



F9 The USS Iowa Disaster: Success of the Forensic Dental Team

Robert B. Brannon, DDS, MSD, Louisiana State University School of Dentistry, Oral & Maxillofacial Pathology Department, Box 144, 1100 Florida Avenue, New Orleans, LA 70119; William M. Morlang, DDS, Forensic Odontologist, 9317 Gloxinia Drive, San Antonio, TX 78266*

The goal of this presentation is to reinforce how preparedness plays a key role in mass disaster dental identification and is directly responsible for the success that a dental team experiences.

This presentation will impact the forensic community and/or humanity by describing the dental-identification team's successful involvement in the USS Iowa tragedy played a significant role in contributing to the development of the American Board of Forensic Odontology "Guidelines for the Development of a Disaster Dental Identification Team."

On April 19, 1989, the battleship USS Iowa was undergoing a gunnery exercise approximately 330 miles northeast of Puerto Rico when an explosion occurred in the Number 2 gun turret killing 47 crewmen. At the time, it was one of the worst peacetime military accidents in U.S. naval history.

The role from the dentists' perspective has never been reported. Therefore, this presentation will discuss the valuable role that dentistry played in the investigation and identification process and will record its historical significance. The dental identification team's organization, problems encountered, and contributions are documented.

Dental comparison was the principal means of identification because the explosion resulted in death from thermal injury and/or bluntforce injury. Identification efforts were further hampered because of remains fragmentation and severe decomposition of remains due to flooding in the turret. The Armed Forces Institute of Pathology Department of Oral Pathology was responsible for providing forensic dentistry support for this endeavor. The assembled dental identification team was composed of 13 dental officers and seven dental technicians from the Army, Air Force, and Navy. All 20 members of the dental identification team were experienced in postmortem dental identification. Prepackaged equipment and supplies dedicated to dental identification were an invaluable resource and a major factor that enabled the dental team to deploy rapidly.

Dental and fingerprint were methods used to identify the victims. The use of computer analysis (CAPMI system) facilitated the dental identification process. Dental comparison alone (14 victims) or in combination with fingerprints (31 victims) was the means of positive identification in 45 victims or 96%. Dental findings were classified as "consistent with" for two whom fingerprints positively identified. Hence, all 47 victims were identified.

The dental team faced a minimal amount of problems in this disaster. Problems directly affecting the dental team included burn victims, fragmentation of remains, commingling of jaw fragments, and relatively minor discrepancies in antemortem dental records. However, in summary, commencing with advance preparations to on-site organizational plans to closure, every aspect of the dental identification team's preparedness and participation was a model for success.

Forensic Sciences, Mass Disaster, Dental Identification