**Testimony of**

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Chairman Perry, Ranking Member Correa and members of the subcommittee, thank you for the opportunity to testify as a representative of the South Florida Urban Search and Rescue – Florida Task Force Two (FL-TF2) regarding the important role of urban search and rescue Canine Search Teams in local, state, national, and international disaster response. Canines have been an integral component in search operations since the inception of urban search and rescue task forces, and their – role of locating survivors and victims of natural and man-made disasters is vital to this important capability's success.

In 2005 I was deployed with a Veterinary Medical Assistance Team to the states of Mississippi and Louisiana in response to Hurricane Katrina. During that response, for five weeks following Hurricanes Katrina and Rita I had the opportunity to work with Canine Search Teams from Federal Emergency Management Agency's (FEMA) National Urban Search and Rescue Response System (the System) deployed to the above-mentioned states. After witnessing the work these dogs were doing in such extreme environments, I began training with the System's Maryland Task Force- One (MD-TF1) to gain more insight into the medical needs of System canines. In 2007, I became an official member of MD-TF1 as the task force veterinarian and ultimately a canine handler. When my canine and I successfully passed our first FEMA Canine Search Team Certification Evaluation in 2009, we were certified as a deployable Canine Search Team for local, state, and national disaster response. Since relocating to Florida in 2010, I have been the task force veterinarian and a canine search specialist for South Florida Urban Search and Rescue Task Force/Florida Task Force Two (FL-TF2), sponsored by the City of Miami. It is in my capacity as a canine handler of two nationally certified Live Find and one nationally certified Human Remains Detection dogs that I provide this testimony on the critical role canines perform in disaster response.

**Background**
Urban search and rescue task forces were first developed in the early 1980s by some local jurisdictions to provide response to structural collapse with advanced technical search and rescue capabilities. After several international responses (1985 Mexico City earthquake, Luzon 1990, Armenia 1988) and national responses (1989 Hurricane Hugo, 1989 Loma Prieta earthquake) it was recognized that expansion of this capability would provide critical response infrastructure. Starting with 25 task forces sponsored by local and regional fire departments, the System was formed by FEMA in 1992. Deployed under Emergency Support Function #9 (ESF #9) these task forces provide the technical expertise and equipment in search and rescue for disasters ranging from individual structural collapses to wide-spread natural or man-made disasters.

A National Incident Management System (NIMS) compliant type 1 US&R task force is composed of up to 80 personnel who perform search, rescue, medical, and technical operations along with other personnel who provide leadership, administrative, communications, planning, and logistical support.  Each System type 1 US&R task force's search component must deploy with a minimum of four certified Live Find Canine Search Teams (CST-LF).  Without these CST-LF members the entire task force may not deploy, which emphasizes the critical role that these members play.

**Role of Canines in Urban Search and Rescue**
While it has been documented for people to survive in a collapse up to 13-14 days, these are the exceptions and many factors contribute to people surviving for any duration after the event.  Potential injuries suffered in the event, weather, and an individual's need for water and food are just some of the factors that result in a necessity for rapid rescue to improve survival.   This is where a CST-LF is vital: to provide rapid identification of survivors and their location so that they can be rescued.  With approximately 250 million olfactory receptors, compared to a human's five million, a dog's superior sense of smell make them profoundly effective detectors when well trained for specific scents.  A CST-LF canine is trained to detect the location of the "hidden" live human scent.  These canines are capable of identifying survivors quickly and accurately and are superior to any technology in this vital search role.

**Canine Search Teams**
Canine Search Teams are comprised of a single handler and their canine who must undergo a rigorous training and testing regime in order to be a deployable asset.  Handlers are composed of fire fighters, law enforcement, and civilians.  The primary responsibility of the care of the canine falls to the handler, and as such they become part of the handler's family who will care for them through retirement and the remainder of their life.  A majority of all the canine's expenses are also borne by the handlers.  These expenses include food, general veterinary care, veterinary expenses for illness and injury, and training equipment and expenses.   A Sponsoring Agency may provide some funding for these expenses, but provision of this support varies throughout the System.  In addition, the dogs are typically purchased or adopted by the handler, though some System Sponsoring Agencies provide dogs for their handlers.

Canines trained and certified for US&R work are acquired from multiple sources.  Some handlers will purchase puppies or adolescent dogs without any training through kennels that breed working dogs, other candidates may be selected from rescue organizations after careful screening for the qualities a US&R canine needs to be successful.  Another source for US&R canines are kennels and non-governmental organizations that breed and/or train canines specifically for US&R work where handlers or task forces may purchase canines who have been screened and received most of their foundation training.  Selection of the appropriate canine for the job is perhaps the most critical component of a Canine Search Team.  Canines to be used for US&R work have some unique qualities that set them apart from other working canines.  Disaster scenes are often chaotic and environmentally extreme, canines must traverse the sites of collapsed structures quickly and efficiently, with workers and equipment operating around them. In addition to the necessary qualities of all search canines such as a good nose, health, drive, and trainability, US&R canines must also have incredible nerve, strength, and agility in order to be able to work in the disaster environment.  Only a small subset of canines has all these important qualities to make them successful in US&R search operations and achieve CST-LF certification.

There is a significant commitment on the part of a handler to prepare and maintain a canine for US&R deployment. They routinely complete hundreds of training hours every year just to maintain proficiency. Prior to their first Certification Evaluation these hours may be doubled to appropriately prepare both the handler and the canine for the evaluation. It takes, on average, 12-18 months to fully train a canine for its Certification Evaluation. Within the System, Canine Search Teams re-certify every three years.

**Canine Search Teams – Live Find (CST-LF)**
While CST-LF have been a vital component of the US&R task forces since their inception in the early '80s a standardized evaluation process was not implemented for System use until 2004. Currently, certification within the System is done in two parts. The first testing component is the Foundation Skills Assessment (FSA) which evaluates obedience, direction and control, alert commitment, agility, and basic search skills. After successful completion of the FSA, a Canine Search Team is then eligible to go through the Certification Evaluation process. The Certification Evaluation is the final test required by the System and successful completion is required for deployability. This test is comprised of two complex rubble pile searches where the testing canine search team must locate up to six "survivors" without any false alerts in order to pass. These Certification Evaluations provide the System a mechanism to assure that its CST-LFs meet the minimum standards for deployment. However, a CST's training does not end there, it will continue throughout the entire career of both the handler and the canine.

As of March 2017, there are 255 CST-LF teams among the System's 28 task forces with an average canine age of 6.5 years. Labrador Retrievers make up a majority of the certified CST-LFs at 60%, with Belgian Malinois (13%), Golden Retrievers (6%), German Shepherds (6%), mixed breed (6%), and a variety of other breeds making up the remaining of the canines. A certified US&R canine will typically work until 10-12 years of age.

**Canine Search Teams – Human Remains Detection (CST-HRD)**
CST-HRD are a relatively new component of US&R task forces and were implemented by the System in 2014. Unlike CST-LF, certified CST-HRDs are not mandatory for deployment of a System task force. Just like with CST-LFs, support of CST-HRDs by System task forces is also voluntary. While the primary role of the US&R task forces is to identify, and rescue survivors, after the searches for survivors has been concluded, and if people remain missing, CST-HRDs may be deployed. The work of the CST-HRD is to locate victims and help bring closure to the friends and families of those who did not survive a disaster. These CST-HRDs work in close coordination with federal, state and/or local law enforcement and coroner's offices that are responsible for identification and processing of detected remains. The 2014 response to the SR-530 Mudslides exemplifies the role of the CST-HRD in disaster response. On March 22, 2014, an unstable hillside collapsed engulfing an entire community in Oso, WA and the initial response was carried out by local and state first responders. The State of Washington activated and deployed Washington Task Force One (WA-TF1), one of the System's 28 task forces, as a local resource. At the request of the State and FEMA Region X, the System deployed an Incident Support Team (IST) and California Task Force Seven (CA-TF7) to support ongoing operations. Local and regional CST-LFs worked tirelessly with other first responders to locate both survivors and victims of the slide. On April 2, 2014 twenty CST-HRDs were deployed from nine different System task forces to augment ongoing recovery

operations.  Working alongside state and local responders, at the end of official search and recovery operations CST-HRDs from the System helped locate all but one of the 43 victims.

Selection, training, and certification of a CST-HRD canine is similar to that of a CST-LF.  Certification for deployment is based on the CST-LF FSA but has only one component.  For the CST-HRD Certification Evaluation, obedience, direction and control, alert commitment, agility, and basic search skills in a disaster environment are tested for human remains detection.

Currently there are 74 certified CST-HRDs in the System, with an average age of 6.9 years.  Like the CST-LF they are primarily Labrador Retrievers (50%), with the remainder being German Shepherds (15%), Malinois (10%), Mixed Breed (6%), and other breeds.  A CST-HRD in the System also recertifies every three years and is expected to retire at 10-12 years of age.

**Summary**
Canine Search Teams have an important task in disaster response on a local, regional, national and international scope to help locate both survivors and victims.  CST handlers are extremely dedicated responders who volunteer significant time and expense to assure that they and their canines are prepared to respond to any disaster situation, at any time, in any location.  They are a valuable asset to the National US&R Response System and it has been my honor to serve as a handler on both a CST-LF and CST-HRD, as well as a Veterinarian caring for working canines since 2005.  I hope to see support continue for these canines and their vital role well into the future.

Thank you, Chairman Perry, Ranking Member Correa and members of this subcommittee for the privilege of providing testimony on the role of Canine Search Teams in disaster response.