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K9



ये साथ रहना जानते हैं, अपनो की तरह साथ छोड़ना नहीं। ये प्यार करना जानते हैं, नफरत करना इनकी फितरत में नहीं। प्यार करेंगे तो, दोगुना मिलेगा, जान बचाएंगे तो, अपनी जान देकर भी बचाएगा LOVE MY K-9!!

ASSAM RIFLES K9 TEAM OF RIFLEMEN RUPESH & SANTAN WITH AR DOGS HUNTER & GABBER



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Assam Rifles K9 team of Riflemen Rupesh & Santan with Malinois
dogs Hunter & Gabber performing area domination exercise in
jungle terrain.

The 'National Police K9 Journal' is a professional journal for the Police Service K9 (PSK) Community, including but not limited to supporting combat teams of Central Armed Police Forces, Central and State Police Forces and Law Enforcement Agencies. The journal is published bi-annually and aims at providing a platform to exchange ideas and information, sharing experiences, innovations, discussions on best practices and methodologies, strategic planning, continuous education, and capacity development on the subject of PSKs and related topics.

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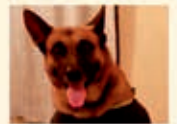
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EDITORIAL



Dr Sudhakar Natarajan

Deputy Inspector General (Vet)
Indo Tibetan Border Police

It is the proud privilege of the team to present of our new issue, packed with insightful technical articles, heartwarming stories, and stunning photographs that showcase the incredible bond between Police K9s and their handlers.

This issue is a salute to the conspicuous dedication of K9 ustads / trainers, K9 handlers and above all, our loyal darling dogs. The technical articles and operational achievements included in this journal would serve as a valuable archival material for future generations.

This issue endeavours to showcase the magnificent professionalism and achievements of the man-dog team. From infantry patrol and multirole detection to search and rescue, our K9 heroes have sniffed terror with zero error, thereby strengthening out national security apparatus.

As we celebrate the dawn of a new year with the release of this new issue, we would like to express our gratitude to our editorial team, publishers, printers and contributors who have ensured the seamless publication of this widely read technical journal since 2020.

While you turn pages and read through this journal, the unflinching loyalty of our four legged soldiers would warm the cockles of your heart

Happy reading !! Bow! Bow !!

THE ITBP HERO OF CHHATTISGARH: DAMRU'S TALE

CT/AT(DH) Jatinder ITBP



Shri Rahul Rasgotra , IPS , DG ITBP confers the ITBP K9 Medal to Dog Damru for conspicuous dedication to duty during the Raising Day

potential disaster we had averted sent a chill down my spine. The IED, if detonated, could have caused catastrophic damage, endangering the lives of the entire patrol.

With the threat neutralized, we continued our patrol, our spirits lifted by Damru's heroic act. Upon our return to base, news of Damru's incredible detection spread quickly. The Director General of the ITBP awarded Damru the prestigious ITBP K9 Medal, recognizing his bravery and exceptional service.

For me, it was a moment of immense pride. Damru was not just a working dog; he was my partner, my protector, and my friend. Together, we had faced the dangers of the jungle and emerged victorious, our bond stronger than ever.

Damru's story is a testament to the extraordinary capabilities of K9 units and the unbreakable bond between handlers and their dogs. In the face of adversity, Damru had sniffed out terror with zero error, saving countless lives and earning his place as a true hero of Chhattisgarh.

The sun was relentless, beating down on us with a ferocity that made every step feel like a battle. The temperature had soared to a sweltering 45 degrees, and the thick, humid air of the tropical jungle in Chhattisgarh made it even more unbearable. But we had a mission to complete, and there was no turning back. I, Ct/AT(DH) Jatinder, led the 45th Battalion of the ITBP on an Area Domination Patrol (ADP) that stretched over 14 kilometers.

By my side was Damru, my loyal Doberman, trained to detect explosives. His keen nose and unwavering focus had saved us more times than I could count. Today, I hoped, would be no different. We had covered nearly 12 kilometers when Damru suddenly stopped, his ears cocked and body tense. I knew that signal all too well—he had detected something.

I raised my hand, signaling the party commander to halt the troops. The jungle fell silent, the only sounds being the distant calls of birds and the rustling of leaves. My heart pounded as I commanded, "Seek and detect, Damru."

Damru sprang into action, his nose to the ground as he meticulously sniffed the area. Within moments, he stopped at a newly dug-up spot, his body rigid with focus. I approached cautiously, knowing that Damru's instincts were rarely wrong. The BDDS team discovered a hidden Improvised Explosive Device (IED) weighing 20 kilograms. The realization of the



He is an experienced K9 handler of ITBP deployed in the LWE theater along with his magnificent K9 buddy "Damru", who has detected numerous IEDs in ROPs / ADPs.



A true warrior fights not because he hates the one in front of him, but because he loves the one behind him. Assam Rifles K9 team of Riflemen Rupesh & Santan with AR dogs Hunter & Gabber

INITIATIVES UNDERTAKEN IN ENHANCING OPERATIONAL PERFORMANCE OF ASSAM RIFLES DOGS AND DOG HANDLERS

Major Bandodkar Abhishek and Lt Col Deepak Verma, AR

Introduction

Scenario-based training for Police K9s involves setting up training scenarios that simulate real-world situations that the K9 and its handler may encounter on the job. This type of training aims to prepare the K9 and its handler to respond effectively to a wide range of situations and develop their

skills and confidence in handling high-pressure situations. Scenario based K9 training bridges the gap that exists between training and live deployments. Because of this it should be a commonly used tool in your training tool box.

During scenario-based training, the K9 and handler should be exposed to a range of stimuli, such

as different scents, sounds and environmental conditions. The scenarios may involve locating hidden suspects, tracking, de-escalation techniques, deployment strategies, and detecting explosives or narcotics.

The scenarios are often designed to be as realistic as possible and may be staged in a variety of locations,

such as abandoned buildings, vehicles, or outdoor areas. The goal is to give the K9 and handlers a chance to practice their skills in a safe and controlled environment and to help them develop the instincts and confidence needed to handle real-world situations effectively.

Measures and initiatives undertaken at Assam Rifles Dog Training Centre, Jorhat

The various measures and initiatives undertaken at Assam Rifles Dog Training Centre, Jorhat pertaining to exposure of Dog handlers and dogs under training include exposure to a wide variety of operational scenarios which may be encountered during active deployment in operational field areas.

The objective of this initiative was to make the dog handler as well as the dog familiarized with the various challenges and situations which they may encounter during active duty.

Objective of the initiative was to ensure that Assam Rifles K9s should be trained in wide variety of scenarios simulated to resemble



Jungle area training by K9 team at Jorhat



Vehicle search by ED dog Ammu at Station MI Room, Jorhat



Area search by ED dog Tang at Canteen Stores location

actual operational conditions such as room search, area search, vehicle search, buried article search and human body search. This is essential to make the K9 and his handler habitual to working in a particular scenario and the intricacies involved in each scenario. We cannot expect K9 team to work in a particular situation if he has not been exposed before. Hence, a wide of scenarios should be simulated to enhance operational capability of the K9 team.

Meetings and liaison visits were undertaken with District Magistrate, Jorhat; Superintendent of Police, Jorhat; Vice Chancellor, Assam Agricultural University, Jorhat; Executive Engineer and Station Master, Jorhat Town Railway Station wherein the need and necessity for exposure of Assam Rifles for variety of scenario based training was explained to the officers and prior permission was sought.

The master K9 trainers at ARDTC were briefed regarding the plan of action and purpose of the initiative being undertaken. Familiarization and coordination visit with appropriately ranked area in-charge persons was organized prior

to facilitate smooth conduct of the scenario based training.

Prudent planning and execution of scenario based training initiatives enabled exposure of Assam Rifles dogs and dog handlers undergoing Basic Dog Handler course at ARDTC as well as deployed dogs and dog handlers undergoing Refresher Training at ARDTC to understand the nuances of scenario based training. The trainees also practically witnessed the increased confidence, performance and effectiveness of the dog and dog handler when deployed in the same scenario gradually.

Room and Building area search

Dogs were exposed to a wide variety of different types of areas



Track in civil area by Tracker dog Kitty of Rowriah Gaon, Jorhat

which they may encounter during actual operation as well as to make them sensitized to different types of smells, sounds and people they may actually face.

Area Search

Assam Rifles dogs were taken to diverse range of different locations such as Central Parade ground, Jail Complex, Jorhat Medical College etc to sensitize them to different types of environments. The dogs and handlers also got a first hand experience about unique challenges and the improvisations



Search of under construction room by ED dog Banu at Central Jail, Jorhat



Vehicle search of 2 wheelers by ED dog Max at Jorhat Town Railway Station

they may have to undertake in different types of situations.

Train search at Jorhat Town Railway Station

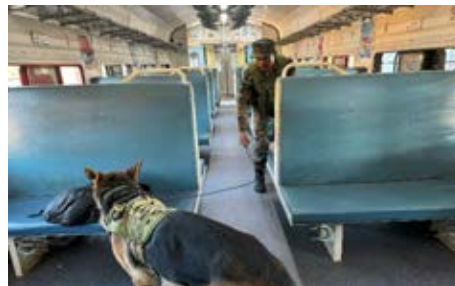
Dogs were taken to Jorhat Town Railway Station wherein they encountered the actual working environment in a busy station of Indian Railways. The general public were also briefed regarding their cooperation and help in undertaking human body search and luggage search.

User's Perspective

Emphasis on Scenario based training has enabled the exposure of Assam



Room search by ND Dog at civil kirana shop, Jorhat



Train compartment search by ED dog Tang at Jorhat Town Railway Station



Room search by ED Dog Tang at Canteen Store, Jorhat



Luggage search of passengers by ED dog Pari at Jorhat Town Railway Station



Area search at main gate area of Jorhat Medical College Campus



Room search in FOL store by ED dog Roger



Human body search of random civilian passengers at Jorhat Town Railway Station



Area search at OR Married Accommodation, Jorhat



Area search by ED dog Sasha at Central Parade Ground, Jorhat Town



Tracking by AR dog Zulie near Civil Airport Gate, Jorhat



Search of construction material by ED dog Josh at Central Jail Campus, Jorhat



Search of ATM Booth by ED dog Sheru at SBI, Jorhat

Conclusion

Scenario based training and its effectiveness is an often overlooked aspect in K9 training. The benefits accrued due to simple initiatives and measures which can be undertaken at Training Centres as well as at the locations wherein the trained K9 is deployed or posted are multifold and have resulted in improvement in performance and proficiency of PSK at Assam Rifles Dog Training Centre, Jorhat. This enables exposure of K9 as well as the K9 handler to different types of scenarios or situations which may be encountered during actual operational deployment.

The CAPF Dog Breeding and Training Centres in India are well equipped as well as having qualified master K9 trainers and instructors who are increasingly adopting scenario based training at their respective institutions. However, concerted and sustained effort is required for awareness and adoption of simple measures and initiatives at remote locations and grass root level of dog handlers posted at various locations for making scenario based training an effective part of training regimen of PSK.

Rifles dogs and dog handlers to myriad of situation which may be encountered in actual operational conditions.

Initially, it was observed that there was apprehension and reluctance on part of dogs as well as dog handlers when deployed in various different locations. However, gradual sensitization to various sounds, interaction with various types of people and areas have increased the confidence as well

as remarkable improvement of Assam Rifles dogs in scenario based training.

Simple initiatives and meetings with stakeholders of co-located or nearby institutions or areas can simulate a wide variety of scenarios which can enable exposure of our PSKs to various surroundings, environments, people, objects, other animals, noises etc to ensure that they are habitual to working in a wide variety of terrains / places.



Maj Bandodkar Abhishek D was commissioned in Remount Veterinary Corps in July 2015 and currently posted as Officer Commanding, Assam Rifles Dog Training Centre.



Lt Col Deepak Verma was commissioned in Remount Veterinary Corps in Sep 2004 and currently posted as Chief Veterinary Officer, Directorate General Assam Rifles.



A SUCCESSFUL APPLICATION OF ARTIFICIAL INSEMINATION IN BELGIAN MALINOIS DOGS: THE SIGNIFICANCE OF PROJECT SHAWAN KRANTI IN THE BORDER SECURITY FORCE.

Dr Virampal Singh DC (VET) SHQ BSF MALDA

Introduction

Trained dogs play a vital role in the Border Security Force (BSF) by acting as a force multiplier, significantly enhancing the operational capabilities of personnel in the field. These dogs are highly trained to assist in detecting explosives, tracking, patrolling, and various other tactical operations. As an indispensable component of the BSF's arsenal, they are integral to fulfilling the force's diverse and demanding operational commitments.

Project Shawan Kranti is a critical initiative aimed at establishing a sustainable and efficient breeding program for BSF dogs. Given the strategic importance of maintaining a healthy and capable canine unit, the project focuses on breeding high-quality service dogs within a realistic timeframe. The objective of this breeding program is to ensure that the BSF can continuously replenish its dog units with skilled and physically fit dogs that meet the operational requirements.

In this particular instance, the

breeding program selected a male dog (sire) named Prince, BSD/M/NDD from the 84 Battalion of the BSF, and a female dog (dam) named Mandie, BSD/F/IP from the 86 Battalion of the BSF. However, due to the pair's inability to mate naturally, Artificial Insemination (AI) was chosen as the solution. AI has proven to be an invaluable method in canine breeding, especially for breeds like the Belgian Malinois, which are widely used in military and police operations.

Artificial Insemination (AI) is an

assisted reproductive technique widely adopted to address challenges in natural breeding. It is often used when dogs face issues such as physical inability to mate, behavioral reluctance, or fertility problems. AI helps overcome these hurdles, ensuring that high-quality genetic traits can be passed on without the necessity of natural copulation. In this case, the decision for AI was made after observing the dam's proestrus phase, a key part of the canine estrous cycle. The breeding team decided to proceed with AI two days after the dam's proestrus bleeding stopped, a critical window for successful fertilization.

This approach aligns with the broader goals of **Project Shawan Kranti**, which aims to implement scientific and practical breeding strategies to sustain and enhance the operational effectiveness of the BSF dog units. The use of AI in this context demonstrates how modern reproductive technologies can be leveraged to support police and security organizations in meeting their operational demands.

Material and methods

When considering a breeding program for dogs, several critical steps are involved to ensure the success and health of both the dogs and the future litter. Here's a detailed elaboration on the key factors:

A. Determine Whether or Not to Use Artificial Insemination

Dog breeders may choose to use **Artificial Insemination (AI)** for

various reasons, especially when natural mating is not feasible. Some of the common reasons include:

- **Incapability to Copulate Naturally:** This may arise due to physical issues, behavioral incompatibilities, or logistical constraints (such as geographic distance between the breeding pair).
- **Health Concerns:** In some cases, natural mating might pose health risks to the dogs, such as pre-existing injuries or anatomical issues that make mating difficult or painful.
- **Genetic Advantages:** AI allows breeders to utilize the genetic material of high-quality male dogs (sire) even if they are located far away. Frozen or fresh semen can be transported and used for insemination without needing the sire to be physically present.
- **Increasing Fertility Success:** AI can help manage the timing of insemination more precisely, especially in cases where fertility windows are short, maximizing the chances of successful pregnancy.

Breeders decide to proceed with AI after evaluating whether natural mating is possible or practical. This decision ensures that the breeding objectives, such as preserving specific traits, are achieved while maintaining the health and welfare of the dogs involved.

B. Evaluate the Male Dog for Suitability for Breeding

- Before initiating the breeding process, the sire (male dog) must

undergo a thorough evaluation to determine whether he is a suitable candidate for breeding:

- a. Health Examination:** The male dog should be in optimal health, free of any infectious diseases, genetic disorders, or conditions that could affect fertility or be passed on to offspring. Regular health check-ups, vaccinations, and screenings for diseases like brucellosis (a reproductive disease) are essential.
- b. Breed Specifications:** The sire should meet the breed standard in terms of conformation (physical appearance and structure) and type (behavioral traits, temperament). This is especially important in working dog breeds like Belgian Malinois or German Shepherds, where specific traits such as intelligence, agility, and temperament are required for operational tasks.
- c. Fertility Testing:** For AI, the sire's semen quality is evaluated to ensure there is an adequate sperm count, good motility, and normal sperm morphology. A semen analysis helps determine if the male can successfully contribute to the breeding process.

Only healthy and high-quality



Examination of male dog

males should be bred to ensure that the puppies inherit desirable traits and that the breeding is successful.

C. Evaluate the Female Dog for Suitability for Breeding

- Similar to the male, the dam (female dog) must also be thoroughly evaluated before breeding:

i. Health Examination: The female dog should be examined by a veterinarian to ensure she is in good health. Any underlying conditions such as infections, hormonal imbalances, or genetic diseases that may impact pregnancy should be identified and treated beforehand. A pre-breeding health check should include vaccinations, deworming, and a reproductive system examination.

ii. Breed Standards: The female should also meet the breed's physical and behavioral standards. This ensures that the litter will inherit the best traits for conformation, workability, and temperament, especially if the breed is known for specific tasks like search-and-rescue or law enforcement work.

iii. Reproductive History: If the dam has previously given birth, her reproductive history should be reviewed. Any past issues, such as difficult pregnancies, miscarriages, or complications during birth, should be taken into account. For first-time breeding, assessing her reproductive health and cycle is essential.

iv. Estrous Cycle Monitoring: For

AI, it is important to accurately track the female's estrous cycle (heat cycle). Ovulation timing is key to maximizing the chances of successful insemination. Proestrus (the early stage of heat) and estrus (the fertile period) should be carefully monitored through hormone testing and physical signs.

Overall, both the male and female dogs must meet strict health, genetic, and breed criteria to ensure a successful breeding outcome. The use of AI can further assist in overcoming breeding challenges, offering greater flexibility while maintaining high breeding standards.

• Collecting Dog Semen.

a. Collect the male dog's semen. Once the male dog has been deemed acceptable for breeding his semen will need to be collected. Male dogs will become aroused in the presence of a female dog in heat, which is the prime time her body emits pheromones or chemicals that excite the males. When he attempts to mount, or breed, with the female the penis is redirected into a collecting bag into which he ejaculates.

b. Have the semen evaluated. After the semen is collected, the sperm cells in it will be examined under a microscope to make sure they are normal.

• Implanting Semen into the Female.

1. Make sure the female dog is in the correct stage of her estrus cycle. Unlike the male, she needs to be in the receptive stage of her heat cycle in order



Material utilised for AI operation

to breed successfully. Females typically come into heat twice a year.

2. Each heat cycle has a preparatory proestrus stage, where the female's vulva (visible to the outside) swells and she bleeds or spots blood for seven to nine days. The uterus (womb) is being prepared to make a suitable environment for the embryos to develop into puppies.
3. After this, the bleeding slows and she becomes receptive to breeding. This stage is called estrus. This is also called standing heat, because it is the period when the female will stand to mated with the male dog. It is only during this stage that she will be able to become pregnant. The most fertile time will be at the end or just after standing heat occurs.



Harmonal changes due to pheromonal activities

4. The best time to inseminate is going to be at peak ovulation, which is determined based on the progesterone numbers when reaches to 2 ng then wait from 48 to 72 hours to inseminate.

a. Insert the semen into the female dog's Vagina.

Insemination is fairly straight forward once the semen is collected and the female dog is in estrus. The female is made to stand on the examination table with her back legs slightly extended beyond the pelvis. A Nelaton catheter is used to deposit the semen inside the vagina near the cervix. The insertion of the catheter requires lubrications, helps in easy entry to female dog vagina as the female dog's vagina is quite long. The pipette is withdrawn and discarded.

b. Keep the female dog standing after the semen is inserted. She should be kept standing for 10 minutes after depositing the semen. She should not sit or urinate, or the semen may run out. After 10 minutes she can walk around normally, but jumping and urinating should be avoided for about an hour.



The female dog Mandie BSD/ F gave birth to seven pups—five males and two females

Results

Dog Mandie BSD/F, a service canine of 86 BN BSF, successfully gave birth to 07 healthy puppies (05 males and 02 females) on 22nd September 2024 at the breeding centre of SHQ BSF Malda. The whelping took place between 1212hrs and 1530hrs, with all puppies in good health. It is noteworthy that Dog Mandie was artificially inseminated with Dog Prince BSD/M of 84 BN BSF between 21st and 25th July 2024 at SHQ BSF Malda.

Conclusion

Coordination plays a crucial role in increasing the chances of a successful pregnancy through artificial insemination. Though time-intensive, well-planned efforts are more likely to result in success.

Without proper preparation, artificial insemination can become a frustrating process. It is essential to conduct pre-examinations of the chosen dam and sire to identify any infectious, metabolic, or genetic issues that could lead to the spread of disease, failed conception, or early pregnancy loss. Timing ovulation is critical to determine the period when the bitch is most fertile. Additionally, understanding semen preparation is necessary to choose the appropriate insemination method. This marks the first successful artificial insemination within the BSF canine unit, representing a significant achievement in the force's breeding program. The procedure has opened the door to more controlled and efficient breeding practices, thereby enhancing the BSF's canine capabilities.



Procedure for deposition of semen in female reproductive tract.



Dr Virampal Singh DC (VET) SHQ BSF. He is posted at Malda Rajasthan.



SOCIALIZATION OF PUPS FOR TRAINING

Dr. Ram Narayan Patel, DC (Vet), BSF

Trained dogs are an asset for the Security Forces for helping police in detection of crime of various natures. Socialization of pups before giving training is one of the important pillar of training for dogs. The best age to start socialization and training for puppies is during their **critical socialization period**, which typically occurs **between 3 to and 14 weeks of age**. This is the time when puppies are most receptive to new experiences and learning

During this stage, it's crucial to expose the puppy to a wide variety of people, animals, sounds, and environments in a positive and controlled manner. This helps them develop positive associations and adaptability to different situations later in life. Socialization should include interactions with other

puppies and well-mannered adult dogs, as well as exposure to different stimuli such as different surfaces, car rides, grooming, handling etc.

Methods of socialization:-

- 1. Early handling and touch:** Get your puppy accustomed to being handled and touched all over their body, including their paws, ears and mouth. This will help them become comfortable with grooming, veterinary exams, and everyday handling.
- 2. Positive exposure to different environments:** Introduce your puppy to various environments such as parks, city streets, different types of flooring, and different weather conditions (within safe limits). This helps

them become adaptable and less likely to be fearful or anxious in new surroundings.

- 3. Properly supervised play:** Allow your puppy to engage in supervised play with other well-mannered and vaccinated puppies or adult dogs. This helps them learn appropriate social skills, body language, and bite inhibition.
- 4. Prevention of behavior issues (House manner):** Alongside training, focus on preventing behavior issues by managing your puppy's environment and prevent unwanted behaviors such as chewing or inappropriate elimination.
- 5. Exposure to different people and situations:** Expose your puppy to people of different ages, genders, and appearances.

Introduce them to situations they may encounter in their daily life, such as meeting strangers, going to the vet, or encountering cyclists or joggers.

- 6. Continued socialization and training:** Even after the critical socialization period ends, continue to expose your dog to new experiences and provide ongoing training to reinforce positive behaviors and maintain good manners. This helps prevent regression and keeps them well-adjusted throughout their life.
- 7. Gradual exposure to stimuli:** Introduce puppies to a variety of people, dogs, animals, sounds, surfaces, and environments. Starts with less overwhelming experiences and gradually increase the complexity.
- 8. Positive Reinforcement:** Use positive reinforcement techniques during socialization encounters. Reward calm and relaxed behaviour, and avoid rewarding fearful or aggressive reactions.

Importance of socialization:

Training puppies in socialization from 3 weeks to 14 weeks is an important and critical period for their development. This timeframe is commonly referred to as the "critical socialization period" or the "sensitive period" for socialization. During this time, puppies are more receptive to new experiences and are able to form positive associations with various stimuli, including people, animals, objects, and environments.

- 1. Social bonding:** Puppies develop their social skills and form bonds with humans and other animals early on. Positive interactions with a variety of people and animals during this period help them build confidence, trust, and develop healthy social behavior.
- 2. Reduced fear and aggression:** Proper socialization helps puppies become familiar with different environments, sounds, sights, and smells. This exposure early in life can prevent fear-based behaviors and aggression later on. It helps puppies become well-adjusted and less anxious in different situations.
- 3. Habituation:** By introducing puppies to various stimuli, you help them become desensitized and tolerant to new experiences. They learn to adapt and accept different environments, objects, and situations without fear or stress.
- 4. Positive associations:** During the critical socialization period, puppies are more likely to form positive associations with experiences they encounter. By exposing them to different people, animals, and environments, you can help them develop positive associations and avoid negative

associations that may lead to fear or aggression in the future.

- 5. Learning opportunities:** Puppies have a heightened ability to learn and absorb information during this period. They are more receptive to training, including basic commands, house training, and other behaviors. This is an ideal time to start teaching them important skills and behaviors that will benefit them throughout their lives.

Unsocialized dogs are 580 times more likely to become aggressive, according to Cumming School of veterinary medicine. The well-socialized dog will be bold, confident and will not be scared of other animals, dogs, places, unusual sounds and will have a happy and well-balanced life.

Conclusion

For optimum utilization and better performance of k-9s socialization of pups before scientific training helps him to be accustomed to all kinds of sights, sounds and smell. A well-socialized dog is well-adjusted and confident. Without socialization, the dog may become fearful or aggressive and other behaviour issues. To make the dog more faithful, happier and confident socialization is must.



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INDIA'S CANINE SENTINELS: SNIFF TERROR BEFORE IT STRIKES

Ms. Sharmishtha Narayan Singh
D/o Shri Sumant singh, DIG, CISF



Krish



Jaguar



Rosy

Reflecting the insight of Mahmoud Darwish- "I don't know who sold our homeland, but I saw who paid the price," got me introspecting. Martyrs are commemorated, wreaths laid and high military decorations bestowed upon the veers of our motherland. But how many of us actually know about the pivotal role of India's canine sentinels, who let us enjoy tranquil sleep without worrying about another terror attack, another industrial robbery and another loss of life?

Canine -CISF:

- **Dog training school** | A cocooned life in the pristine haven of a National Dog Training School Ranchi, months of gruelling drill schedules coupled with grooming and rough playtime mark the beginning of their career. After a glorious passing out parade, they are unleashed into the theatres of operation under the motto of "Protection and Security, Sangrakshan aur Suraksha".

- **Airports, metros, public spaces, government buildings** | Contrary to the languorous mornings of fur babies of over-indulgent millennial pet parents, Rosie, Pari and Sweety (cocker-spaniels) wake up at the break of dawn to the call of duty at public infrastructure to detect explosives, ensuring seamless proceedings.
- **Mines, plants, ports, jungles** | Even after a rigorous day of patrolling duty, it is not uncommon for lithe Belgian



Malinois Jaguar, Jack and Queza and stately German Shepherd Max to respond to the blaring alarms of PSUs or mines indicating intrusion. The relentless K9s can disarm the criminal, sink his teeth into the criminal's flesh, not letting go till his handler commands him to stop. The astute soldier keeps a vigilant eye while the jawans give the bandit a thorough search.

They are trained in "article to man", which entails catching the thief by sniffing an article left in his wake, and "man to article", tracing the stolen article by sniffing the apprehended ANE.

- **Guarding and patrolling** | Adi, a tawny coated German Shephard valiantly guards and patrols vulnerable sites in foreboding

canopies like explosive storage magazines and sensitive plants with security personnel, preventing unauthorized access, smuggling, and detecting Naxal/terrorist movement in the area. Shera, his brother, infiltrates the scene with a camera mounted on his head providing vital seconds for the assault team to plan and execute sensitive operations.

- **Narcotics detection** | Krish, the lone Husky, the narcotic detecting maven stationed at airports, ports and international borders deftly discerns drugs in unfathomable places.
- **Search and Rescue operations** | Lee, Leo, Simba and Rocky (Labradors) have rescued beating hearts under several feet of ice and debris with their strong

auditory, olfactory acuity and potent signalling prowess.

- Staying true to their motto, "Sniff terror before it strikes", they retire ceremoniously after ten years of active service.

They are oblivious to the honour that comes their way. They only ever care about saving their handlers, civilians and performing their duty, not knowing that they may cross the gates of Valhalla at a moment's notice.

So, let's all stand up and salute the shwan dal (dog squad) that saved countless lives without giving a second thought about their own. Their dogged perseverance deserves our reverence.

Jai hind!
Jai shwan dal!



Sharmishtha Narayan Singh daughter of Shri Sumant Singh, DIG (east sector, CISF) Ranchi, has been an active participant in all activities of DTS Ranchi ever since her father held the responsibility of principal, CISF dog training school, Ranchi, Sharmishtha, a student of Delhi Public School Ranchi, is a budding Author & Poet, an absolute dog lover who aspire to sensitize children & adults to the, "pawsitive world of canines"



INFRA RED THERAPY FOR PAIN MANAGEMENT IN K9 TRAINING

Dr Anoop Kumar Nayak 2IC (Vet) ITBP

There are some common injuries that can cause pain in working dogs like sprain, strain, muscular injury, traumatic injury, nerve injury, arthritis and anterior cruciate ligament (ACL) damage, intervertebral disc disease (IVDD) etc. It can lead to pain, there are various pain-relieving therapies available, red light (infrared) therapy is one of them which can be helpful to reduce or eliminate pain of our k-9. Infrared therapy is gaining popularity for treating various health

issues in working dogs. It involves using low-level red or near-infrared light to stimulate cellular repair and reduce inflammation. Red light therapy benefits dogs by relieving pain, aiding wound healing, improving joint health, treating skin conditions, and promoting relaxation.

Red light therapy for dogs, also known as photobiomodulation therapy or low-level laser therapy, is a non-invasive treatment that uses

red or near-infrared light to promote healing and reduce pain and inflammation in K-9. It involves the application of specific wavelengths of light to targeted areas of k-9's body, such as joints, muscles, or wounds. Red light therapy for dogs works by stimulating cellular activity and promoting circulation in the treated area. The red or near-infrared light penetrates the skin and is absorbed by the cells, where it interacts with the mitochondria, the energy-producing powerhouses



Safety features

Ensure the red light therapy system has appropriate safety features. Look for devices with built-in timers to control treatment duration and prevent overexposure.

Here are some tips for using red light therapy on dogs

- **Frequency:** The frequency of treatment can vary, but some devices can be used 3-4 times per week. For arthritis, you can start with 2-3 sessions per week, then decrease to once a week, and then once every two weeks.
- **Duration:** the recommended treatment time is usually between 5 and 20 minutes.
- **Improvement for long-term problems** is usually noticeable after 8 to 12 weeks of consistent use.
- **Make sure the affected area is clean and dry** before applying the device.
- **Consider the power density and the distance from which the light is applied** to determine the correct dosage and session length.
- **Follow guidelines published by professional organizations** to contribute to its standardization and efficacy.

of the cells. This interaction triggers various biochemical reactions that can have therapeutic effects on canine's body.

Factors to keep in mind consider when conducting red light therapy for dogs

Wavelength and Power Density

The red light therapy system should emit the appropriate wavelengths of light for effective treatment. The ideal wavelengths for red light therapy in dogs are typically within the range of 630 to 850 nanometers (nm). Additionally, consider the power density or irradiance of the

device, which indicates the amount of light energy delivered per unit area. Choosing a system with adequate power density is essential to ensure proper penetration and therapeutic effect.

Treatment area and coverage

Determine the size of the treatment area the device can cover, it may need a system with a broader treatment area or multiple light panels if we plan to treat larger areas or multiple body parts simultaneously. Consider the size and shape of the device and whether it can be easily maneuvered to target specific areas on canine's body.



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COGNITION, METACOGNITION AND DOGNITION

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Humans and dogs are among the most successful species in Earth's evolutionary history, a success made possible through inter-species communication, symbiotic living, and mutual support. Literary and archaeological evidence highlights the enduring bond and significance of dogs in human communities across ages. Monuments have been erected to honor dogs for their roles in both war and peace, with some societies even deifying them and building temples in their name. Anthropological studies reveal that early humans, who lived as hunters and gatherers, relied on dogs for quarrying and retrieving, thus aiding in hunting and food collection. As human societies evolved into agricultural

communities, dogs took on new roles as guards, shepherds, and scouts, warning humans of potential dangers. Dogs also fought alongside their masters during inter-group conflicts. In trench warfare, the stealth attacks of trained war dogs would spread panic and push enemies out into the open. During the World Wars, dogs were even used as suicide bombers, with explosives strapped to their bodies.

Anecdotal evidence underscores the profound importance of K9s in human societies, both professionally and communally. This relationship illustrates how organisms learn in nature and how inter-species cooperation can develop. Dog-human communication, inferential learning, and intention reading—

combined with the inherent capabilities of the species—have made dogs ubiquitous and invaluable to human life. Unlike our evolutionary ancestors, the primates, understanding the intelligence of dogs offers us new insights into cognition, making it a fascinating field of study. The expanding literature on canine cognitive abilities emphasizes their relevance in addressing complex security challenges worldwide.

Deploying Concepts

Cognition refers to how humans understand the world through sensory experiences, while meta-cognition involves the tools we use to interpret and reflect on our thought processes. It encompasses



have been possible without dogs. Recognizing our shared past should encourage us to responsibly honor the species that has significantly contributed to our survival. The success of human hunting owed much to dogs, whose olfactory senses detected prey and helped lead humans to it. Dogs defended humans during counter-attacks in prey-predator conflicts. This unique cooperation between dogs and humans played a critical role in making humans the predominant species on Earth.

According to evolutionary biologists, humans share 98.5% of their genetic material with primates, while dogs share 99% of theirs with wolves. Yet, no two other species in the wild have formed a hunting alliance as effective as humans and dogs, despite their distinct evolutionary histories and cognitive abilities. Cognitive convergence made this partnership successful, allowing humans and dogs to anticipate prey movements and work cooperatively to prevent escape. Even today, certain tribal societies rely on dogs for hunting. Through selective breeding, humans have shaped dogs into various breeds suited for roles such as hunting, retrieving, and herding. The “exposure hypothesis” suggests that in human environments, dogs began to understand gestures, gaze, and pointing. While war has historically been a human endeavor, dogs have also been used in ancient conflicts. Despite modern weapons, dogs remain valuable assets in military operations due to their maneuver ability, scent discrimination, and ability to distinguish friend from

an awareness of mental processes and self-reflection, allowing humans to think conceptually. Dogs, having been domesticated for millennia, have developed the ability to read human intentions, enabling them to draw inferences about human communicative intent and, in turn, facilitating human self-understanding. This inferential learning and intention reading in dogs is termed “dognition.”

Tracing Dog-Human Relations

The bond between humans and dogs stretches back beyond historical records, making it difficult to pinpoint its exact origins. The arrival of modern humans approximately 43,000 years ago marked a shift, as hunting expeditions led to the extinction of many Ice Age animals. Humanity’s success as a species would not



foe. Their skills have proven crucial in tracking enemy movements and facilitating tactical operations.

The Need for Cognitive Tools in K9 Training

There is a need to move beyond behaviorism-based training modules in most K9 training schools in India. The operant conditioning developed by B. F. Skinner and positive reinforcement methods by Thorndike, while foundational, have limitations, including:

1. Behavior is viewed solely as a series of stimulus-response mechanisms.
2. Reactions to consistent stimuli are expected to strengthen over time, as depicted in the "Skinner box" experiments.
3. Behavioral theory assumes all animals and humans produce uniform learning outcomes under conditioning (i.e., what works for a pigeon should work for a dog, rat, or human).
4. Inner mental processes (thoughts, memories, emotions) are considered irrelevant, assuming all behavior can be predicted and controlled.

These tenets of behaviorism fall short in explaining the social and cognitive learning of humans and animals. Laboratory conditions cannot replicate real-life social settings, and stimulus-response models fail to account for learned behaviors in complex situations. Behaviorism's repetitive-response conditioning simplifies animal cognition, ignoring individual species' cognitive competencies. Disregarding emotions, thoughts, and memories solely because they cannot be measured is an incomplete approach to understanding animal cognition.

Understanding dog behavior requires recognizing their unique intelligence, summarized as follows:

1. Learning new skills through observation
2. Cooperating and gaining strength from collaboration
3. Learning from peers
4. Demonstrating faster problem-solving after observing others' success—a form of inferential learning
5. Reading human gestures adeptly

In nature, species exhibit diverse cognitive abilities that are both spatially and temporally contextual. For example, Siberian Cranes navigate continents without GPS to breed in India, while nutcrackers hide thousands of seeds to retrieve them later. As a species, dogs possess varied cognitive skills that have enhanced human problem-solving in complex security situations. In ancient societies, dogs joined humans on hunts, defended families against predators, and

served as alarm systems with their olfactory, auditory, and visual skills. In modern society, dogs play more diverse roles than ever before. In warfare, they have been used as messengers, attackers, trackers, and even suicide bombers. Their ability to detect trace scents has positioned them as human vanguards, helping detect mines and improvised explosive devices used against security forces. Modern police K9 units solve crimes by tracking scents, which has broadened their job profile significantly. K9s serve as sniffers, guards, explosive detectors, patrol dogs, and narcotics detectors; the scope of K9 utilization is limited only by our imagination.

It is vital to assess canine intelligence to open new avenues in cognitive psychology that can improve inter-species communication.

The Impact of Cognitive Studies on Dog Behavior

Psychologists have studied dog behavior to understand humans, as dogs have displayed distinct cognitive skills. Domestication has enabled dogs to understand human intentions. Through bonding, they gauge human mental states and often act as motivators. They understand gestures, retrieve objects, and can differentiate between intentional and unintentional human actions.

The "theory of mind" describes humans' ability to attribute mental states to others, including animals. Evidence shows that dogs have a unique way of interpreting human communicative intent.

Early behaviorism, championed by Watson, Skinner, and others, focused on measurable behavior in social settings, deeming subjective mental states irrelevant. Cognitive psychology, however, gives equal importance to mental processes such as learning, memory, thought processes, and problem-solving. As cognitive science advanced, mental events gained precedence over observable behaviors, emphasizing inferential learning and problem-solving.

Understanding dog cognition offers insights into human intelligence. The "Exposure Hypothesis" suggests that dogs learn gestures and understand human gaze and pointing when raised in human families. Contrary to behaviorists' predictions of overt, predictable responses, dogs' cognitive abilities often show counter-intuitive patterns. For example, a dog sensing an earthquake does not run to save itself; instead, it alerts its human master, attempting to lead them away from danger.

Dognition and Social Cognition

Understanding "dognition" aids in fostering cooperative behavior in

social setups. Though conflicts are natural, feral dogs do not inflict mortal wounds on each other, underscoring the survival of the friendliest—contrary to Darwin's "survival of the fittest." Dogs' selection against aggression, their capacity to cooperate, and their communicative adaptability with humans are hallmarks of their evolutionary success. Without dogs, human progress could have been significantly hindered.

Comparative social cognition addresses the challenges of social living, factoring in communication, social learning, and social understanding. Understanding dogs changes human life in numerous facets—communication, cooperation, social bonds, and attachment.

Social cognitive learning theorists emphasize that external stimuli and cognitive processes such as anticipation, judgment, memory, and imitation shape behavior. Albert Bandura's social cognitive theory highlights that behavior is not solely governed by stimuli but also by cognitive processes.

Unlike animals whose lives are bound by rigid instincts,

human social patterns and interrelationships are fluid and changeable. Human memory and oral communication have allowed us to transcend biological limits, facilitating advances in science, technology, and literature. Similarly, through bonding, dogs have transcended certain biological determinants, making them a distinct and invaluable species.

Conclusion:

Dogs' deep understanding of human communicative intent and their ability to infer human intentions remain highly relevant and offer potential solutions to many mysteries. These insights not only strengthen the bond between humans and dogs but also provide critical tools for tackling contemporary policing challenges. Canine cognitive abilities demonstrate convergence with human functions in several areas, including solving crime, detecting cancer, identifying narcotics, bomb detection, and protecting endangered species. Additionally, dogs serve as early warning systems for impending climatic and natural disasters, along with addressing many other human challenges for which solutions are still emerging.



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MAINTAINING OPERATIONAL PERFORMANCE IN SCENT DETECTION K9S

Dr. Hitesh Kumar Shandilaya, 2IC (Vet), ITBP



performance helps maintain trust in K9 units.

Common factors that influence operational performance:

- Training:** Regular training reinforces detection skills and helps prevent boredom or complacency.
- Physical Health:** A K9 needs proper nutrition, exercise, and veterinary care to maintain optimal physical condition.
- Mental Health:** Stress, anxiety, or boredom can negatively impact a K9's performance. Ensuring a positive and stimulating environment is essential.
- Equipment:** High-quality equipment, such as harnesses, leashes, and detection aids, can enhance a K9's performance and comfort.
- Handler-Dog Relationship:** A strong bond between the handler and K9 is crucial for effective teamwork and motivation.

If a detection dog (ED /Narcotic) doesn't get to find what it's trained to smell (target odor) very often during real work (operational search), it's less likely to alert its handler when it actually does find it. This can happen even if the dog seems like it's searching well.

There are two reasons for this:

K9s are extremely valuable assets in various fields, including law enforcement, security, and search and rescue. Their exceptional ability to detect specific substances or individuals relies heavily on their training, physical condition, and mental well-being. Maintaining their operational performance is crucial for ensuring their effectiveness and safety.

Key reasons for prioritizing maintenance:

- Accuracy and Reliability:** A well-maintained K9 is more

likely to accurately detect targets, reducing false positives and negatives. This is especially critical in high-stakes situations where mistakes can have severe consequences.

- Efficiency:** A K9 in peak condition can work longer and more efficiently, saving time and resources.
- Safety:** A healthy and well-trained K9 is less likely to be injured or experience stress-related problems, ensuring the safety of both the dog and its handler.
- Trust:** Consistent and reliable

- a) The dog might not be actively searching for the target odour because it rarely gets rewarded for finding it in real situations.
- b) The dog might not even know what to alert the handler about if it hasn't encountered the target odour much during real work.

This problem can be mitigated by:

- a) Give dogs plenty of chances to find the target smell during searches.
- b) Make practice areas look and feel similar to the places they'll actually work.

It is therefore essential to understand why and how performance declines and ways to counter it. This article suggests approaches that can be used applied together to maintain optimum operational performance of detection dogs.

Key word to understand -

- a) **Continuous Reinforcement:** This means giving your dog a reward (like a ball, toy, or food) every single time they do the good behaviour you're teaching them.
- b) **Partial Reinforcement:** This means rewarding your dog for the good behaviour, but not every single time. It keeps them guessing a bit!
- c) **Reinforcement Schedule:** This is a fancy way of saying how often you'll give your dog a treat for doing something good.
- d) **Blank Search:** This means your dog is searching for something (like a hidden treat) but there's actually nothing there. It's good practice for their sniffing skills!
- e) **Contextual Cues:** These are things your dog sees, hears, or smells that remind them of what you're about to do. For example, seeing their leash might remind them it's walk time!

- f) **Moveable Cues:** These are reminders you use during training (like a training harness) that you can eventually take away once your dog knows what to do. It helps them learn in different places!

Performance Decline in Detection Dogs-

- a) Why do dogs sometimes perform worse in real-life searches than in training?

When training detection dogs, we often use lots of rewards and target odors to keep them motivated. However, real-world searches are often different. Dogs may not find any target odors, and even if they do, they might not get a reward.

- b) How do dogs learn about these differences?

Dogs are very smart. They can learn to predict when they're going for a walk or when they'll get a treat. In the same way, they can learn to predict if they're likely to find a target odour and get a reward. These clues are called "contextual cues."

- c) Common contextual cues?
 - Training environment: The sights, sounds, and smells of the training area.
 - Instructor: The presence of the trainer.
 - Handler behaviour: How the handler acts during training.
 - Equipment: Wearing a training harness.
 - Other dogs or people: The presence of other animals or people.
- d) Why can contextual cues be a problem?

Two Scenarios Leading to Reduced Target Detection

Scenario 1: Unrewarded Target Indication

- Problem: A dog encounters target odours during operations but is not rewarded for indicating them.
- Consequence: The dog will quickly learn to ignore operational targets, as indicating on them is not beneficial. However, the dog may continue to indicate during training sessions.

Scenario 2: Lack of Target Exposure

- Problem: A dog does not encounter target odors during operations and therefore has no opportunity to indicate.
- Consequence: Finding a target odor acts as a reward for active searching, making indication more likely. Without this opportunity, dogs may continue to search, but their attention to target odors and their probability of indicating will decrease over time in operational settings

If dogs only get rewarded in training, they may learn to only try hard when those training cues are present. For example, if a dog is only rewarded when the instructor is around, it may not search as hard when the instructor is absent.

e) What can we do to improve performance outside of training?

The next sections discuss different methods to help dogs perform better in real-world situations. These methods can be used together to get the best results.

1. Increasing Rewards for Correct Actions

To make training more like real-world searches, we can give dogs rewards for finding specific smells in real places. This helps them do better in actual searches.

a) Using Training Aids

- i. Before using training aids, everyone involved in the search should agree on it.
- ii. Placing Training Aids: Put them before or during the search, in places the dog hasn't been.
- iii. Someone Else Places Aids: This helps the handler not knowing where they are.
- iv. Avoid Contamination: The person placing the aid should not touch other areas to mix their smell with the aid.
- v. Hidden Location: Write down the location and give it to the handler. This way, they can check after the dog indicates.
- vi. Easy to Find: Make sure the dog can smell the aid, but not see it.
- vii. Reward and Remove: Reward the dog for finding the aid and

then take it away.

viii. Check for Threats: After removing the aid, check the area again to make sure there aren't any real dangers.

b) How Often to Use Training Aids

- i. Match Training: Try to use training aids as often as the dog encounters training smells in training sessions.
- ii. Any Use Helps: Even if you can't do it perfectly, using them is helpful.
- iii. Practice with Blanks: Use empty containers and clean paper to help the dog learn the correct smell. Don't use these in real searches.

2. Reward skipping (Partial reinforcement)

a) Why is it important to skip rewards?

If we always reward dogs for doing something right, they might get too dependent on it. We need to teach them to keep trying even if they don't get a reward every time. This is called partial reinforcement.

b) How does partial reinforcement work?

Partial reinforcement helps dogs understand that even if they don't get a reward now, they might get one later. This makes them more resilient and better prepared for real-life situations where they might not always find what they're looking for.

c) How to use partial reinforcement:

- i. Start with full rewards: At first, always reward your dog for doing the right thing. This helps them learn quickly.

ii. Reduce rewards: Once your dog knows what to do, start rewarding them only sometimes. Gradually increase the number of times you don't reward them.

iii. Praise and move on: When your dog does something right but doesn't get a reward, praise them calmly and move to a different place. Let them try again later, and reward them then.

iv. Be unpredictable: Don't follow a set pattern. Reward your dog randomly to make it harder for them to guess when they'll get a reward.

d) How often should you reward your dog?

A good rule of thumb is to reward your dog about 75% of the time. This means that 25% of the time, they won't get a reward.

Remember: Partial reinforcement is a powerful tool for training dogs. By using it wisely, you can help your dog become more independent and better prepared for real-world challenges.

3. Changing Search Lengths and Including Empty Searches

If dogs are always trained with the same search length, they won't be good at handling different search lengths in real situations. So, we need to train them with different search lengths to make them more prepared.

a) Search Length:

- i. Long Searches: Teach dogs to search for a long time before finding the target. This helps



- them learn to keep searching and also makes them stronger.
- ii. Short Searches: Teach dogs to find the target quickly. This helps them search hard from the beginning.
- iii. Empty Searches:
 - b) Variety: Some training searches should have targets, while others shouldn't. This teaches dogs to expect both types of searches.

4. Making Training and Operations More Similar

The Problem: Dogs might get confused between training and real-life work if there are big differences. This can make them less effective at their job.

The Solution: We need to make training as close to real-life work as possible. Here are some ways to do that:

- a) Remove Training Cues:
 - i. Instructor Presence: Don't always have the instructor around during training.
 - ii. Training Samples: Don't let the dog smell the target before training.
 - iii. Vehicle Location: Park the dog's vehicle away from other dogs.
 - iv. Training Location: Train in real-life work areas if possible.

- v. Morning routine- Make it similar to real life work routine.
- vi. Duration and number of searches- Make them Similar to operational patterns.
 - b) Add Training Cues to Real-Life Work:
 - i. Equipment: Use the same equipment for training and work.
 - ii. Clothing: Wear the same clothes for training and work.
 - iii. Reward- Similar much liked reward as used in training.

Few Tips-

- a) Develop training methods to reward dogs for successfully locating and identifying targets in simulated real-world scenarios. Use non-harmful training aids to maintain performance.
- b) Partial reinforcement should be introduced during training so that dogs learn that they are not always rewarded when they indicate correctly. Partial reinforcement builds up dogs' resilience if they cannot always be rewarded
- c) To prepare dogs for various operational scenarios, vary the placement of targets and the duration of training searches, including some blank searches

without targets.

- d) Prevent dogs from learning the likelihood of encountering a target odor and being rewarded for indicating. This can be achieved by identifying contextual cues and ensuring that training and operational searches do not differ significantly

Supportive Maintenance strategies:

- a) **Physical Fitness:** Ensure the K9 gets adequate exercise and a balanced diet to maintain physical health.
- b) **Veterinary Care:** Schedule regular veterinary check-ups to monitor the K9's health and address any issues promptly.
- c) **Mental Stimulation:** Provide mental stimulation through puzzle toys, training games, and social interaction.
- d) **Stress Management:** Identify and address any sources of stress or anxiety to maintain the K9's well-being.

By prioritizing the maintenance of operational performance, organizations can maximize the benefits of their detection K9s and ensure their continued effectiveness in fulfilling their critical roles



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MANAGING K9 HEALTH AND WELL BEING DURING EXTENDED SEARCH MISSIONS

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snow over a mountain and down a rocky embankment until his paws bleed to find it. Hence SAR dogs are susceptible to following:

- 1. Unstable structure collapse:**
If collapse hazard to k9 or search team is present, it can be mitigated by shoring. (A temporary support system used to prevent collapse in building structure and benches during search) extensively used by NDRF teams.
- 2. Canine contamination from standing liquid hazards:**
In such situations search K9 should be watered and allowed pee, in advance and muzzle can be placed. Liquid hazard if available, after search operation immediate screening and decontamination should be done.
- 3. Serpentine / Parasitic danger:**
Snakes or some other dangerous parasites like scorpion or wasps may have trapped in collapsed structure. Preventive means

Introduction

According to WHO “health” is defined as complete physical mental and social well-being not merely absence of any disease.

During extended search missions dogs may not only get physical exhaustion, gastrointestinal, disturbances, sharp object injuries, Hyperthermia, hypothermia, nasal bleeding, aural bleeding, but also affected by dysfunctional behavior or behavioral deviations, psychological trauma, some studies has reported changes in behavior during and after deployment

including fatigue and attitude changes. Hence it is important to have a behavioral research to thoroughly investigate canine emotional welfare post disaster deployment to ensure optimum productivity and welfare of these working dogs.

Potential health hazard to K9s in search and rescue operation:-

For SAR dogs locating the origin of human scent would mean a game of finding a ball which is basis of SAR training and a dog chasing a tennis ball for hours would probably walk through feet's of



before launching the dog and immediate screening of dog after search should be done to avoid such dangers.

4. Cracked/ peeling/Burn paw pads: Extreme cold and extreme hot surface can be brutal for dogs paws. In such operations dog booties (Pic. Attached) can protect the paws from snow/ sharp objects or hot burning surfaces.

“An experienced dog handler can tells if a pavement is too hot for your dog to walk on by placing the back of your hand on the pavement for seven seconds”

5. Some case of sharp object injuries, hyperthermia, hypothermia and certain other infections are treated by veterinary doctors for which advance first aid kit carrying sterile suture material, needle,

few vital fluids, IV sets, antipyretics, analgesics ice packs, and evacuation facilities along with an emergency therapeutic table A/C/ room must be catered for in advance.

6. Psychological trauma and

behavioral disorder: Dog and handler are associated vis- a- vis where handler get recovered from PTSD. (Post traumatic stress disorder) due to company of dogs but many a times dogs get psychological disturbance from handlers .


Ref. (Article:- interaction between handler well being and k9 health and behavior in SAR team by Melissa hunt, Cynthia M. Otto, James and respell and Jennifer altars)

A study was made on psychological well-being of human handlers and health and behavior of SAR dogs deployed in New york city and Washington , DC in the after math of the terrorist attacks on sept 11, 2001. 85 human handlers (63 deployed and 28 control) , and 94 dogs (66 deployed and 28 controls) were assessed at multiple time point including , 6 months , 1

years, 2years and 3 years after 9/11 attacks, humans were assessed for psychological health by structural clinical interview and self-reports while dogs were assessed for physical health and behaviour by veterinary records and handler reports. As a result it was found that handlers developed PTSD in large scale, and physical illness and or death in the dog was prospectively associated with symptoms of depression in the handlers. It was also found in study that symptoms of PTSD/ depression in handlers created behavioral problems in dogs over time separation anxiety, attachment, attention seeking, charging and excitability emerged in the dogs seeking, charging and excitability emerged in the dogs at 01 year.

Conclusion

Countries like India are vulnerable to some disaster or other .where canine suffer directly or indirectly during the extended search mission. The K9-holding units and veterinary authorities should conduct risk analysis to identify hazards, assess the the risk and decide on risk management & risk communication. Part of risk management is to develop contingency plan for each type of event identified by the risk assessment.



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RPF K9s TRAILBLAZING TRIUMPH

Ravi Pratap Singh, Sub Inspector and Chhailendra Dixit, Constable, RPF



Abstract

K9 Squads of the Railway Protection Force (RPF), are an integral part of India's railway security, plays a crucial role in crime detection, prevention, search and rescue, and crowd control. With a well-distributed force of 416 specially trained K9s across the country's railway zones, these units are pivotal in safeguarding railway property and ensuring passenger safety. This article provides an in-depth analysis of the squad's operations, training, and achievements.

Introduction

India's railway network, one of the largest in the world, requires advanced and specialized security mechanisms to protect passengers and property. The Railway Protection Force (RPF) employs multiple strategies for ensuring safety, among which the K9 Squad, referred to as **PSK-9**, plays an indispensable role. This unit of highly trained canines assists in various critical functions such as detecting explosives, tracking criminals and handling narcotics. This article delves into the operational structure, training methodologies, and remarkable achievements of the RPF's PSK-9 while highlighting its performance in national competitions.

Overview of K9 Squad Operations

The **K9 Squad** of the RPF is strategically deployed across various zones of Indian Railways. Currently, the squad has a total of **416 K9s**, classified into different functional categories:

Function	Number of K9s	Breed Types
Explosives Detection	262	Labrador Retrievers, Belgian Malinois
Tracking	103	German Shepherds, Dobermans
Narcotics Detection	46	Labrador Retrievers
Wildlife Protection	5	Labrador Retrievers

The table above illustrates the **distribution and specialization** of K9s across different functions. These canines are selected from breeds like **Labrador Retrievers, German Shepherds, Dobermans, and Belgian Malinois** based on their intelligence, agility, and sharp sense of smell, making them ideal for security operations.

Core Functions and Responsibilities

The RPF K9 Squad plays a vital role in securing railway premises

through a broad range of duties:

- 1. Crime Detection and Prevention:** K9 Squads pivotal in identifying suspicious activities, preventing potential crimes, and acting as a deterrent.
- 2. Patrolling and Crowd Control:** During peak times, canine units help maintain order by controlling crowds and providing security at busy stations.
- 3. Crime Scene Investigation:** K9 squads are used to gather evidence at crime scenes, often helping identify suspects through scent trails.
- 4. Detection of Narcotics:** K9 has been deployed in selected Railways' routes and stations to detect smuggling of narcotics.
- 5. Detection of Wild-life smuggling:** K9 has been deployed in selected Railways' routes and stations to detect wildlife smuggling.

Training and Selection Process

The RPF follows a rigorous selection

Training Aspect	Details
K9 Selection	Breeds such as German Shepherds, Labradors, Dobermans, and Belgian Malinois are selected.
Training Regimen	A 28-week program for experienced handlers, and a 32-week program for handlers new to canine work.
Handler Training	Handlers are trained for effective coordination, building trust with their canine partners, and ensuring operational readiness.
Required Handler Qualities	Intelligence, patience, physical endurance, resourcefulness, and security consciousness.

successes. Below are some key cases where the K9 Squad made a significant impact:

Additionally, RPF's K9 have played a pivotal role in wildlife detection, successfully identifying over 50 tortoises. RPF teams across various zones have seized items such as foreign cigarettes, liquor, and ganja,

and training process to ensure the efficiency of its canine units. The table below summarizes the key aspects of this process:

This comprehensive training ensures both the K9 and their

handlers are equipped to handle the demanding tasks required in railway security.

Notable Achievements

The effectiveness of the RPF K9 Squad is reflected in its real-world



Date	Location	Case Details	Outcome
Sep-2024	Bhusawal	On 19.09.2024, the accused of the Detonator incident at Sagphata station was caught and a case was registered against him under CR No. 06/2024 under section 3(a) RP(UP) Act 1966 at RPF Post Khandwa.	Person Arrested
Aug-2024	Barauni	In the case of murder of 04 member of the same family in Rasidpur Village under Bachhwara PS, RPF K9 Squad, Barauni made a significant contribution in recovering the Knife, Bamboo and blood-soaked cloth used in the incident and arresting the main accused involved.	Murder case solved
July-2024	SDAH	32 kilograms of Ganja	8 Lakhs
June-2024	GHY	Detected 48 grms Brown Sugar	5 Lakhs
June-2024	GHY	Detected 95 KG Ganja	9.5 Lakhs
June-2024	Nagpur	Detected 108.65 KG Ganja	16.3 Lakhs
May- 2024	Nagpur	Detected Total 153 KG Ganja	23 Lakhs
Feb-2023	CKP	K9 Simba tracked suspects involved in murder case under supervision of SDPO/CKP (Case No. 33/2023 U/S 376 302/34 IPC).	Murder case solved.
Dec-2022	Bhagalpur	K9 Alex helped track down the culprits in a murder case (Case No. 107/22, U/S 302/201/120(B)/34 IPC).	Successful arrest of 3 individuals.
Dec-2022	Bhagalpur	K9 Alex tracked suspects involved in another murder case (Case No. 493/22, U/S-302/201/120(B)/34 IPC).	Two suspects arrested.
Dec-2022	HWH	Seized 04 Trolley beg Foreign Made Cigarettes	10.2 Lakhs



as their commitment to maintaining the highest standards of excellence. The RPF's silver medal win in this highly competitive category was a testament to the squad's ability to not only track but also to solve complex criminal cases, underlining their significance in the law enforcement ecosystem

This victory was celebrated not only as a testament to the hard work of the RPF K9 Squad but also as recognition of the high level of collaboration between K9s and their handlers. It showcased how seamless communication, mutual trust, and rigorous training can culminate in superior results on the field. The RPF's performance also reflects their dedication to adopting cutting-edge training methodologies that keep their canine teams sharp, responsive, and highly effective in real-world scenarios.

significantly contributing to the reduction of smuggling and illegal trade activities.

RPF K9 During AIPDM-2023

The RPF's own K9 Jhansi demonstrated their proficiency and dedication to service by securing a silver medal in the Tracker category. This impressive



K9 Jhansi, Handler- R. Karthi

achievement highlighted the meticulous training that both the K9s and handlers undergo, as well



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CANINE FORENSIC: A NOVEL & UNIQUE APPROACH OF CRIME INVESTIGATION

Dr.Vichar Nema, 2 IC (Vet), SSB

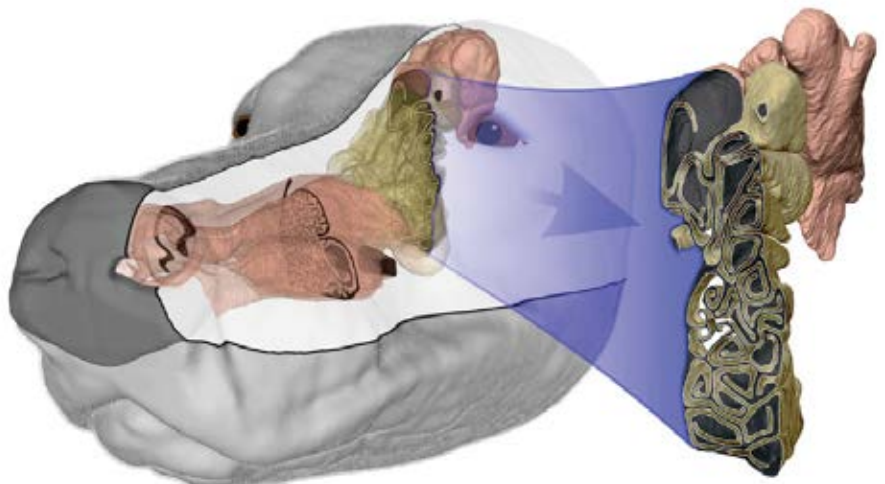
Introduction

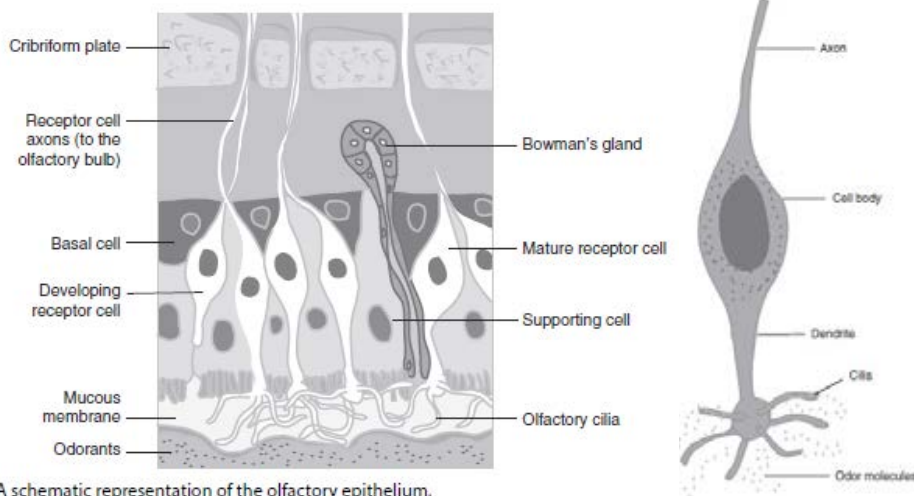
Olfaction and taste are the forms of chemoreception that enable living organism to receive, record and react with the environment. Olfaction- the sense of smell- is the feature of animal kingdom, mediated by specialized sensory cells of nasal cavity. Canines among other macroscopic species possessed acute sense of olfaction and therefore mainly interact with their outer world with the wisdom of sniffing. This extraordinary sniffing capability in canines is evolved as a mandatory survival skill for acquisition of food/prey, communication with nonspecific and identification of foreign territory/danger etc. Canine acute sense of olfaction is explored in various crime investigation to track the suspects and detection of explosives, narcotics, and other substances of interest with training. The dog certainly not the only species to possessed the explicit sense of olfaction, but dogs are more enthusiastic to work with human as team and trained for target odour easily.

Structural & Functional features of canine nose

There are various structural and functional features of the canine nose that make this creature an extraordinary sniffer.

- i. The dog possesses extensive olfactory sensory epithelium, which covers the posterior portion of nasal cavity and also spread to the septum, roof and walls of cavity. Several folds of turbinate bones further augment the surface area of olfactory epithelium which varies from 70-170 cm² depending on dog breeds, compared to 5 cm² of the human olfactory epithelium. Olfactory sensory neurons are the main sensory cells of the olfactory epithelium are responsible for detection of odorant molecules.
- ii. Olfactory nerve is the responsible for carrying the sensory information to the olfactory bulbs of the brain for further processing. Olfactory bulbs; the much larger part of dog's brain. Olfactory nerve, unlike other nervous tissues have a remarkable capacity to repair and regenerate itself on a regular manner.
- iii. Vomeronasal organ/ Accessory olfactory organ: Paired Vomeronasal organ in canines is an additional site for odour detection. It is present in the oral cavity and connected to the nasal cavity and then to the olfactory nerve. This organ is specially involved in the detection of reproductive related pheromones.
- iv. Dogs have the abilities to widen their nostrils and also retain portion of air for long time in nostrils for savouring an odour. Indeed, animal can effectively control the flow and destination of inhaled air to the lungs or olfactory epithelium.
- v. In canines, studies indicate that right hemisphere of the brain responds to novel (Unexpected





A schematic representation of the olfactory epithelium.

odour) whereas left hemisphere processed familiar or nonaversive odours. The preferences for the odour processing are called lateralization of olfaction, it helps to enhance the performance of dog while sniffing by reducing distractions.

- a. Respiratory epithelium; b. Non-respiratory epithelium

Categories of Canine function

Canine's utility in Police and military are broadly categorized into four categories;

- i. Tracking and trailing
- ii. Suspect apprehension and crowd control
- iii. Detection
- iv. Rescue & protection

Tracking/ trailing dogs are the commonly employed in crime investigation; used to track of suspect based on the articles found at crime spot, scent identification and scent line-up are the specific ways to establish relation between man to article and article to man respectively. Suspect apprehension

and crowd control, intensify the territorial instinct in dogs to subdue the perpetrator and deter the crowd. Detection functions of canines are the largest category, in terms of broad range of scents detected and number of dogs function in the domain. Most of the detection functions are relatively recent and developed after 1970. Search and Rescue dogs are trained to find live victims in the incidence of disaster and to protect diplomats.

Canines and Crime Investigation

Trained canines represent one of the most widely used and time proven method of detection and thus considered as the "gold standard" in detection works. Dogs are the well-known nose animals and therefore primarily used as sniffers, they are possessed; the genetic ability to detect odor, ability to follow odor source and lastly easily trained. Considering the above facts the employment of canines in crime investigation and forensics with other advanced forensic techniques has increased significantly. However, the use of

the canines in crime investigation helped significantly but the admissibility of canine evidence in the court of law is highly debatable and thus considered as black-box technology. The branch of the forensic science deals with the canine identification lineups is called Osmology or Odorology. There are few ways through which the effectiveness of canines in the crime investigation especially in scent lineup can be enhanced and also justify the canine evidence for admissibility in the court of law.

Before moving to the precise way of conducting scent trails, lets understand about the common canine errors. There are two broad kinds of canine errors. The first is the false alert (false positive) when the dog alerts but no trained target odor is present. The second is the miss (a false negative indication) when dog doesn't alert to a target odor that is present. The frequencies of these mistakes determine the accuracy or reliability of the dog. Reason of the mistakes may be of;

- a) Inappropriate association of target odor, the trained final response and the reward
- b) Dog may be bored or poorly motivated for reward
- c) Temporary deterioration of sniffing abilities due to some health issues.

The reason of the error is not always related to the dogs it may be related to the handler or prevailing environmental condition. A false alert, may also be due to indication by dog on residual target odor of an illicit substance which may

be present sometime before the search but removed prior to the search. From the dog's perspective, it is correct, but in courtroom it designated as false alert. Therefore, identifying perpetrator on the basis of odor, eliminating false alerts and all forms of error with corroborative investigation is of paramount importance.

There are several factors mentioned as below having impact on the reliability of dogs and deserve further studies.

- i. Altered physiological abilities to identify/ discriminate scent by dogs affected with subclinical sickness, hormonal states and environmental factors.
- ii. Varying motivation of a dog in scent line-up setup e.g. mood variation
- iii. Dog- handler interaction on detection accuracy due to Clever Hans effect.
- iv. Inappropriate reward selection and less motivation for it.
- v. Right dog for a right job, based on the inbuilt drives of dog
- vi. Planning and balance for various searches during training such as control, blind, double blind and operational searches.
- vii. Pre-defined attractiveness and aversion to the scent
- viii. Effect of training methodology

on the performance of sniffer

With consideration of several known and unknown factors the competency and reliability of canines in crime investigation are significantly augmented with the following ways;

- i. Well balanced and environmental soundness: Successful service canine programme, founded on the excellent physical and mental conditioning. A well-conditioned dog, is a paramount requirement for long-term success of a detection dog program. Sniffing is a strenuous task, requires superior health, excellent cardio-vascular conditioning and overall physical fitness. Therefore, proper physiological conditioning is necessary for reliable detection works.
- ii. Generalization on rewards: Reliable sniffers naturally demand reward or reinforcer for olfaction works. The reward should be of preference of the dog and not as per the choice of the trainer. Dog's preference for the rewards is dynamic and mainly depends on the sex, age, breed and drives of the dog.
- iii. Human Involvement and Boredom in Training: General lack of interest of dog in

training described as Boredom; which is an adverse state and also signifies as stress for the animal. There are several factors responsible for boredom, however over-involvement of human interaction in the form of lengthy sessions is the main cause

Conclusion

The ultimate objective of Canine training is not only conditioned the dog with target odor but also develop strong association with target odor, response and reinforcement by reward. The scent lineup is a useful and simple method of identification when direct sniffing of material/individual is not possible. It is established that, trained canines are statistically better detect human on the basis of scent sample and act as important element in crime investigation. However, the identification solely based on canine trials are not absolutely correct and chances of error could not be denied. Therefore, the admissibility in the court of law is not appropriately justified, where 100% certainty is sought. Precise use of canine squad in crime investigation supports the investigation with lots of cues/ evidences which must be verify with other forensic ways and means.



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AGILITY TRAINING OF SERVICE K9s: A DIFFERENT PERSPECTIVE



- Mahendra M Hegde, 2IC (GD), CRPF

the spectators. K9s are made to climb tall and steep ladder, balance and walk on long hanging ropes etc only for demonstration purposes. All such so called agility works are unnecessary for a service K9 and several times ends with grievous injuries to the K9. Putting a K9 into Agility Training without understanding the true principles behind it will only result in poor performance of the K9 in its trade work also. Hence it is very imperative that trainers and handlers should have a deeper and complete understanding of concept behind the agility training.

A Crucial Part of Training

Any puppy or dog has to undergo regular agility exercises during the basic training. Even after getting certified and after being deployed the K9s need to continue to undergo agility training at regular interval. To keep the K9 fit for deployment along with continuous trade related training, tactical obedience etc the agility training continuous to play a very crucial role. With a planned and phased manner agility training ushers in many positive results and benefits.

Benefits of Agility Training for Service K9s

1. Obedience training

By and large in all the K9 Training Centers of India obedience training of K9s is given more thrust. K9s are

Basic training of K9s involves different types of exercises. Apart from respective trade related training it is normal that the K9s are also put in different types of “Agility Training” in almost all the Service K9 Training institutions. Some hurdles and rings for jumping, planks for balancing, see-saw, tires and some other agility equipment are commonly seen in any K9 Training centers. Well, it is generally seen that the full potential benefit of the agility training is not realized because of lack of awareness, reluctance to change and rigidness to imbibe the best practices in K9

Training elsewhere.

Misconceptions

The true purpose of “Agility Course” in Service K9 Training is much more than what is commonly assumed. Generally K9 trainers presume that the agility training is only for exercising the dog and for some demonstration purposes. This not only deteriorates the quality of the K9 training but also leads to physical abuse, punishment, and consequently injury to the K9 under training. Several times K9s are made to jump some hurdles which are too high only to entertain

put into three months of exclusive Obedience training before they are put into respective trade related training. So, during this exclusive obedience training of the K9 all-out efforts are made to make the dog obedient and submissive. However in this process of making the dog more obedient its natural drives are oppressed. Thus the natural behaviour of the dog is affected. Contrary to it putting the dog into the agility training inborn natural drives come out into action! Dog's natural behaviour is not adversely affected. And when the handlers slowly start to guide the puppy or dog with relevant commands, the puppy learns various commands. Without coaxing or physical punishment the puppy starts to learn various commands very happily and quickly while undergoing the agility training. And it is done since the very early age of the puppy. No doubt, the best fringe benefit of agility training is obedience training.

2. Physical exercise

Making a puppy or dog undergo agility training regularly means it has to run, climb and jump while negotiating various obstacles. The K9 will put its maximum effort to finish the agility course wanting to get the reward. That will keep constantly increasing its stamina

and strength. Thus in a limited space and time K9s can be put into maximum exercise.

3. Mental stimulation:

Dog's cognitive health gets greatly benefited by agility exercise. Agility course makes the dog to learn to negotiate different kinds of obstacles. Introducing the puppy to agility training in a very early age molds the puppy's aptitude and readies it for further trade related training. The problem-solving aspect learnt in agility training helps to stimulate the brain and improves the dog's ability to think quickly in different and difficult situations. As the dog learns to navigate an agility course, it also helps in improving its memory and recalling abilities. As the agility courses involve navigating through various structures and obstacles, that helps dog develop better spatial awareness. Dog needs to learn how to position itself to successfully complete each obstacle. At the same time the training enables the dog to learn to adjust to the changing situations, thus making it flexible.

4. Harnessing the natural capabilities:

As the dogs evolved from wolf they still possess almost all the natural survival capabilities and instincts those possessed by their

ancestors. Those capabilities need to be brought out to make a perfect Working or Service K9. Naturally dogs have innate capabilities like climbing, swimming, jumping over various kinds of obstacles, negotiating through unstable and hanging planks, moving through narrow and dark tunnels, balancing on narrow bridge etc. Making a young dog to negotiate all such obstacles will expose its natural abilities and learn them by doing again and again.

5. Unleashing the natural drives:

By birth the puppies have some drives which shape their behaviour and psychology. There are many ways to uncork these genetically present drives in a puppy or a dog. One of the most effective ways is Agility Training. In the agility training, combined with the Positive Reinforcement method, play drive and prey drive are very well exposed and unleashed in controlled manner. That makes the puppy to perform every time better. Satisfying the natural drives along with the energy will keep the puppy or dog happy and in good mental and physical health.

6. Socialization:

Proper socialization in the early age of the puppy/dog is the most



crucial one. The puppy need to be introduced for various kind of surfaces, scenarios, people, sounds, gun shots, water bodies, vehicles etc. When a puppy is introduced to agility courses in the early age itself, the puppy gets familiarized with various kind of obstacles. The fear of height, water, unstable objects, tunnels, narrow path, fire etc is avoided/overcome during the training. When the K9 is trained along with other K9s and handlers it gets very well socialized and learns to work even under stress and chaos.

7. Foundation for Trade related training:

Before putting the puppy into respective trade related training it needs to be introduced to agility training. That facilitates learning negotiate obstacles, proper socialization and learning to understand and follow the commands of the handlers. The agility training is the foundation or the best platform for 'positive reinforcement' or 'reward based' training. The agility training also



ensures a strong bonding between the K9 and its handlers. All these factors affect greatly later when the K9 is put into trade related training.

8. Stronger Bonding between handlers and K9:

Early marrying up between handlers and puppy is very crucial in making a cohesive K9 Team and it gaining the required standard. This bonding has to take place in a very early age of the puppy. During the agility training the handlers and the puppy both work as a team. The puppy learns the commands and understands various body languages and tones of the handlers. On the other side the handlers also start to learn various behaviour aspects of their puppy and accordingly they will handle the puppy. They both start to understand and trust each other. Thus agility training facilitates building of bond and trust between the K9 and the handlers.

9. Handler as Alpha:

The K9 Handler is always in the charge. He commands the K9. Though the K9 moves ahead in operations or during any other duty, the movement is decided by the handler. The K9 should not take the lead, that means it should not behave its own. During the agility training the handlers command the puppy/dog to perform various tasks step by step. They command the



dog to move, jump, stop, sit, return, climb, swim, crawl and many other things. Repeatedly putting the dog into such tasks during the agility training results in establishing the handlers in the Alpha position. The K9 learns to accept the fact that it is the follower. With consistent practice of agility training that thing gets imprinted in the dog's mind. Because of this there will be no conflict and no behavioral issues like uncontrolled aggression in the dog.

10. Behaviour Training:

Behaviour training is never a direct or tangible action. It is the fringe benefit gained through right way of rearing, training and handling. The quality time spent by the handlers with the puppy/dog will shape the behaviour of the dog in the right direction. The time spent in agility exercises helps the K9 Team to understand each other better, establish and improve communication, cement mutual trust and affection and understand mutual limitations. All these factors significantly help in shaping a very conducive behaviour of the K9.

11. Behaviour Modification:

Most of the behaviour problems

in Service K9s are due to wrong handling, physical punishment, lack of early socialization and not conducting the puppy foundation training, not following the Operant Conditioning method in the training and lack of regular and proper exercise for the dogs. Behaviour problems arising from the above mentioned causes can be effectively addressed by introducing the K9 into agility training combined with employing the 'Positive Reinforcement' method. With the reward based training the K9s which are fearful, submissive and shy can be turned into confident dogs by consistent agility training. Undesirable behaviors caused due to lack of regular exercises are effectively lessened through agility training. Unwanted aggression among the Service K9s is also curtailed by agility training.

12. Increasing the speed and focus:

Ability to focus on the given task is learnt and improved to a great extent while undergoing the agility course training. The dog also learns to focus on the handler and his commands. Though the puppy/dog is in a hurry to get the reward at the end of the agility course it cannot miss any obstacles/equipment and cannot lose the focus all the way. Gradually the speed, while doing



the agility, increases along with the focus.

13. Positive Reinforcement:

Whereas the exclusive obedience training may push the dog into over submissiveness, shyness, fear of the handler and suppressing the natural behaviour, the agility training can be the foundation of "Positive Reinforcement" based training. When the desired behaviour of the K9 is timely and suitably rewarded the K9 starts to work more willingly. Over the time the positive reinforcement-based agility training makes the dog to become ever eager to work and learn new things. There is no other better way to teach a dog numerous commands like working with an agility course.

14. Foundation of confidence building:

Everything has to start from small things. A puppy earmarked for the training should be introduced to

the agility training during the Puppy Foundation Training (PFT) only-between 45 to 90 days of age. To begin with very simple and easy to do obstacles/agility equipment need to be used. The difficulty of agility course, obstacles have to be gradually increased. That develops unshakable confidence in the puppy.

15. A Prerequisite for Special Task K9 Training:

When a Police/Military K9 is earmarked for training in special tasks like Room/Building/Vehicle Intervention the K9 needs to be very well experienced in basic and advanced agility course and should be capable of clearing all possible obstacles. The K9 Team must be adept in slithering, rappelling, heli-slithering, water crossing, ladder climbing and many more commando skills. That requires a K9 with "Nerves of Steel"! Consistent and well planned agility training-basic to advance- is the prerequisite for such K9 Teams which are chosen for Special Tasks.

Operant Conditioning Method:

Traditionally, in India, K9s were trained using compulsive training method. The Compulsive method of training always puts both the handlers and the K9 under undue



stress. Such 'negative' stress causes unnecessary submissiveness, fear, shyness etc in the dog. That would greatly impact the quality of the dog's ability to perform. Whereas employing the 'Operant Conditioning' method/'Positive Reinforcement' Method since the beginning of the Puppy Foundation Training (PFT) will bring most out of the K9 and it will perform to the optimum. Most importantly that will be a "Happy Dog". And there is no better medium than Agility Training to apply this method of training methodology.

How to start?

As mentioned earlier Puppy Foundation Training (PFT) is the most crucial part of K9 training. Apart from many other exercises entry level Agility Training is the main component of Puppy Foundation Training. Initially the puppies are moved on different surfaces, are made to climb up and climb down on different



terrains. They are also moved through tunnels, shallow water, hanging planks, narrow planks etc. Utmost precautions are taken that even slightest injury or pain is not caused to the puppy. The puppies are always kept engaged or their attention is diverted so that they don't get afraid of height, sound, fire, smoke, crowd etc. Slowly difficulty level is increased. Also the duration is also increased. The most important factor need to be kept in mind during this sensitive and formative stage is that 'Slow and Steady' is the mantra.

Different Stages:

Broadly we can divide K9 Agility Training into four broad stages.

1. Puppy Stage:

As discussed in the previous paragraphs, introducing and exercising the puppies in "miniature" agility course is very critical. Here they are introduced not only to basic commands and get bonded with the handlers,

they are also made familiarized with the agility training set up and equipment. Socialization at the agility training course negates the future possibilities of dog getting afraid of height, walking on hanging planks etc. This phase is followed during the Puppy Foundation Training (PFT).

2. Outdoor Agility:

Once the Puppy finishes the PFT stage and enters the Basic Training phase the Outdoor Agility Training is introduced. Here the difficulty level is increased by raising the height, length and increasing the number of the obstacles. While starting with this the handler should also accompany the dog wherever possible. That fosters the confidence in the puppy.

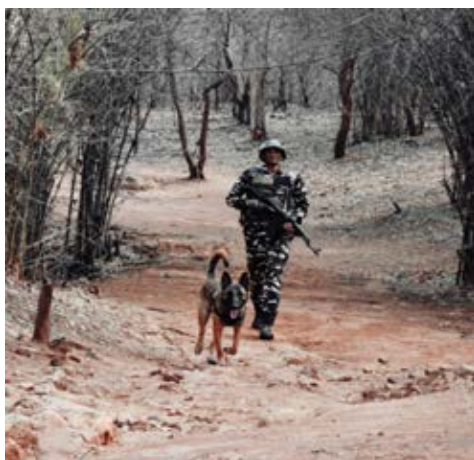
3. Indoor Agility :

This kind of agility is of a special





that of the Outdoor Agility course. The training here makes the dog more confident, matured, obedient and focused. The trust between the handlers and the K9 increases significantly. Most importantly the K9 becomes a ‘thinking dog’!



4. Special Task:

When the K9 is qualified in the Indoor Agility Training and the trade related skills, few selected K9 teams are further trained in Special Tasks like Room/Building/Vehicle Intervention, Water Assault, Rappelling, Slithering etc. The K9 needs to become adept in various skills involved in special tasks. This is especially more true for a K9 trained in Multitasking.

Training of Handlers and Trainers

Unless the handlers and the trainers are very skilled and aware of nuisance of Agility Training, they should not be entrusted with responsibility of K9 Agility training. The handlers should be made realize that they have to be extra careful in handling and

commanding the puppy/K9 during the agility training. Extra care need to be taken not to pressurize the puppy to negotiate, cross or jump an obstacle, hurdle etc. The trainers need to be experts in and strong believers of Operant Conditioning Methodology of animal training. There should never be a minutest deviation from this. Both the handlers and the trainers should ensure that puppy or dog never gets frightened or nervous of undergoing the agility training. A “happy dog” speaks about the aptitude or capabilities of its handlers and trainer.

Conclusion

Agility training or course is an indispensable part of K9 Training facility. With proper planning, methodology, execution and following sufficient precautionary measures, we can bring out best out of a K9. The scale of difficulty level may be decided depending upon the age, breed, trade, individual K9’s behaviour and on requirement basis. Moreover we need to realize that agility training is more than just exercising the dog or for demonstration purposes. It will not be a metaphor to say that agility is not merely training; it is a “philosophy”!

Photographs by the author.



Mahendra Mahabaleshwar Hegde, 2IC (GD), is a post graduate in Journalism and Mass Communication. Now he is serving with Rapid Action Force of CRPF. He had a major role to play in the excellent standards of CRPF K9 training during his stint at the CRPF K9 School.

EFFECTIVE UTILIZATION OF DOGS IN LANDSLIDE OPERATIONS

Santosh Bahadur Singh Commandant, CRPF

Abstract

Landslides are natural disasters that cause significant loss of life and property. Search and rescue (SAR) operations in landslide-affected areas are challenging due to the unstable terrain and the urgency of locating survivors. Dogs, known for their acute sense of smell and agility, have been effectively utilized in SAR operations. This paper explores the effective utilization of dogs in landslide operations, examining their roles, training, deployment strategies, and the challenges faced during such missions.

1. Introduction

Landslides are geological phenomena that pose a serious risk to human life and infrastructure. The swift and effective response in the aftermath of a landslide can mean the difference between life and death. SAR dogs play a critical role in these operations, thanks to their ability to detect human scent buried under debris. This paper aims to provide a comprehensive overview of the effective use of dogs in landslide operations.

2. Role of Dogs in Landslide Operations- Scent Detection

Dogs are trained to detect the scent of humans buried under

soil, rocks, and other debris. Their olfactory capabilities allow them to identify the location of survivors more quickly than human rescuers or machines.

- a. **Agility and Speed:** Dogs can navigate through the unstable and treacherous terrain of landslides more effectively than humans, enabling them to cover large areas rapidly.
- b. **Psychological Impact:** The presence of dogs can provide emotional support and boost the morale of both survivors and rescuers.

3. Training of SAR Dogs for Landslide Operations

Basic Training: Dogs selected for SAR missions undergo rigorous training in basic obedience, socialization, and agility.

- a) **Specialized Training:** For landslide operations, dogs are trained in:
 - i. **Scent Discrimination:** To distinguish between live and deceased individuals.
 - ii. **Agility in Uneven Terrain:** Navigating steep, slippery, and unstable surfaces.
 - iii. **Barking to Signal Discovery:** Dogs are trained to bark and signal their handler upon detecting human scent.

- iv. **Conditioning for Harsh Environments:** Dogs are exposed to various weather conditions and scenarios to prepare them for the challenges they may face in a landslide operation.

4. Deployment Strategies Pré-Deployment Assessment

An assessment of the landslide area is conducted to determine the suitability of deploying SAR dogs. Factors such as terrain stability, weather conditions, and the presence of toxic substances are considered.

- a) **Deployment in Teams:** SAR dogs are deployed in teams with their handlers. The handler-dog teams are often supported by human SAR teams who manage logistics and safety.
- b) **Operational Zones:** The landslide area is divided into operational zones, and each team is assigned a specific zone to cover. This ensures a systematic and thorough search of the entire affected area.
- c) **Communication and Coordination:** Effective communication between dog handlers, SAR teams, and incident command is crucial for the successful deployment of SAR dogs.

5. Challenges in Landslide Operations-Environmental Hazards

Landslide sites often pose multiple hazards, including unstable terrain, aftershocks, and weather-related risks, which can endanger both the dogs and their handlers.

- a. Limited Time: The survival window for victims trapped under landslides is narrow, necessitating quick and efficient deployment of SAR dogs.
- b. False Positives/Negatives: The complex environmental and slide can sometimes leads to false positives or negatives in scent detection, which can hinder rescue efforts.
- c. Fatigue and Stress: Prolonged operations in harsh conditions can lead to fatigue and stress in dogs, affecting their performance.

6. Case Studies

Example 1: Nepal Earthquake (2015): SAR dogs were instrumental in locating survivors trapped under the debris following the massive landslides triggered by the earthquake.

Example2: Sri Lanka Badulla (2014): Sniffer dogs were used in the search for bodies buried under

tons of mud following a land slide in central Sri Lanka district of Badulla on 29 October 2014

Example 3: Japanese Tsunami (2011): Following the tsunami, SAR dogs helped in locating survivors in areas affected by landslides. These case studies highlight the effectiveness of SAR dogs in landslide operations and demonstrate best practices in their deployment.

7. Best Practices for Effective Utilization- Regular Training and Drills: Continuous training and simulated drills in landslide-like conditions are essential for maintaining there avidness of SAR dogs.

- a) Handler Training: Handlers must be trained not only to work with dogs but also to understand the dynamics of landslide operations and how to ensure the safety of their canine partners.
- b) Use of Technology: Integration of SAR dogs with modern technology, such as drones, GPS, & GPR can enhance the efficiency of search operations.
- c) Post-Operation Care: After missions, dogs should receive medical care and restore cover from the physical and

psychological stresses of the operation.

8. Conclusion

SAR dogs are invaluable assets in landslide operations. Their ability to detect human scent, coupled with their agility and training, makes them effective in locating survivors in challenging environments. However, their deployment requires careful planning, coordination, and ongoing training. By adhering to best practices, SAR teams can maximize the effectiveness of dogs in landslide operations, ultimately saving more lives.

9. Recommendations

- a. Investment in SAR Dog Programs: Governments and rescue organizations should invest in SAR dog programs, focusing on training, equipment, and handler education.
- b. Research and Development: Further research into improving SAR dog training techniques and integrating them with technology can enhance the effectiveness of landslide rescue operations.
- c. International Collaboration: Sharing of knowledge, experiences, and best practices across countries can improve global SAR capabilities.



Shri Santosh Bahadur Singh, Commandant Joined CRPF on 09/01/1999 as Assistant Commandant (DAGO). After completion of basic training served in various hard and terrorist/LWE prone areas all over the country i.e. Assam, Tripura, Chhattisgarh, Odisha, J & K and Maharashtra.

UNLEASHING THE POWER OF DETECTOR DOGS: ENHANCING CUSTOMS SECURITY AND EFFICIENCY

Role of Detector Dogs in Customs Operations

Shri Mahesh Jandera Assistant Commissioner, (Customs and Indirect Taxes)

Detector Dogs, often referred to as “man’s best friend” in customs operations, play a pivotal role in safeguarding borders, intercepting contraband, and ensuring compliance with customs regulations. With their exceptional olfactory senses and unwavering dedication, these four-legged officers contribute significantly to enhancing security and efficiency at border crossings worldwide.

The utilization of detector dogs in customs operations is rooted in their remarkable ability to detect a wide range of illicit goods, including narcotics, explosives, currency, and wildlife products. Their keen sense of smell enables them to detect even trace amounts of concealed substances, making them invaluable assets in the fight against smuggling and illicit trade.

One of the key advantages of deploying detector dogs is their non-intrusive nature, which allows for swift and targeted inspections without causing significant disruptions to legitimate trade

flows. By quickly and accurately identifying suspicious items, detector dogs enable customs officers to focus their resources on high-risk shipments, thereby improving the effectiveness of customs control measures.

Furthermore, the presence of detector dogs serves as a powerful deterrent to would-be smugglers, deterring illicit activities and reducing the incidence of customs violations. Their mere presence at border crossings sends a strong message that customs authorities are vigilant and capable of detecting illicit goods, thereby enhancing the overall security posture of customs administrations.

In addition to their role in enforcement activities, detector dogs also contribute to enhancing customs efficiency by expediting the clearance process for compliant travellers and shipments. Their ability to rapidly scan cargo, luggage, and vehicles enables customs officers to identify legitimate passengers and goods

quickly, facilitating smoother and more efficient border crossings.

To maximize the effectiveness of detector dog programs, customs administrations invest in comprehensive training programs for both handlers and dogs, ensuring that they are equipped with the necessary skills and capabilities to perform their duties effectively. Ongoing training and certification processes are essential to maintaining the proficiency and reliability of detector dog teams over time.

In conclusion, detector dogs are indispensable assets in modern customs operations, playing a vital role in enhancing security, combating illicit trade, and facilitating legitimate trade flows. By leveraging their unparalleled olfactory abilities and unwavering dedication, customs administrations can strengthen border controls, safeguard communities, and uphold the integrity of the global supply chain.



Shri Mahesh Jandera, Assistant Commissioner (Customs and Indirect Taxes) is posted at the Directorate of Logistics, Central Board of Indirect Taxes & Customs, New Delhi. He is in charge of the Canine (K9) Division of the Directorate, where he is responsible for overseeing all matters related to the K9 establishment of Indian Customs which includes the management, training and deployment of K9 units, ensuring the effective use of canine resources in customs operations.

OPERATIONS & CASE STUDIES

-Real World Case Studies

DEPARTMENT TELANGANA, HYDERABAD



1. K9 Kaala, LAB, Tracker, 7 years and Dog Handler Sri A. Saraiah & HC 2783

Operational Achievement- Cr. No. 10/2024, U/s 302 IPC of PS Damera, Warangal Commissionerate, Telangana.

On 30.01.2024 at 0800 hrs, received call from the PS Damera, Warangal Commissionerate at 0810 hrs, handler along with Canine reached the crime scene by 0910 hrs, The Police Dog after taking scent, searched around and lead to an area which is 800 meter from the scene of offence and pointed a particular house and the owner of house Makela Raju S/o Saraiah who has committed the offence.

2. Daina, Belgian Malinois, Tracker & 7 years and Dog Handler Sri S. Thirumalesh, ARPC-1119



Operational Achievement- Cr. No. 23/2024, U/s 302 r/w 34 IPC of PS Gaduguda, Adilabad District, Telangana

On 12.06.2024 Handler along with the Canine reached the scene of offence at 0730 hrs and given the scent of "Tool" available at the

scene of offence to the Canine. The Canine after smelling the scent, pointed out and went near to the deceased wife at about 50" feet distance. Then the canine proceeded to the main road and also traced the motorcycle of the deceased.

कैनाइन हीरो: दिल्ली पुलिस के श्वान दस्ते ने बच्चों की सुरक्षा सुनिश्चित की।

सतीश कुमार, पुलिस उपायुक्त, क्राईम-4, दिल्ली पुलिस

राजधानी दिल्ली में दिनांक 01 मई 2024 को ई-मेल के माध्यम से उच्च अधिकारियों को सूचना मिली कि दिल्ली के कई नामित स्कूलों में बम है। उच्च अधिकारियों से ड्यूटी के आदेश मिलते ही दिल्ली पुलिस का श्वान दस्ता अलग-अलग जिलों से बी0डी0टी0 की टीमों के साथ अलग-अलग नामित स्कूलों की चेकिंग करने अपने-अपने क्षेत्र में स्थित स्कूलों में बिना समय गवाएँ तुरंत रवाना हुआ।

स्कूलों में पहुँचते ही श्वान परिचालको ने देखा कि सभी स्कूलों में बच्चे, अध्यापक व अन्य लोग बुरी तरह से भयभीत थे, जैसे ही सभी लोगो ने श्वान दस्ते को देखा तो उन सभी की आँखों में चमक आ गई। सभी लोग अब स्वयं को पहले से अधिक सुरक्षित महसूस करने लगे। इस बम कॉल का स्कूल के बच्चों की शिक्षा पर कोई प्रभाव न पड़े और इसका खौफ बच्चों में ना रहे, जिसके लिए स्कूलों को शीघ्रता से चेक करके "Sniff terror

with zero error का संकेत दिया और अपने उच्च अधिकारियों को बम की अफवाह होने की सूचना दी गई।

दिल्ली भारत की राजधानी होने व स्कूलों में बच्चों की जान का खतरा होने की वजह से इस कॉल को बहुत ही संवेदनशीलता व गंभीरता से लेकर चेकिंग की कार्यवाही तुरंत की गई। सभी स्कूलों का पार्किंग क्षेत्र, लॉन क्षेत्र, स्कूल की बिल्डिंग को अन्दर से जिसमें क्लास रूम, वाशरूम, स्टॉफ रूम, लेबोरेटरी, प्ले ग्राउंड, कम्प्यूटर रूम व सीढ़ियाँ शामिल हैं, एक स्कूल को श्वान दस्ते द्वारा अच्छी तरह से चेक करने में लगभग 90 मिनट से लेकर 120 मिनट तक का समय लगा। के9 यूनिट मौर्या एन्कलेव में तैनात प्रधान सिपाही, दीपक सिंह नं0 907/काइम ने अपने श्वान डिंपल के साथ पी0एम0 श्री केन्द्रीय विधालय, सेक्टर-3, रोहिणी, सेंट एंजिल्स स्कूल, रोहिणी, डी0पी0एस0 स्कूल, सेक्टर-24, रोहिणी, हेरिटेज स्कूल, सेक्टर-23,

माउंट आबू स्कूल, सेक्टर-5, युवा शक्ति स्कूल, सेक्टर-3 और वी0एस0पी0के0 इंटरनेशनल स्कूल, सेक्टर-13, रोहिणी आदि सभी स्कूलों को अपनी कार्यक्षमता, दक्षता और अपने अनुभव का उत्कृष्ट परिचय देते हुए अच्छी तरह से चेक करके ऑल क्लेयर के मैसेज अपने उच्च अधिकारियों को दिया गया और अपनी जान की परवाह न करते हुए सुबह लगभग 8:30 से शाम 7:30 तक अपने श्वान के साथ अपने कर्तव्य का पालन कर कर्तव्य निष्ठा की मिसाल पेश की गई।

इसी प्रकार द्वारका जिले में तैनात प्रधान सिपाही वेद प्रकाश नं0 2184/वेस्ट ने अपने श्वान मारू के साथ अपने जिलों में स्थित विभिन्न स्कूलों अभिनव बिन्दरा ग्लोबल स्कूल, सेक्टर-10, द्वारका, डी0पी0एस0 स्कूल, सेक्टर-3, द्वारका, शिक्षा भारती ग्लोबल स्कूल, सेक्टर-8, द्वारका, लोरेटो कान्वेंट स्कूल, झरेड़ा, रिच हर्शद पब्लिक स्कूल, द्वारका, बाल इंटरनेशनल स्कूल, सेक्टर-12, द्वारका आदि सभी स्कूलों को अपनी कार्यक्षमता, दक्षता और अपने अनुभव का अच्छे से प्रयोग करके सभी स्कूलों को भली-भाँति से चेक किये जाने के बाद ऑल क्लेयर के मैसेज अपने उच्च अधिकारियों को दिए एवं अपनी जान की परवाह न करते हुए सुबह लगभग 8:30 से शाम 9:30 तक अपने श्वान के साथ





अपने कर्तव्य का पालन कड़ी मेहनत व लगन से पूर्ण कर अपने कार्यक्षमता की मिसाल पेश की।

इसी प्रकार दिल्ली पुलिस श्वान दस्ते के अन्य श्वान परिचालकों ने उस दिन अपने-अपने जिलों में स्थित स्कूलों में अपने श्वान के साथ अपनी कार्यक्षमता, दक्षता, समझदारी, साहस और अनुभव का एक उत्कृष्ट परिचय देते हुए अपनी ड्यूटी का निर्वाहन पूरी लगन और ईमानदारी से की गई, जो कि एक सराहनीय कार्य है। जिसके नाम हैं सहायक उप निरीक्षक, राज कुमार, नं0-720/क्राइम अपने श्वान वाणी, प्रधान सिपाही ठाकुर लाल, नं0-2340/साउथ वेस्ट अपने श्वान वेक्सन, प्रधान सिपाही अनिल कुमार नं0 899/क्राइम अपने श्वान कीमोन, प्रधान सिपाही, अजय गुप्ता, नं0 786/

पूर्वी अपने श्वान कैली, सहायक उप निरीक्षक, रुदरेश कुमार, नं0 109/क्राइम अपने श्वान हंटर, सिपाही, राजेश कुमार, नं0 3452/साउथ ईस्ट अपने श्वान पोवन, प्रधान सिपाही, रजनीश, नं0 1702/नई दिल्ली अपने श्वान कांगो, सिपाही, अंकित मावी, नं0 3936/साउथ ईस्ट अपने श्वान लोफर, प्रधान सिपाही, दलबीर सिंह नं01381/क्राइम अपने श्वान डिम्पल, सिपाही पंकज कुमार नं0 841/क्राइम अपने श्वान मैक्स एवं सिपाही विशाल सालार नं0 3933/साउथ ईस्ट अपने श्वान एरो के साथ स्कूलों को जिसके नाम बाल भर्ती स्कूल, पूसा रोड़, मानव स्थली स्कूल, राजेन्द्र नगर, सिंग डेज स्कूल, पूसा रोड़, डी0ए0वी0 स्कूल, शालीमार बाग, संस्कृति पब्लिक स्कूल, नई दिल्ली, मदर मैरी स्कूल, मयूर विहार, केन्द्रीय विधालय, राष्ट्रपति भवन, डी0ए0वी0 विकासपुरी, ममता पब्लिक स्कूल, विकासपुरी और अमेटी स्कूल, साकेत आदि सभी स्कूलों को अपनी कार्यक्षमता, दक्षता और अपने अनुभव का अच्छे से प्रयोग करते हुए सभी स्कूलों को भली-भाँति से चैक करके ऑल क्लेयर के मैसेज अपने उच्च अधिकारियों को दिए और अपनी जान की परवाह किए बिना करते हुए सुबह लगभग 8:30 से शाम 9:30 तक अपने श्वान के साथ अपने कर्तव्य का पालन कड़ी मेहनत व लगन से पूर्ण

कर अपने कार्यक्षमता की मिसाल पेश की गई।

दिल्ली भारत की राजधानी होने की वजह से वैसे भी सभी असामाजिक तत्वों के लक्ष्य पर रहती हैं और जहाँ बच्चों से संबंधित मामला जुड़ा हो तो पुलिस अत्यधिक सक्रिय हो जाती हैं उसी प्रकार दिल्ली पुलिस का श्वान दस्ता भी अपने कर्तव्य पालन के लिए हमेशा तैयार रहता है और संगठन में कंधे से कंधा मिलाकर अपने कर्तव्यों का अच्छी तरह से पालन करता है। दिल्ली पुलिस श्वान दस्ते की देख-रेख श्री सतीश कुमार, पुलिस उपायुक्त क्राइम के नियंत्रण में हैं, जो कि श्वान और श्वान परिचारक से संबंधित सभी समस्याओं का निवारण बहुत ही कुशलतापूर्वक करते हुए सभी श्वान परिचारकों को मार्ग निर्देशन करते हैं। मुझे बड़ा ही गर्व होता है कि मैं प्रधान सिपाही विशाल सिंह नं0 987/क्राइम स्वयं एक श्वान परिचारक हूँ और दिल्ली पुलिस के श्वान दस्ते का एक अहम हिस्सा होते हुए एक जिम्मेदारी के पद पर हूँ। साथ ही मुझे अपने श्वान परिचारक साथियों पर गर्व है कि उन सभी ने इस संकट की घड़ी में अपने श्वानों की मदद से अपने जिलों में अपनी कार्य दक्षता से कर्तव्यों का अच्छी तरह पालन करते हुए सराहनीय कार्य किया।

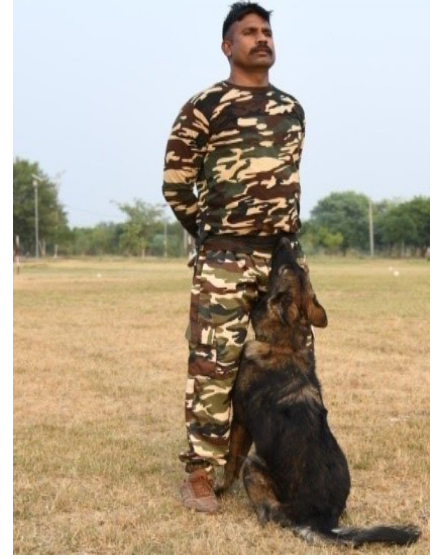


सतीश कुमार, पुलिस उपायुक्त, काईम-4, दिल्ली पुलिस श्वान दस्ता में दिनांक 18.11.2022 से कार्यरत है।

सशस्त्र सीमा बल-प्रशिक्षु के अनुभव एवं विचार

1 आरक्षी/सामान्य श्रीधर एस.एम.

मैं, श्वान "यूजी" जोकि Working line जर्मन शेफर्ड का मादा श्वान है, के साथ आरक्षी/सामान्य श्रीधर एस.एम. वर्तमान में श्वान प्रशिक्षण एवं प्रजनन केन्द्र डेरा में खोजी श्वान का प्रशिक्षण प्राप्त कर रहा हूँ। पूर्व में भी मैंने जर्मन शेफर्ड श्वान के साथ खोजी श्वान का प्रशिक्षण पूर्ण किया है तथा श्वान "यूजी" अत्यंत समझदार चंचल एवं ऊर्जावान है साथ ही श्वान "यूजी" का मेरे साथ जुड़ाव अत्यंत प्रगाढ है। यह श्वान Show line जर्मन शेफर्ड की तुलना में ज्यादा समझदार, फुर्तीला एवं प्रशिक्षण को अन्य श्वानों की तुलना में शीघ्रता से सीखते हैं एवं मेरा यह मानना है कि working line जर्मन शेफर्ड Show line जर्मन शेफर्ड जोकि अधिकांशतः मौजूद है, की तुलना में एक बेहतर विकल्प है।



2 आरक्षी/सामान्य (महिला) Ningomban Banma Chanu

मैं, आरक्षी/सामान्य (महिला) Ningomban Banma Chanu 39वीं वाहिनी सशस्त्र सीमा बल में पदस्थ हूँ एवं वर्तमान समय में मैं श्वान Seasar जोकि Working line जर्मन शेफर्ड नस्ल के नर श्वान के साथ मादक पदार्थ खोजी श्वान प्रशिक्षण प्राप्त कर रही हूँ। मैंने श्वान Seasar के साथ सामाजीकरण एवं प्रारंभिक परिचय का प्रशिक्षण भी प्राप्त किया हुआ है, जोकि श्वान की 10 सप्ताह की आयु में प्रारंभ होता है। मेरा मानना यह है कि, श्वान के साथ प्रारंभिक Socialization श्वान के व्यवहार, प्रकृति एवं प्रशिक्षण कुशलता को पहचानने एवं तदनुसार श्वान के साथ जुड़ाव स्थापित करने हेतु अत्यंत आवश्यक है। इस प्रशिक्षण से श्वान एवं परिचारक के बीच में आपसी जुड़ाव स्पष्ट एवं प्रकट होता है तथा श्वान को किसी भी प्रकार का प्रशिक्षण आसानी से दिया जा सकता है।



3 आरक्षी/सामान्य ललित पाडें

श्वान Whisky बेल्जियम शेफर्ड के साथ मैं, आरक्षी/सामान्य ललित पाडें, जोकि वर्तमान में श्वान Whisky के साथ जो कि बेल्जियम शेफर्ड नस्ल का Duron रंग नर श्वान है। जोकि भविष्य में श्वान प्रजनन हेतु उपयोग में लिया जाएगा। मुझे अत्यंत प्रसन्नता है कि मुझे श्वान Whisky जो कि एक बेल्जियम शेफर्ड नस्ल का एक प्रभावी coat रंग का श्वान के साथ प्रशिक्षण प्राप्त करने का मौका प्राप्त हुआ। यह श्वान अत्यंत निडर, फुर्तीला, समझदार एवं शारीरिक रूप से मजबूत है। श्वान Whisky के साथ मुझे Agility प्रशिक्षण के दौरान बहुत अच्छा महसूस होता है।



4 आरक्षी/सामान्य प्रेम कुमार

श्वान Sky वेल्जियम शेफर्ड के साथ मैं, आरक्षी/सामान्य प्रेम कुमार, जोकि वर्तमान समय में श्वान प्रशिक्षण एवं प्रजनन केन्द्र डेरा अलवर में Sky जोकि वेल्जियम शेफर्ड नस्ल का Black Coat Colour की मादा श्वान है, के साथ खोजी श्वान का प्रशिक्षण प्राप्त कर रहा हूँ। श्वान Sky'Black Coat Colour सशस्त्र सीमा बल में पहला वेल्जियम शेफर्ड श्वान है एवं मेरे द्वारा श्वान को प्रशिक्षण देते समय अत्यंत खुशी है एवं अन्य विभिन्न गतिविधियों से मैं पूरे समय व्यस्त रहता हूँ।



5 आरक्षी/सामान्य अनिल ए.

श्वान MILO वेल्जियम शेफर्ड के साथ मैं, आरक्षी/सामान्य अनिल ए. वर्तमान में श्वान प्रशिक्षण एवं प्रजनन केन्द्र में श्वान "MILO" जोकि अत्यंत फुर्तीला, वेल्जियम शेफर्ड नस्ल का नर श्वान है, के साथ खोजी श्वान प्रशिक्षण प्राप्त कर रहा हूँ। यह श्वान संरचनात्मक एवं प्रवृत्तियों के आधार पर एक बेहतर दर्जे के वेल्जियम शेफर्ड श्वान नस्ल का प्रतिनिधित्व करता है। पूरे केन्द्र में इस श्वान के फुर्तीलेपन एवं चंचलता का मुकाबला नहीं है। मुझे श्वान "MILO" के साथ खेलने के प्रशिक्षण प्राप्त करने में अत्यंत खुशी मिलती है एवं श्वान के प्रति भी मेरा बहुत ज्यादा लगाव है।



6 आरक्षी/सामान्य अभिषेक कुमार

श्वान AK जर्मन शेफर्ड के साथ मैं, आरक्षी/सामान्य अभिषेक कुमार, श्वान प्रशिक्षण एवं प्रजनन केन्द्र डेरा में पदस्थ हूँ एवं श्वान AK जोकि working line जर्मन शेफर्ड नस्ल का नर श्वान है के साथ विस्फोटक पदार्थ खोजी श्वान प्रशिक्षण प्राप्त कर रहा है। मुझे श्वान "AK" के साथ प्रशिक्षण प्राप्त करने में अत्यंत प्रसन्नता एवं गर्व महसूस होता है, क्योंकि यह working line जर्मन शेफर्ड नस्ल का केन्द्र में पहला नर श्वान है एवं भविष्य में यह पूरे बल



में जर्मन शेफर्ड नस्ल को आगे बढ़ाने में एक महत्वपूर्ण भूमिका अदा करेगा। इस श्वान की शारीरिक संरचना एवं चाल-ढाल अत्यंत, प्रभावशाली है, जो मुझे गर्व की अनुभूति करवाती है।

7 आरक्षी/सामान्य रंगलाल गुर्जर

श्वान "Rollo" लेब्राडोर के साथ श्वान "Rollo" Black coat colour एक सुंदर, आकर्षक नर श्वान है जोकि कठिन से कठिन प्रशिक्षण को भी आसानी से प्राप्त कर लेता है, मुझे श्वान "Rollo" के साथ समय बिताना बहुत अच्छा लगता है!



8 आरक्षी/सामान्य राजीव

श्वान "Kimi" वैल्जियम शेफर्ड के साथ show-line GSD एवं working line एवं वैल्जियम शेफर्ड नस्ल का एक संकर श्वान है, यह श्वान शारीरिक कुशलता एवं तीव्र सूंघने की क्षमता से युक्त है। श्वान की तीव्र Hunt Drive के कारण वह सरलता से प्रशिक्षण प्राप्त करता है। श्वान के साथ मेरा प्रशिक्षण मेरे लिए तनाव-मुक्त करने वाला होता है एवं यह मुझे अत्यंत खुशी देने वाला होता है।



9 मुख्य आरक्षी/सामान्य हरी शंकर नागर

श्वान 'जिम्मी' जर्मन शेफर्ड के साथ मैं मुख्य आरक्षी/सामान्य हरी शंकर नागर, श्वान 'जिम्मी' के साथ बारूद खोजी विधा में प्रशिक्षण प्राप्त कर रहा हूँ। मैंने पूर्व में भी श्वान प्रशिक्षण प्राप्त किया हुआ है। वर्तमान में श्वान प्रशिक्षण का प्रयुक्त नवीनविद्या, पुरानी प्रशिक्षण पद्धती से कई मायनों में बेहतर लग रही है। इस विधा में श्वान आसानी से खुशी-खुशी कार्य करना सीख जाता है एवं श्वान के साथ कार्य करने के लिए हमेशा उत्सुक रहता हूँ।



10 आरक्षी/सामान्य अरुण कुमार अंटिल

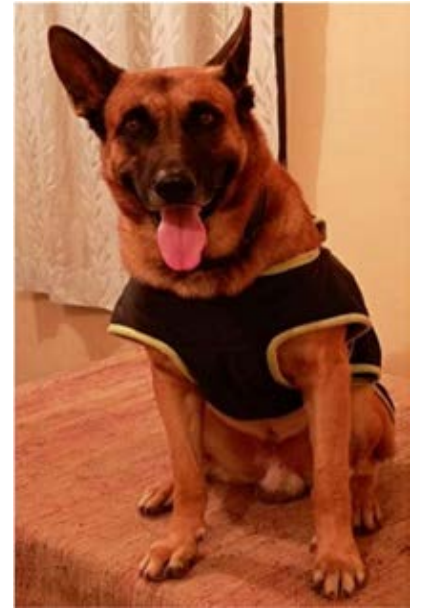
श्वान "Tomy" लेब्राडोर के साथ मैं आरक्षी/सामान्य अरुण कुमार अंटिल, श्वान "Tomy" के साथ बारूद खोजी विधा में प्रशिक्षण प्राप्त कर रहा हूँ। श्वान "Tomy" लेब्राडोर नस्ल का Yellow coat colour का नर श्वान है, यह श्वान अत्यंत कुशल, चंचल एवं ऊर्जावान श्वान है। यह श्वान प्रशिक्षण को अत्यंत आसानी एवं शीघ्रता से ग्रहण करता है। यह पूरे समय अपनी मनमोहक गतिविधियों से मुझे व्यस्त रखता है तथा इसके साथ होने से अत्यंत प्रसन्नता का अनुभव करता हूँ।



राजस्थान पुलिस के श्वानदलों की उपलब्धियां



श्री अनिल कुमार कानि 0 268
सी.आई.डी. अपराध भाखा जयपुर (राजस्थान)
से हाल अटेच श्वानदल जिला झुन्झुनू



श्वान जस, राजस्थान पुलिस

राजस्थान में श्वानदल टीम को टीम 'डी' कहा जाता है। इस टीम 'डी' द्वारा जघन्य अपराधों जैसे कि— हत्या, चोरी, लूट व नकबजनी जैसी वारदातों में श्वान हैण्डलर के कुशल प्रशिक्षण एवं रूचिपूर्वक कार्य किये जाने के परिणाम स्वरूप सनसनीखेज प्रकरणों में समय पर पहुँचकर घटनास्थल का निरीक्षण कर उपयुक्त आर्टिकल की मदद से घटना में अज्ञात अभियुक्तों को

गिरफ्तार करवाने में महत्वपूर्ण भूमिका निभाई हैं। इसके अतिरिक्त अनुसंधान अधिकारियों को महत्वपूर्ण प्रकरणों में उचित दिशा—निर्देश प्रदान किये जाने के परिणाम स्वरूप कई प्रकरणों का अतिशीघ्र खुलासा हो पाया है। यह एक वैज्ञानिक तकनीक है, एवं कई बार घटनास्थल पर कोई उपयुक्त आर्टिकल न होने के कारण मनोवैज्ञानिक तरीके से घटनास्थल

पर कार्य कर प्रकरण में महत्वपूर्ण क्लू दिया जाता है, जिससे अनुसंधान अधिकारी को प्रकरण का खुलासा करने में आसानी होती है। श्वान 'जस' द्वारा वर्ष—2024 के जून माह तक K9 प्रकरणों में सफलता प्राप्त की गई, जिनका विवरण निम्नानुसार है:—



श्वान 'जस' हैण्डलर अनिल कुमार कानि. 268 व सहायक हैण्डलर राजेश कुमार कानि. 1344 द्वारा राज्य स्तर पर गणतंत्र दिवस के दौरान 'डॉग शो' में भाग लिया गया, जिसमें श्वान द्वारा उत्कृष्ट कार्य प्रदर्शन किया गया।



श्रीमान पुलिस अधीक्षक, भा.पु.से., झुन्झुनू, मृदुल कच्छावा, द्वारा श्वानदल शाखा का औचक निरीक्षण किया गया, जिसके दौरान श्वान के कार्य का डेमो देखा, जिसे देखकर वे आश्चर्यचकित रह गये एवं श्वान हैण्डलर को घटनास्थल पर कार्य करने के संबंध में अहम जानकारी दी गई जो राजस्थान पुलिस की टीम 'डी' के लिए बहुत ही महत्वपूर्ण है।

1. निराधनु जोहड़, नर्सरी की खाई में मिले बुजुर्ग के शव में श्वान दल टीम द्वारा मदद

प्रकरण संख्या 19/2024 पुलिस थाना बिसाउ, जिला—झुन्झुनू में गांव निराधनु जोहड़, नर्सरी की खाई में बुजुर्ग बजरंगलाल जाट का शव मिला तथा हत्या की सूचना प्राप्त होते ही दिनांक 22.02.2024 को श्वान दल टीम उक्त घटनास्थल पर पहुँची एवं अनुसंधान अधिकारी के निर्देशानुसार डेड़ बॉडी के पास संदिग्ध पद चिन्ह खोजे गये, जिसकी सेन्ट श्वान 'जस' को हैण्डलर अनिल कुमार कानि. 268 द्वारा दिलवाई गई, तो श्वान द्वारा अज्ञात के आने व जाने की दिशा बताई, जिस पर पुलिस द्वारा संदिग्ध निराधनु निवासी 32 वर्षीय सुभाश पुत्र रणजीत जाट को गिरफ्तार कर लिया गया।

2. बसावा के युवक की झाड़ू पर हुई हत्या के ब्लॉइड मामले में श्वान दल टीम द्वारा सहयोग।

प्रकरण संख्या 76/2024 पुलिस थाना नवलगढ, जिला—झुन्झुनू गांव—झाड़ू, से पहले सड़क किनारे एक व्यक्ति मृत अवस्था में मिला, जिसकी सूचना मिलने पर दिनांक 01.03.2024 को श्वान दल टीम द्वारा उक्त घटनास्थल पर पहुंचकर अनुसंधान अधिकारी के निर्देशानुसार कार्यवाही की गई, जिसमें अहम क्लू मिला एवं अन्य सूचनाओं को संकलित किया गया, तथा पुलिस टीम द्वारा मृतक के मामा के लड़के कमल कुमार, पुत्र श्री मामचन्द, उम्र 41 को गिरफ्तार कर लिया गया।

3. पगडंडी के विवाद में डबल हत्या की घटना में श्वान दल टीम द्वारा मदद कर केस का खुलासा किया।

प्रकरण संख्या 28/2024 दिनांक 19.03.2024 को पुलिस थाना धनूरी, जिला—झुन्झुनू के गांव—आन्नदपुरा घटनास्थल पर पहुँचकर अनुसंधान अधिकारी के निर्देशानुसार श्वान हैण्डलर द्वारा श्वान 'जस' के साथ घटनास्थल का निरीक्षण किया गया। घटनास्थल मकान के मेन गेट के पास मृतक संख्या (1) घोटी देवी, पत्नी रावताराम कुल्हरी, उम्र 68 वर्ष, जमीन पर एवं मृतक संख्या (2) रावताराम, पुत्र टीकुराम कुल्हरी, उम्र 70 वर्ष, बाथरूम के पीछे जमीन पर मृत अवस्था में मिले। मृतक संख्या (1) के पेट व गले पर चोट के निशान व मृतक संख्या (2) के गले व चहरे पर चोट के निशान और घाव पाये गये। घावों से बहुत ज्यादा खून निकला हुआ था। मृतक संख्या (1) के पास लोहे के तार काटने वाला कटर मिला, जिससे प्रतीत हो रहा था कि, अज्ञात द्वारा उक्त कटर का प्रयोग किया गया है। उक्त कटर को उपर्युक्त आर्टिकल मानते हुए उसकी सेन्ट श्वान 'जस' को हैण्डलर अनिल कुमार कानि. 268 द्वारा दिलवाई गई, जिस पर श्वान द्वारा घटनास्थल के चारों तरफ गहनता से सूंघते हुए एवं घटनास्थल को बारीकी से सर्च करते हुए घर के मेन गेट से पश्चिम दिशा की ओर



हो रहा था, उक्त टूटे हुए जेवरात बॉक्स को उपयुक्त आर्टिकल मानते हुए उसकी सेन्ट श्वान 'जस' को हैण्डलर अनिल कुमार कानि. 268 द्वारा दिलावाई गई। जिस पर, श्वान द्वारा घटनास्थल के सभी कमरों को गहनता से सर्च किया गया था। सर्च के दौरान दो चांदी के सिक्के मिले जो परिवादी को सुपुर्द किए गए और अज्ञातों के आने व जाने की दिशा का ज्ञान हुआ।

6. डबल मर्डर के प्रकरण में श्वान दल टीम द्वारा अहम क्लू

प्रकरण सं. 111/2024 पुलिस थाना पंचेरी कला, जिला झुन्झुनू में डबल मर्डर के प्रकरण में घटनास्थल नावता की ढाणी, हरियाणा सीमा के पास खेत में बने मकान पर 02 व्यक्ति मृत अवस्था में मिले। उक्त मृतक के पहनावे से प्रतीत हो रहा था कि मृतक साधु हो सकते हैं एवं घटनास्थल को देखने पर ऐसा प्रतीत हो रहा था कि हत्या दूसरे स्थान पर करने के उपरान्त शव को यहाँ फेंका गया है। श्वान दल टीम घटनास्थल पर पहुँचकर अनुसंधान अधिकारी के निर्देशानुसार हैण्डलर अनिल कुमार कानि. 268 श्वान 'जस' द्वारा गहनता से निरीक्षण करना शुरू किया गया। सर्च के दौरान कोई क्लू न मिलने के कारण मृतकों को सरकारी अस्पताल, बुहाना के मोर्चरी में रखवाया गया। दिनांक 02.06.2024 अनुसंधान अधिकारी घटनास्थल ग्राम-भोदन के लखनदास महाराज के आश्रम पहुँचने पर मृतक साधुओं की शिनाख्त हो गई। मृतक सं.-1 वशिष्ठगिरी महाराज, पटिकरा आश्रम नारनौल, हरियाणा व मृतक सं.-2 गौतम शेखावत, निवासी बगड, झुन्झुनू जिनके सर्म्यक लखनदास महाराज ग्राम-भोदन से होना बताया गया। अनुसंधान अधिकारी के निर्देशानुसार हैण्डलर मय श्वान 'जस' द्वारा आश्रम का गहनता से निरीक्षण करना शुरू किया गया। आश्रम में स्थित हनुमान मंदिर के पीछे वाले हॉल की दीवार व सोफे पर खून बिखरा हुआ था साथ ही तख्त पर 01 बेलन व चाकू को उपयुक्त आर्टिकल मानते हुए हैण्डलर अनिल कुमार कानि. 268 श्वान 'जस' को सेन्ट दिलाया गया। श्वान 'जस' द्वारा गहनता से सर्च करने पर 01 हरियाणा ब्रांड दारू की आधी बोतल एवं 01 ईट मिली। उपरोक्त आर्टिकल के आधार पर पुलिस द्वारा आश्रम में रहने वाले साधु लक्ष्मण दास व साध्वी को गिरफ्तार किया गया एवं उनके द्वारा हत्या को अंजाम देना स्वीकार किया गया।

7. उरीका में चोरी की वारदात में श्वान की अहम भूमिका-

प्रकरण सं. 167/2024 पुलिस थाना सूरजगढ, जिला झुन्झुनू में अनुसंधान अधिकारी के निर्देशानुसार हैण्डलर मय श्वान 'जस' द्वारा चोरी की घटनास्थल का गहनता से निरीक्षण करना शुरू किया गया। घटनास्थल श्री मुकेश कुमार, पुत्र दलीप सिंह शंखावत गांव/पो. उरीका के घर पर दो कमरों में सामान बिखरा हुआ मिला। सर्च के दौरान टूटे हुए ताले व



जेवरात के खाली बॉक्स मिलें, जिससे यह प्रतीत होता है कि अज्ञात मुलजिमों द्वारा किसी नुकीली वस्तु से अलमारी व बॉक्स के ताले को तोड़ कर नकदी, जेवरात व अन्य सामान लूटे गये हैं। टूटे हुए जेवराती बॉक्स व ताले को उपयुक्त आर्टिकल मानते हुए हैण्डलर अनिल कुमार कानि. 268 श्वान 'जस' को सेन्ट दिलवाया गया। श्वान द्वारा घटनास्थल के सभी कमरों को गहनता से सूंघते हुए घर के पीछे की तरफ गया, जहाँ चारदीवारी के पास ईंटें लगी हुई पायी गईं, जिससे यह प्रतीत हुआ कि कोई ऊपर की तरफ चढ़ा/उतरा है। श्वान वहाँ से सर्च करता हुआ मकान के आगे की तरफ आया जहाँ संदिग्ध पद चिन्ह मिले, जो मकान के मेन गेट के बाहर मुख्य रास्ते तक मिलें। घर में लगे सी.सी.टी.वी. कैमरे को चैक किया गया, तो उक्त घटना को 2 पुरुषों व 1 महिला द्वारा अंजाम दिया गया था। जिसके आधार पर अनुसंधान अधिकारी द्वारा मुलजिम को गिरफ्तार कर लिया गया।

8. जन्मदिन की पार्टी में बुलाकर परिचित द्वारा चोरी का उद्भेदन करना

प्रकरण सं. 147/2024 पुलिस थाना, सदर झुन्झुनू के घटनास्थल पर पहुँचकर अनुसंधान अधिकारी के निर्देशानुसार हैण्डलर मय श्वान 'जस' द्वारा गहनता से निरीक्षण करना शुरू किया गया। घटनास्थल मकान (श्रीमति सुनिता, पत्नी स्व. श्री सुभाष करवा, गांव-नयासर) पर पहुँचकर प्रथम दृष्टया यह पाया गया, कि एक कमरे का ताला टूटा हुआ था, कमरे के अन्दर रखा बड़ा बॉक्स का ताला तोड़कर नकदी चुराना प्रतीत हो रहा था। श्वान 'जस' द्वारा गहनता से निरीक्षण करने पर 1 गोल पत्थर एवं टूटा हुआ ताला मिला। उपयुक्त आर्टिकल की सेन्ट श्वान 'जस' को दिलवाई गई, जिस पर श्वान 'जस' घर के दूसरे दरवाजे से निकलकर पश्चिम दिशा में तिराहे तक गया, जिससे यह प्रतीत होता है कि मकान में अज्ञात परिचित का नियमित आना-जाना रहा है। अनुसंधान अधिकारी द्वारा घर में लगे सी.सी.टी.वी. को चैक करने पर चोरी में शामिल सभी परिचितों को चिन्हित कर गिरफ्तार कर लिया गया।



प्रश्न और उत्तर



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प्रश्न 1. कभी-कभी बेसिक ओबिडियेन्स में कोई श्वान धीरे-धीरे व काफी समय के बाद कार्य को सीख पाता है और श्वान के हल्के कार्य को देखकर हैण्डलर का मनोबल गिरने लगता है और वह श्वान से लगातार अभ्यास करवाने की सोचता रहता है। इस कारण वह श्वान पर दबाव डालता जाता है, और उधर श्वान कार्य करना छोड़ देता है।

उत्तर:- यदि कोई श्वान समयावधि के अनुसार पीछे चल रहा है, तो प्रशिक्षक को यह देखना चाहिए कि श्वान की इच्छा के विपरीत उससे कार्य तो नहीं करवाया जा रहा है। प्रशिक्षक द्वारा हैण्डलर पर निगरानी रखी जानी चाहिए तथा श्वान के मनोबल को ऊपर उठाते हुए श्वान को खेल-खेल में काम करवाये, ताकि श्वान का मनोबल न टूटे व श्वान की प्रशिक्षण के प्रति रूचि बनी रहे।

प्रश्न 2. कुछ श्वान speak की कार्यवाही करवाने पर अपनी मर्जी से बोलते हैं, लेकिन यदि श्वान चालक speak करवाये तो नहीं बोलते। ऐसे में चालक श्वान से कई तरीके के प्रयोग करना शुरू कर देता है इन नकारात्मक प्रयोगों से श्वान डर जाता है और कार्य करना छोड़ देता है।

उत्तर:- श्वान को बुलवाने के लिए कभी भी नकारात्मक प्रयोग न किये जाये, हैण्डलर को चाहिए कि, जब उसका श्वान speak करता है तो उस से बात करते रहें और जब भी श्वान अपनी मर्जी से speak करें तो श्वान को शाबाशी व टिटबिट दे तथा श्वान को रिवार्ड देकर उसके दिमाग में यह बैठाये कि इसे speak कहते हैं। श्वान के दिमाग में कोई भी वर्ड ऑफ कमाण्ड दबाव से न बैठाये, खेल-खेल

में तथा खुशी जाहिर करने या रिवार्ड से श्वान के दिमाग में हर कार्य को बैठाये। धीरे-धीरे श्वान सही बात समझने लगता है और हैण्डलर के कहने पर सभी कार्य करने लगता है। इसके अलावा इस प्रशिक्षण को अन्य प्रशिक्षित श्वानों के साथ करवा कर भी अच्छा परिणाम प्राप्त किया जा सकता है।



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प्रश्न 3. कभी-कभी ट्रेकर श्वान को असाल्ट ट्रेनिंग देते समय श्वान चालक यह भी गलती कर देता है कि श्वान का डर दूर करने के लिए श्वान के नजदीक ही पटाके फोड़ देता है जिससे श्वान के मन में भय बैठ जाता है और श्वान उस कार्य में रूचि न रखकर काम छोड़ देता है।

उत्तर:- शुरू-शुरू में श्वान से काफी दूरी पर 200 से 300 गज के बीच पटाखे चलाए जाएं तथा श्वान चालक द्वारा उस तरफ ईशारे करके या श्वान का ध्यान लगाकर श्वान को साबाशी देते रहे और धीरे-धीरे श्वान के मन से डर दूर करने की कोशिश करते रहे तथा शुरुआत में कम आवाज वाले पटाके फोड़े व श्वान का डर दूर करे। उसके बाद जैसे फायरिंग रेंज जहाँ फायर हो रहा हो श्वान की ट्रेनिंग उस एरिया के नजदीक करवाये ताकि श्वान का



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डर दूर हो जाये।

प्रश्न 4. कभी-कभी श्वान लम्बे ट्रेक में क्रासिंग पर या टर्न पर ट्रेक से श्वान भटक जाता है जिसका श्वान चालक को पता नहीं चल पाता और वह श्वान को आगे बढ़ाता रहता है। काफी समय तक स्मेलिंग करते हुये श्वान थक जाता है और श्वान काफी मेहनत के बाद भी अपराधी को पकड़ने में असमर्थ हो जाता है जिस कारण श्वान की रूचि कम हो जाती है और श्वान चालक भी कभी-कभी सहनशीलता खो बैठता है। श्वान को गलत तरीके से प्रयोग करके सजा दे देता है, जिसे श्वान कार्य छोड़ देता है।

उत्तर:- श्वान से कभी भी बल पूर्वक कार्य न करवाया जाये। यदि श्वान भटक जाता है तो श्वान चालक को चाहिए कि प्रशिक्षक से सम्पर्क करके श्वान को सही ट्रेक पर बढ़ाये व अपराधी को पकड़वाये। श्वान को शाबाशी व टिटबिट देकर श्वान का मनोबल हमेशा ऊंचा रखें। प्रशिक्षक को भी चाहिए कि वह प्रत्येक श्वान को ट्रेक पर श्वान व श्वान चालक के पीछे-पीछे दूरी बनाकर चले तथा जहां भी श्वान भटकता है श्वान चालक को गाईड करे जिससे श्वान की रूचि काम के प्रति उत्सुकतापूर्वक बनी रहे।



OPTIMIZING EXPLOSIVE DETECTION IN JUNGLE ENVIRONMENTS: AN INTERDISCIPLINARY APPROACH WITH K9S AND DETECTORS

Maj SB RamaRaju Sagi, Maj Chauhan Suraj Singh, Kuldeep Singh, NSG

Abstract

In jungle warfare scenarios, security forces face significant threats from various explosives and Improvised Explosive Devices (IEDs). Exploiting the acute olfactory capabilities of Explosive Detection K9s, this study investigates an interdisciplinary methodology integrating canine expertise and electronic detection devices to enhance the efficiency of explosive detection in jungle environments. Factors such as wind velocity, temperature, and the depth of buried explosives were systematically examined. Notably, this study represents the pioneering application of an interdisciplinary approach utilizing ED K9s and detectors in India. The findings hold promising implications for optimizing K9 deployment strategies in jungle settings for enhanced explosive detection efficacy.

Introduction

The exceptional olfactory acuity of K9s enables them to detect trained explosive odors at remarkably low thresholds. In the challenging jungle environments, the presence

of Improvised Explosive Devices (IEDs) constitutes a grave danger to security forces. This article underscores the significance of a collaborative strategy involving Explosive Detection K9s and electronic detectors to enhance the detection efficacy of concealed IEDs commonly encountered in jungle operations.

Materials and methods

In the study, three trained Explosive Detection Dogs (EDDs) from the 28 SCG were deployed. Three K9s underwent training with Mixed Odor Detection Devices (MODD) for Improvised Explosive Devices (IEDs), utilizing Scent Logix – K9 IED and other explosive scent imprinting aids. Conducted between January and April 2024 on the outskirts of Hyderabad, the study meticulously managed training aids, employing precautions such as gloves and separate containers for explosive materials.

Variables including wind conditions, diurnal fluctuations, temperature, and depth of explosive concealment were carefully controlled. The study encompassed a range of explosive types, including Aliphatic nitro

(Nitromethane), Aromatic Nitro (TNT), Nitrate ester (Dynamite, PETN), Nitramines (Tetryl, RDX, HMX), and acid salts (Potassium Nitrate, Black powder). Utilizing IED/HME training aids from Scent Logix, explosives were concealed in jungle settings two days prior to testing to simulate real-life scenarios. Metal detonators were used alongside explosive training aids to replicate real-life scenarios.

To verify the efficacy of the EDDs, Trained Final Responses (TFR) were consistently confirmed using metal detectors under similar conditions. Detectors were employed when K9s exhibited ambiguous signals regarding explosive locations. Each K9 underwent five tests at each location, with results based on averages. Testing was conducted both with and against wind direction for comprehensive evaluation. Upon doubtful TFR occurred at 20 cm and 30 cm, the K9s were trained again for two weeks at the same depths. In all the cases, double blinding testing used to withhold the exact location of the explosives to the handler and Bomb detector team.

Result

K9s performance at wind velocity 5-7 mph and testing towards and against the wind direction at a depth of 10 cm (Temperature range of 27-32^oc) – day conditions.

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	100%	100%	100%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%

K9s performance at wind velocity 8-10 mph and testing towards and against the wind direction at a depth of 10 cm (Temperature range of 18-22^oc) – night conditions.

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	100%	100%	100%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%

K9s performance at wind velocity 5-7 mph and testing towards and against the wind direction at a depth of 20 cm (Temperature range of 27-32^oc) – day conditions.

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	98%	100%	100%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%
5	Doubtful TFR by K9	2%	-	-	-	-	-
6	True positive after two weeks of training	100%	100%	100%	100%	100%	100%

K9s performance at wind velocity 8-10 mph and testing towards and against the wind direction at a depth of 20 cm (Temperature range of 18-22^oc) – night conditions.

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	100%	100%	100%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%

K9 Performance at wind velocity 5-7 mph and testing towards and against the wind direction at a depth of 30 cm (Temperature range of 27-32°C)– day conditions.

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	95%	100%	90%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%
5	Doubtful TFR by K9	5%	-	10%	-	-	-
6	True positive after two weeks of training	100%	100%	100%	100%	100%	100%

K9s performance at wind velocity 8-10 mph and testing towards and against the wind direction at a depth of 30 cm (Temperature range of 18-22°C) – night conditions

Ser No	Sensitivity	Towards the wind			Against the wind		
		K9-I	K9-II	K9-III	K9-I	K9-II	K9-III
1	True Negative	100%	100%	100%	100%	100%	100%
2	False Positive	0%	0%	0%	0%	0%	0%
3	True positive	95%	100%	90%	100%	100%	100%
4	False Negative	0%	0%	0%	0%	0%	0%
5	Doubtful TFR by K9	5%	-	10%	-	-	-
6	True positive after two weeks of training	100%	100%	100%	100%	100%	100%

DISCUSSION

The present study systematically examined various environmental factors, including wind velocity, temperature, and depth of explosive concealment, to ascertain the effectiveness of K9 units in concealed jungle settings. Notably, K9s demonstrated

impeccable sensitivity, achieving 100% accuracy when the explosive was concealed at a depth of 10 cm. However, at a depth of 20 cm, K9-I exhibited a marginal deviation, with 2% doubtful Trained Final Responses (TFR), subsequently validated by detectors. In night conditions, K9-II displayed 2% false positive results at the same depth,

with temperatures ranging from 18-22°C. Moreover, at a deeper depth of 30 cm, both K9-I and K9-III displayed 5% and 10% doubtful TFR, respectively, during both day and night conditions, all of which were confirmed by detectors. Intriguingly, K9s demonstrated enhanced sensitivity when tested against the wind direction, in





Explosives at various depths used in the present study

contrast to testing towards the wind direction, where doubtful TFRs were observed.

Following identification of K9s exhibiting less than 100% sensitivity, a retraining protocol was implemented at the same depths for a duration of two weeks. Remarkably, upon retesting under similar conditions, all K9s displayed restored 100% sensitivity. This underscores the adaptability and resilience of K9 units, as well as the effectiveness of targeted retraining protocols in optimizing their performance in dynamic and challenging jungle environments.

CONCLUSION

Continuous evaluation of individual K9s across diverse parameters is imperative for optimizing their performance in jungle explosive detection. Identification of discrepancies and



Deep Search Metal Detectors



The study conducted to mimic jungle settings with explosives concealed in the most natural surroundings

targeted retraining ensure enhanced capabilities, underscoring the importance of dynamic assessment and corrective measures to maintain peak efficiency in challenging environments. The study's outcomes offer promising prospects for refining K9 training for deployment in jungles, enhancing explosive detection efficiency and bolstering security measures.



Proper TFR of the K9 wherein k9 gives proper sitting response following retraining protocol at the same depths for a duration of two weeks. Using laser guided detection in the night conditions.



Doubtful TFR by k9s where in K9 won't be giving proper sitting to indicate the explosive however will move around the concealment and looking towards the handler.



Maj S B Rama Raju Sagi currently serves as Team Commander of the K-9 Squad at 28 SCG, NSG, Hyderabad.



Maj Chauhan Suraj Singh currently serves as Team Commander of the BD Team at 28 SCG, NSG, Hyderabad.

HOW DID NDRF K9 TRAINING START ?

Dr Sudhakar Natarajan, Deputy Inspector General (Vet) ITBP



The Swiss Embassy Officer (centre) with Shri K B Singh, IPS, IG and Shri R S Pundir, DIG during his visit to NTCD, Bhanu



*The Indo-Swiss Team at ITBP Bhanu
Mr Hanspeter, Mr Edi and AC (Vet) (now Comdt) Pankaj*

ITBP is the mother of NDRF K9 training. ITBP conceptualised, planned and implemented the upgrading of SAR training in India. The Indo-Swiss Urban Search & Rescue (USAR) training conceptualised, planned and conducted at NTCD Bhanu for NDRF dogs, to prepare NDRF dog teams for Swiss Rescue Certification so that they can respond to urban disasters in India and around the world. This was a pilot project has been initiated by MHA in co-ordination with ITBP, NDRF and NDMA, where our Force has been designated as a nodal agency to provide training infrastructure under guidance of Swiss experts to all NDRF dogs.

The spark was ignited by Shri A P J Abdul Kalam, the then President of India during his discussion with Swiss Premier in 2003, to have Indo Swiss Collaboration after the devastating Bhuj earthquake in 2001. This meeting laid the foundation for this strategic collaboration with Switzerland, that has got traditional expertise in training of rescue dogs.

The visit of Swiss Embassy officials to NTCD Bhanu in 2008 and their in depth discussions with Shri R S Pundir, DIG, who headed this premier national institute, led to the initial template for this pivotal partnership and formulation of

the training curriculum. The first exploratory visit of the Swiss team consisting of Mr Hanspeter and Mr Edi took place after this and they

certified that ITBP has adequate potential to be selected as the core nodal agency amongst all CAPFs in India to shoulder the responsibility

of training NDRF dogs under this unique Indo-Swiss collaboration. AC(Vet) (now Comdt) Pankaj Kumar was the chief K9 trainer from ITBP.

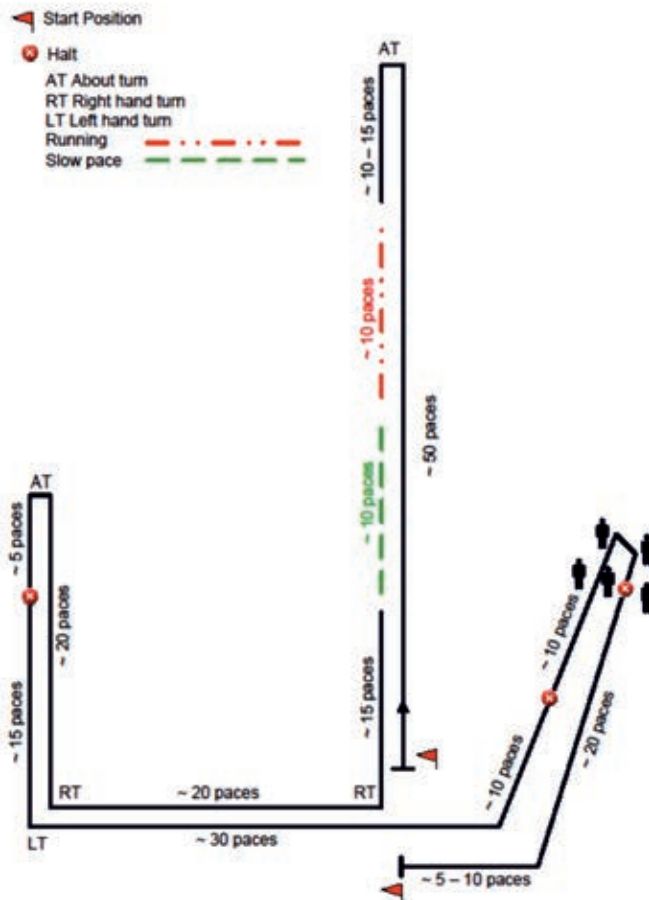


Ms Gabreilla motivates Labrador SAR dog of NDRF.

The photographs below depicts the motivation control training adopted by the ITBP-Swiss Trainers for NDRF K9s.



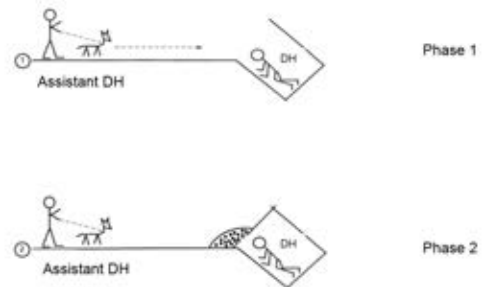
Off leash heeling



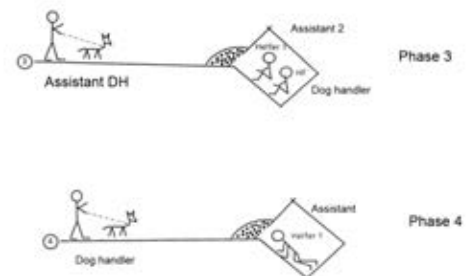
The scheme does depend on the available space. It is also possible, that after the about turn first a left hand turn and then a right hand turn is required.



Das 4-Phase System



Das 4-Phasen System





Alert

Alert theory and praxis for rescue dogs				
The training for alerting has to be completely separated from the search training (work in rubble fields) You can only reach a secure alerting if the natural behavior of the dog is used.				
Process to the alert	Locating towards the higher scent intensity. Differentiate. Recognize and find. sniff	not to reach the victim, not to see the victim. to want to reach the victim. digging	not to reach the victim, not to see the victim. to want to reach the victim. barking	not to walk off the found location. keep on alerting intensively. remain/penetrate
Unwanted influences that can put the behavior of the alert in question! Scared of humans (victim) or unknown objects near by / low natural drive				
wished action of the dog	Take in scent SNIFF	Put on paw DIGGING	Get excited BARKING	Stay interested REMAIN/PENETRATE
Natural behavior	Pleasure to sniff Pleasure to search Pleasure to find Inquisitiveness Pleasure to hunt	Based on the natural step on for milk (puppies), this results later in the typical paw movement for each anticipation mood (shake hands, finding an object after a long search, typical in soft material)	Barking due to excitement (pleasure, cupidity, aggression) because the dog can not reach the victim and can not see him.	Relation to humans and objects that belong to humans Relation to the member of the herd or to the prey Pleasure of human contacts
assisting MEASURES	Nose work with young dogs Open search for victims and objects Correct motivation, encourage and put in place for the alert work	piling up a lot of soft material (sand, snow, small stones, pieces of carton or any kind of light material) If available, training in snow (like avalanche dog)	Barking for visible and acoustic sign Animate barking in front of closed doors Animate barking for the food or for the toy	Find out which assistance help of the victim will teas the dog Inform victim from the outside Approve the dog only at the alerting hole.

- Tips:**
- Food can increase the attraction
 - like the method of prey
 - qualified assistant only
 - (never dog cake, us meet or sausage, always packed in doze)
 - (toys; but only for dog that go for it (play training))
 - (good informed assistant/victim (briefing))



Glimpse of Swiss training in progress

The first mission was conducted at NTCD Bhanu in Aug 2008. After 5 biannual missions, the 6th mission concluded on 28/5/2010 in which 25 dogs of various NDRF units participated. The specific aim of this mission was night training of SAR dogs so that they can be first responders during urban disasters, since it is evident that the first teams that arrive can immediately get on the job without waiting for daybreak, thereby saving precious lives. It is well known that the first 12-24 hours of any disaster is the most crucial and the actions taken

during this window of opportunity spells the difference between success and failure. The aim of the training was to train mission ready K-9 rescue team that can be deployed during natural and manmade disasters like

- Earthquakes
- Building sabotage
- Building collapse

ITBP provided the following infrastructure during the training of NDRF teams at NTCD Bhanu for 2 years from 2008 to 2010.

- Rubble Field
- Helmet with lights
- Fluorescent jackets
- Waterproof rucksacks
- Alerting tubes/boxes
- Night illumination
- Balloon lights
- Focus lights
- Eco-friendly rechargeable torches
- Eco-friendly rechargeable lanterns

Some historic glimpses of SAR training and stages have been pictorially depicted below:



Motivation of dog



Direction control



Obstacle negotiation



Alerting box/tube



The dog was motivated to play with the kong/pull toy whereby s/he was adequately motivated to work at the command of the handler. This

initial stage of training was most important. It was to condition the dog by positive reinforcement. The dog was reinforced on reward after

successfully finding the /handler in the rubble field or disaster zone. After this the dog was trained to respond to verbal direction command from the handler so that she could take the desired direction in the disaster zone. Negotiating rubble obstacle was also taught to the dog by removing its inhibition for heights, depths and unstable surfaces during obstacle course training. The penultimate stage is when the dog was trained to detect the decoy in an alerting tube/box.

This is another fascinating view



of night training of NDRF dogs by NTCD Bhanu using Balloon lights and other forms of artificial illumination to simulate an earthquake zone during night time. All dogs with the Swiss instructors burnt the midnight oil in training in the night rubble field for 15 days.

ITBP pioneered the use of balloon lights for night SAR operations and this has been replicated by all agencies during disasters.

This is another shot of one of our



The earthquake simulation Rubble Field created by ITBP for NDRF training

GSD dog Bobby in the rubble field during a night search exercise. The balloon lights and other equipments were specially arranged by NTCD for this specialised training.

Ms Gabriella made a special study on the effect of heat/humidity stress on the dogs during active duty and came up with valuable statistical data that will help CPMFs in deploying dogs in extremely hot and humid terrain.

A total of six training sessions for NDRF teams were held at ITBP training centre for 6 weeks each.

- a) 1st Mission –Aug 2008
- b) 2nd Mission - Dec 2008
- c) 3rd Mission -April 2009
- d) 4th Mission -Nov 2009
- e) 5th Mission- Mar 2010
- f) 6th Mission - Nov 2010

The last NDRF K9s and handlers were trained in November 2010 when a second rubble earthquake simulation field was be constructed by ITBP .



GSD K9 Bobby of NDRF

After each of the specialized training exercises, the Swiss Trainers were invited the NW Ftr HQ for a debriefing with Shri Rajdip Singh, IPS, IG(NW), where the training methodology and the infrastructure availability were discussed thread bare.

This is how the core group of K9 trainers was created for NDRF by ITBP by collaborating with Swiss Trainers for 2 years, from 2008 to 2010, thus creating a foundation K9 national disaster response.



Dr Sudhakar Natarajan, DIG (Vet), is a 1992 batch officer of ITBP and has been involved in K9 training and deployment in the valley and having played a leadership role in K9 ops in the counter insurgency grid/LWE theatre.



FOUNDATION TRAINING OF PUPPIES

Dr. Arun Sanadhya, 2IC (Vet) ITBP

Foundation Training

Foundation training for puppies destined to become police dogs is crucial for their development. It focuses on building a well-rounded canine partner, ready for the physical and mental demands of police work. The foundation training includes Shaping, capturing, Marker setting (Set a marker for the Reward to increase desirable behavior) and agility sports. The foundation training also improves the drives and motivation level, simultaneously puppy also develops a good relationship with his master/ handler. By introducing foundation training in early age of police dog training can develop a dog who can work more promptly and efficiently in further advance training which also increase the dog's intrinsic motivation to work. Here's a breakdown of key elements:

Tactical Obedience training: Tactical obedience training is

crucial for police K9s to operate effectively in high-risk situations. It goes beyond basic obedience and focuses on precise control and responsiveness in dynamic environments. Here are some key aspects of tactical obedience training for police dogs.

Focused Heeling: This builds a strong foundation where the dog maintains a specific position (e.g., close to the handler's leg) while the handler moves at various speeds and directions. This allows the handler to navigate obstacles and focus on the situation without worrying about controlling the leash.

Neutral Distractions: The dog learns to ignore distractions like loud noises, gunfire simulations, or people acting suspiciously. This ensures the K9 stays focused on the handler's commands during operations.

Off-Leash Obedience: In

controlled settings, the dog practices following commands like "heel," "stay," and "down" even when off-leash. This provides flexibility and allows the handler to react quickly in situations where a leash might be impractical.

Obedience with Equipment: The dog learns to be comfortable with the handler wearing tactical gear (vest, helmet) and doesn't get startled by the sights and sounds associated with police operations.

Target Recognition: Police K9s are trained to distinguish between threats and bystanders. This may involve identifying suspects wearing specific clothing or those acting aggressively.

Stress Inoculation: Trainers gradually expose the dog to increasingly stressful situations while maintaining positive reinforcement. This helps the dog learn to cope with pressure and perform their duties effectively.

Handler-Dog Bond: Building a strong bond between the handler and the dog is essential for successful tactical obedience. This involves trust, mutual respect, and clear communication through verbal and nonverbal cues.

Scenario-Based Training: Realistic scenario training exposes the dog to situations they might encounter on the job, like building searches, suspect apprehensions, or drug detection in vehicles. This allows them to practice their obedience skills in a context that reflects real-world challenges. Tactical obedience training is an ongoing process that requires dedication from both the handler and the dog. By incorporating these elements, K9 units can build a strong foundation for successful and safe police work.

Positive Reinforcement: Positive reinforcement is the preferred method for training police dogs, and for good reason! It's an effective and humane way to build a strong working relationship between the handler and the K9 while fostering the dog's natural abilities. Positive reinforcement techniques like treats, praise, and playtime keep the dog motivated and engaged during training sessions. This makes learning enjoyable for the dog and fosters a positive association with work. Positive

reinforcement avoids punishment and fear tactics, creating a stress-free learning environment. This keeps the dog relaxed and focused, leading to better performance. Successfully completing tasks and receiving rewards builds the dog's confidence. This is crucial for police dogs that need to be decisive and reliable in high-pressure situations. The training process becomes a positive interaction, fostering trust and mutual respect.

Positive reinforcement allows for faster learning compared to punishment-based methods. Dogs are more receptive to learning new behaviors when they understand what earns those rewards. By focusing on rewarding desired behaviors, positive reinforcement helps refine the dog's skills with greater precision. This is essential for tasks like accurate scent detection or precise obedience commands. Positive reinforcement builds long-term reliability in the dog's performance. They learn to associate the desired behavior with positive outcomes, making them more likely to perform consistently. Positive reinforcement training methods are adaptable to different dog breeds and personalities. Handlers can tailor the rewards and training techniques to what motivates each individual dog.

Overall, positive reinforcement is a cornerstone of effective police dog training. It creates happy, well-adjusted working dogs with the skills and confidence to excel in their duties. By implementing these foundation training elements, we are able to laying the groundwork for a confident, well-behaved, and mentally stimulated police dog. Remember, consistency, positive reinforcement, and patience are key to success! Health and physical attributes are assessed to ensure the dog can handle the rigors of police work respectively. By incorporating temperament assessments, police K9 units can select dogs with the right foundation for success. This not only leads to effective working partners but also ensures the safety and well-being of both the dog and handler. An early temperament assessment may also be conducted at the age of around 8 weeks, provide insights into basic traits like playfulness, retrieving objects, and reaction to unfamiliar stimuli. By following a thorough selection process that considers breed, bloodline, health, temperament, and early socialization, police K9 units can increase their chances of acquiring puppies with the potential to excel in training and become valuable partners in police work.



Dr. Arun Sanadhya, M.V.Sc. (Surgery and Radiology), 2IC (Vet). He is posted at 43 Bn ITBP.



UNVEILING CANINE OLFACTION: PHYSIOLOGY, BEHAVIOUR, AND PRACTICAL APPLICATIONS

Dr. Vikash Bhardwaj , AC (Vet), BSF

1) Introduction

- Importance of Olfaction: Olfaction, or the sense of smell, is vital for chemical communication in the animal kingdom. For dogs, olfaction is crucial as it provides information about the environment, including past events, and plays a key role in survival activities such as finding food and recognizing threats.
- Early Development: Olfaction is believed to be one of the first senses to develop, with evidence suggesting prenatal olfactory learning.

- Role in Communication: Canine olfaction is essential for both intra- and inter-species communication, including interactions with humans.
- Historical Significance: Humans have utilized canine olfaction for various purposes for over a century.
- This article aims to discuss the physiological mechanisms, behavioural aspects, influencing factors, and practical applications of canine olfaction.

2) Anatomy and Physiology of Canine

Olfaction

- Olfactory System Overview: Dogs possess a highly specialized olfactory system that allows them to detect and recognize a wide range of smells. This system involves two main parts: the main olfactory epithelium (MOE) and the vomeronasal organ (VNO). The MOE is located in the nasal cavity, while the VNO lies between the nasal and oral cavity.
- Nasal Airflow and Sniffing Lateralization: During sniffing, air is directed to the olfactory region, where odour molecules

are deposited and accumulate. Dogs exhibit a nostril bias when sniffing, with the right nostril often used first for familiar odours and the left for novel or threatening scents.

- **Olfactory Epithelium:** The olfactory epithelium contains olfactory receptor cells (ORCs) that interact with odorants. ORCs have a short lifespan, and new cells arise from basal cells. Cilia on ORCs express only one type of olfactory receptor (OR), and a unique combination of OR activation is responsible for odour identification.
- **Olfactory Pathway:** Olfactory signals are transmitted from ORCs through the olfactory nerves to the olfactory bulb (OB), located under the frontal lobes. From the OB, signals are sent to various areas in the brain, including the olfactory cortex and hippocampal formation, involved in memory recognition of odours.
- **MOE and VNO Function:** The MOE and VNO are independent in collecting and processing smell signals. The VNO is crucial for pheromone recognition and can also detect other low-volatile substances.
- **Comparison to Human Olfaction:** In humans, nasal detection of volatile chemicals involves both the olfactory and trigeminal systems. However, in dogs, odour detection is solely through the olfactory neuroepithelium.
- Overall, the canine olfactory system is complex and specialized, allowing dogs to

detect and interpret a wide range of odours, making them invaluable for various tasks and applications.

3) Internal and Environmental Factors Influencing Olfactory Skills

- **Genetic Implications:** Dogs possess a large gene superfamily for olfactory receptors, with breed-specific variations in gene polymorphisms potentially contributing to breed-specific olfactory capacities.
- **Breed:** Olfactory capability can vary between dog breeds, with genetic evaluations suggesting a correlation between gene polymorphism and a breed's potential as sniffer dogs.
- **Age and Sex:** Olfactory capabilities can decrease with age due to atrophic changes, but older dogs may have stronger long-term memory of odours. Female dogs may exhibit more active olfactory bulbs compared to males.
- **Environmental Conditions:** Humidity can improve olfactory skills by enhancing nasal humidity and odorant trapping. However, heavy rain can force scents down, negatively impacting tracking. Higher temperatures can reduce dogs' ability to work and cause dehydration, affecting olfactory efficiency.
- **Diseases:** Diseases like nasal cavity tumours, injuries, or infections can affect olfactory skills. Endocrinological disorders such as hyperadrenocorticism, hypothyroidism, or diabetes can

also impact olfactory abilities.

- **Substances and Drugs:** Some drugs can affect olfactory acuity or function in dogs. For example, zinc nanoparticles may enhance detection capabilities, while metronidazole and steroids can degrade olfactory detection abilities in working dogs.
- Understanding these internal and environmental factors is crucial for optimizing the utilization of canine olfactory skills, particularly in specialized tasks like detection work.

4) Olfactory Behaviour in Dogs

- **Sniffing vs. Smelling:** Dogs differentiate between sniffing, an explicit and effortful behaviour, and smelling, an implicit and unconscious process accompanying breathing. Sniffing is believed to play a role in odour coding and can be coordinated with neural activity.
- **Sending and Receiving Olfactory Signals:** Dogs communicate through sniffing conspecifics and leaving scent marks, with males often using raised-leg postures for marking. They can exchange information through overmarking, with competitive countermarking linked to social status.
- **Tracking Behaviour:** Dogs exhibit a set of behaviours for tracking objects and people, including an initial searching phase, a deciding phase to determine direction, and a tracking phase. They can use ground sniffing or air sniffing, depending on environmental conditions and the scent being followed.

- Understanding these behaviours is crucial for interpreting dog behaviour and optimizing their use in various tasks, including detection work and tracking.

5) The Use of Canine Olfactory Skills

- **Detection of Dangerous and Illegal Substances:** Dogs are trained to detect explosives, drugs, and dangerous substances with high accuracy, aiding in security and border control efforts. They can also locate mines, potentially saving lives and preventing economic losses.
- **Detection of Biological Scents:** Dogs are utilized in detecting biological scents, such as human odour, for criminal identification and search and rescue operations. They can also locate decomposing human bodies, aiding in forensic investigations and disaster response.
- **Detection of Other Living Organisms:** Dogs play a crucial role in detecting invasive species, plant parasites, and agricultural pests, helping in biological safety and conservation efforts. They are also used in agriculture and forestry to locate termites, mold, and fungi, preventing costly damage and ensuring food safety.
- **Conservation Efforts:** Dogs are employed in conservation efforts to locate endangered species and monitor wildlife populations. They are trained to find scats, providing valuable data on species distribution, diet, and population characteristics without the need for invasive methods.

- Overall, the use of canine olfactory skills is diverse and impactful, ranging from security and law enforcement to conservation and agriculture, showcasing the remarkable capabilities of dogs in various fields.

6) Recognition of Physiological State by Olfaction

- **Unlearned Olfactory Skills:** Dogs naturally use olfaction to recognize species, gender, age, and physiological conditions, such as reproductive cycles and emotions in other individuals.
- **Detection of Reproductive Cycle:** Dogs can distinguish between different phases of heat in female dogs and dairy cows, aiding in mating and reproductive management.
- **Recognizing Emotional State:** Dogs can recognize human emotions, such as fear or happiness, through olfaction, demonstrating an ability to detect emotional cues from humans.
- **Detection of Diseases in Humans and Animals:** Dogs are trained to detect diseases, such as seizures, narcolepsy, and various cancers, by identifying specific odours or changes in human scent associated with these conditions. They have also been trained to detect viral infections, including COVID-19, based on volatile organic compounds (VOCs) released by infected individuals.
- **Controversies and Future Applications:** While the use of dogs in disease detection is promising, there are

controversies regarding the reliability and applicability of this method. Combining dogs' olfactory abilities with analytical methods may enhance disease detection and biomarker identification in the future.

7) Chemical Communication Influencing Animal Behaviour

- **Handler's Role in Olfactory Detection:** The effectiveness of utilizing dogs' olfactory abilities in various tasks relies heavily on the handler's ability to interpret the dog's behavioural signals indicating the detection of specific odours. These signals can be spontaneous or learned, and understanding them is crucial for successful detection.
- **Complexity of Odor Detection:** Dogs can detect substances like sex pheromones with high accuracy, but their behavioural response may not always match expectations. Factors like the context in which the odour is presented can influence their reaction, highlighting the complexity of their olfactory system.
- **Behavioural Responses to Threat:** Dogs can also detect predator odours and modify their behaviour accordingly, even in the absence of prior exposure to the predator. This innate ability to recognize potential threats demonstrates the importance of chemical signalling in animal behaviour.
- **Evaluation of Behavioural Impact:** Sniffing time, changes

in heart rate, and blood flow to specific organs are common parameters used to evaluate the impact of chemical signals on animal behaviour. However, interpreting these responses can be challenging, leading to the development of new methods for assessing the effects of odours on animals.

- **Challenges in Behavioural Studies:** In studies requiring immobilization, such as EEG or fMRI studies, dogs must be trained not to react to odours to avoid confounding results. This highlights the need for careful consideration of behavioural responses in olfactory research.
- **Future Directions:** Continued research is needed to further understand how animals interpret and respond to chemical signals, as this knowledge

can have implications for a wide range of fields, including animal behaviour, ecology, and conservation.

8) Novel Methods of Canine Olfaction Evaluation—fMRI Study

- **Human Study Parallels:** Following the trend in human research, studies began to explore canine olfaction using functional magnetic resonance imaging (fMRI). These studies confirmed the activation of specific brain regions associated with odour detection, similar to findings in humans. However, the focus on specific brain areas in these studies may have overlooked activation in other regions.
- **Resting State fMRI:** Resting state fMRI, which maps brain interactions without a specific

task, has been used in dogs but has not yet included olfaction evaluation. This approach could offer insights into brain activity patterns without the need for explicit behavioural tasks.

- **Detailed Odor Evaluation:** fMRI allows for detailed evaluations of brain reactions to odour mixtures and can identify specific brain regions activated by different types of odours. This capability is challenging to achieve with traditional behavioural methods.
- **Positive Associations:** Studies, such as Berns et al.'s, have shown that dogs not only can discriminate familiar scents but also exhibit positive associations with them, as indicated by caudate activation.
- **Detection of Low Odor Concentrations:** fMRI can detect brain activation in response to low odour concentrations that may be undetectable consciously, demonstrating the subconscious detection capabilities of dogs.
- **Limitations and Future Directions:** While fMRI offers detailed insights, it has limitations, including the exclusion of simultaneous behavioural evaluations. Combining fMRI with traditional behavioural methods and using specially trained dogs will likely be necessary for comprehensive olfaction research in the future.



Dog Monty with CT/DH Suresh Kumar



Dog Nanu with CT/DH Jitender Singh

9) Limitations in Canine Detection—A Critical Assessment

- **Variable Influences on Performance:** Various factors such as health, mood, lifestyle,

and training can influence a dog's detection abilities. These variables can create artifacts and affect the reliability of their performance.

- **Training and Generalization:** Dogs can generalize labelling responses to odours, leading to false positives. Proper training and controlled scent application can reduce this behaviour but may not eliminate it entirely.
- **Sample Contamination:** Sample contamination during collection, storage, or handling can lead to false results, and distinguishing between methodological errors and actual detection errors is crucial.
- **Training Methods and Odor Recognition:** Training methods can influence a dog's ability to recognize target odours, and dogs trained with odour mixtures tend to perform better in detection tasks involving mixed odours.
- **Group Size and Generalization:** Many studies use small groups of dogs, which may not represent the entire population of scent detection dogs, leading to potential generalization issues.
- **Methodological Challenges:** Methodological tools and protocols used in studies can

significantly influence results and conclusions. Lack of standardized protocols and quality standards is a major challenge in scent studies.

- **Environmental Factors:** It is challenging to control all potentially disturbing factors in the environment, especially in field studies, where factors such as sample volatility must be recorded rather than controlled.
- **Practical Application:** Despite confirmed efficiency in scientific studies, practical application of dogs as disease detectors, such as in cancer detection, has not been widely adopted in healthcare.
- **Handler Influence:** The relationship between the dog and handler can affect detection outcomes, with changes in handlers potentially leading to decreased effectiveness in odour detection.
- **Future Considerations:** Continuous training, verification of detection accuracy, and the use of appropriate methodological tools are essential for maintaining the effectiveness of dogs in detecting odours.

10) Conclusions

- **Olfactory Potential of Dogs:**

Dogs have been invaluable in detecting various odours worldwide and their olfactory abilities surpass even the best man-made instruments.

- **Challenges and Doubts:** Despite their exceptional abilities, doubts about the reliability of dogs as detectors persist, limiting their widespread use. Factors affecting their efficiency include external environment, boredom, fatigue, and handler-dog bond.
- **Factors Affecting Efficiency:** Proper experimental design, training schedules, and daily work routines can minimize errors. These include using multiple dogs, sample randomization, double-blind testing, and clear statistical analysis.
- **Limitations:** Individual characteristics of dogs and handlers cannot be standardized, unlike analytical devices. This variability affects the consistency of results.
- **Future Directions:** Developing standardized procedures and laboratory methods for olfactory detection could improve efficiency and aid in identifying specific compounds or discriminating between positive and negative samples.



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THE WORKING LINE GERMAN SHEPHERD: A “BORN TO WORK” DOG BREED

Dr. Lalit Deori, 2 IC (Vet) , SSB

The German Shepherd or Alsatian, commonly called as GSD is one of the most popular dog breed worldwide. This breed is well-known for its loyalty, intelligence, protection instincts, agility and versatility as working dog from military work to search and rescue, therapy and service dogs. Their adaptability to various environments as well as to different role of works made them more popular. Within the breed, however, there are two distinct lines: the show line and the working line. While show-line GSDs are bred primarily for appearance, adhering closely to the breed standards set by organizations like American Kennel Club (AKC). Working-line GSDs are bred for their abilities, temperament, and endurance rather than physical appearance. These dogs are ideal for tasks such as police work, military roles, search and rescue, and competitive dog sports.

History of Working Line German Shepherd:

Development of this breed started during the late eighteenth and early nineteenth centuries in Germany. During that period many rural indigenous shepherd dogs were extensively used by the farmers of Western Europe for herding sheep, cattle and other livestock. These indigenous dogs also guarded the livestock during night and gave

warning to their master in case of any stranger or danger approach to the farm. These shepherd dogs were the most important animals for the farmers and the farmers bred these rural shepherd dogs generation after generation for their peasants and farms.

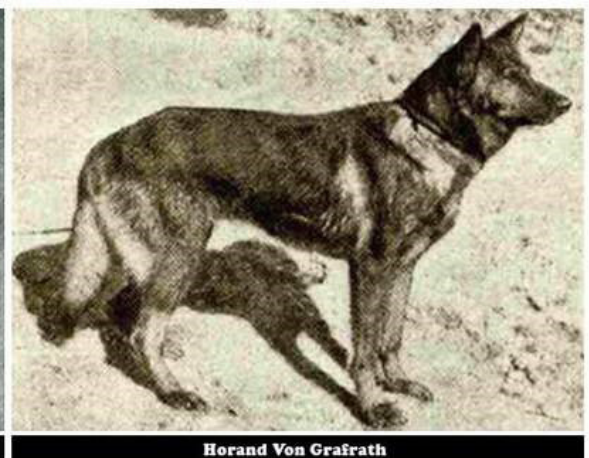
The German Shepherd breed was founded single handedly by Max von Stephanitz, a former German cavalry officer and dog enthusiast, in the 1890s. He also founded the German shepherd Dog Club of Germany (called as SV). Von Stephanitz admired the working dogs he saw across Germany, especially those with a strong herding instinct, high intelligence, and work ethic. His goal was to create a versatile working dog that was not only an outstanding herder but also capable of performing other tasks. Von Stephanitz believed that a dog's value should be based on its working ability, not its

appearance. In 1899, he found his ideal dog, Horand von Grafrath, a medium-sized, powerful dog with a keen intelligence and strong drive to work. Horand became the first registered German Shepherd and the foundation of the breed.

By the early 1900s, German Shepherds had established themselves as exceptional working dogs, excelling in roles beyond herding. With industrialization reducing the need for herding dogs, von Stephanitz recognized that the breed needed to adapt to other types of work to remain valuable. He advocated for German Shepherds to be used in military and police work, and during World War I, German Shepherds served as messengers, sentries, and rescue dogs for the German army. The success of German Shepherds in wartime roles caught the attention of other countries. When American and British soldiers encountered



Max von Stephanitz



Horand Von Grafrath

these dogs during World War I, they were impressed by their intelligence and bravery, which helped spread the breed worldwide.

The SV set breeding standards focused on physical ability, temperament, and intelligence to maintain the breed's working capabilities. Today the SV is the largest and most influential breed organization in the world, and it continues most of the rules set by Von Stephanitz. The system he streamlined during the early nineteenth century still serves to preserve and develop the best working line German shepherd dogs with excellent physical standard with outstanding temperament.

A German shepherd dog can only receive an official registration paper in Germany, only when both the parents of the dog have passed Schutzhund (now commonly called IGP, previously IPO). Furthermore, unless the dog itself also passes a Schutzhund trial, it will not be recommended for breeding.

Von Stephanitz and his colleagues focused on developing a breed with high intelligence, loyalty, and a natural inclination for work. These early German Shepherds were valued for their utility, and working ability was always prioritized over appearance. The popularity of the German Shepherd as a family pet has led to an increase in breeding focused on appearance, and as a result, the show lines German shepherd was developed by some breeders. This shift has resulted in some dogs developing physical traits, such as extreme angulation of the back, which can negatively affect their health and working abilities.

Development of various Working Line German Shepherds:

After the World War I, the German Shepherd became increasingly popular worldwide and breeders in different regions of Europe started to develop specialized working lines to fit specific needs and environments. There are primarily three working line German shepherd found at present days.

West German Working Line: The West German working line evolved as a continuation of von Stephanitz's ideal German Shepherd, with balanced characteristics suited for a variety of roles. Known for their versatility, West German working-line GSDs are widely used in police work, Schutzhund (now called IGP or IPO), and as service dogs. They are often regarded as the "original" working German Shepherds and are bred with an emphasis on both temperament and physical soundness.

East German Working Line(DDR Line): After World War II, East Germany, then part of the German Democratic Republic (GDR or DDR), developed its own line of German Shepherds for border patrol, military, and law enforcement work. These dogs were bred under strict state control, and only those that met rigorous physical and temperament standards were allowed to reproduce. DDR German Shepherds are known for their robustness, dark pigmentation, and strong, muscular build. This line was valued for endurance, health, and an intense focus on work.

Czech Working Line: The Czech line originated from Czechoslovakian border patrol dogs and has many similarities with the DDR line, as both were developed in Eastern Bloc countries. Czech German Shepherds were bred primarily for agility, endurance, and a high level of prey drive, making them ideal for detection, tracking, and other work requiring stamina and speed.



These dogs are often more intense in drive and have leaner bodies suited to high-energy activities.

Each of these lines was bred with specific working traits in mind, but they all maintained the qualities that von Stephanitz originally emphasized: intelligence, loyalty, variations in drive, endurance, physical build and a strong work ethic.

Physical Characteristics, Temperament and Drive of working line GSDs:

The body structure of a working line GSDs have a more balanced and stable posture with a straight back, unlike the angled or sloped backs of some show line GSDs. They tend to be leaner and more muscular, with a frame that allows for flexibility and speed. Working line GSDs come in a range of colors, with sable, black, and bi-color being most common with dense double coat to withstand harsh weather. They have expressive faces with keen, attentive eyes that reflect intelligence and focus. Their ears are erect, contributing to their alert and observant nature. Usually the body weight of males is between 30-40 kg and females 24-35 kg. This build helps them for agility and endurance, allowing them to be a perfect working dog.

Working-line GSDs have immense energy reserves and are happiest



when they have a task to complete. They possess intense working drives, including prey drive (chasing), food drive, and defense drive. This makes them ideal for tracking, detection work, protection works, and competitive dog sports. Also good for active families or individuals but can be challenging for less active households.

Working-line GSDs are known for their intelligence. They are easy to train and learn commands quickly. They are naturally protective, with strong loyalty toward their owner. While they are not usually aggressive without cause, they can be wary of strangers and respond to perceived threats, making early socialization essential. However, they also have independent streaks

and may require a handler who is consistent and firm.

This working line GSDs are time tested working dogs since early nineteenth century and well known for their intelligence, loyalty and workability in various roles and environments. They are developed with a focus on high intelligence, loyalty and a natural inclination for work, these lines have retained the original values set by Max Von Stephanitz, providing their worth in a wide variety of roles. The working line GSDs are remarkable dogs and best suited for detection work, tracking, obedience work, protection work, competitive dog sports as well as for the people with an active lifestyle and experience in handling a high- drive dog breed.



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K9 IN WAR AGAINST CONTRABAND AND ILLICIT TRADE

Dr. Anees Cherkunnath, IRS, Joint Commissioner Central GST, Delhi Zone

Introduction-

1. Trafficking of Narcotics, money laundering, Small Arms and Light Weapons (SALW), kidnapping for ransom, human smuggling and trafficking, trade in stolen and counterfeit goods, bribery growth, these security challenges hinder sustainable development, social cohesion and stability.

Drug Trafficking

2. India has become a transit hub as well as a destination for heroin and hashish produced in the 'Golden triangle' and the 'Golden Crescent' for the last few decades. In addition, various psychotropic and pharmaceutical preparations

and precursor chemicals produced domestically as well as in various parts of the world are also trafficked through Indian Territory. The illegal flow of these drugs and chemicals not only violates India's borders, but also poses a significant threat to national security. The nexus between drug traffickers, organized criminal networks and terrorists, if goes unchecked, may lead to instability in the country.

Trafficking of Explosives, Small Arms and Light Weapons

3. Illicit trade in Small Arms and Light Weapons (SALW) is another instrument employed by anti-

national forces to smuggle these items into India to increase terrorist and criminal activities.

Wildlife Trafficking

4. The illegal trade in endangered species poses a serious threat to biodiversity. As per the World Customs Organization's Illicit Trade Report, in 2018, Customs administrations from 47 countries reported cases of wildlife smuggling amounting to 2,727 seizures of flora and fauna. Traffickers were discovered smuggling 59,150 pieces and 3,60,495.6 kilograms of various flora and fauna. Nearly all countries were implicated as a known or intended origin, transit

or destination point. Wildlife crimes harm human livelihoods, the balance of nature; introduce invasive species and cause incidental killing of non-target species.

a Trafficking of Tobacco Products. The production, import, export, purchase, sale, or possession of tobacco goods which is not legally permitted in a particular country is termed as illicit cigarette trade. Contraband, counterfeit and Illicit whites are various forms of smuggled tobacco. Organized crime syndicates and rebel groups practise tobacco smuggling as form of tax evasion and as major funding stream for their activities.

b Trafficking of Currency. Physical transportation of cash as a method of money laundering that is linked to drug trafficking and the illegal trafficking of other commodities, such as gold, alcohol, tobacco, wildlife articles etc. It is also used widely by criminals involved in other activities including tax fraud, weapons and arm smuggling, organized immigration crime and the financing of terrorism. Fake Indian Currency Notes (FICN) is a major menace in the country and poses a very serious threat to our economy.

K9- the Organic Tool

5. In the background of the above mentioned incidences of illegal contrabands and associated challenges to the economic and security sectors of our country, the development of an organic tool-detection dogs- by the Customs and

Border protections agencies will be a ' complementary preventive measure'. Dog's inherent qualities like athletic stamina and incredible sense of smell make them excellent partners to the Customs for the detection of narcotics, fake currency, tobacco, wildlife and agricultural contrabands. Detector dogs are often called 'complementary detectives' due to their widespread utility in law enforcement agencies all over the world.

6. The success of the detection programme depends on the selection of the right individual, with the right temperament to carry out the selected task in the chosen environment. The factors like olfactory sensitivity, prey drive, health and motivation level should be given precedence. For detector work, the ideal dog is between one and three years old, has a high food drive, and is energetic, nonaggressive and outgoing. A detector dog's career typically lasts until they are nine years old.

7. The cost of detection programme using dogs is cheaper compared to human detection. To illustrate, around 36 Customs Officers would be required to carry out even a cursory examination of passengers and baggage arriving on a Boeing 747 aircraft; whereas the same can be thoroughly examined by one dog and one handler. Detection dogs can accomplish in minutes, what would take a person all day.

Dogs-the Unique Soldier!

8. In dogs, senses are developed in varying degrees. Some senses

are extraordinarily sensitive, while others are less developed than a people. Olfaction, the act or process of smelling, is a dog's primary special sense. A dog's sense of smell is a thousand times more sensitive than that of humans. A dog has more than 220 million olfactory receptors in its nose, while a man has only 5 million.

9. Dog's sense of hearing is its second superior ability. Dogs hear a wider range of frequency compared to humans. An average dog can hear about 4 times better than an average person, including sounds at higher frequencies. Their talented hearing is attributed to numerous muscles associated with their pinna (ear flap). These muscles enable dogs to position their ear canal sharply to localize a sound even from far away.

10. Dogs vision is said to be inferior to that of man. However, they are peculiar in having better night vision and sensitivity to moving objects. The abundance of photoreceptor 'rods' which is sensitive to dim light in the retina of their eye, accounts for better night vision. Night vision is assisted by a reflective layer of cells, known as the tapetum lucidum, which is located behind the retina.

Detection of Contrabands

11. Narcotics Detection Dogs. The training of narcotics detection dog is completed through a programme of practice and reward to recognize the scent of common drugs and other related substances. Methaqualone, Amphetamine, Ketamine, Cocaine, Ephedrine,

Hashish, Ganja etc. are detected by trained dogs. A properly trained dog is expected to excel the latest detection technologies in the field.

12. Wildlife Detection Dogs.

Detection dogs are found to be pertinent tools to assist Customs in combating the smuggling of wildlife and their derivatives. A quiet dog and enthusiastic handler would increase public awareness about illegal wildlife trade as it indirectly conveys a powerful message that the government takes illegal wildlife trade with much seriousness. In cases where the contraband consists of dangerous or hazardous wildlife like venomous snakes, the detection dogs will be able to alert and warn the Customs inspection team to be careful and cautious in examination the consignment.

13. Currency Detection Dogs. Customs use trained dogs to sniff out the ink used in currencies. Every dog has to differentiate between various currencies and the ink used.

14. Tobacco Detection Dogs. Customs dogs are trained to find varying quantities of concealed Tobacco. They will readily detect rolled cigarettes and loose-leaf products.

15. Explosives and Firearm Detection Dogs. Even though a variety of surveillance systems are developed, the canines continue to play an important role in the detection of Firearms, Explosives and Ammunition. Their olfactory sensitivity is commendable and it is equal or superior to machine technology in sensitivity and selectivity. German shepherds and

Labrador retrievers are mostly used for explosive detection as they have a good combination of sensory capacities and temperament. There are many advantages of using detection dogs along with bomb detection teams. As dogs use the olfactory stimulus to detect odour, it can detect the presence of explosives from a distance. Further, a dog can be trained to detect different explosive materials. The bombs which are concealed in baggage, furniture, boxes and various other improvised explosive devices (IED) can be easily detected without actually touching it. Therefore the danger of detonation is avoided.

Customs Detector Dogs- The warrior Against Economic and Narco Crimes

16. Customs K9 Centre (CCC), Attari Punjab was established by Indian Customs (CBIC) in 2019. The centre can train twenty Narcotic Detector Dogs in a year with infrastructures including Training Hostel, Dog Kennels, a K9 Mess, Training grounds, a Swimming pool for the dogs, Indoor Classrooms, and an administrative building. The CCC has trained more than forty NDDs so far who detected 289 Kg of Narcotics in the field.

17. The US Customs Narcotic Detector Dog training program was established in San Antonio, Texas. Detection Canine is the best and most versatile Canines for the interdiction of narcotics, firearms, and undeclared currency, as well as in support of specialized program aimed at combating terrorism and

countering human trafficking.

18. The Australian Border Force(Customs)- The Detector Dog Program began with 2 black Labradors in Sydney in 1968. The breeding program provides all of ABF's detector dog capabilities. Detector dogs can now detect money, drugs, firearms, tobacco and explosives.

19. In Japan working in conjunction with specially trained customs officers as handlers, detector dogs have been used for border protection, preventing the illegal transportation of contraband such as narcotic drugs into Japan at international airports, seaports and post offices.

20. Saudi Arabian customs and internal security units are operating world-class K-9 units to counter Narcotic Trafficking. The K-9 unit has been running for more than 30 years. The team is currently training 160 dogs and their handlers at the facility. When deployed at customs facilities around the kingdom, each K-9 specialist is assigned to one dog. The Narco K9 can detect cannabis, marijuana, amphetamines, crystal meth and tobacco.

21. Iranian Anti-Narcotics Police(ANP) dog training centre was established in 1999 with 5 drug-detecting dogs donated by the Government of France. In 2001, UNODC started to support the development of the centre's capacities. Today, it is regarded as a successful anti-narcotics hub in the region.

22. World Customs Organization (WCO) has supported in setting



dogs are reliable, cost-effective and efficient tools for controlling the menace of illegal trade and trafficking. The dog's keen sense of olfaction is extensively exploited in the detection of contrabands. The non-invasive search performed by a dog team is a quick and efficient detection method.

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up Regional Training Centre of Canines (RTC). RTC South Korea and Prague (Czech Republic) have state-of-the-art facilities for Narcotic Detector Dogs training. The RTC Seoul, South Korea cloned the first dog in the world

and contributed to reproductive biology and Cyanology.

Conclusion

23. Deployment of detection dogs has been demonstrated successfully by Indian Customs. Detection



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DEPLOYMENT OF MULTI AGENCIES (CAPFs) K9 UNIT TO ENHANCE THE SECURITY MEASURES DURING 33RD PARIS SUMMER OLYMPICS GAMES-2024 IN FRANCE.

Dr. Manjur Uddin Ahmed, Police K9 Cell, MHA

1. Preparation of the Mission:

Embassy of France in India as per the Note Verbale on dated: 15th Jan' 2024; has requested the support of India to provide additional security for the Paris 2024 Olympic Games. The MEA communicated the French request to the Ministry of Home Affairs (MHA) K9 Cell, Police Modernisation Division. Following a high-level meeting, it was decided that each CAPF would send 02 K9s with their handlers. Consequently, a total of 10 K9s from CRPF, ITBPF, SSB, AR, and NSG were selected for the mission. The request was made owing to the impeccable reputation of the Indian Central Armed Police Forces (CAPFs) K9 unit, renowned for their immaculate performance during the G-20 summit-2023. Accordingly, Indian Government has deployed a team of Indian delegates comprising of 17 personnel and 10 K9s to enhance the security measures w.e.f 11th July'2024 to 12th August'2024 during the Summer Paris Olympics-2024.

2. Composition of the K9 Unit:

Indian K9s Unit includes 10 K9s; most of them below 6 years of old of different breeds namely 06 BSD, 03 GSD and 01 Lab retriever and 17 personnel (2 Officers as well

as 10 Dog Handlers & 5 Assistant Dog Handlers) drawn from various CAPFs namely CRPF, ITBP, SSB, AR& NSG to boost the security measures in Paris Olympic-2024.

3. Selection of K9s and DHs/ADHs And Their Pre Induction Training before Deployment:

After receiving the details compliance regarding the K9s and DHs/ADHs availability from earmarked CAPFs, Police K9 Cell had informed accordingly to the concerned CAPFs to be ready to move on very short notice to Delhi in the first week of July'2024, as Delhi has been decided as the embarking point for Paris. Furthermore, to screen the proficiency of K9s in Explosive Detection(ED) as well as to prepare the international health certificate for further movement to France, as per instruction of the Ministry, all the K9s have been assembled at Delhi well in time.

To ascertain the Proficiency of K9s, the ED K9 (Explosive Detection K9) Team had undergone a thorough health examination and trade test under the supervision of Consulting Director(CD) MHA, Police K9 Cell and CAPFs Board of Officer from 3 Major CAPFs where DIG(Vet), ITBP have been detailed as presiding Officer. After detailed examination

and Trade test, final selection was done for the said mega event.

Each canine soldier was initially selected after rigorous training sessions and trials, based on their unique capabilities. For instance, the Belgian Malinois is extensively used by most of the CAPFs such as CRPF, ITBP and SSB in anti-Naxal operations in Odisha, Jharkhand, Andhra Pradesh, Chhattisgarh and Maharashtra. Known for their agility, sharp mind, spectacular endurance and aggression, This breed notably played a role in significant operations such as the Osama Bin Laden raid of 2011 and chasing down ISIS leader Abu Bakr al-Baghdadi in 2019. Even the NSG Dog Rocky, a Belgian Malinois that participated in the Pathankot anti-terror operation in January 2016, had received the Sena Medal gallantry award. By seeing all these track record, BSD had been selected mostly for the said mission.

They underwent specialised training for nearly 10 weeks before their departure to France and focused on the tasks they were likely performed. The handlers donned their regular combat uniform with a special patch of the Indian flag on their chest and another flag on the shoulders provided to the security agencies deployed for the such a mega event.

4. Schedule of deployment and move plan:

The deployment was scheduled w.e.f 11th July'2024 to 12th August'2024 during the 33rd Summer Paris Olympics-2024 at Paris and its surrounding areas. The K9 Unit boarded direct Air France-225 flight scheduled at night with the aim to reduce the journey stress of K9s on 11th of July'2024 for Paris. Moreover, Phenobarbitone Tab orally administered to each dog to reduce the anxiety and aggressiveness in the course of journey.

Prior to movement, each CAPFs have been conveyed to strictly adhered the following guidelines with regard to the ED K9 Team:

1. The K9 should not be more than 6 years of age.
2. The DHs/ADHs should be Shape-I and operationally active.
3. Prior to movement of K9s i.e from the deployed location to the embarking point (Delhi); strictly follow the SOP for transportation of Animals of CAPFs, NSG and Assam Rifles.
4. After arrival at Delhi, concerned Force had to accommodate their K9s& DHs at their own arrangement
5. DH should carry the History sheet of K9s along with them.
6. During the journey and stay period at Delhi, DH should ensure to carry the required quantity of ration and emergency medicine for the k9 squad.

In the meantime, Police K9 cell had made all the effort to get the ration for all the K9s during the stay period at Paris and portable air kennel from French Embassy.

After selection and completion of all the related jobs, Veterinary Doctor had issued a health certificate separately for all the selected k9s and on the basis of that certificate and anti-rabies titre, Animal Quarantine Certification Services (AQCS) had issued the international health certificate for further movement to France.

This contingent reached Paris on 11th July'2024 and since then, they had discharged their duties with utmost care. In addition to their Olympics duties, the CAPFs K-9 team also aided in securing France's National Day celebrations on 14th July'2024.

5. Deployment Area:

Paris was the host city for 33rd Summer Olympics-2024 and various sports events held in 16 additional cities spread across metropolitan France. 10,714 Athletes from 206 nations had participated for 329 events in 32 sports. A total of 2000 Foreign Police Officers from 44 different countries like India, Lithuania, Croatia, Qatar, Netherlands, Morocco, USA, Sweden, Portugal, Mexico, Moldova, Slovakia, Germany, Korea, UAE, Bulgaria, Austria, Romania, Poland, Finland had participated as Reinforcement Forces to enhance the security measures for the Olympic games. Sniffer dogs have mainly used for Bomb detection and Counter terrorism operations. France

deployed around 30000 Police Officers daily for the Olympics, nearly 45000 Police Officers and Gendarmerie Nationale for the opening ceremony on 26th July on the Seine river. About 18000 French Military troops have been deployed including 3000 responsible for aerial surveillance for ensuring the security.

6. ASC Duties performed at various sensitive venues and its surrounding areas:

- On 11th July'2024, a team comprising of 17 members and 10 K9s arrived at Charles De Gaulle (CDG) Airport in Paris at 06:30 AM and were received by a team of National Police Officer and escorted our team to Apprentis d'Auteuil, located at Rond point de la tour du Mail, 95118 Sannois, on the outskirts of Paris approximately 40km from the airport where team were accommodated separately in the school hostel.
- On 14th July'2024, our team deployed at Parcous Flamme, hotel de Ville, Paris to perform anti sabotage check and sanitize the area. On the very day, Indian Ambassador to France and Monaco Sh. Jawed Asraf visited our duty place i.e. Parcous Flamme, hotel de Ville to interact with the K9 Contingent members and gave the K9 teams a warm welcome when he shared a snapshot of their meeting on social media, writing, "Happy to meet 10-member K9 unit from India, for a month in Paris to support Security for #ParisOlympics2024." After their

trip from India, our K9 stars and handlers are doing well and are back to work in time for National Day. He personally greeted ITBP K9 Julie and mentioned that the CAPF canine warriors had also given him a good handshake.

(JawedAshraf5 (@JawedAshraf5))

- On 15th July'2024, the team was scheduled to visit Trocadero.
- On 16th July' 2024, France police conducted a mock drill program with various explosive kits with the UAE K9 team.
- On 17th July' 2024, the team was assigned to visit the Parc des sports de Marville-LA COURNEUVE to perform Anti sabotage check duties.
- On 18th July' 2024, k9 team visited Centre aquatique Olympique , located at Saint Denis.
- On 19th July'2024, our team visited boats and floating establishment open to the public –lena/garigiano – rive Gauche, intended for the Olympic opening ceremony.
- On 20th July'2024, 4 dogs and 7 team members were deployed on boats at the foot of the IENA and AUSTERLITZ bridges for the security inspection. The team was accompanied by the Police Nationale, Explosive Ordnance Reconnaissance (EOR) and followed by Explosive Ordnance

Disposal (EOD) technicians.

- On 21st July'2024, 6 dogs and 10 team members were deployed at Hotel Le Collectionneur. More than 60 rooms, corridors and electrical control areas were checked. The team was accompanied by the Police Nationale, Explosive Ordnance Reconnaissance (EOR) and followed by Explosive Ordnance Disposal (EOD) technicians.
- On 23rd July'2024, the team visited the Arena Paris Nord for a security inspection. The team was accompanied by the Police Nationale, Explosive Ordnance Reconnaissance(EOR) and followed by Explosive Ordnance Disposal(EOD)technicians.
- On 25th July'2024, our team conducted anti-sabotage check duties of 5 bridges along the seine river, which were designated for welcoming VIPs during the Olympic Opening Ceremony on 26th July. In the evening, 2 representatives from Indian side attended a welcome ceremony hosted by the Ministry of Interior and Overseas for the nations providing security for the Olympics.
- On 26th July'2024, the team was taken to the outskirts of Paris for security inspection of installations near the Seine river. The Qatar k9 team also present alongwith police nationale,

Gendermerie nationale, EOR and EOD technicians.

- On 31st July'2024, half of our Team participated in an intervention reserve at Cynophile Unit 92 base and half participated at Cynophile Unit 75 base.
- On 4th August'2024, the tram was taken to Porte De Versailles, Voiture VIP Hall-7.
- On 08th August' 2024, half of our Team participated in an intervention reserve at Cynophile Unit 92 base and half participated at Cynophile Unit 75 base.
- All the remaining days, k9s had participated on mock drill with the k9s of other Nations.

7. Conclusion:

This marks the first time , an Indian CAPFs K9 contingent has been deployed in France for such sensitive missions. The deployment of this K9 contingent were being conducted in co-ordination with French Police & security agencies, reflecting a strong security cooperation between India & France. This initiative highlights the global recognition of India's expertise in security and its commitment to contributing to international events. Since their arrival at Paris, they had been discharging their duties with utmost care and ensured no detail was overlooked to achieve the mission success.



A post graduate in Veterinary Parasitology from Indian Veterinary Research Institute(IVRI), Bareilly and graduate from College of Veterinary Science, Khanapara Dr. Manjur Uddin Ahmed currently serving in 22nd Bn, ITBP as Second-in-command (Vet) and presently attached with Police K9 Cell/MHA, PM Division and performing duty as Consulting Director.

GLIMPSES OF PARIS TOUR



Meeting with Ambassador at Embassy of France in India



India contingent meeting the French Attachè at the Embassy of France

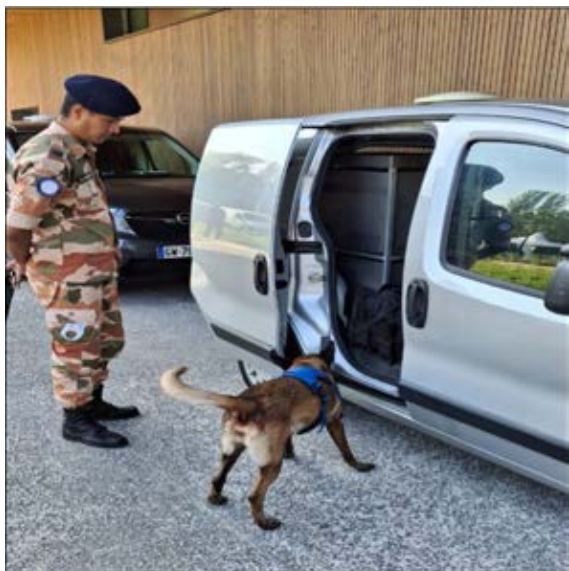


Meeting with Indian Ambassador to France in Paris

OPENING CEREMONY OF 33RD PARIS OLYMPIC-2024



Indian K9 Teams in action at Paris



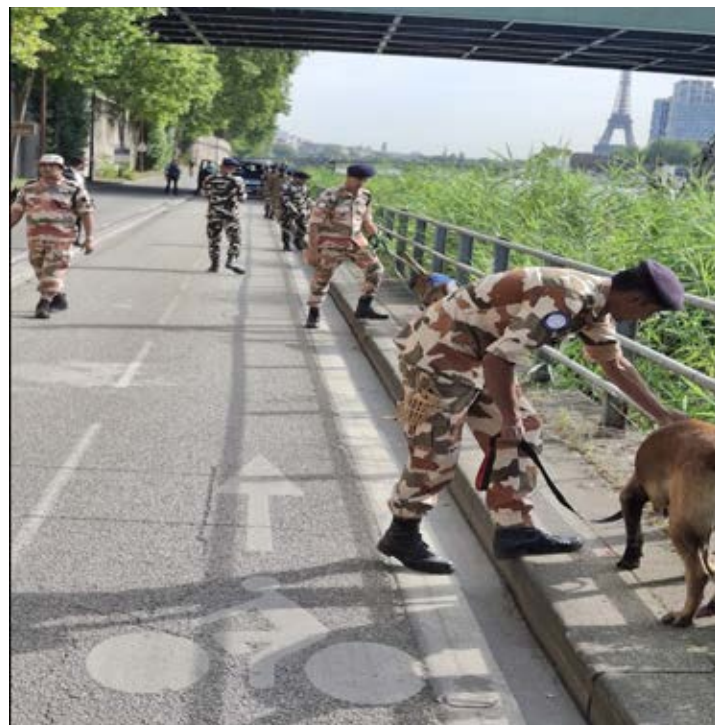
Parc des sports Marville-LA
COURNEUVE(17/07/2024) (ITBP)



IENA and AUSTERLITZ bridges
(20/07/2024) (ITBP)



Security checking in the
basement of Parc des
sports de Marville-LA
COURNEUVE(17/07/2024)
(ITBP)



Lena/Garigiano – rive Gauche
(19/07/2024) (ITBP)

Indian K9 Teams in action at Paris



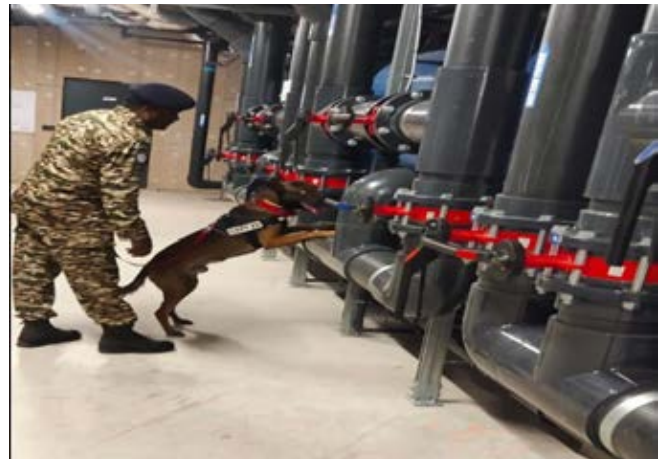
Parc des sports de Marville-LA
COURNEUVE(17/07/2024) (CRPF)



Surrounding area of Eiffle
Tower(Trocadero; 15/07/2024) (CRPF)



CRPF K9 team performing ASC Duties
(CRPF)



Arena Paris Nord(23/07/2024) (CRPF)



Trocadero(15/07/2024) (NSG)



Rue Boileau(19/07/2024) (NSG)

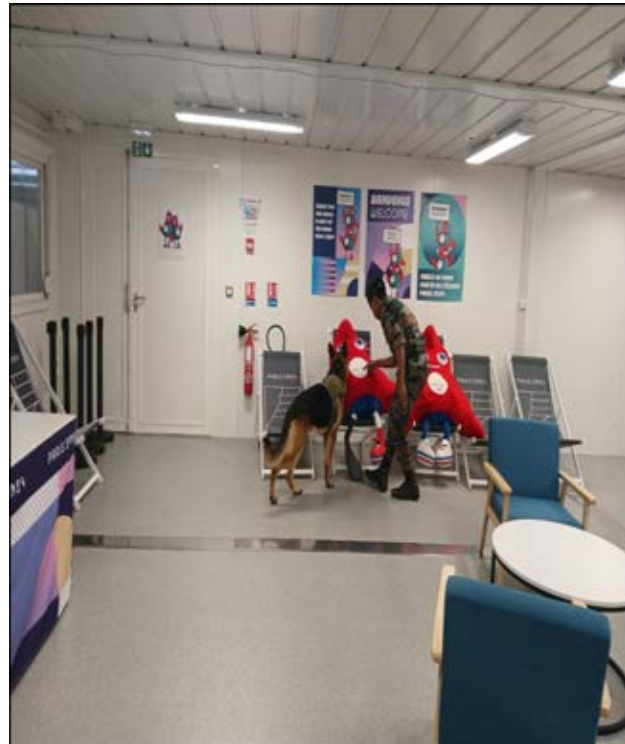
Indian K9 Teams in action at Paris



Security inspection of 5 bridges designated for welcoming the public as well as VIPs during the Olympic Opening Ceremony(25/07/2024) (SSB)



Centre aquatique Olympique (18/07/2024) (Assam Rifle)



Centre aquatique Olympique (18/07/2024) (Assam Rifle)

Conducted various mock Drill with the K9 teams of other countries



Mock Drill exercise with Qatar K9 team at Sannois (16/07/2024)



STRESS AND ANXIETY IN WORKING K9-CAUSES, ANXIETY AND MITIGATION STRATEGIES

Dr. Pratap Surapaneni, Vet Surgeon,
Andhra Pradesh

Police canines as part of modern law enforcement playing pivotal role in the modern policing. K9 teams provide critical support in various tasks such as explosive detection, narcotic detection, tracking, search and rescue and cadaver detection. The stressful working nature can take toll on the K9 teams. This may lead to stress and anxiety that can lead to compromising this performance in the field and also lead to deteriorating in the health condition of the K9. This article reviews causes and consequences of the stress and anxiety in working police K9 and also provides a comprehensive overview of mitigation strategies to help in minimising their impact on the working k9 which can improve the quality of life in working dog.

INTRODUCTION: Police service canines are exposed to a unique set of stress that effect their behaviour, physiology and overall wellbeing



Fig. Police K9 team working at bus station

of the K9. Stress and anxiety can manifest in various ways including changes in appetite, sleep patterns, decreased performance and motivation. If these are left undiagnosed or unaddressed in the early stages this may lead to chronic stress and anxiety which may lead to health problems like gastric, peptic ulcers, cardiovascular conditions and overall decrease in immune function of the K9. This impact of high stress environment is the major reason of the stress and anxiety in the working canines.

CAUSES OF CANINE STRESS:

a) HIGH STRESS ENVIRONMENT: Police service canines are often exposed to loud and sudden noises, chaotic situations, heavy traffic conditions, crowded places, forest field conditions with sudden change in climatic conditions which are

potentially traumatic events that are overwhelming and stressful for the working K9

b) REPETITIVE AND INTENSIVE TRAINING: The Police service canines undergo vigorous training in different field conditions. These training sessions sometimes are prolonged and rigorously which are physically mentally demanding leading to stress and anxiety. The general wear and tear of the muscle and other organs takes certain recovery time. But sometimes the canines are not allowed to rest to have the time of recovery, this may sometime lead to changes in blood biochemical changes prolongedly.

c) LACK OF DOWN TIME: Police service canines don't have adequate rest and relaxation time leading to burnout and increased stress. The physical stress in the police service canine is mainly due to continuous duties which don't



Fig. Canine muzzle with head set

for duties that may lead to False positives and False negatives in the field of detection and other duties.

CONSEQUENCES OF STRESS AND ANXIETY IN WORKING K9:

a) DECREASED PERFORMANCE: Stress and anxiety can impair Police service canine ability to perform their duties effectively leading to decreased accuracy and reliability. The decreased performance in the detection canine is very important to consider and should be detected and treated at the earliest in manner.

b) HEALTH CONDITIONS: Chronic stress and anxiety can lead to silent and chronic health conditions. These health conditions include Gastric/Peptic ulcers ,Muscular Dystrophy, Cardiovascular problems, Hypertension and Diabetes mellitus.

c) HANDLER STRESS AND BURNOUT: The stress and anxiety of the police service canines can also affect their handler leading to stress, burnout and decreased job satisfaction in the handlers. Due to continues physical and mental health condition, treatment for health conditions can lead to emotional issues.

MITIGATION STRATEGIES TO RECOVER K9 FROM STRESS AND ANXIETY:

a) ENVIRONMENTAL ENRICHMENT: It is important to provide police service canines with stimulating and comfortable environment such as comfortable

have adequate rest that leads to stress in the police service canines. When the police organisations or units which don't have adequate police service canine strength are facing the problem of stress.

d) HANDLER AND K9 RELATIONSHIP: The mutual relationship between K9 and handler are very essential in the K9 team. If the handler himself is in stressful condition which may also affect equally the canine behaviour which is due to stress. The personal problems of the handler, mental status of the handler are mainly the reason of the stress and anxiety of the working canine. In some conditions sudden change of the master handler due to internal transfer or any departmental issues also cause stress in K9 due to separation from its master handler.

EQUIPMENT AND GEAR: Some modern equipment used in the police service canine operations are leading to discomfort or stress. Some modern equipment's like heavy head mounted sets, tight muzzle, vests, inappropriate harness are also main reason stress and anxiety in the working canine. Use of appropriate gears, light weight and correct sized equipment's are very much essential for a police service canine to perform their duties. Unnecessary use of equipments should be avoided.

e) NOISE AND CROWDS: The canines which are frequently exposed to high sounds, loud noises in urban conditions are the main reason leading to stress and concentration deficient in canines. When such canines which are affected with stress are allowed

kennels with adequate ventilation and controlled environment which give them adequate rest and relaxation which can reduce stress and anxiety in their daily routine.

b) TRAINING MODIFICATION: Modify the training protocols to incorporating positive reinforcement techniques can help in reducing stress and anxiety. Reduce intensity of exercises for a period of time for the recovery of the working canines.

c) HANDLER SUPPORT: Providing handler with training and support

to manage their own stress and anxiety and promoting a healthy K9 and handler relationship which can reduce stress and anxiety in police service canine are necessary.

d) VETERINARIAN CARE: Regular veterinary checkup helps in monitoring, identifying in addressing behavioural problems in the working canines at the earliest manner. Ectoparasite are also one of the main cause of stress. These are to be eradicated immediately to avoid stress. This can prevent further complication in the K9 health deterioration.

e) MENTAL HEALTH SUPPORT: Both police service canines and handler should be provided with mental health care support and resources for the handler to mitigate the stress in field conditions.

CONCLUSION:

Necessary steps are to be taken to mitigate the stress in working and training canines and promote healthy wellbeing and performance of canine and its partners for effective K9 management.



Fig. Veterinary health care for working k9 in Andhra Pradesh K9 training



He Joined as Veterinary Officer in 2009 and was deputed to Police department in the year 2017. He is posted at the K9 Training Centre, Mangalagiri for the past 7 years, with AP Police.

Feedback



नितिन अग्रवाल, भा.पु.से.
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31st July' 2024

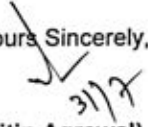
Dear Natarajan,

Thanks very much for providing me "National Police K-9 Journal".

2. The Journal is not only informative, but also showcasing the efforts and operational achievements of K9s. Kudos to the entire editorial team.

Best Wishes,

Yours Sincerely,

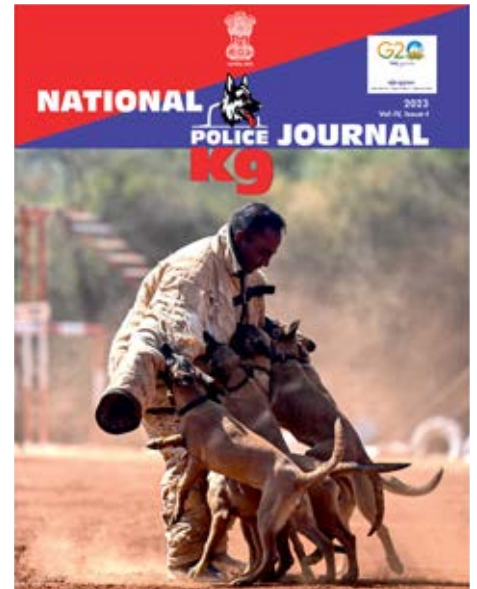

(Nitin Agrawal)

Dr. Sudhakar Natarajan,
Dy. Inspector General (Vet)
ITBP, HQr
New Delhi



BSF K9 Anti-Sabotage Check in progress

पूर्व प्रकाशित संस्करण

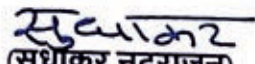




जुलाई- 2025 में प्रकाशित होने वाले MHA National Police K9 Journal ds Vol- VI Issue 1 नोवें संस्करण के लिए निम्नलिखित विषयों पर लेख आमंत्रित किये जाते है।

1. **तकनीकी लेख:-** उच्च गुणवत्ता वाली तस्वीरों के साथ K9 में प्रशिक्षण, तैनाती, प्रबंधन आदि से संबंधित शोध लेख, फील्ड ट्रायल रिपोर्ट, व्यक्तिगत अथवा संगठनात्मक अनुभव।
2. **ऑपरेशनल K9 केस स्टडीज:** केंद्रीय सशस्त्र पुलिस बल/राज्य और केंद्र शासित प्रदेश पुलिस/सुरक्षा बलों द्वारा अपनाई गई K9 सफल रणनीतियों से संबंधित सूचनाएं एवं सीखे गए सबक। असफल केस अध्ययनों को भी साझा किया जा सकता है, क्योंकि वे SWOT विश्लेषण के लिए समान रूप से महत्वपूर्ण हैं।
3. **प्रशिक्षण संबंधी अनुभवों को साझा करना:-** पत्रिका का एक विशेष भाग जमीनी प्रशिक्षण से संबंधित अनुभवों के लिए आरक्षित रखा जाएगा ताकि K9 प्रशिक्षण की सेवाओं के दौरान सभी हितधारक (Stake Holders) के परीक्षणों, कठिनाइयों और सफलताओं के अनुभवों से लाभान्वित हो सकें।
4. **सवाल एवं जवाब :** यह अनुभाग डी०एच०/ए०डी०एच०, से संबंधित उच्च प्रशिक्षण अधिकारियों से, उनके द्वारा पूछे गए सवालों के लिए समर्पित है। प्रत्येक बल के K9 प्रशिक्षण अधिकारी अपने जवानों को सवाल पूछने के लिए प्रोत्साहित कर सकते हैं और वे इसका जवाब दे सकते हैं। डी०एच०/ए०डी०एच० की तस्वीर के साथ सवाल - जवाब सहित प्रकाशन के लिए भेजे जा सकते हैं।
5. **नोटपेड:** K9 प्रशिक्षण में शामिल अधिकारियों और कर्मियों द्वारा संक्षिप्त Notes के लिए एक विशेष अनुभाग को समर्पित किया जाएगा।
6. **संगठनों पर फोकस:-** प्रत्येक प्रकाशन में किसी भी एक संगठन के K9 स्कंध को उजागर किया जाएगा। पुलिस के कर्तव्यों के वास्तविक संचालन में K9 विंग के समग्र प्रदर्शन का उल्लेख करते हुए उच्च गुणवत्ता वाली तस्वीरों के साथ लेख भेजे जा सकते हैं।
7. **वर्दीधारियों में K9 का हास-परिहास (Humour) :-** इस अनुभाग का उद्देश्य हमारे पुलिस K-9 के साथ हास- परिहास के लम्हो को प्रकाशित कर हमारे दिलों को खुश करना व चेहरों पर मुस्कराहट लाना है।
8. **प्रतिक्रिया:-** विगत प्रकाशनों पर प्रतिक्रिया का सदैव स्वागत है।

अतः सभी राज्य पुलिस और केंद्र शासित प्रदेश पुलिस से अनुरोध है कि आपके द्वारा संबंधित लेख उपरोक्त Ariel Font, साईज-12 एवं JPEG फॉर्मेट में उच्च गुणवत्ता वाली तस्वीरों के साथ Soft and Hard Copy में इस कार्यालय को आई०डी० digvet@itbp.gov.in पर भेजने का श्रम करें।


 (सुधाकर नटराजन)
 उप-महानिरीक्षक (वेत)
 महानिदेशालय भा.ति.सी.पु.बल

K9 Team During Paris Olympiad 2024



Participants (Left to Right): Constable (ADH) Lakhvinder Singh, Constable (DH) Vikash Kumar, Constable (DH) Vikas Kumar, SSB | Rfn (DH) Nongmaithem Ranjit Kumar, Rfn (DH) Kulkule Nirmal, Rfn (DH) Rakade Ganesh, Assam Rifles | Ranger II (DH) Jagannath Mohanty, Ranger-II (DH) Mahesha GS, Ranger-II (DH) Ajoy Barman, NSG | 2IC (VET) Dr. Manjur Uddin Ahmed PM Division/MHA | Constable (DH) Kashi J, Head Constable (DH) Jayesh VV, Constable (ADH) Ramu Maduri, CRPF | Constable (DH) Nasib, Constable (DH) Vikas Kumar Pandey, Constable (ADH) Harish, ITBP.

Participants Dog (Left to Right): Raja, Tuffy SSB | Tang, Josh Assam Rifles | Ming, Anchor NSG | Vast, Danbie CRPF | Goldy Julie ITBP.



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