Challenges to Military Working Dog Management and Care in the Kuwait Theater of Operation

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In a combat environment, troop safety and installation security are paramount. Documentation of the frequent use of explosive devices by insurgents in Southwest Asia has increased the need for augmentation of defensive capabilities. Military working dogs (MWDs) are trained and certified to perform missions supporting security and detection of explosives. Challenges arise in theater because the number of certified dogs available can be limited and the standards of housing and care that are available in the continental United States are not usually available in a combat theater. Planning, preparation, and training of MWD handlers, animal care specialists, and Veterinary Corps officers will maximize mission performance and MWD health. Some of the challenges and needs associated with management and care of the MWDs in the Kuwait Theater of Operation are discussed. Suggested improvements to the current deployment readiness paradigm are offered from the perspective of a staff veterinarian who was deployed in support of Operation Iraqi Freedom in 2004.

Introduction

In a combat environment, troop safety and installation security are paramount. Recent events in Southwest Asia have demonstrated a propensity for the use of explosive devices by insurgents. The security of military bases and detention of individuals who breach that security are enormous missions that cannot be accomplished effectively without trained patrol dogs. In many economically devastated areas, illegal drug sales and use represent a common problem. In some circumstances, these illegal substances can become available to combat troops and detract from the combat mission or can be a method for insurgents to finance their operations.

Safety and security missions are best accomplished with the aid of military working dogs (MWDs). Theater needs and mission requirements determine the necessity for deployment of MWD-handler teams. The requirement for dog teams stems from the utility of the dogs, i.e., the ability to detect explosives or illegal drugs and to perform patrol missions. Once the mission requirement for MWDs is identified, service program managers consult a MWD database for the location, capability, and fitness-for-duty status of dogs. All branches of the military have dog teams that are trained and ready for deployment.

In the theater of operation for Operation Iraqi Freedom II, both government-owned and contractor-owned dogs perform the required missions. The predominant breeds of MWDs are the German Shepherd and the Belgian Malinois. Contractor-owned dogs include a variety of breeds, and their primary mission is detection of mines. Challenges arise in theater because the number of certified dogs available can be limited. In addition, the standards of housing and care available in the continental United States (CONUS) often are not available in a combat theater. The intent of this article is to identify some of the challenges and needs associated with the care and management of MWDs in the Kuwait theater of operation (KTO) in 2004. Specific numbers and locations of dogs are not disclosed because of operational security.

Preparation and Planning

If possible, predeployment planning for MWDs should involve a site visit to the dogs’ intended destination by provost marshal and veterinary services personnel. The provost marshal provides guidance for the housing of the dogs but does not inspect destination sites to ensure the availability of appropriate facilities. Veterinary services personnel are uniquely qualified to evaluate the general needs of MWDs. Standards for the housing and care of MWDs are published in Army regulations, as well as an Air Force pamphlet.

In Kuwait, heat extremes are common in the summer. Typically, daytime temperatures reach ≥113°F degrees, and any humidity exacerbates heat stress during physical labor. MWDs often do not tolerate prolonged exposure to extreme heat well and must be placed on a work/rest schedule that permits short periods of work during peak temperature times. During most of the year, dog handlers conduct exercise and focused training during the early morning hours (2:00 a.m. to 8:00 a.m.); the dogs are subsequently worked or rested throughout the day on a rotational basis. Dogs are generally used in accordance with mission needs, but limitations in the number of dogs or adverse environmental conditions can prompt the kennel master to restrict use when necessary.

Preparation of MWDs for exposure to temperature extremes and training of MWD handlers for heat stress recognition and management should be priorities for both kennel masters and veterinary services personnel before the deployment of dog teams. Physical conditioning of both dogs and handlers is essential. Special accessories are available for the dogs to allow them to better tolerate the heat in Kuwait. Booties are used occasionally on the dogs’ front paws to prevent topical burns but are used conservatively because they prevent the dogs from dissipating heat by perspiring through the interdigital areas of the foot. When a dog is on patrol in an area of limited shade, a cooling vest can be fastened to the dog to help maintain proper core body temperature.

Several issues should be taken into consideration when a request for a MWD team is made. The climate of the area of operation (AO) is significant, because of the potential stress on the dogs. Acclimatization in a similar environment would facil-

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itate the dogs’ adjustment to the AO. Another consideration is the assessment of the mission requirements (rest and work schedules) and the number of dogs needed to adequately support the mission. Furthermore, multiple contractors are used, and the training of contractor-owned dogs is not necessarily the same as that of MWDs. Training that is supervised by military handlers before the deployment of contractor-owned dogs would ensure consistency in mission capability.

**Kennel Facilities**

Housing for MWDs in the Kuwait AO varies considerably. Few camps have a true kennel facility. Several camps have facilities of solid construction that are used as kennels. Some locations, however, improvise with more poorly constructed facilities. These structures are inadequate for the length of deployment the dogs endure (typically 4–12 months). In Kuwait, only one camp has a new kennel that meets the expectations for an appropriate facility for this theater.

Wooden buildings and tents have been used for housing MWDs in the Kuwait AO, and both are often used for collocation of the dog handlers. Additionally, portable airline kennels and structures formerly used for other purposes, such as a bathhouse or storage building in which pens were constructed, have served as living spaces for MWDs. There are inherent problems associated with each of these structures. Wooden structures cannot be adequately sanitized, because of their porous nature. Tents do not provide safe partitioned enclosures or allow means of adequate sanitation or security. Buildings that have been modified into kennels usually are not constructed of hazard-free materials and do not provide immediate and adequate access to handler assistance in the event a dog becomes ill or is injured. Other issues for consideration include the availability of clean running water, for cooling of dogs in the event of hyperthermia and for kennel sanitation, as well as proximity to veterinary services personnel.

The Army publishes specific standards and guidance for MWD kennel facilities. These guidelines are directed toward the construction of permanent facilities. Realistically, however, the numbers, locations, and duration of deployment of MWDs cannot always be anticipated in a combat theater. Permanent facilities cannot always be in place before the arrival of dogs, but appropriate housing must be immediately available. One solution to this dilemma is to transport a deployable kennel with the dog. These structures are made of aluminum and are climate-controlled but still need protection from direct exposure to the sun. Single- and multiple-enclosure units are available and provide a safe, sanitary option for housing dogs that will be in theater for ≥90 days. Plans for a permanent facility should be initiated when dogs are deployed to an enduring installation and there are plans for a continuous mission for MWDs.

In accordance with Army regulations, DD form 2342 (animal facility sanitation checklist) is used on a quarterly basis to evaluate the housing and preventive health conditions of the MWDs. The supporting Veterinary Corps officer (VCO) performs the inspection and indicates on the form whether each evaluated item is satisfactory or unsatisfactory. The report is given to the kennel master, who reports adverse findings through his or her chain of command. DD form 2342 has been in use for evaluation of kennels and horse stables for >18 years and is composed of two parts. The first part is the sanitary conditions section, and the second section addresses animal preventive health measures. Both portions of the form contain an area for remarks and recommendations to explain or to expand on items of particular significance. Whether a kennel facility passes the quarterly inspection is subject to the discretion of the VCO conducting the inspection. DD form 2342 should be used only as a guideline and not as the standard for kennels in a combat theater, because the document lists some criteria that are superfluous to a combat theater. At a minimum, facilities must prevent disease transmission between dogs, provide safe, adequate enclosures, and provide security to prevent unauthorized entry or escape.

**Medical Support**

The U.S. Army Veterinary Corps is the Department of Defense (DOD) executive agent for veterinary services and is the only branch of the military that commissions veterinarians to provide care for working dogs. Detailed medical records are maintained on each MWD, and an automated MWD medical database is updated and maintained by the U.S. Army veterinary service. Information in the database includes the name, age, identification number (tattoo), and fitness-for-duty category of the dog. All dogs are given a comprehensive physical examination semiannually, within 10 days before embarkation, and within 72 hours after arrival at a new installation. In addition to the physical examination, once each year the dogs receive a comprehensive clinical pathology evaluation, vaccinations, and dental prophylaxis, if needed. Electrocardiography and thyroid testing are performed for dogs >8 years of age. All dogs undergo biennial radiography of the pelvis and elbows.

The importance of predeployment examinations cannot be overemphasized. A complete history must be obtained from the handler, and any preexisting conditions must be considered, thoroughly investigated, and treated. This examination would be particularly informative if performed on a dog that has been training in a location that is similar to its deployment destination. Thorough predeployment physical examinations facilitate identification of new or recurrent conditions during the postarrival examination. All physical examinations should include observation while the dog works and/or negotiates an obstacle course. For optimal health management of all working dogs, veterinary services personnel should oversee the medical readiness of contractor-owned animals before deployment as well.

There are four deployability categories, as follows: category 1, unrestricted deployment; category 2, restricted deployment; category 3, temporarily nondeployable; category 4, nondeployable. Generally, MWDs must be in category 1 to be eligible for deployment outside CONUS or outside their home theater of operation. In addition to providing veterinary care to the MWDs, veterinary services personnel are dedicated to instructing handlers on general dog care, first aid, and any special training necessary for the geographic region, including appropriate diet, proper feed storage, and proper medication administration, such as routine prophylaxis.

Vector-borne diseases are a major concern for MWDs in most deployed areas of operation, and aggressive vector control measures are used. All MWDs receive a monthly heartworm preventive (containing an anthelmintic agent) and monthly topical aca-
Definitive veterinary care for MWDs is often limited within the theater of operation. It is essential that veterinary services personnel recognize these limitations before initiating extensive surgical/medical care, except in emergency situations. MWDs are considered members of the military and are therefore authorized medical evacuation; it is imperative that evacuation plans be in place for MWDs that require advanced diagnostic procedures or treatment. The supporting veterinary unit must coordinate tactical (ground) and strategic (air) evacuation plans in cooperation with the Medical Regulating Office and the Air Evacuation Liaison Team, respectively, in the theater. This initiative is undertaken by theater veterinarians and must be updated with the evolution of theater assets. Once the supporting veterinarian makes a determination regarding the level of care that is required in a given circumstance, a protocol is followed for transportation of the dog by its assigned unit to the appropriate facility. For either evacuation procedure, the dog is secured in its portable kennel and accompanied by its handler and, usually, an animal care specialist or VCO. Intratheater veterinary care is usually limited to level II+ capability. Advanced care for MWDs in this theater necessitates air evacuation to Germany. In circumstances in which emergency military veterinary care is unavailable, a civilian veterinarian may be consulted when available.

Among the more frequently occurring medical problems in MWDs are trauma, heat stress, and gastric dilation and volvulus, a true surgical emergency. The incidence of gastric dilation and volvulus is mitigated by prophylactic gastropexy, which is performed on dogs that are spayed or neutered at the DOD Military Working Dog Veterinary Service (DODMWDVS) at Lackland Air Force Base.

Considerations for improving the quality of care that is available to MWDs during a deployment include ensuring complete, current, medical records and up-to-date medical equipment sets that are deployed with a veterinary detachment. The medical record for each dog should be in the possession of the handler and accompany the dog wherever it goes. Medical records must be thorough and include follow-up instructions for monitoring health concerns detected at or before the predeployment physical examination. In the KTO, several chronic conditions have been identified in MWDs with little or no supporting documentation of previous diagnostic evaluations or therapeutic plans provided in the medical record. Preexisting conditions, general health, and the age of the dog should be evaluated before deployment. Furthermore, it must be recognized that advanced diagnostic capabilities are limited in a combat theater.

The present veterinary medical equipment sets often contain only basic drugs and lack modern equipment that is consistent with current standards of practice. Although a combat environment imposes some logistical limitations, it is essential that the current medical equipment sets be updated with contemporary pharmaceutical agents. The U.S. Army Medical Materiel Agency could assemble veterinary "push packages" and provide them to the units as they prepare to deploy. Reserve veterinary units often lack funding to update veterinary medical equipment sets; funding must be available to ensure that the unit’s equipment supports the desired standard of care.

Age and Mission

The U.S. Air Force has been designated to function as the DOD single manager for the MWD program. All MWDs are procured by the Air Force and trained at the DOD Military Working Dog Center (341st Training Squadron) at Lackland Air Force Base; handlers from all branches of the military and the Transportation Security Administration are also trained there. The 341st Training Squadron procures, trains, distributes, and serves as the training record repository for the entire DOD canine inventory. The detailed procurement process is performed in conjunction with the DODMWDVS, which is colocated at Lackland Air Force Base, and includes medical and temperature evaluations to ensure that prospective MWDs meet specific criteria and standards. According to the Handbook on Veterinary Care and Management of the Military Working Dog, published by the DODMWDVS, the rigid standards developed from years of observations on performance and analysis of training data are key factors in meeting the objective of maximizing the functional lifespan of MWDs. When dogs are purchased and trained for the DOD, they generally work until they reach 10 years of age.

Although fitness-for-duty classification and preventive care are essential criteria for deployment of MWDs, there is no regulation that pertains to age as a criterion for deployment eligibility. In the KTO, the average MWD age is 6.33 years. At one camp, three MWDs were 10 years of age. The average age of MWDs presenting with a systemic illness in this AO was 7.23 years (n = 4; age range, 4.83-10.58 years). Diagnoses have included cystitis, lymphoma, pheochromocytoma, and fibrinogenous embolism.

Historical deployments and mission demands drive the decision to deploy dogs that are of any age. Although certification requirements are stringent, consideration should be given to the likelihood of increased risk of illness or injury in older dogs. MWDs perform physically demanding missions under harsh environmental extremes, as evidenced in the KTO. Consideration should be given to precluding the deployment of dogs that are >7 years of age on missions that are rigorous in nature or that require deployment to harsh environments. Such animals could still perform CONUS-based missions where environmental conditions are not as harsh.

Deployment Readiness of Veterinarians

The active component of the Army Veterinary Corps generally deploys VCOs with their unit. This offers the advantage of a familiar, experienced, competent veterinary health care team that can be relocated to a region as a unit. The reserve component of the Army Veterinary Corps, however, may deploy an entire veterinary detachment or separate individuals, depending on mission requirements. For individual reserve VCOs, this creates opportunities for a variety of professional experiences (e.g., staff officer, detachment commander, or clinical veterinarian).
but also imposes the possibility that the reserve VCO will be used outside his or her scope of experience and proficiency. Historically, reserve VCOs are not offered the same opportunities for professional training and development that active component VCOs receive in the military. This limits consistency in training standards and skills; reserve VCOs must secure whatever training opportunities are available in his or her unit.

Approximately 50% of reserve VCOs work in clinical practice as their primary civilian career. The Army requires that all VCOs maintain a minimum of one license to practice veterinary medicine in a state of their choice; the requirements for qualification and renewal of veterinary licenses vary among states. Reserve VCOs who do not work in clinical practice as their primary career must make an effort to maintain proficiency in canine medicine and surgery. Even those in active clinical practice may not have the experience or expertise to deal with the unique problems of MWDs. Realistically, the demands on the reserve component to parallel the standards of the active component for common task training and deployment readiness result in limited time available on drill weekends to secure opportunities for clinical training and to maintain proficiency in food inspection and approved source validation, two additional Veterinary Corps responsibilities. If a reserve VCO does not maintain clinical proficiency, then the quality of medical care that is offered to MWDs may be diminished. Detachment commanders must set clinical proficiency training as a priority.

Required training for reserve VCOs consists of one 2-week officer basic course and an officer advanced course that is partly completed by correspondence, in conjunction with a 2-week resident portion. Both courses are directed toward teaching organizational structure, leadership, and soldier common tasks. Neither imparts the expectations of an Army veterinarian or offers specialty training to encourage success in the position. A military veterinary clinical proficiency course has been developed and is available to reserve VCOs; however, the primary responsibility of the officer is to complete a 2-week annual training requirement with his or her unit. Attendance at the clinical proficiency course would require additional time off from civilian employers, who are often reluctant to consent to such a request.

There are no simple means to establish equivalent training for active component and reserve component VCOs; however, consideration should be given to modifying the officer advanced course into an occupational specialty course, with a portion of the course being offered at the DODMWDVS at Lackland Air Force Base. From that foundation, VCOs can seek opportunities to review skills more specific to their mission as care providers for MWDs. A reserve VCO could also work with his or her unit to establish other training opportunities, including attending the clinical proficiency course for review of skills in clinical medicine and surgery.

Summary and Recommendations

Optimizing the usefulness and performance of MWDs in a theater of operation requires careful planning and communication among all parties involved in the training and care of the dogs. Before deployment, all troops are processed through a combat readiness center and prepared for their tour of duty. Processing the dogs through a similar MWD combat readiness center could permit more-thorough, uniform evaluation of all dogs and assessment of medical concerns and deployability status. While the dogs are being prepared at the combat readiness center, appropriate housing and logistics in theater should be coordinated. Once housing has been established, the dogs could be deployed, accompanied by their animal handler and a complete medical record. Veterinary services personnel in theater would maintain the medical record.

Program managers should consider an age restriction for deployment of MWDs to the KTO, because of the extreme environmental conditions. Dogs over the age of 7 years could be mobilized to CONUS-based duty sites.

The Army Veterinary Corps training for reserve officers must be made commensurate with the training that active component VCOs receive. The Army of One concept cannot be realized unless uniform training is provided to support the professional demands of a unified fighting force.

An essential component in effecting change is review of specific feedback from units that have been deployed. In-depth after-action reports should be compiled by redeploying veterinary units and forwarded to the Veterinary Corps leadership. First-hand assessments of deficiencies, along with suggestions for improvement, are the key to better care. A summary of the lessons learned from a redeployed unit should also be posted on the U.S. Army Veterinary Command Web site, so that deploying units may glean information and make necessary changes before their departure.

MWDs are a vital national asset in the global war on terrorism. The U.S. Army Veterinary Corps is committed to providing the highest quality of care to these vital force multipliers; it is hoped that these lessons learned will improve the quality of care available to them, both before deployment and in the theater of operation.

References

3. Army Regulation 40-905 Veterinary Health Services, pp 2 and 5. Department of the Army, Departments of the Navy and Air Force, August 1994.