

Handler and Canine Deployment Survey

# Hurricane Sandy

October 29, 2012



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## Summary of Findings

The majority of handlers, (87%), were experienced, having deployed prior to Hurricane Sandy. They had an average of over 9 years on a federal task force.

Regarding search canines, just over half, (58%), were experienced, having deployed prior to this mission. The majority breed was Labrador Retriever (20 canines) comprising 61%. The Belgian Malinois came in a far second (6 canines) at 18%. Almost half (48%) were male, average age 6 years.

Transportation for canines included buses and vans. Some canines were transported in crates, but many were not crated. All task force personnel billeted in a facility (hotel, military barracks, casino), with one report of a night in a tent. Again, canines were either free, leashed, or crated during their down time.

Regarding physical examinations, nearly one fourth (24%, or 8 of 33) of the canines did not receive the mandated pre-mission physical examination by a licensed veterinarian (Program Directive 2011-024). Seven of those 8 canines received no physical examination of any kind at any time before, during, or after the deployment.

Shifts and the work performed varied. The number of times handlers worked a shift varied greatly between task forces, from none to working 8 shifts over the course of the mission. The nature of work also varied, including searches, meet and greet, and humanitarian work. Fifteen handlers did shifts without their canines.

Human remains detection requests were made of 4 handlers, but their canines were all live-find trained. One handler did use her live find canine to perform a search, explaining to the New York authority that an alert would not occur but the canine may exhibit unusual behavior.

Injuries were few, 3 of the 33 canines. Only one of these was serious, and is still being treated 6 weeks later. Illness was also infrequent, 2 of the 33 canines. Both were successfully treated in a timely manner and did not require further follow-up.

Briefings that specifically related canine hazard concerns were not received by more than half (57%, 17 of 30) of the handlers. When received, the hazards included weather-related concerns, standing water contamination, and sand contamination. Contaminants included oil and sewerage. Physical hazards included exposed nails.

Decontamination was performed for every canine that worked. The procedures varied: cold water and soap were most common, water alone, wipes, Simple Green, and 1 warm water. Drying was either with towels or air drying.

### **Note to Canine Search Specialists**

*Thank you to all who took time out of your busy day to complete the survey!*

*Lori E. Gordon, DVM*



## Comments

Mandated pre-mission examinations were not performed for 8 search canines. The deployment was 4 months after implementation deadline. **Recommend follow-up as to why the pre-mission examinations were not obtained so as to ensure these task forces have a procedure in place for the future.**

Canine-specific safety briefings were not received by 17 canine search specialists. Leptospirosis, a zoonotic disease found in standing water and transmissible to animals and humans, is a concern. Vaccination for some strains is available for dogs but is a non-core vaccine not currently required. **Recommend a list of canine-specific hazards and concerns be distributed to the IST and all deployed task forces. This list can be made available by the US&R Veterinary Group at the inception of each mission. Recommend add the Leptospirosis vaccine as a requirement for FEMA US&R search canines.**

Requests for Human Remains Detection (HRD) canines were made by the Authority Having Jurisdiction (AHJ). **Recommendations are on the table for an HR standard and for a modular deployment process to deploy HRD certified canines as a part of the response for the FEMA US&R system.**

One canine experienced a serious paw injury, and was treated by a local veterinarian under heavy sedation or light anesthesia (still awaiting records). There were medical concerns stated by the handler about post-surgical state of the patient and the surgical procedure that was performed. Dr. Gordon did reach out to the IST about her availability to assist if needed, but it is unclear if this information was included in the IST daily reports or filtered to the task force medical personnel. **Recommend a process to convey information to the IST about available deployed FEMA US&R veterinary personnel, including their location and contact information, especially if there is no IST Veterinary Medical Officer deployed.**

Decontamination was provided for every canine that worked in the field. This is important to them as well as the team members. There was some concern that the cold water and cold weather could have resulted in hypothermia issues. This was not the case. The cache-approved dryer is large and cumbersome, designed for use at a Base of Operations. **Recommend adding or offering as an alternative, a hand-held more portable dryer for use at a forward site.**

The use of canines to provide comfort as a humanitarian aid by being available to be seen and touched by the victims of disaster provided stress relief and psychological healing. This is something they do for our team members as well. When they are not searching they are still working, providing comfort to many who lost everything.



## **Introduction**

Questionnaires benefit handlers, search canines, medical personnel who treat the canines, and hazmat members who decontaminate them. Whether you are a veterinarian, medic, or handler, training and disaster preparedness begin long before a deployment. Although anything can happen, and we try to prepare for all situations, every deployment is unique. The information gathered from prior missions allows us to concentrate training on the most common illnesses and injuries, streamline the cache needs especially when space and resources are limited, and emphasize preventative measures in an effort to avoid problems before they occur.

## **Information Collection**

A survey was sent out electronically to all handlers that deployed with FEMA US&R teams in response to Hurricane Sandy. Questions included handler experience, canine signalment (breed, age, gender) and experience, their transportation and billeting, physical examinations performed, work shift information, injuries and illnesses incurred, decontamination procedures, and briefing details. The handlers were invited to give comments, both positive and negative, and make recommendations to address issues.

## **Brief History**

Hurricane Sandy, the 10th hurricane of the 2012 season, affected the entire eastern seaboard from Florida to Maine and west across the Appalachian Mountains to Michigan and Wisconsin, with particularly severe damage in New Jersey and New York. Its storm surge hit New York City on October 29, 2012.

President Obama signed emergency declarations on October 28 for several states expected to be impacted by Sandy, allowing them to request federal aid and make additional preparations in advance of the storm. A total of 9 FEMA US&R Task Forces were deployed. These included IN-TF1, MA-TF1, MD-TF1, MO-TF1, OH-TF1, PA-TF1, TN-TF1, VA-TF1, and VA-TF2. Among them were the Canine Search Specialists, 41 Handlers with 44 canines.





## Definitions for Reference

Mean = the average; the numbers are added and then divide by the number of numbers

Median = the middle value in the list of numbers

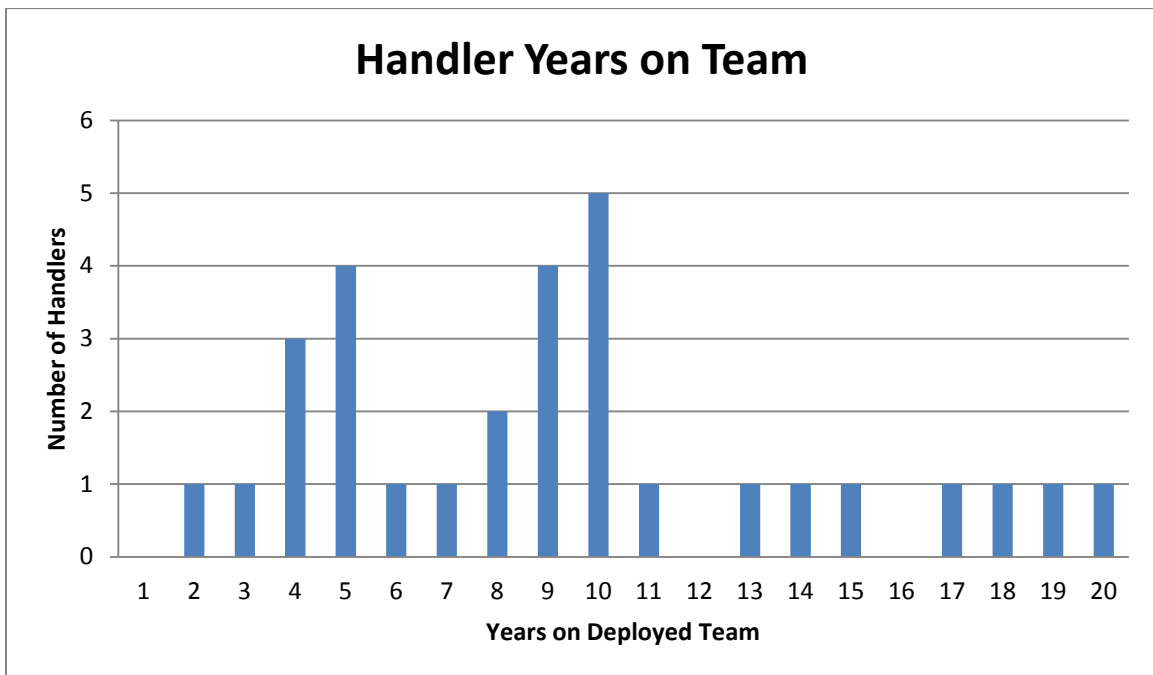
Mode = the value that occurs most often; if no number is repeated, there is no mode for the list.

Range = is the difference between the largest and smallest values

## Handler Information

41 Handlers were deployed on 9 FEMA US&R Teams.

- 30 of the 41 handlers (73%) responded to the survey, including 3 handlers that each deployed with 2 canines
- This was first deployment for 4 of the 30 survey responders (13%)
- Range of years on the deployed team was 1 to 20 years



- Mean = 9.3 years
- Median = 9 years
- Mode = 10 years



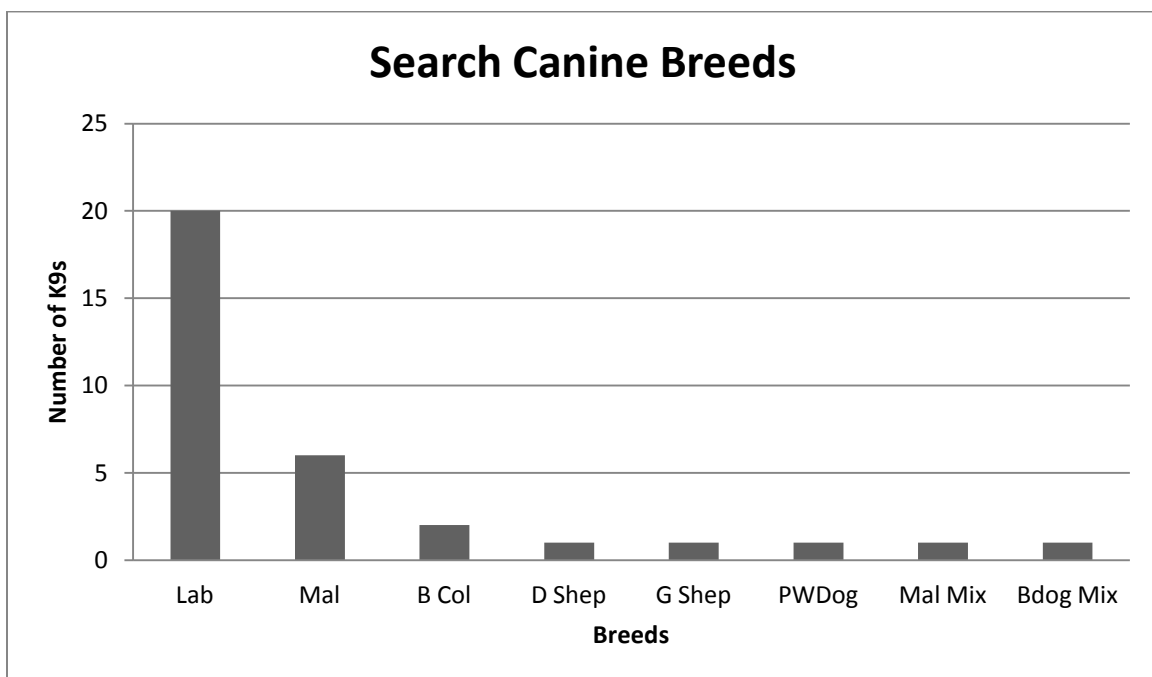
## Canine Information

44 Canines were deployed (3 handlers each brought 2 canines)

- 33 of the 44 canines deployed (75%) had their information reported
- This was first deployment for 14 of the 33 canines reported (42%)

Breeds of the 33 canines included the following:

- 20 Labrador Retrievers (61%)
- 6 Belgian Malinois (18%)
- 2 Border Collies (6%)
- 1 each: Dutch Shepherd, German Shepherd, Portuguese Water Dog, Belgian Malinois Mix, American Bulldog Mix (3% for each)

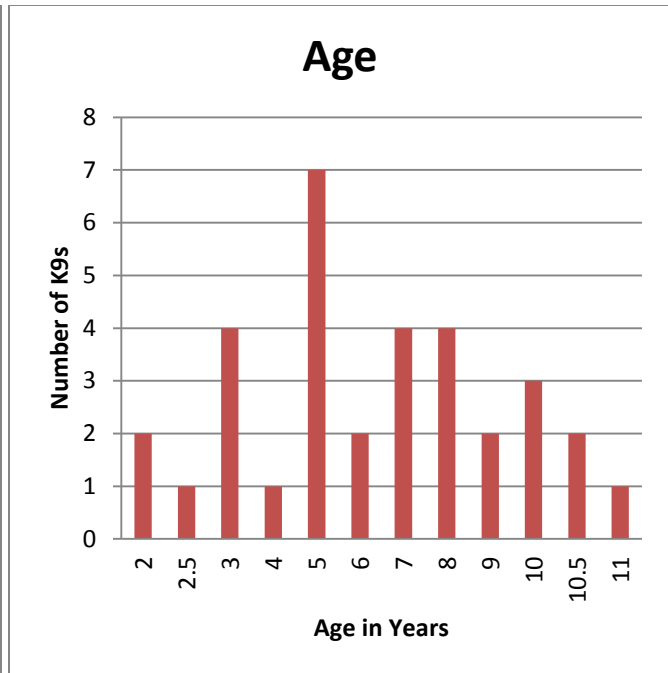
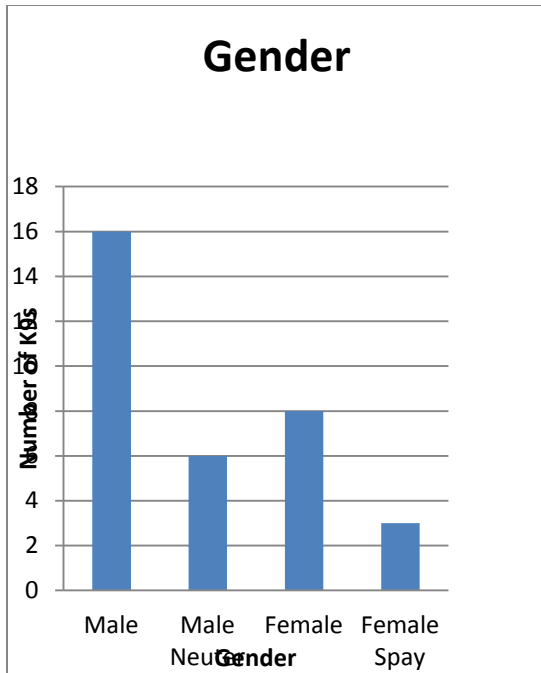


There were

- 16 Males (48%)
- 6 Male neutered (18%)
- 8 Females (24%)
- 3 Female spayed (9%)

Their ages ranged from 2 to 11 years

- Mean = 6.3 years
- Median = 6 years
- Mode = 5 years



## Transportation & Billeting

Transport for canines was in a bus for 5 task forces, van for 3 task forces, and both bus and van for 1 TF. Some handlers remained with their canines, others were separated during the ride. There was one helicopter ride during the deployment as well.

Billeting varied: 4 TFs were in hotels, 2 TFs were in military barracks, 2 TFs stayed in both hotel and barracks, and 1 TF stayed in a casino and military barracks. Canines varied as to being kenneled, free, or leashed during their stay in room, tent, or other.

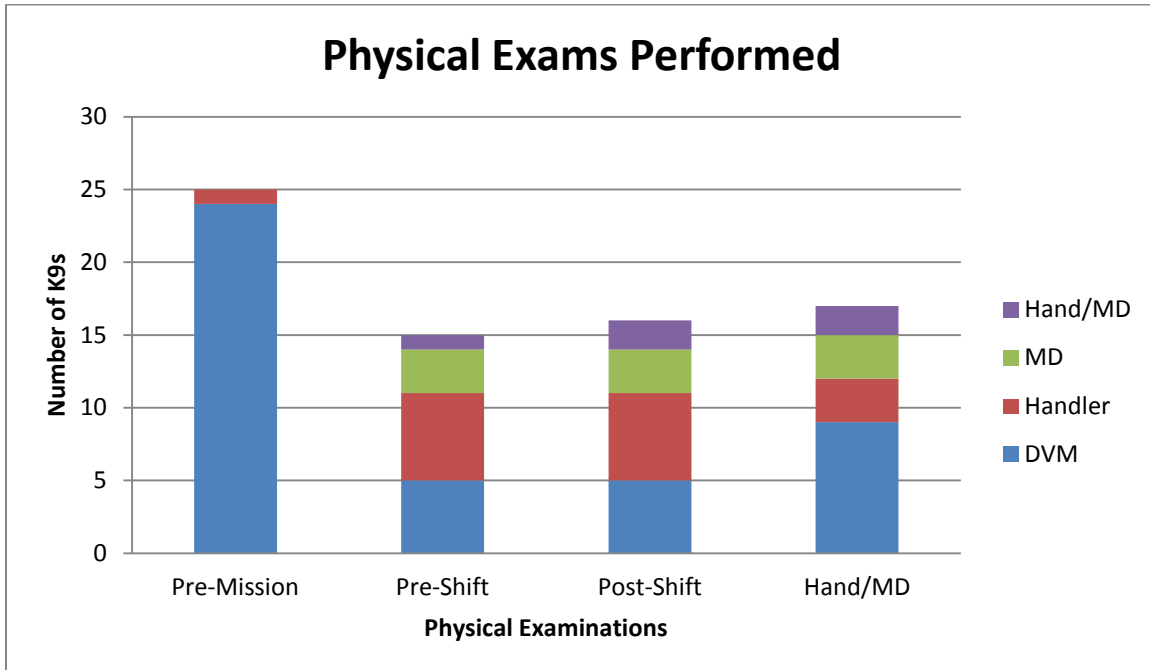




## Physical Exams Performed

- Pre-Mission: 25 (76%): 24 by veterinarian, 1 by handler
- Pre-Shift: 15 (45%): 5 by veterinarian, 6 by handler, 3 by MD, 1 by handler & MD
- Post-Shift: 16 (48%): 5 by veterinarian, 6 by handler, 3 by MD, 2 by handler & MD
- Post-Mission: 17 (52%): 9 by veterinarian, 3 by handler, 3 by MD, 2 by handler & MD

One of the post-mission exams was for an injury that required evacuation



*Seven of the canines (21%) did not receive a physical examination at any time. They were from 3 different task forces.*

On December 21, 2011, US&R Program Directive 2011-024 regarding Pre-Mission Veterinary Exams was distributed.

- National US&R Response System US&R Task Force canines selected for deployment shall be examined by a licensed veterinarian no more than 10 days prior to deployment. These exams are considered routine canine care and are allowable costs under the Task Force Readiness Cooperative Agreement, provided that the current budget plan includes this type of expense. More than likely, these costs will be incurred due to a specific deployment; therefore, these costs may be submitted for approval as part of a deployment reimbursement claim (via the Response Cooperative Agreement) because the Task Force was activated.
- Task Forces may arrange for a DVM to be on call for this service around the clock, ensuring that the deployment window can be met. Alternatively, handlers may be requested to provide documentation of an exam which attests that the canine appears free of infectious disease or physical abnormality that would endanger the animal, other animals, or the general public, and was conducted no more than 10 days prior to a deployment by a licensed DVM.
- Implementation Date: Jan 1, 2012 with a six month transition period - Task Forces expected to be in compliance by July 1, 2012

## Work

Shift work varied among the task forces, or changed throughout the mission. Live find search requests of 1 to several structures was the focus for 7 handlers. In addition, many canines provided much needed and appreciated humanitarian services as comfort to the many victims that were encountered.

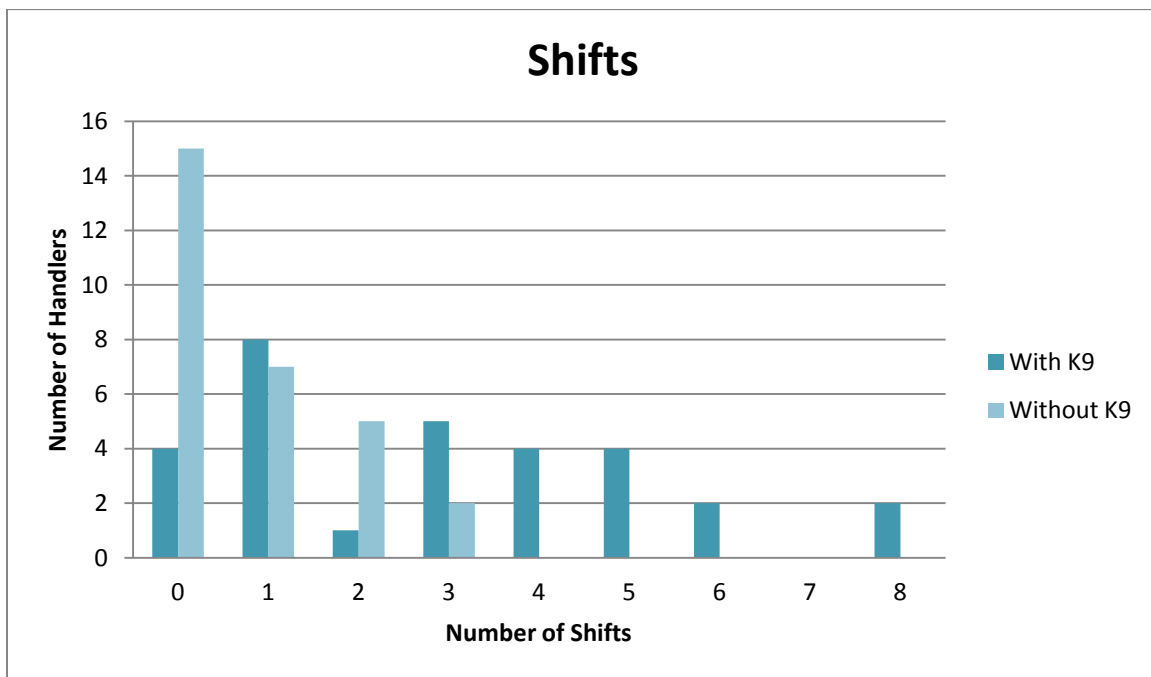


### Shifts with canine:

- 4 handlers worked no shifts
- 8 handlers worked 1 shift
- 1 handler worked 2 shifts
- 5 handlers worked 3 shifts
- 4 handlers worked 4 shifts
- 4 handlers worked 5 shifts (1 handler had both of their canines for 5 shifts)
- 2 handlers worked 6 shifts (1 handler 3 shifts with each of their 2 canines)
- 2 handlers worked 8 shifts (1 handler 4 shifts each with of their 2 canines)

### Shifts without canine:

- 15 handlers never worked without their canine
- 7 handlers worked 1 shift
- 5 handlers worked 2 shifts
- 2 handlers worked 3 shifts
- 1 handler was unsure



*Human remains detection requests* were made of 4 handlers, but the canines were all live-find trained. One handler did use their live find canine to perform a search, explaining to the New York authority that an alert would not occur but the canine may exhibit unusual behavior.

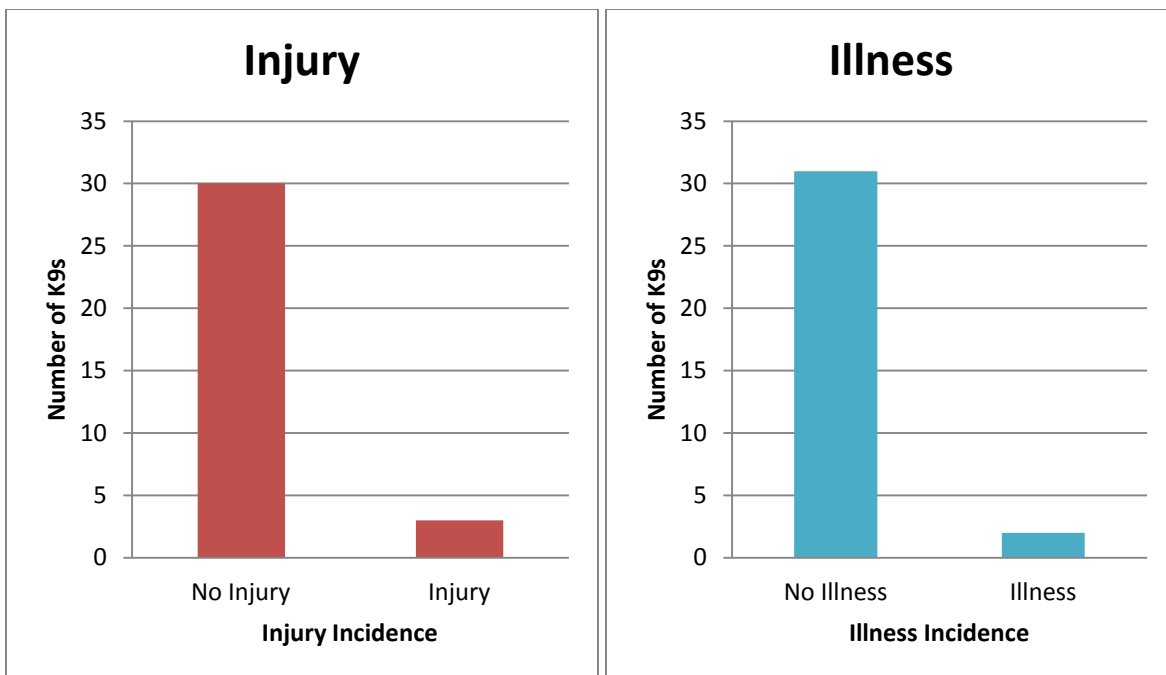
## Injury and Illness

Injury was incurred by 3 of the 33 canines (9%); 30 did not have any injury (91%)

- One canine had a severe lacerated and crushed toe which was treated but was evacuated for further care; doing fair
- One canine was bitten in the face and was treated by medical, doing well
- One canine had marked paw irritation, was treated and monitored; doing well

Illness was incurred by 2 of the 33 canines (6%); 31 did not experience illness (94%)

- One canine had vomiting, was monitored and recovered without treatment
- One canine had vomiting, diarrhea, and dehydration due to dietary indiscretion and was treated by medical



## Briefings

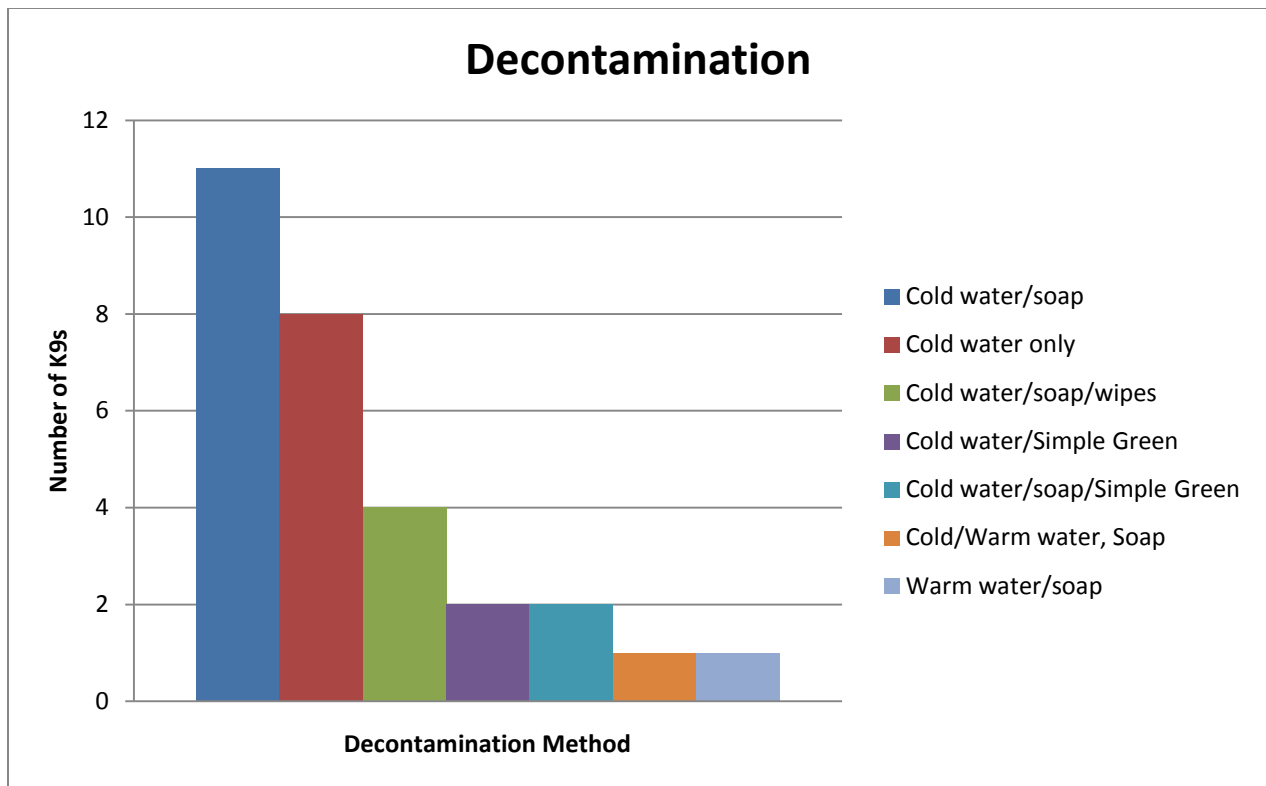
- 11 Handlers reported receiving K9-specific hazards at briefings
- 2 Handlers reported receiving general, not K9-specific, hazards
- 17 Handlers reported not receiving hazmat-related K9 concerns at briefings

The concerns included weather, standing water contamination, sand contamination. Contaminants included oil, sewerage; concerns included exposed nails.

MA-TF1 briefings included the following concerns: petroleum products, anti-freeze, sewerage, leptospirosis (standing water organism), and cold weather especially if the paws were wet.

## Decontamination

- Decontamination was performed after their shifts for 29 canines.
- The 4 who did not have decontamination did not perform searches or work any shifts.
- **This means 100% of the canines who worked received decontamination procedures after their shifts**
  - 11 had cold water and soap decon
  - 8 had cold water only decon
  - 4 had cold water/soap or baby wipe
  - 2 had cold water and diluted Simple Green
  - 2 had either cold water and soap or cold water and diluted Simple Green decon
  - 1 had soap with either cold water or warm water decon
  - 1 had a warm water and soap decon
  - Drying ranged from toweling off to air drying.



## Comments from Surveyed Handlers

### Positive

- Canines actually utilized
- Canines were great stress relief for victims
- K9 decontamination was done as needed
- Rewarding to deploy with well-trained K9
- Canines handled 'hurry up and wait' well
- Team MD current on K9 care, very dedicated
- Team medics outstanding (some had K9 critical care course)
- Team had high priority for K9 safety and well-being
- TF was very supportive

### Negative

- Needed warm water from day1
- Post-mission veterinary physical exams not addressed in a timely manner
- Would like warm water and dryers (FYI dryers are on the cache list: TG 0109.24)
- Handlers kept back if not searching; passed out food & water towards end of mission
- IST worked poorly
- Took too long to get to work

### Recommendations (also from surveyed handlers)

- Need more support for K9 decon and post-mission veterinary visit
- Teach handlers other tasks to assist TF
- Veterinary/medical checks for dogs would be nice (handler's K9 had no exams done)
- Make crates available (brought own soft crate)
- Encourage teams to have a veterinarian or vet tech deploy with each team
- Need information pamphlets to hand out to victims
- TF needs better access to K9 meds

