Planning and Operational Considerations for Units Utilizing Military Working Dogs

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Abstract

Military working dogs are rapidly becoming integral to military operations. While they bring many valuable capabilities to the battlefield, it is important that Special Operations leaders consider canine team capabilities and requirements when planning missions. Careful logistical and operational planning can optimize the health, performance, and readiness of the working dog while protecting the safety and well-being of the team members working with them. We also offer recommendations for medical treatment of dog bites.

Figure 1: MWD used in clearing operations. Photo courtesy of http://www.uswardogs.org.

Introduction

Military working dogs (MWDs) play an increasingly important role in Special Operations. Canine teams bring valuable capabilities to the Special Operations unit.[1] MWDs can be used in reconnaissance, cordon and search, checkpoints, roadblocks, explosives detection, narcotics detection, crowd control, tracking and apprehension of enemy combatants, clearing buildings, and other activities. (Figure 1) They can provide a field-expedient alarm and security system. MWDs have been used to inspect suspicious packages, rapidly screen large amounts of cargo, and to search gear and equipment belonging to detainees. Canines endow the team with acute senses in light and dark settings, provide a show of force as a visible deterrent to enemy activity, and can maneuver rapidly and close quickly with the enemy in a highly compact environment. Canine teams bring many of the above capabilities, and others, to the battle in support of SOF operations.

As the use of MWDs is relatively new to much of the Special Operations community, most unit leaders have little experience integrating MWDs into their operations. The fielding, maintenance, and utilization of MWDs is not a self-sustaining process. MWDs, like all military personnel, require certain conditions and support elements to maintain maximal effectiveness. To gain the maximum benefit from canine units, teams that work with dogs must take factors into consideration relating to canine health, handling, and safety.

Transportation and Housing

Transportation of dogs in the operational environment requires certain provisions. Dogs are often transported in kennels or shipping crates while in aircraft or ground vehicles.[2] Depending on mission duration, dog handlers may transport significant amounts of equipment and dog food, which is usually not procurable in a deployed environment. Space allocation for kennels and equipment should be included in any plans involving MWD movement.

Transport in the confined spaces of vehicles and kennels greatly increases the risk of heat injuries to canines. This risk can be exacerbated by dehydration, a thick fur coat, tight muzzles that inhibit panting, or lack of airflow. These conditions may result in heat injury in the dog well before any of the human occupants are affected. Vehicles used to transport dogs in hot weather

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14. ABSTRACT
Military working dogs are rapidly becoming integral to military operations. While they bring many valuable capabilities to the battlefield, it is important that Special Operations leaders consider canine team capabilities and requirements when planning missions. Careful logistical and operational planning can optimize the health, performance, and readiness of the working dog while protecting the safety and well-being of the team members working with them. We also offer recommendations for medical treatment of dog bites.

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should be air conditioned or well ventilated.[3] Kennels should be placed in the vehicle so that there is maximal airflow through and around the kennel. Dogs should never be left in a vehicle or any other enclosed, non-ventilated space in warm or hot weather without adequate ventilation or air conditioning.

Housing of the dog can have a great effect on health and readiness. In the past, teams have housed dogs with the handler inside their living unit, in temporary crates or transport kennels, or in dedicated kennels constructed on site. Regardless of the housing type utilized, all canine housing should be well ventilated. Enclosed kennels in extreme environments require climate control (e.g., air conditioning in summer in Iraq) to maintain the ambient temperature between 45 and 85°F.[4] Outdoor kennels should have shade and airflow, especially in hot weather, and protection from wind, rain, and snow in cold weather.[3] Kennels should never have persistent moisture or standing water in or around them.[1] Regardless of housing methods used, all teams housing and working with dogs should consult with a veterinarian for guidance on housing arrangements.

HEALTH HAZARDS

Combat operations pose many traumatic and non-traumatic health risks to the working dog. A typical mission may involve the dog running several miles. This level of exertion can increase the risk of heat injuries, especially in hot or humid weather. Such conditions may necessitate frequent work-rest cycle implementation, which should be integrated into mission planning.

Certain environmental hazards (hot tarmac, broken glass, concertina wire, chemicals in the environment, etc.) may put dogs at risk for injuries while on missions. Lacerations and abrasions to the paw are common and can be painful enough to impair or disable the working dog. Some dogs will tolerate protective covering on the feet, but most paw injuries can best be prevented by avoiding surfaces that might damage the exposed paw. (Figure 2) Planning for such factors can minimize such injuries and their impact on the mission.

Dogs present a particular difficulty in the presence of chemical, radiological, or biological threats. No safe, effective personal protective equipment (PPE) is currently issued for use by MWDs. Therefore, avoidance and shelter may be needed to protect them. Furthermore, a dog that is fearful or in pain may bite team members, compromising their PPE and increasing the risk for exposure to harmful agents.[5,6] The dog may not recognize otherwise familiar individuals — including the handler — who are wearing protective gear. It would, therefore, be beneficial to conduct training in PPE with the MWD, both for familiarization and to assess the dog's reaction, in a controlled environment. Decontamination and medical treatment and prophylaxis guidelines for MWDs exposed to chemical, radiological, or biological agents have been published.[5,6]

Figure 2: Canine booties are sometimes used to protect paws on hazardous or abrasive surfaces.
Photo courtesy of http://www.uswardogs.org .

Some canine toxic hazards can be found in and around the SOF team housing area. Most of these are non-toxic to humans and are easily overlooked. Some items that can be toxic to dogs include chocolate (especially dark chocolate), antifreeze, prescription medications, over-the-counter medications (e.g., acetaminophen, ibuprofen), xylitol chewing gum, and grapes or raisins.[7] Dogs should always be supervised, and such items should be stored out of their reach.

In combat theaters, indigenous dogs are sometimes utilized for base security. However, without proper healthcare these animals can put the health of servicemembers and MWDs at risk. They can be a source of infectious and parasitic disease for MWDs and pose a high risk of wounds if they fight with MWDs. Ideally, teams working with MWDs would not employ indigenous force protection dogs. However, if these are used, certain measures must be taken to protect military-owned animals. Indigenous dogs should never interact directly with MWDs. They should also have limited or no indirect contact with MWDs (e.g., shared bedding, food and water dishes, leashes, living areas etc.).

Because strict separation may not be practical in all situations, additional measures should be used to protect MWD well-being. To mitigate the risk of infectious disease, the team Medic, under the auspices of his team leader/commander and with guidance of a veterinarian, should ensure that all force protection dogs receive appropriate vaccinations (rabies, distemper, parvovirus, adenovirus, leptospirosis) and antiparasitic treatment. Teams should provide for adequate nutrition, record keeping, and medical care for these dogs, and not allow them to mingle with the local feral dog population. In

certain locations, with proper authorization, force protection canines are authorized treatment (including surgical sterilization) at theater veterinary treatment facilities.[8]

Veterinary Medical Treatment

Veterinarians are rarely, if ever, present at the point of injury on the battlefield, and in almost all cases, Medics and handlers will provide first aid and often higher level care to injured or sick MWDs. For this reason, teams that work with dogs need to ensure their Medics are adequately trained in veterinary medicine. With their background and training in trauma medicine, SOF Medics are well equipped to handle many types of canine trauma. The presence of veterinary trained SOF Medics on the battlefield is an extremely efficient way to greatly enhance our ability to care for canine patients in the field.

Teams should set aside time for their Medics to do veterinary training while in garrison, and Medics should actively seek this training. Unit veterinarians will readily provide training and hands-on experience to SOF Medics as well as reading material on canine medicine.

Most canine handlers carry veterinary first aid kits, and team Medics should become familiar with their contents and how they should be used. Prior communication with handlers on a specific dog's health related issues (e.g., prior heat injuries, aggressive behavior, allergies, etc.) will enable better care and safety when treating in the field.

Medics should also be versed in medical evacuation procedures for dogs. For example, they should know veterinary facility locations in theater for evacuation, and they must understand that when the dog is injured and evacuated, the handler must accompany the dog, and will thus be temporarily taken out of the fight.

Figure 3: MWD bite training.
USAF photo by Robbin Cresswell

Team leadership should alert their unit veterinarian, medical staff, and chain of command any time a dog is evacuated for medical reasons. Team Medics and dog handlers should establish relationships with their nearest theater veterinary assets and seek out contingencies for veterinary care (e.g., civilian, coalition force, or civil affairs veterinarians).

Safe handling of MWDs

The use of working dogs entails some risks. Their aggressive disposition and attack training occasionally result in inappropriate bites. (Figure 3) Extreme caution is needed when handling injured MWDs because fear, pain, and stress can greatly increase the risk of a bite. (Figure 4) Ensure handlers properly restrain and muzzle dogs for all medical procedures or any other time there is an increased risk of indiscriminant biting.

Figure 4: MWD aggresssion.
USAF photo by Meredith Canales

Pre-mission familiarization and socialization of dogs with team members, including training with them in garrison, may also decrease the likelihood of an inappropriate bite during operations. However, Operators should always remain vigilant, since pain or fear may cause a dog to bite even a familiar individual. All team members must know where the handler carries his dog muzzle, and handlers should train team members on how to apply the muzzle and make a field expedient muzzle. (Figure 5)

Treatment of Dog Bites

A bite from a military working dog is treated the same as any other dog bite. An examination of the wound is performed to evaluate for injury to vital structures: nerves, tendons, joints, or vascular structures. The wound should be cleansed with soap and water. A topical antibiotic and sterile dressing can then be applied. Bites should not be closed because of the in-

Figure 5: A field expedient muzzle made using the dog's leash.

creased risk of infection. If vital structures are injured, a surgeon should be consulted. The dog handler should examine the MWD's mouth for missing or broken teeth which may be left in the wound.

Approximately five percent of dog bites become infected.[9] Hand wounds become infected more often than wounds elsewhere. The wound infection rate can be decreased by copious irrigation.

Antibiotic prophylaxis is a reasonable course of action if follow-up cannot be assured. For adults without a penicillin allergy, 875mg of amoxicillin – 125mg clavulanate PO bid for seven days is the antibiotic of choice. For the penicillin allergic, 300mg clindamycin PO qid with a fluoroquinolone for seven days is a reasonable alternative. Trimethoprim-sulfamethoxazole is used for children rather than a fluoroquinolone.[10]

All dog bite cases must be evaluated by a medical provider. Medical providers (to include SOF Medics) should immediately consult with local area preventive medicine and veterinary officers for evaluation of rabies risk and to coordinate veterinary examination of the animal involved in the biting incident. These communications should be documented on DD Form 2341, *Report of Animal Bite – Potential Rabies Exposure*. This form is filled out for all animal bite cases and forwarded to the appropriate veterinary and preventive medicine officers for evaluation.[11]

In MWDs, the immunization status of the dog is known, and rabies post-exposure prophylaxis is rarely indicated. However, tetanus immunization is advised. Having the handler carry antibiotics for disseminating in the event of a dog bite is a sound practice as the unit Medics are unlikely to carry them on combat missions. Carrying tetanus vaccine is not advised because of the requirement for refrigeration. Tetanus immunization schedules vary based on the previous level of immunization. The incompletely immunized should receive tetanus immune globulin and begin the usual immunization schedule. The most conservative regimen would be to immunize all who have not received a booster within five years.

Conclusion

MWDs can increase operational efficiency, enable mission success, and protect the lives of servicemembers. To optimize MWD performance and to protect the health and safety of all troops, unit leadership needs to understand the requirements and capabilities of MWDs when planning for canine-assisted missions. Awareness of and planning for the logistical and operational requirements of working with canine units will ensure we maintain an effective canine force.

Photo courtesy of http://www.uswardogs.org

Photo courtesy of http://www.uswardogs.org

Key points

- **MWDs are susceptible to heat injury.**
- **Protect MWDs from environmental hazards.**
- **Avoid MWD contact with indigenous dogs.**
- **Familiarize MWDs with team members and tactics.**
- **Know veterinary medical theater footprint.**
- **Injured MWDs may bite; use proper restraint and muzzling when treating or handling them.**
- **Train team Medics on veterinary medicine.**
- **All dog bites must be evaluated by a medical provider.**

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