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Managing Disaster Mortuary Services after the Maui Wildfires

When fires ravaged Maui and took the lives of 102 people, personnel from ASPR's Office of the National Disaster Medical Systems (NDMS) Disaster Mortuary Operational Response Teams (DMORT) were deployed to support the decedent management aspects of the disaster. The experienced mortuary specialists on the team, along with regional response staff, assisted across the state with victim identification and respectfully processing human remains. ASPR TRACIE met with Robert Vigil, Deputy Team Commander, DMORT Region 9 (who spent three weeks in Maui and subsequently won the NDMS Director Jack W. Beall 2024 Responder of the Year Award) and Josh Gore, Supply Management Officer/Logistics Section Chief with the Logistics Response Assistance Team (who spent nearly four weeks there) to learn more about the logistics work that contributed to this award-winning response.

Dr. John Hick, ASPR TRACIE Senior Editor (JH)

Can both of you please introduce yourselves and tell us what you do when you are not deployed?

Robert Vigil (RV)

I retired after 26 years with a corporation as an area manager for clusters of funeral homes and cemeteries. I then started the Yuma County Medical Examiner's office, then returned to work in the funeral business as an area manager. I am semi-retired now. I have been a DMORT member since 1999; my first deployment was to the Alaska Airlines #261 plane crash off the coast of Oxnard, in Ventura, California. Soon after that I was named a Deputy Commander and have held that position since 2000.

> "NDMS was created 35 years ago. In 2023 alone, NDMS deployed DMATs, DMORTs, and/or a Victims Identification Team for Typhoon Mawar, the Hawaii Wildfires, Hurricanes Idalia, Typhoon Bolevan, and a mass shooting in Lewiston, Maine. NDMS teams, including National Veterinary Response Teams, also responded to 11 National Special Security Events and were placed on alert for an additional seven hurricanes. Prior to this, NDMS personnel deployed for pediatric respiratory virus, stood ready to deploy for mpox, and led the nation's largest public health emergency response in history: three years providing care for patients hospitalized with COVID-19.
>
> --Assistant Secretary Dawn O'Connell in NDMS Turns 35: Prepared for Today's Threat Landscape

Joshua Gore (JG)

I grew up in the funeral service and am currently a funeral director in South Carolina for a family funeral home. I have been with the Region 4 DMORT since 2001, and my first deployment was to Hurricane Katrina in 2005. I had expressed some interest in managing the logistics associated with the DMORT Portable Morgue Unit (DPMU), and I had a chance to work in that role then. I've been active in logistics since then, at first, on the fatality side, then the medical side once all team logistics were absorbed into the Logistics Response Assistance Team in 2011.

Related ASPR TRACIE Resources

Burns Topic Collection

Disaster Mortuary Operational Response Teams in Action: The Role of DMORT in Natural Disasters, Pandemics, and Beyond

Fatality Management Topic Collection

RV

I would really like to compliment Josh. I could not do his logistics job, and we could not have done our job without Josh and his team. They were amazing and such good people to work with. This Maui operation was an incredible operation because of the people we had on the team and the great working relationship we had with the Maui County Police-Coroner's Office and federal, state, local, and private partners. The communication and support we received from NDMS staff and headquarters were excellent.

JG

We feel the same way about the level of operational command Robert had with his team. DMORT holds a special place in my heart because it's where I got my feet wet in the system. We carry out a vast array of responses. Only a few of us have the training and background to be able to support out a DMORT response.

It is such a precise operation and a zero-fail mission. There are higher levels of media scrutiny and higher emotions from the loved ones and community members who are affected by the response. There might not be an entire decedent—there may just be a part or a fragment of someone left—but that is someone and is attached to people who are still living that disaster. DMORT bridges that gap and brings them closure. There is a high level of pride associated with this work.

JH

What does DMORT bring to the jurisdictions that request it?

RV

When DMORT is deployed, it is a true team effort between NDMS and local medical examiners and coroners who have been overwhelmed by something that happened in their community. Families are waiting for their loved ones to be returned, and time is of the essence. We start by sending an assessment team that works with local responders to determine what DMORT can contribute to the response. This can be followed by a strike team (smaller than a DMORT) or a full DMORT, depending on the incident. We may bring forensic staff, x-ray technicians, pathologists (many are funeral directors), anthropologists, dentists and more. We are not there to take over; we are there to support.

We also have the DPMU, which falls under Josh's group. We can set up stations that serve as a temporary coroner's or medical examiner's office, and we process forensic examinations in a professional and thorough manner.

A full team deployment within the U.S. is comprised of about 65 members, and the number of people ASPR sends depends on the nature of the mission.

JH

What was the nature of the Hawaii deployment? Who and what kind of equipment did you send?

RV

First, we sent an assessment team of five, which included a commander, deputy commander, forensic specialist, a victim identification center (VIC) member and another team member. We met with local authorities to determine what kind of human and physical resources we could send to help with the response. The local medical examiner's office was a relatively small facility and less than ten people worked there. Based on that assessment, we chose to set up a temporary morgue outside of that building. It wasn't elaborate but it worked perfectly thanks to Josh's team. We deployed about 18 people to the coroner's office and about 25 to the VIC which was set up at the family assistance center.

JH

Was this the furthest DMORT had ever been deployed? Tell us about the logistics involved with shipping and setting up a DPMU.

JG

We have been deployed to American Samoa and Guam, but as far as an actual response, yes, Hawaii is the furthest I have set up a DPMU. If we are shipping by ground, we provide our 53-foot refrigerated carriers or dry box containers and we can coordinate and track exactly where those pieces are, when they leave the warehouse, and when our equipment arrives on scene (we manage coordination within the continental U.S. [CONUS]). If we are shipping by air carrier (which is how we transported the DPMU to Maui), we load it, but we are at the mercy of the local airport staff when it arrives and lands. On the island, they use contractors to manage the movement of equipment, and we did face some challenges figuring out who that was and the associated wait time. In the meantime, we were able to locate some key components and send them over to the forensic center, allowing Bob and his team to begin that part of the operation. While we had everything staged on the scene, we did not use the majority of the equipment.

JH

Other than having to front load logistically, what other challenges did you face working outside the continental U.S. (OCONUS)?

JG

Our major support base is on the east coast, with most of our equipment sent from Maryland and Washington, DC. There is a five-hour time difference between the east coast and Hawaii, and we had to keep that in mind to ensure we were reaching out during their business hours. We also had to get ahead of potential needs and remember that it would be a couple of days before we could get any materials we needed.

Reaching back to headquarters also required some accommodation. We normally have a set call each day, and headquarters adjusted that timeframe for us, even while involved in a concurrent response. They were flexible and supportive of this complex response.

RV

While we may not have needed all of the DPMU equipment, we were lacking in personal protective equipment (PPE) when we first started. The chief medical examiner for Honolulu (who is part of DMORT Region 9) sent some PPE to Maui for us to use right away. We needed morgue equipment, transfer tables, and autopsy equipment—local capacity was limited, so we supported their schedule, since they still had other, non-fire related cases to manage. They would handle those cases first thing in the morning. We left our hotel at 10:00 AM, arrived at the morgue at 11:00, and worked on fire victims until 10:00 PM. This allowed the operation to flow very well, both at the coroner's office and the VIC. The VIC team had a different schedule that enabled them to interview family members.

JH

Mass burn incidents are not that common for DMORT; what makes these response efforts unique and how do you plan for these things?

RV

In 2018, I was the first NDMS member deployed to a wildfire. I spent two weeks in California, working on the Camp Fire at the request of the State of California Office of Emergency Services as a subject matter expert, but we did not deploy a DMORT (the state handled that component of the response).

These incidents are more complex because of the condition of the remains. The Anthropology Chief for this incident, Jeanne McLaughlin (with Region 10), was outstanding. She was supported by a team of anthropologists from Hawaii and Chico State.

JH

To what degree are DMORT members interacting with families and locals? Is there good trust and communication there?

RV

The only people who met the family members are the staff in the VIC who conduct the interviews. DMORT does not make the positive ID; that is handled by the local coroner or medical examiner. The VIC members work with loved ones to gather the antemortem information, medical records, and DNA to facilitate positive identification.

The interview process is extensive and carried out by people with backgrounds in the funeral business and medical and legal investigators who know how to ask these very sensitive questions.

JH

Have you witnessed lesser trained providers given responsibility for things that are fairly technical or that they are not emotionally or technically trained to manage?

JG

I have experienced that in past missions, where it was someone's first detail, or they were rather young and without the same level of training a DMORT member would have had. This type of work can also take a toll on a responder's mental health. Those of us who work in the field every day do have more cultural sensitivity and are able to connect with grieving loved ones.

RV

I had similar experience during the COVID-19 pandemic at the Los Angeles coroner's office. I was the deputy commander deployed with a strike team, and the National Guard was deployed to support the office, moving bodies, assisting in autopsies, and other duties. Every day, I commended them, because what they were doing was so out of their norm; they had never done this before. Even though I do this every day, I know it had to be shocking to them, and I know it took a toll.

JH

It must be uniquely stressful when you don't have the tools you need and the setting is also overwhelming. How do you support yourselves and the team?

RV

As leaders, you are trained to keep an eye on each other. If you see someone struggling, take them to the side and talk to them. This might be their first deployment. After a shift, communicating and bonding with the team is helpful. While some may want to be alone, it is important to get together as a team for a meal or a walk. We also encourage our members to stay in touch with their families while they are deployed. NDMS should also be commended for their increased support for mental health over the years. We had a specialist from the U.S. Public Health Service who came out every day to check on NDMS staff, making us feel very supported both during and after the incident.

JG

It does help when someone is familiar with your experience. Regarding logistics, there is always a piece of equipment that may not be organic to our cache but maybe more efficient. If it is something that has been demonstrated to increase efficiency, we can reach back and acquire it. We often then add that component to our caches to improve future responses.

There's a lot of shifting in the way we do things. For example, in Maui, the VIC was initially situated in the affected area, in a community center that had some challenges with security and accessibility. The VIC team was not interviewing many loved ones, so we relocated the VIC, increasing interactions. Any time you make an operational change, you have to take into account how it will impact the mission. When you make that type of move, after these addresses have been communicated to the public, you have to notify the community through word of mouth and media.

This was somewhat challenging in Hawaii, as the land was mountainous, and we had to use various forms of communication. For the first time, however, the two sites were able to merge data instantly (versus having to download data and physically walk it over to another server to upload it). The amount of infrastructure upgrades and the level of expertise our IT/Communications team members possess cannot be applauded enough.

JH

What tips would you give local coroners with very small operations on preparing for a mass fatality incident?

RV

I would tell them that their entire organization has to be involved with emergency management. A small number of fatalities might overwhelm you, so it is important to be familiar with your jurisdiction's communication methods, training, and equipment.

JG

Security wise, it is crucial to ensure there is limited access to an area. The media wants a story and may generate one if they are unable to get what they want. For example, we had tractor trailers that held equipment and another that held remains. These trucks looked similar, and the media assumed they were both carrying human remains (essentially doubling the number of victims). Once we saw the level of access the media had to the forensic center, we worked with law enforcement to minimize it. We also encountered drone activity for the first time ever, but local law enforcement issued a no-fly zone with the Federal Aviation Administration and used their own drone to track offenders. Giving the media a regular update and physically blocking their views of operations (such as decedent movement) can help address these challenges.

> A DPMU is "a depository of equipment and supplies that can be used to stand up a complete morgue at a disaster site. Due to its size (5,000 to 8,000 square feet), a DPMU is typically housed in a tent in the open air or in a large unused structure such as a warehouse. DPMUs provide ample room for each step that might be needed, including areas for triaging and admitting human remains, photography and x-ray, examination/autopsy, and post-mortem information collection (e.g., fingerprinting, forensic dentistry, and forensic anthropology)."
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> --Source: About Disaster Mortuary Operational Response Teams

JH

What are some logistics specific to the DPMU?

JG

Typically, we send four 53-foot containers to the airport where they are repalletized by the loadmaster who oversees the placement of cargo in the aircraft; this process is similar whether the DPMU is being shipped by the Department of Defense or public shipping carriers. If we are unable to guarantee a fixed facility, we can send two additional trailers that contain materials needed to build a mobile, portable, standalone shelter. Those six trucks contain approximately 25,000 pounds of equipment. Over the years, we have improved the way this equipment is packed so it's easier to deploy, put into play, and reload and return.

JH

Are DMORTs designed to be self-supporting for a certain period of time?

JG

We try to have enough supplies for two to three days of an operation. As far as PPE goes, during a CONUS operation, we gauge the tempo of our burn rate on the first day, since that is typically our heaviest need day. After we compute that burn rate, we stay in contact with the DMORT operations chief or whomever the DMORT commander designates to determine if they anticipate an increase in remains or would like to increase to a 24-hour schedule versus a 12-hour schedule. During an OCONUS operation like the Maui response, you have to include distance and time in your calculations and pack more PPE on the front end. Initially, we were not sure we would need the entire DPMU in Maui, but the challenge was the mode of transport. If, by chance, we needed a certain section during operations time, and we hadn't shipped it, we would have had to wait several days to receive it. We sent the whole thing, just in case.

RV

At one point, nearly 500 people were deemed missing. The logistics for each mass casualty incident response are dependent on the specific incident and mission.