F20   Forensic Identification of Flight AF 447 Disaster Victims

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After attending this presentation, attendees will learn more about DVI in a multinational scenario applying INTERPOL recommendations.

This presentation will impact the forensic science community by demonstrating how every identification method should be employed when human identification is requested.

Air France flight 447 departed on schedule at 19:30 (22:30 GMT) on May 31, 2009 from Rio de Janeiro for Paris. On board were 228 people (216 passengers and 12 crew members), 59 Brazilians and 169 others belonging to 32 different nationalities. About three hours after take off there was loss of radio signal from the aircraft. It is unlikely that the cause of the disaster will ever be established, as the black boxes were lost in the Atlantic Ocean. Only 50 bodies were recovered and identified, 20 of which were Brazilian and 30 of other nationalities. Of those recovered 25 were adult females, 24 adult males, and 1 male child.

Forensic victim identification was performed by Brazilian Federal Police staff with the technical support of INTERPOL and French personnel. Several antemortem and postmortem teams were employed for the identification process. An advanced PM Base located on Fernando de Noronha Island, a main PM base located in Recife; a federal police PM DNA lab in Brasília; and an AM team in Rio de Janeiro. The advanced PM team located on Fernando de Noronha Island was tasked with photographing the bodies and human remains recovered, with the initial registration and archiving of clothing, personal belongings and obtaining fingerprints and a biological sample for DNA profiling. The body bags were shipped to Recife and DNA samples to Brasília for further analysis. The medico-legal Institute in Recife performed medical, dental, and radiological examinations, taking additional photographs, DNA, and fingerprints samples. These operations were performed by Brazilians forensic pathologists and odontologists, with French and INTERPOL delegates as observers representing the international Community.

DNA, odontology, fingerprints, as well as personal belongings/findings (tattoos, jewelry, piercings) and clothing were used by the reconciliation teams in Recife and Brasília. The forensic management of victim identification differed little from the one used after the 2004 tsunami in Asia. Due to the large number of nationalities involved (33), and the difficulties in processing antemortem data, it was decided to use INTERPOL DVI protocols and software, to ensure an international standard and quality control.

The recovery and identification of AF447 victims required 2 months work, largely due to the timescales involved in receiving ante mortem data from the many countries involved through their police agencies.

During DVI process identifications were made by following methods: DNA, odontology findings/fingerprints. Although more methods were used in many instances, the order largely reflects the percentage of each method used, DNA being used in more cases. However, the identification of the non-Brazilians victims was mainly done via DNA and odontology data, as a result of the absence of fingerprints AM data for the non-Brazilians casualties.

Human rights, quality control, and Interpol DVI recommendations (ratified by 187 countries) require that in a multinational identification exercise, all primary identification methods should be employed. This opinion that the combination of DNA, odontological data, dental x-rays, and where possible fingerprints will permit the establishment of an international standard ensuring certain and fast results.   **Forensic Science, Forensic Odontology, Disaster Victim Identification**