts of \_\_\_\_\_ Decedents Based on the Presence of One or More of the Following Anatomical Parts:

NUMBER

\_\_\_\_\_  
SIGNATURE OF MEDICAL OFFICER

21. REMARKS AND ADDITIONAL INFORMATION

No identification tags, personal effects or any other means of identification found with remains.

**"UNIDENTIFIABLE"**

**REASON OF LACK OF SUFFICIENT IDENTIFYING DATA"**

I Certify that I Have Personally Viewed the Remains of Deceased and that All Resulting Information Has Been Recorded to the Best of My Knowledge

TYPED NAME, GRADE, ARM OR SERVICE, AND ORGANIZATION

ROBERT B. FOX  
Anthropologist

SIGNATURE

QMC FORM 1044b  
18 MAR 47

Each Army Post Office Form 1044b

EXHIBIT

4

## IDENTIFICATION DATA

1. REMAINS OF UNKNOWN UNKNOW N X-1298 (Formerly UNK X-3629 Manila #2)				2. DATE OF REPORT 1 Aug 1949	
3. NAME OF CEMETERY		4. PLOT 812	5. ROW I	6. GRAVE 2843	7. DATE OF DISINTERMENT REINTERMENT
PHYSICAL DESCRIPTION					
8. ESTIMATED WEIGHT U T D	9. ESTIMATED HEIGHT 4'11"	10. COLOR OF HAIR U T D		11. RACE UNKNOWN	
12. GIVE DESCRIPTION OF ANY OFFICIAL IDENTIFICATION FOUND WITH REMAINS  N O N E					
13. GIVE DESCRIPTION OF TATTOOS OR SCARS ON BODY AND/OR SUCH INFORMATION OBTAINED FROM OTHER SOURCES  U T D					
14. WAS BODY BURNED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TO WHAT EXTENT?			
15. WAS BODY MANGLED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TO WHAT EXTENT?			
16. DESCRIBE EVIDENCE OF HEALED FRACTURES AND BONE MALFORMATIONS  N O N E					
17. LIST EVERY ITEM OF CLOTHING, EQUIPMENT AND PERSONAL EFFECTS FOUND, SHOWING THE TYPE, COLOR, SIZE, MARKINGS, SERVICE, ETC. (If laundry marks are indistinct such notation should be made and specimen forwarded through channels for examination when facilities are not available in the area)  N O N E					
<b>"UNIDENTIFIABLE"</b> <b>"BY REASON OF LACK OF SUFFICIENT IDENTIFYING DATA"</b>					
Incl # 9 <sup>2</sup>					

X-1298

18. TOOTH CHART		TOP VIEW	SIDE VIEW
<b>MISSING TEETH:</b> ALL TEETH MISSING THROUGH EXTRACTION (NOT THOSE FRACTURED OR DISPLACED BY RECENT WOUNDS) SHOULD BE "X" D OUT AND LABELED THUS:			
<b>CROWNED TEETH:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD, PORCELAIN, SILVER OR GOLD AND PORCELAIN), THUS:			
<b>BRIDGE WORK:</b> BLOCK IN SOLID AND CROWN OF TOOTH (LABEL GOLD BRIDGE, GOLD AND PORCELAIN BRIDGE), THUS:			
<b>FILLINGS:</b> DRAW FILLING ON TOOTH AS ACCURATELY AS POSSIBLE (BLOCK IN AND LABEL GOLD, SILVER, CEMENT), THUS:			
<b>CARIES (Cavities):</b> OUTLINE LOCATION AND SIZE OF CAVITY, SHADE IN THUS:			

See Remarks

RIGHT								LEFT								See Remarks
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
X						P	P	P								
Side View															Side View	
Top View															UPPER	
															LOWER	
Side View																
			P	P	P	P	P		P	P	P					
16	15	14	13	12	11	10	9	9	10	11	12	13	14	15	16	

Partially Impacted

**DENTURES (Plates):** DRAW DIAGRAM OF RELATIVE SIZE AND SHAPE OF PLATE, BLOCK IN TEETH ATTACHED AND INDICATE RETAINING CLASPS ON NATURAL TEETH WITH THE WORD, "CLASP."

occlusal -  
 L8 is partially impacted and malposed occlusal-facial.  
 L16 is partially impacted in horizontal position.

*James J. McDermott*  
 JAMES J. McDERMOTT  
 Laboratory Officer, CIP

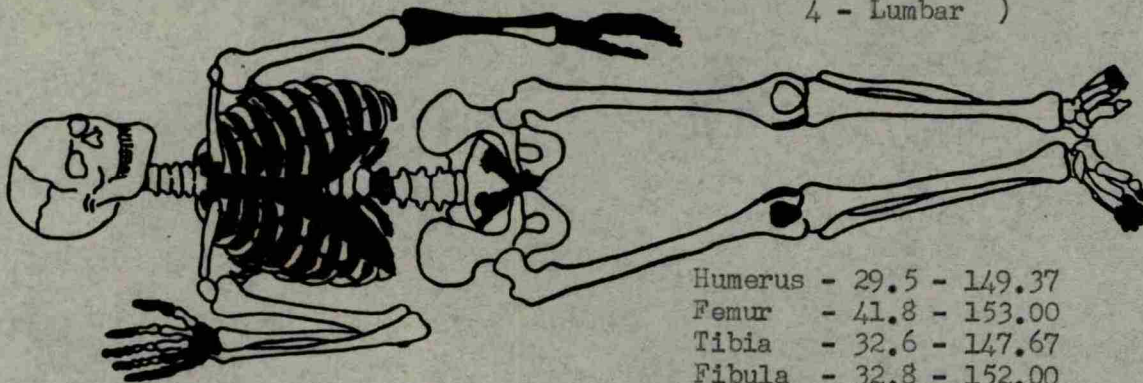
"UNIDENTIFIABLE"

QMC FORM 18 MAR 47 1044a BY REASON OF LACK OF SUFFICIENT IDENTIFYING DATA

X-1298

19. BLACK OUT PARTS OF BODY NOT RECOVERED

- - Cervical)
- 5 - Thoracic) Vertebrae
- 4 - Lumbar )



Humerus	-	29.5	-	149.37
Femur	-	41.8	-	153.00
Tibia	-	32.6	-	147.67
Fibula	-	32.8	-	152.00
Ulna	-	23.8	-	154.00
				<u>756.04</u>

Estimated height: 150 cm or 4'11"

20. **MASS BURIAL CERTIFICATE (IF APPLICABLE)**  
 (Wherein segregation in whole or parts is impossible)

I CERTIFY THAT THE GROUP REMAINS CONSIST OF PARTS OF \_\_\_\_\_ DECEDENTS BASED ON THE PRESENCE OF ONE OR MORE OF THE FOLLOWING ANATOMICAL PARTS:

SIGNATURE OF MEDICAL OFFICER

21. REMARKS AND ADDITIONAL INFORMATION

No ROI, identification tags or personal effects found with remains.  
 Estimated weight of remains - 6 lbs.  
 Circumference of skull - 20 inches.

**"UNIDENTIFIABLE"**

REASON OF LACK OF SUFFICIENT IDENTIFYING DATA

I CERTIFY THAT I HAVE PERSONALLY VIEWED THE REMAINS OF DECEASED AND THAT ALL RESULTING INFORMATION HAS BEEN RECORDED TO THE BEST OF MY KNOWLEDGE

TYPED NAME, GRADE, ARM OR SERVICE, AND ORGANIZATION

JAMES J. McDERMOTT  
 Laboratory Officer, CIP

SIGNATURE