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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.

The Journal's Editorial Board reviews all articles for content and readability, and reserves the right to edit accepted articles for readability and space, and to reject articles at will.

Authors who submit articles to the journal are expected to do so in good faith and are solely responsible for the content therein, including the accuracy of all information and correct attribution for quotations and citations.

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BSF K9 team, CT/DH Santosh Kumar with K9 Uber and HC/DH
Sukhnandan with K9 Victor performing Patrolling duties at White Rann
of Kutch as well as Sir creek area Rann of Kutch of Gujarat respectively.



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EDITORIAL

**Dr. Manjur Uddin Ahmed,
2IC(Vet) & Editor, Police K9
Cell, PM Division, MHA**

It is with much joy and fervor that we are solemnizing the new year with this new edition i.e. Vol-VI, Issue-II of National Police K9 Journal under the aegis of Ministry of Home Affairs. The beginning of a new session brings a fresh start and a chance to pursue our goals with renewed purpose. On behalf of the MHA Police K9 Journal Editorial Team, I would like to express my sincere gratitude to the dedicated editorial team and all the authors, contributors, and reviewers who worked diligently to bring this publication to the zenith.

This issue covers the insightful technical articles, Training notes, heartwarming stories, Operational achievement of K9s from various CAPFs/ State Police and Law enforcement agencies. The Operational achievement of K9 Hema & K9 Shera of ITBP, K9 Babu of BSF, K9s viz. Diesel, Beena, Faster & Demi of Gujarat Police and K9 Vikki of NDRF as well as stunning photographs that display the incredible bond between Police K9s and their handlers. This issue also highlighted the field insights from trainers and handlers from Dog training team DT&BC, Dera, Alwar(Rajasthan). The technical articles and operational achievements included in this journal would serve as a valuable archival material for future generations.

The CAPFs are the largest PSKs users (approx.4000 K9s) in the country with varieties of breeds such as Belgian Shepherd, German Shepherd, Labrador Retrievers, Dutch Shepherd, Golden Retrievers, Dobermanns, Cocker spaniels etc are specifically trained for the task like Explosive detection, Narcotic detection, Tracking, Patrolling, Assault, Camp Security etc. Among the CAPFs, as per the sanctioned strength authorised by MHA, the major chunk of K9s are with CRPF (around 1672) followed by BSF(1512).

Authorization of PSKs are being increased from time to time on the basis of operational requirement of concerned CAPFs. To bring parity among the CAPFs and others in terms of current practices, to streamline the procedure, in the last few months of this year, a lot of positive progress has been made with regard to formulation of handful of SOPs and QR/TDs by Police K9 Cell and issued with an aim to bring uniformity of best practices for Police Service K9s amongst different CAPFs.

Furthermore, to meet the growing requirements and overcome existing deficiencies in the country, MHA has authorized 4 Dog training and Breeding Centres (DTBCs) to various CAPFs with the aim to produce quality pups for the police duties which would substantially enhance their capacity to produce pups and supply to other Forces to meet their requirement. After inception of these centers i.e. 2020 onwards, the puppy productions as on dated at different DTBCs have been increased upto 52% and the sanctioned strength of Police service K9 of various CAPFs and current holding have been increased upto 37% &39% respectively.

The Hon'ble PM and HM has been expressed on various occasion on the Indigenous Dogs with regard to further utilize them in all walks of life as an effective Force multiplier. Accordingly, as per the Direction of Hon'ble PM, Trial conducted on Indian Dogs Breeds(Indigenous Dogs) for Police Duties, where ITBP successfully deployed 14 dogs,

SSB -06 Dogs and reports of other CAPFs such as BSF & CRPF are still under trial.

These endeavours further enhanced by the inspirational remarks coming straightway from the Hon'ble PM of the country, when, he briefed in detail about the role and contributions of PSKs during the recent "Mann Ki Baat" on 26-10-2025(in the 127th episode) and earlier addressed to the Nation on 30 Aug' 2020. Similarly, as per the direction of Hon'ble HM, a project is undergoing to develop a roadmap for scientific genetic modulation of indigenous breeds suitable for police work in Indian condition for complete replacement by Indigenous Dogs within a time frame of 15- 25 years.

Furthermore, CAPFs K9 contingent comprising of 10K9s and 17 personnel (02-Officer& 15-ORs) earned impeccable reputation due to their flawless performance in anti-sabotage check duties at the various venues hosting the sporting events and highly sensitive installations during the Summer Paris Olympics-2024. Consequently, a handful of requests were placed by foreign nations such as Bhutan , Mauritius, Jamaican, and Bangladesh Govt which are being dealt by K9 Cell with regard to the training and procurement of K9s from India.

Finally, we wish to encourage more contributions from the scientific as well as K9 community to ensure a continued success of the journal.

We welcome your feedback, ideas, comments and suggestions that could improve the quality of the journal for future editions.

Some of my feelings for the Police Service K9s are being expressed in the form of spellbinding quote :

Not all heroes are human being, give us opportunity, Together we would be unstoppable.
Thank you. I hope you will find the Journal informative.



Dr. Manjur Uddin Ahmed,
2IC(Vet) & Editor, Police K9 Cell, PM Division, MHA



TECHNICAL ARTICLES

PAWS ON DUTY: THE SNIFFER DOG UNIT OF TAMIL NADU POLICE

Dr. R. Dhinakaran, IPS, Additional Director General of Police, Operations, Tamil Nadu Police

Introduction

In the annals of policing history, the Tamil Nadu Police Sniffer Dog Unit holds a distinct honour: it was Asia's first Canine Squad established in 1952 in Chennai (Madras) City Police, long before many modern law enforcement agencies realized the power of a trained snout. Even Indian Army has started its Sniffer Dog unit only in 1959. From humble beginnings in Chennai (then Madras), this pioneering initiative has evolved into one of the most disciplined, diverse, and strategically vital canine units in the country—integrating tradition, innovation, and local pride.

Origin of the Sniffer Dog Unit

The first sniffer dog squad in India—and Asia—was formed in the Chennai City Police in 1952, laying the groundwork for future

use of canine units across the nation. Over the decades, Tamil Nadu expanded this model across several districts: in 1961, 1965, and 1986, with dogs assigned for crime detection and tracking.

The Tamil Nadu Commando School created in 1997 remains a central training and operational hub for the Canine unit of Tamil Nadu Police. By 2002, under the Police Modernization Scheme, the canine unit was extended to multiple districts, with new roles introduced for bomb detection and criminal tracking. In a progressive move, female police constables were appointed as dog handlers in Coimbatore and Ramanathapuram units.

The Canine Force of TN Today

As on date, Tamil Nadu boasts 43 Sniffer Dog Units covering 31

S. No.	Trade	No. of Dogs	Remarks
1	Explosive Detection	118	Includes 2 Assault Dogs
2	Crime Detection	96	Includes 4 Infantry Patrol Dogs
3	Narcotic Detection	49	
4	Search & Rescue	4	
Total	267		

Districts, 9 Commissionerates, and 3 Special Units. These units have 267 dogs, each trained for specific operational roles:

Breeds on Duty: Blending Global and Indigenous Strength

While traditional breeds like



Kombai – The Fearless Guardian

Hailing from Theni district of Tamil Nadu, the Kombai is fearless and loyal—historically used for guarding estates and hunting. A notable example is Rusty, a male Kombai tracker trained in crime detection, who won Gold Medal at the 2024 State Police Duty Meet and earned national recognition in 2025 at Ranchi.



Kanni – Protector of the Innocent

Originating in Tirunelveli and Thoothukudi districts of Tamil Nadu, the Kanni dog is known for its protective instincts, especially in protecting women and girls. Today, these dogs are dual-trained in explosive detection and infantry patrol, a throwback to their ancient role as loyal bodyguards.



Mudhol Hound – The Agile Patrol

The Mudhol Hound has been deployed in infantry patrol operations, valued for its stamina, speed, and acute senses.

German Shepherds, Labrador Retrievers, Doberman Pinschers, and Belgian Malinois are mainstays, Tamil Nadu Police has made an extraordinary move by training native Indian breeds for frontline duties.

- Dogs are being sent to National institutions like NTCD, BSF

Training the Perfect Tracker

Training begins when puppies are just 3–4 months old, focusing initially on bonding and basic behavioral discipline. From 6 to 9 months, they undergo basic and advanced training in specialized fields for 6 months.

Training is conducted at:

- 2 Permanent (Chennai & Coimbatore) and 1 Temporary (Madurai) Training Centers in Tamil Nadu



Canines under training

Training Academy (Tekanpur), and CRPF, DBTS, Taralu, Karnataka for advanced rescue and patrol skills.

Refresher courses are conducted annually (2 weeks), ensuring the dogs remain in peak condition.

Care and Welfare

The dogs receive a nutritious diet (rice, dal, eggs, meat, milk, dry food) and are treated at Government veterinary hospitals across Tamil Nadu. Quarterly medical checks, deworming, and vaccinations (DHPPIL and ARV) are mandatory. Handlers also receive ARV vaccinations and undergo leptospirosis screening biannually.

Operational Roles

Explosive Detection

Sniffer dogs conduct Anti-Sabotage Checks (ASC) during high-security events involving VVIPs, including

the Hon'ble Chief Minister, Prime Minister, and foreign dignitaries. They also screen venues for national celebrations, sports events, and respond to bomb threats along with the BDDS Unit.

Tracker Dogs

These dogs are trained to trace criminals in serious crimes such as murder and robbery. During last year (2024) alone, our Canine squad has assisted the local police in solving 55 Murder cases and 29 Property Crimes.

Narcotic Detection

Canines are deployed at railway stations, bus depots, and suspected locations. In the past 2 years, the units helped in seizing 32 kg of Ganja.

Assault & Rescue

While assault dogs are being phased out from active duty, search and rescue dogs continue to be critical during building collapses and natural disasters, currently operated exclusively by the Tamil Nadu Commando School.

Retirement and Beyond

Dogs are retired at 8 years of age, depending on health, with approval from the Director General of Police. Retired dogs are cared for

Year	Handler	Dog	Breed	Event	Medal	Venue
2018	SSI J. Abhrakam	Agni	Doberman (M)	Narcotics	Gold	Karnataka
2019	PC A. Martin	Linga	GSD (M)	Narcotics	Gold	Uttar Pradesh
2023	SSI Leorayan	Bluto	Doberman (M)	Tracking	Gold	MP
2024	HC R. Ravichandran	Rex	Labrador (M)	Narcotics	Gold	Uttar Pradesh

within their home units. Plans are underway to build a dedicated care centre for these heroes to enjoy their well-earned rest.

Honours and Recognition

Tamil Nadu Police dogs have consistently made the state proud at All India Police Duty Meets:

These accolades are the result of annual state-level competitions hosted by the Tamil Nadu Commando School, where the best canines are selected and trained for national glory.

The Road Ahead

Looking ahead, the Tamil Nadu Police aims to:

- Establish a State-of-the-art Integrated Canine Training Centre near Chennai.
- Upgrade it into a National-level training facility

- Build a care home for retired dogs
- Procure special vehicles for safer, more comfortable transport of dogs to operational sites

Conclusion

From humble origins in 1952 to national accolades and indigenous innovation, the Tamil Nadu Police Sniffer Dog Unit has exemplified courage, loyalty, and evolution. More than just working animals, these dogs are silent warriors, protecting our communities with every sniff, bark, and paw step.

“As policing continues to evolve, these four-legged officers remind us that sometimes, the best crime fighters don’t carry guns—they carry tails”.

“Every dog has its day. But for the Tamil Nadu Police Sniffer Dog Unit, every day is duty day.”



Dr. R. Dhinakaran, IPS., is presently working as Additional Director General of Police, Operations, Chennai. The Tamil Nadu Dog Training units are presently functioning under his control which gives Basic and Advance Training for the newly recruited canines besides providing refresher training for all the dogs throughout the state. During his service, the Officer was awarded with President of India Police Medal for Meritorious Service in the year 2014 and Hon'ble Chief Minister's Medal for Outstanding Devotion to Duty in the year 2019.

ISSUES AND CHALLENGES IN CANINE SEMEN CRYOPRESERVATION AND ARTIFICIAL INSEMINATION

Dr. Ajeet Kumar, Professor, GADVASU



The canine business has attained a global boom with ever increasing demand for pet dogs. This has led to a tremendous increase in the demand of male dogs for breeding. Many a times, a suitable stud dog is not available for breeding. Under such situation, AI with chilled or frozen semen is the only way out. So, the increased adoption of artificial insemination in canines led to enhancement in the scope of cryopreserved semen in dogs. The dog semen could be preserved by chilling at +4°C or freezing at ultra low temperature (-196°C) in liquid nitrogen. Basically, the technique of canine semen preservation by chilling or freezing at ultra low temperature is similar to the

bovines with minor variations.

The chilled semen can be used for insemination up to 4-6 days. However, semen from older dogs should be used within 48 hrs. At the time of semen collection from dogs, slight bleeding is common. Rijsselaere et al (2004) has reported that haemospermic ejaculate with up to 10% blood could be successfully chilled and used for insemination. However, hematospermic ejaculate is not recommended to use in semen freezing at ultra low temperature. The addition of prostatic fluid to dog semen at the time of chilling has shown to improve the fertility after A.I (Nothling et al, 2007).

The components in extenders protect the spermatozoa from cold shock and maintains of osmolarity, pH and energy source. Tris based extender is most commonly used now a days for preservation of canine semen (Pena and Linde Forsberg, 2000). The cryoprotectants like egg yolk and glycerol are added as a component of extender. During freezing and thawing, sperm plasma membrane gets destabilized and damaged due to temperature variation and intracellular ice crystallization. Glycerol modulates the lipid packing and intracellular ice crystallization in the sperm membrane thereby minimizing the cryoinjury (Watson, 1995). Egg yolk is a complex

biological compound containing lipids, phospholipids and proteins and protects sperm membranes against cold shock (Huopalathi et al, 2007). Egg yolk also contains antioxidants, which prevent sperm membranes from oxidative damage from reactive oxygen species produced during freezing (Klinc and Rath, 2007). The Egg yolk Tris Glucose buffer (EYTG) is the commonly used buffer for canine semen extension (Verstegen et al, 2005). The addition of detergents like sodium dodecyl sulphate (SDS) to extender enhances sperm motility, membrane integrity and survival of spermatozoa after freezing (Singh et al, 2022). Sugars like trehalose, xylose and fructose have been used in extenders for canine spermatozoa and resulted into good post-thaw sperm survival (Yildiz et al, 2000).

The dilution of semen can be done in one or two steps. When two-step dilution is used, the first is done at room temperature and the second after chilling/equilibration and just before the freezing (Pena and Linde Forsberg, 2000). No significant difference was found in post thaw viability or longevity of canine spermatozoa whether glycerol was added all at once or in two steps (Pena and Linde Forsberg, 2000). Prior to freezing, the diluted semen is allowed to stand at 4°C which is also known equilibration. For dog semen, the equilibration time is usually 1-2 hours but may range from 1 to 4 hrs in different protocols.

Cryopreservation of canine semen at ultra-low temperature has become an essential tool

for enabling the long-term preservation and transport of semen, helping to overcome spatial and time-related limitations in breeding programs (Sugai et al., 2023). The effectiveness of this technique largely depends on the freezing process, where selecting the appropriate biofreezing temperatures is crucial for post thaw sperm viability and fertility. Several freezing rates have been tested for dog semen. The cooling rate of 12°C or 28°C/min in the critical range of -15/-60°C gives the best post thaw motility (Peña and Linde-Forsberg 2000). Now a days, programmable freezers are being used for the freezing of semen. Canine semen is usually frozen by placing the 0.5 ml straws in liquid nitrogen vapour on a rack 4 cm above the LN2 surface in a styrofoam box for 10 min or by lowering the straws in 3 steps directly into a liquid nitrogen tank (Pena and Linde-Forsberg, 2000).

Spermatozoa are highly sensitive to stressors like thermal stress, osmotic stress, and applied cooling rates during freezing. During freezing, intracellular ice formation and osmotic shock causes damage to plasma membrane, acrosome and mitochondrial function. Freezing rates and equilibration steps impact osmoregulatory mechanisms, membrane integrity, and post-thaw motility, with effects varying between individual dogs and extenders used (Sicherle et al., 2020). Fine-tuning the cooling rates during critical temperature range (4°C to -60°C) remains vital for preserving sperm functionality and cellular membrane stability (Dalal et al., 2018). Most of the

research has been conducted on the optimization of cooling rates for the cryopreservation of bull semen.

Only few studies have been reported on modulation of cooling rates during dog semen freezing in order to determine the optimal temperature range for enhancing post-thaw sperm quality. Kurein et al. (2012) studied the effect of different freezing rates on dog semen- slow freezing rate 2°C/min from 5°C to 15°C, 5°C/min from -15°C to -40°C and 10°C/min from -40°C to 100°C and fast freezing rate 3°C/min from 5°C to -15°C, 10°C/min from -15°C to -40°C and 50°C/min from 40°C to -100°C from which fast freezing performing better. Zambelli et al. (2002) evaluated different cooling rates during cat semen cryopreservation, ranging from 3.85°C/min to 43°C/min. It was found that the slowest rate (3.85°C/min) resulted into best post thaw sperm acrosome morphology. The current focus is on need to identify the best cooling rate for optimizing the freezing protocol for cryopreservation of dog's semen.

Artificial Insemination

At the time of insemination, frozen straws are thawed by immersing in water bath at 37°C for 30 sec. During natural mating in dogs, considerable portion of the ejaculate moves into the uterus through the cervix during copulatory tie. While performing AI, vaginal deposition of semen negatively influences sperm survival and transport in the female genital tract. However, deep vaginal insemination shows acceptable results with fresh and



Fig. 1: Endoscopic insemination in female dogs

chilled semen. AI with frozen semen, intra-uterine insemination is necessary to obtain best results. For vaginal AI, a simple plastic catheter of proper length may be used, to which a plastic disposable syringe containing the semen is attached. Intrauterine insemination is carried out under the visual control of endoscope (Fig 1).

The endoscopic catheterization may be problematic in both toy and giant breeds due to narrow

and longer vagina, respectively. Currently, the vaginoscopic method of intrauterine insemination appears to be advantageous and useful technique of semen deposition in the uterine lumen in bitches. The technique demands skill but it is practical, non-invasive and quick to perform. Despite lots of efforts and progress made in canine semen industry, many issues do exist like number of sperm required for AI using frozen semen and freezing protocols.



Dr. Ajeet Kumar, Professor in Department of Veterinary Gynaecology and Obstetrics, GADVASU, Ludhiana is having 23 yrs of experience of teaching and research. Dr. Kumar is the Chief Editor of The Indian Journal of Animal Reproduction, an official journal of The Indian Society for the Study of Animal Reproduction (ISSAR). He is recipient of 14 national and international awards in his professional career and has published 153 research papers in international and national journals. He has developed freezing protocols for cryopreservation of buffalo bull, buck and dog semen.

CHALLENGES FOR A DETECTION K9 — TRAINING VS REAL SEARCH

Smt. Veena Rao, Superintendent, CBIC & Shri Alok Srivastava, Commissioner, CBI

1. Introduction

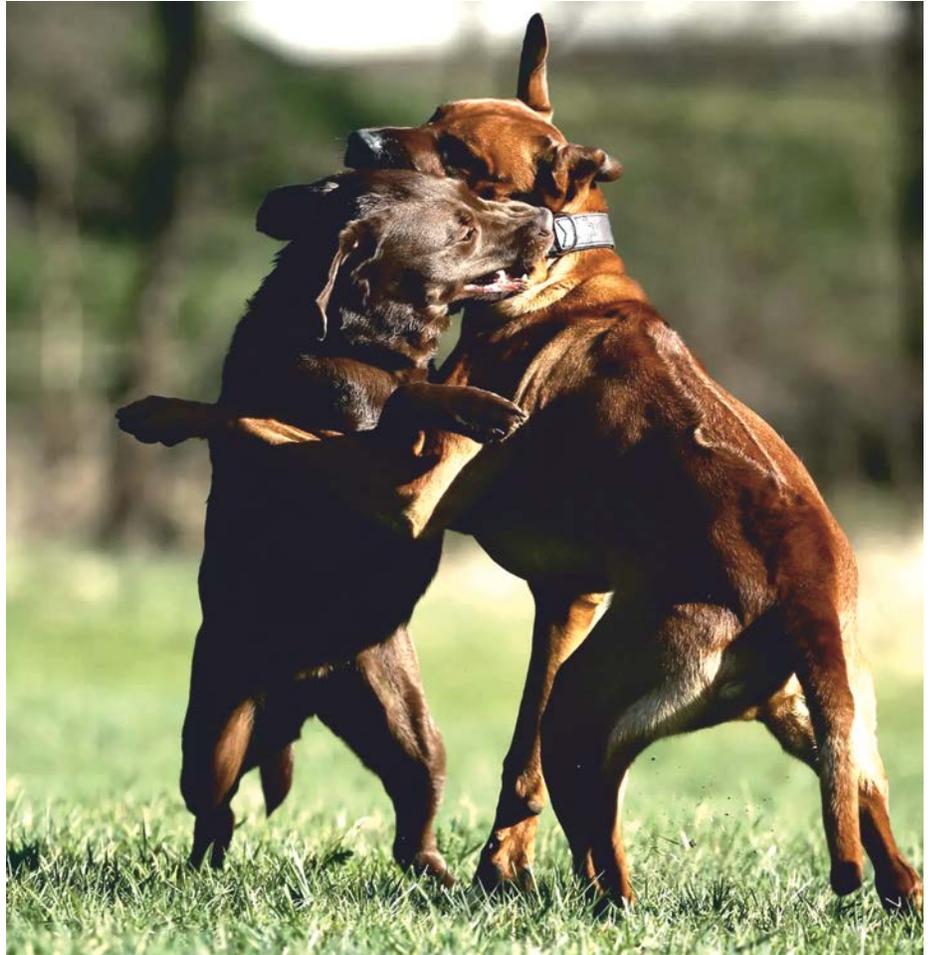
We know, detection K9s operate in a sensory modality that is fundamentally different from that of humans. For humans, vision is the primary channel through which we interpret the environment; for K9s, olfaction dominates. Odours form the K9's primary "data stream" about the world. They use scent not only to recognize individuals, track movement, and locate food, but also to detect specific target substances when appropriately trained.

However, training conditions typically represent a simplified version of reality: controlled odour sources, minimal background odours, and carefully managed presentation.

In contrast, real search environments are inherently complex—rich in overlapping odour signatures, variable airflows, and unpredictable human and environmental interference. Understanding this gap is essential for designing robust detection program for our K9 partners.

2. Customs and detection K9

Customs detection K9s are deployed across a wide array



of operational environments worldwide, reflecting both the globalization of illicit trade and the expanding scope of border-security missions.

Internationally, canine teams operate at major airports, maritime ports, land borders, cargo consolidation hubs, international

mail-handling centers, bonded warehouses, container yards, railway transit terminals, free-trade zones etc. Within these varied contexts, detector K9s are used not only for passenger baggage screening, but increasingly for commercial cargo inspection, vessel boarding, warehouse sweeps, postal parcel triage, and



Figure 1: K9 Rock and K9 Snow boy at Airport



Figure 2: K9 Orly at Inland Container Depot



Figure 3: K9 Nimmy at Land Customs Station

targeted secondary inspections driven by intelligence cues.

Currently, the Indian Customs has detection K9s deployed at international airports, land borders, foreign post office, inland container depots, air cargo complex. On being posted in the field, the K9 units work as part of the intelligence units. The challenges faced by the K9 units deployed at the international airport are very different from the cargo stations, such as an overwhelming rush of passengers with countless baggage with clouds of odour floating all around!

Despite all the challenges, our K9s have been successful in detecting 580.188 kgs of narcotics in 121 cases pan India, till October 2025, since the passing out of first batch of narcotics detection K9s from

Customs Canine Centre, Attari. The variety of narcotics detected [heroin, cocaine, amphetamine, hashish, marijuana, methaqualone, ketamine HCl, mescaline, ganja, hydroponic weed and khat] is an example of the versatility of the K9s to detect different target odour.

The interactions with field K9 handlers and field officers on a regular basis reveal the challenges K9s encounters in the real search environment. A systematic analysis of all the challenges has led to incorporating the solutions as part of annual refresher training. This task of developing our training is a never-ending process and needs consistent effort in this direction. Refining any training module requires a structured, stepwise approach that progressively builds generalization, and operational realism. We have tried to

understand the challenges being faced by our K9s and the training implications reached / required to be reached are discussed through the article.

3. Canine Olfactory Perception and the Concept of Odour signature

3.1 Sensory Specialization in K9s

A substantially larger olfactory epithelium and far a greater



number of olfactory receptor cells than humans, functionally, mean that the K9's perception of the environment is dominated by smell. A search K9 does not simply detect "a smell"; it decomposes an odour plume into components, compares them to learned odour signatures, and responds accordingly.

3.2 Odour signature:

In operational settings, a K9 does not encounter pure, isolated molecules of a drug or contraband. Instead, it encounters a composite profile—the odour signature—which includes multiple odour sources that consistently co-occur with the target. Conceptually, we can break this odour signature into several components to have a broader idea of what surrounds the K9s nose during search operations:

Main signature odour:

The primary target substance (e.g., narcotics, tobacco, currency, wildlife products). This is typically the odour on which the K9 is formally imprinted during training.



Figure 4: Opium – Main signature odour



Figure 5: Accompanying material

Accompanying odours:

The seizures at field locations revealed that the search environments contained odours from packaging materials (e.g., plastic bags, cardboard boxes, tape, glue), odours from containers or vehicles where the contraband is hidden (e.g., car interiors, suitcases, furniture) and masking agents intentionally added to hide the main odour (spices, coffee, body lotions, shampoos, fish powder, meat, etc.).

Over time, these odours become part of the "context signature" that the K9 may unconsciously associate with the target.

Human odour:

In real searches, contraband is typically handled by multiple individuals, leaving traces of human odour near caches or along access paths. Thus, the real operational



Figure 6: K9 Orio at Air Cargo Complex

odour signature nearly always includes human scent components that were minimized or eliminated in training. During training, trainers / handlers often use sterile gloves or tongs to minimize transfer of human scent to training aids.

Environmental odour

Every search area—room, vehicle, warehouse, open stretch—has a characteristic background lubricants, soil, vegetation, and other local features all contribute to this environmental baseline.

During both training and real searches, this background merges with the target odour, changing the overall odour signature the K9 must interpret. The practical implication is that K9s learn a pattern of co-occurring odours, not a single isolated molecule. Batch after batch of annual refresher made it evident that, if training is too sterile or too simplified, the odour signature learned in training may not generalize well to operational environments.

4. Training Versus Real Search: Sources of Discrepancy

In standardized training, the odour source is usually strong, static, well-defined, and free from heavy background interference. Thus, commonly the goal during training is to establish a strong, clear association between the target odour and a reward.

Whereas in real-world operations:

- The target odour may be weaker, older, or partially contained.
- Masking agents may be present in high concentration.
- Human scent surrounding the target is unavoidable.
- The environment is dynamic as people move, doors open and close, vehicles arrive and depart, and ventilation changes.

Therefore, training must progressively incorporate such complexities with the target at our K9 training centre. This included controlled introduction of masking agents, variable packaging, realistic human odour contamination, and search environments that more closely resemble operational conditions.

5. Factors Influencing Odour signature and Detection Performance, Training implications

Several physical and situational parameters modulate how a target odour is emitted, transported, and perceived by the K9. Understanding these situational parameters have enriched the learning experience,



Figure 7: Under training K9 at CCC Attari - Familiarization with surroundings

broadening our approach to lesson planning, thereby broadening the scope and quality of the training module itself.

5.1 Quantity of Target Material

A common human assumption is more substance = stronger and easier-to-detect odour. While generally true at a physical level (more material usually means more

volatilized molecules), K9s may perceive different quantities as qualitatively different odours rather than simply “more” or “less” of the same. If a K9 is trained exclusively on small amounts, encountering a large cache may create an odour picture that is unfamiliar, potentially causing hesitation. Conversely, a K9 trained only on large quantities may underperform when searching for trace amounts.

Training implication: At CCC we have tried to include a range of quantities (from original samples to soaks to seized narcotics) to broaden the K9’s internal representation of the target odour. Next step will be efforts to source the samples of the seized narcotics of various purity percentage to help K9 prevent “narrow” generalization. Giving on-site exposure to the K9 units at the location of narcotic seizure has also been attempted successfully.

K9 member Janu helps customs sleuths seize Rs 2 cr-worth dried ganja at CIAL

Onmanorama Staff

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Cochin Customs K9 member Janu Inspects the seized ganja (right) at the Nedumbassery Airport. Photos: Special arrangement

5.2 Temperature Effects

Temperature affects the volatility of odour molecules. Higher temperatures increase



Figure 9: K9 Stringy Girl - detection training

volatilization; more molecules enter the air. Odours rise more readily from surfaces and containers. This often enhances detectability for the K9. Lower temperatures reduce volatility; fewer molecules are released. Odour plumes may remain closer to the source and be less intense. This can impair detection, especially for weak sources or heavily contained material.

Training implication: We needed to expose K9s to both warm and cold conditions to ensure reliable performance across seasonal and environmental variation for which the stretch of induction and the annual refresher training across the seasons have reliably come as a solution.

5.3 Airflow and Odour Transport

Odour does not simply “sit” in space; it is continuously transported

and diluted by air currents. In outdoor search a headwind can be advantageous, carrying odour molecules directly toward the approaching K9. Whereas turbulent or artificial airflow (fans, air conditioning units, open windows, vehicle movement) can produce complex odour patterns—eddies, pockets, and dead zones—making it more difficult for the K9 to trace the source.

K9s typically work odour plumes by moving crosswind and then narrowing in on the highest concentration. Disturbed airflow can shift the apparent source location away from the true source.

Training Implication: The handlers are being made aware of dominant airflow patterns (e.g., direction of fans, open doors, vents), interpret



Figure 10: Masking materials

canine behaviour and make operational adjustment accordingly

5.4 Masking Agents

Masking agents are strongly scented substances deliberately used to obscure the odour of contraband—real examples of masking encountered by Customs K9 in field include:

- Coffee grounds
- Spices
- Body lotions, shampoos, perfumes
- Fish powder or meat products
- Whisky

While humans experience these as overpowering smells, properly trained detection K9s can often separate the target odour from the masking odour mixture, because their olfactory processing system is capable of “unmixing” complex blends into components.

Training implication: Introducing common masking agents systematically is part of our training module so that the K9 learns that the presence of strong other odours does not negate the relevance of the target smell.

5.5 Crowded and Complex Environments

In crowded settings (e.g., airports, foreign post office), multiple challenges arise. There is Restricted movement of the K9 due to physical obstacles or human density. Moving odour sources (people carrying various scents, food stalls, vehicles). Noise and visual distractions that can reduce focus. Rapidly changing airflow patterns due to movement and door opening/closing may also

GUARDIANS OF ECONOMIC FRONTIERS OF THE CUSTOMS



Figure 11: Ready to serve the nation

be an impediment to searches.

Training Implication: To optimize performance the supervisory officers are guided to ensure the K9 has adequate freedom of movement, with clear pathways. Also to Organize human flow through queue makers where possible to minimize direct interference. These measures help the K9 maintain a stable search pattern and interpret odour plumes more reliably.

6. Safety and Health Considerations

From a welfare and operational standpoint, direct exposure to open narcotics is unacceptable. K9s are naturally inquisitive and may sniff, lick, or ingest substances they

encounter. Accidental ingestion of narcotics can cause severe toxicity, neurologic symptoms, or even death.

Thus, key safety principles being followed by the training centre and all the field officers, are that the Contraband remains securely packaged during training and operations. Training aids are handled in a manner to allow odour emission while preventing contact. Handlers are instructed and trained to monitor K9s closely during searches and intervene rapidly if the K9 shows behaviour indicating possible ingestion or contamination. Protecting the health of detection K9s is not only an ethical requirement but also critical for maintaining a

reliable and sustainable detection capability.

7. Conclusion

Detection K9s are highly sophisticated biological sensors whose performance depends on both their innate capabilities and the realism of their training.

The concept of odour signature emphasizes that K9s respond to complex olfactory signatures shaped by the target, human handling, packaging, environment, and time.

Differences between training and operational contexts—especially in terms of odour complexity and environmental variability—can significantly affect detection accuracy.

With deeper insight into how factors such as temperature, airflow, quantity, packaging, environmental odours, and masking agents influence odour availability, we have devised more realistic and varied training sessions. This

expanded understanding has enabled us to prepare K9s more effectively for real-world searches, ensuring that training reflects the complexity and unpredictability of operational environments.”

Ultimately, fostered through scientific understanding and thoughtful training design, absolute confidence in the K9’s abilities become justified rather than assumed.

JAI HIND



Ms. Veena Rao, Superintendent, a custom Officer of the CBIC with over 30 years of service in enforcement, anti-smuggling, training, and border management. Under her supervision, multiple batches of detector K9s have been trained and deployed across India, contributing to significant interdictions and strengthening operational capabilities in the field.

Her professional achievements have been recognized with several honours, including the President’s Award for Specially Distinguished Record of Service (2022) and commendations from the CBIC for her contributions to the drafting of the Indian Customs K9 Manual.

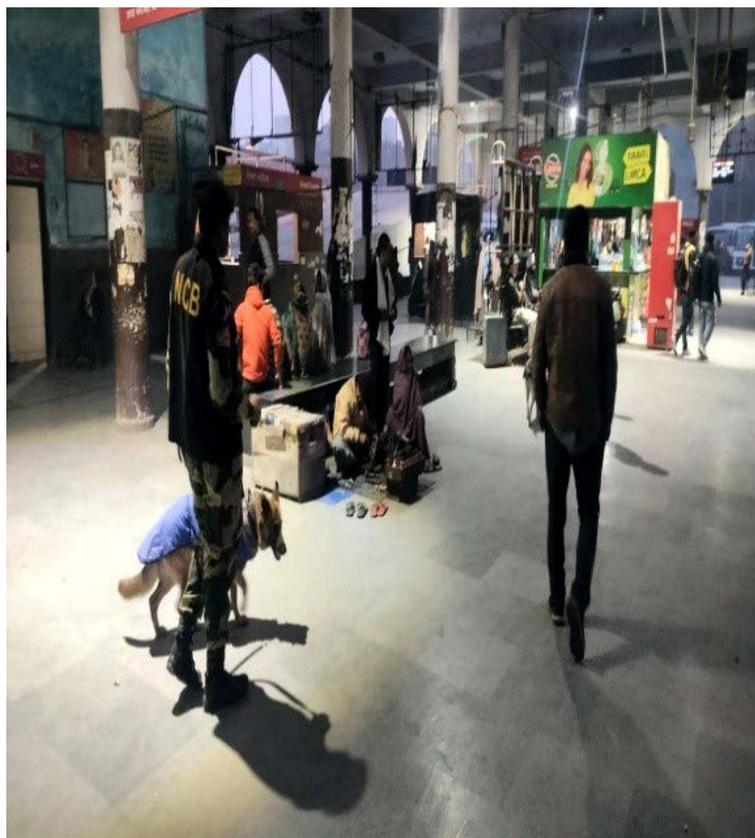
She has represented Indian Customs at multiple World Customs Organization (WCO) events in viz. South Korea, Hong Kong, Australia, and other international platforms, where she has delivered presentations on odour detection, and canine training systems. She has imparted extensive training across a wide spectrum of national and international agencies, covering the fundamentals and advanced methodologies of K9 professional training, narcotics identification, and canine-based enforcement techniques.



Alok Srivastava is 2007 batch Indian Revenue Service (Customs & Indirect Taxes) officer. He has had widespread experiences of dealing matters of taxation including Central Excise, GST and Customs across various locations. Presently, he is posted as Commissioner of Customs (Preventive), Amritsar with jurisdiction spanning over international borders of Punjab, J&K and UT of Ladakh. He is administrative head of Customs Canine Centre located at Attari in Amritsar and closely associated with functioning of the Centre.

NARCOTICS K9s: INDIA'S MOST INTELLIGENT "TECHNOLOGY" THAT CAN'T BE INVENTED

Dr Anees Cherkunnath, IRS, Deputy Director, Narcotics Control Bureau (NCB)



India's fight against illegal drugs includes advanced technology and surveillance systems. But one of its most reliable lines of defense is a living partner: It has four paws, a wagging tail, and detection capabilities that no machine has ever matched- it is nothing but a narcotics detection dog.

The Narcotics Control Bureau, as a part of a coordinated enforcement network has deployed canine squads at its Zonal Units across the country. The utility of K9 teams is

employed to respond to evolving threats, including covert parcel movements, maritime trafficking, and new synthetic drug variants. Trained to identify even trace amounts of prohibited substances, these dogs possess unmatched mobility, speed, and accuracy to security operations. Unlike machines, they can function in confined spaces, crowded passenger terminals, cargo holds, and difficult terrain. Their highly sensitive sense of smell allows them to detect substances that often

evade scanners and electronic systems.

Advanced Scanners look for physical cues viz weight, mass, or density. A dog reads something even deeper. It detects tiny odor patterns, the way drugs are packed, and even the stress signals of a person trying to hide them. What makes this sense sharper still is the dog's brain—about 40% of it is designed just to process smells. This gives them a scent sensitivity that can be millions of times stronger

than humans in specialized breeds. To date, no man-made sensor has come close to matching the intelligence and sensitivity of a dog's nose.

From Customs to Combat: A Career-Spanning Lesson

India has used detection dogs for many years, proving an important lesson: technology works best when paired with natural instincts and trained skills. From 2018 to 2022, the author was closely involved in the rollout of advanced scanning systems in Indian Customs. These included Drive through container Scanners, mobile container scanners, X-ray portals, and smart digital analysis software's some of the most expensive and modern tools available for security checks.

But even with these high-tech, high-cost systems, Customs continued to increase its detector dog teams at major ports and airports. The reason was simple. About narcotics contrabands, scanners could raise an alert, but dogs gives the final proof. Machines could highlight suspicious cargo or bags, but dogs could identify exactly where the drugs were hidden. Technology made the job faster, and a dog's nose made it certain. Together, they formed the winning team.

The Deterrence Factor: When Presence Alone Saves Lives

Here's a moment that captures K9s' untapped power.

On May 17, 2025, an NCB Nar-K9 squad entered Chennai Central

Railway Station for a routine check. Handlers in full uniform, dogs alert and focused, exactly the kind of operation that occurs dozens of times weekly across India's transit hubs. But this time, something remarkable happened. The moment the dog entered the station platform, a trafficker carrying a 25-kilogram parcel of contraband took one look at the uniform and the canine, and immediately abandoned the package and fled. No bite. No chase. No dramatic apprehension. Simply the presence of a trained detector dog, and the knowledge of what it could do, was enough to break the trafficking chain at that moment. That single act prevented 25 kilograms of narcotics from reaching distribution networks. It prevented addiction, crime, and potential overdose deaths down the line and it happened without a single arrest or legal complication.

This is the hidden power of K9 deterrence. Research confirms what enforcement agencies know empirically: the visibility of detection dogs serves a dual purpose—active detection and psychological deterrence. Traffickers factor this risk into their calculations. When the odds suddenly shift against them, they abandon cargo or change routes entirely.

The Chennai incident is not an anomaly. Across India's railways, airports, and ports, trained dogs working in full view, in uniform handlers, during announced inspections, routinely force traffickers to choose between two bad options: sacrifice the shipment

or risk capture. Many choose to walk away. This deterrent effect multiplies the impact of every K9 deployed. One dog doesn't just seize what it detects; it prevents what traffickers abandon, reroute, or never attempt in the first place.

India's K9 Transformation: From Ad Hoc to Strategic

India's drug detection dog system has changed drastically from small, scattered teams to a planned and organized national program.

Today, the country has a strong K9 (dog squad) network that includes:

- Training centres run inside the country by Indian Customs, Military, Para Military Agencies, and State Police.
- Courses for basic drug detection, special drug categories, repeat training, and certification
- Teamwork in the field between NCB, BSF, SSB, and Assam Rifles.
- Regular performance tracking, with completion targets based on global standards
- A science-based approach to handler-dog bonding, supported by veterinary and behavior experts

Detection dog teams from different forces now work together as a national pool of narcotics dogs. These Narcotic K9s are active in major cities such as Delhi, Jammu, Ahmedabad, Kolkata, Mumbai, Imphal, and Chandigarh, with more teams being added. For NCB, dog squads play a key role in important missions, especially when dealing with synthetic drugs, online parcel deliveries, and tiny well-hidden shipments that are

hard for scanners to detect on their own.

The future of drug control in India lies in combining the power of nature with the strength of technology—where dogs and digital tools work together as one system. Smart Dog vests, Cameras on Dog Squads Dogs and Drones as a team and AI-Based Scent Training are the future tech-dog combination'

Inside the NCB's Multi-Layered Arsenal

Detector dogs do not operate in isolation. They function as force multipliers within a comprehensive anti-narcotics strategy that includes:

1. Intelligence collection from field operations and informants
2. Inter-agency coordination across police, customs, revenue, and border forces
3. International cooperation with partners
4. Controlled deliveries and surveillance operations
5. Cyber investigations into darknet markets and digital money flows
6. Precursor monitoring at

pharmaceutical and chemical facilities

7. Physical interdiction at ports, airports, and border checkpoints

Dogs occupy a pivotal position in this chain. They are not a standalone tool, but a force multiplier complementing digital surveillance, human intelligence, and enforcement operations. In an era where traffickers change methods with alarming speed, dogs remain consistently effective—adapting to new drug types and concealment techniques with professional retraining.

Can India Lead the World in Detection Dog Training?

With more Narcotics dog training centers opening and growing global interest in canine detection skills, India is in a strong position to become a leader in this field.

Some big possibilities for the future include:

1. Training dog squads for other countries in South and Southeast Asia
2. Helping nearby nations certify handlers and dog

3. Sharing best practices through global agencies focused on drug and border control
4. Encouraging Indian research on the science behind scent detection

These goals support India's rising role in global drug control efforts and its promise to strengthen international cooperation against illegal drugs aligning with the Viksit Bharat @2047 goals.

The Future of Drug Detection: Together, Not Separate

The greatest results will not come from choosing dogs or machines, but from using both wisely—drones in the sky, dogs on the ground, data for planning, and instinct for action. As smugglers find new ways to hide synthetic drugs or ship secret online packages, these dogs continue to lead the charge—catching warning signs long before software can detect them and confirming facts with a level of certainty no scanner can challenge.

They are not reminders of the past. They are protectors of the future.

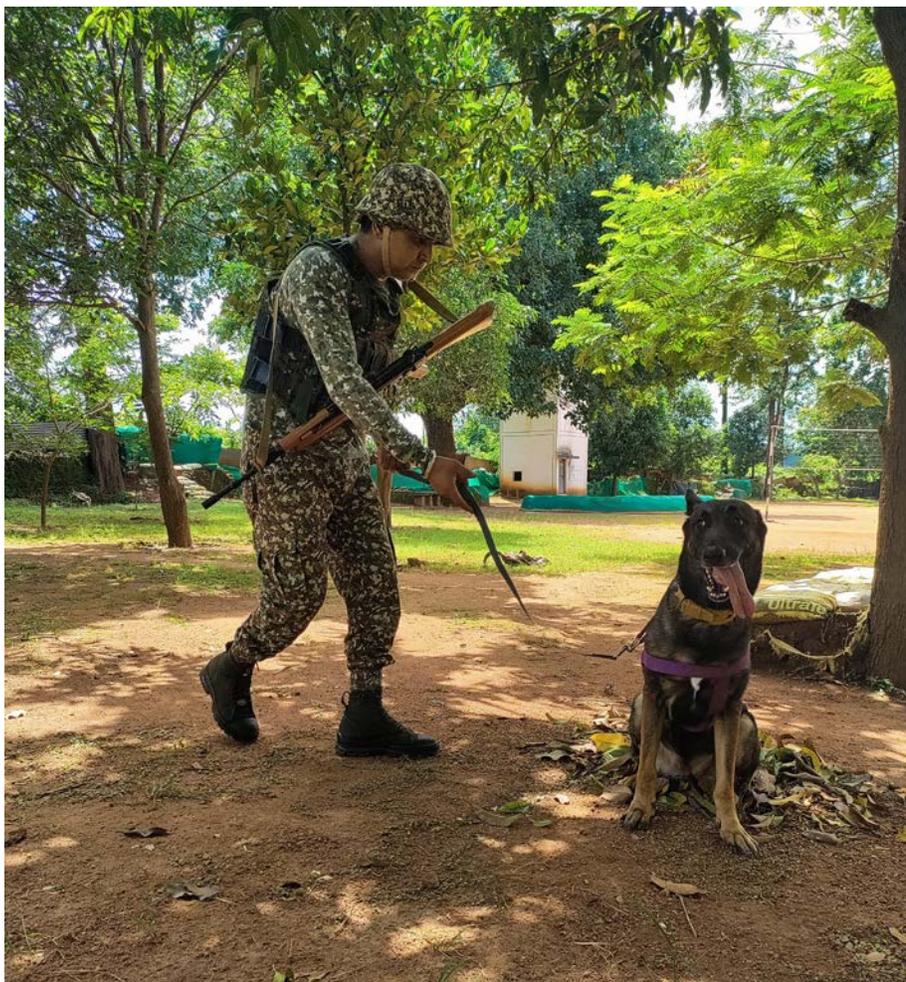


Dr. Anees Cherkunnath is an Indian Revenue Service officer (IRS—Customs & Indirect Taxes) currently serving as Deputy Director in the Narcotics Control Bureau (NCB).

As Head of Customs Intelligence at IGI Airport, New Delhi, and later as Zonal Director, NCB Punjab, Dr. Cherkunnath played a key role in dismantling major international narcotics and gold smuggling networks. An acknowledged expert on detection dogs and narcotics enforcement, he has co-authored two books published by the National Academy of Customs and Indirect Taxes. In recognition of his professional excellence and contribution to customs enforcement, he has been awarded the World Customs Organization Certificate of Merit.

PROTECTING THE WILD: The Crucial Role Of India's Wildlife Sniffer Dogs In Curbing Poaching And Illegal Wildlife Trade

Dilpreet B. Chhabra, Head-Programme Communications, WWF-India



The illegal wildlife trade —reported as the fourth largest organised criminal activity after narcotics and arms trade and human trafficking globally—is also a significant threat to India's flora and fauna, pushing many threatened species to the brink.

Tigers, leopards, elephants, rhinoceroses, pangolins, turtles, birds, timber, and even medicinal plants are trafficked to feed the illegal trade. Often, traffickers employ sophisticated methods; they are becoming increasingly smarter and more elusive by the

day. Therefore, it is crucial to deploy best practices in wildlife law enforcement to curb wildlife crime and thereby strengthen wildlife conservation.

A pawsome force

Dogs have accompanied humans for thousands of years, and their extraordinary sense of smell has only recently been harnessed for wildlife protection in India. According to a study titled "When the Nose Doesn't Know: Canine Olfactory Function Associated With Health, Management, and Potential Links to Microbiota," dogs possess an extraordinary olfactory capability far exceeding that of humans. The canine ability to detect odours is estimated to be 10,000 to 100,000 times greater than that of the average human. No machine, no lab device, no digital tool comes close. In wildlife crime investigations, dogs have repeatedly proven themselves not just helpful—but transformational.

WWF-India's wildlife sniffer dog training programme

In 2008, WWF-India launched a dedicated wildlife sniffer dog training programme in collaboration

with TRAFFIC. Two wildlife sniffer dog squads were trained in the first batch at the Basic Training Centre of the Indo-Tibetan Border Police Force, Panchkula (Haryana). Since then, 120 wildlife sniffer dog squads have been trained under the programme, assisting Forest Departments and the Railway Protection Force across 22 states and union territories in their efforts to combat wildlife crime and protect threatened species. Each dog squad consists of a trained dog and two handlers—teams that now form the backbone of the defences against wildlife trafficking.

Rigorous training is at the core of the programme

WWF-India organises training for wildlife sniffer dog squads at the three dog training centres listed below.

- Basic Training Centre, Indo-Tibetan Border Police Force, Panchkula (Haryana)
- 23rd Battalion Special Armed Force Police Dog Training Centre, Bhopal (Madhya Pradesh)
- National Training Centre for Dogs, BSF Academy, Tekanpur (Madhya Pradesh)

A young dog of the Belgian Malinois or German Shepherd breed, as procured by WWF-India, and two handlers, as nominated by the participating enforcement agency, undergo 7-9 months of training at one of the above training centres. The first months focus on building trust, obedience, and handler-dog bonding, then progress to specialised scent-detection and tracking skills essential for wildlife crime detection.

These dogs learn to detect tiger and leopard skins and bones, elephant tusks, bear bile, deer antlers, red sanders wood and rare medicinal fungi. Once deployed, they quickly adapt in the field, identifying everything from live turtles stuffed in sacks to snakes in boxes, birds hidden in crates and venison buried under grain.

WWF-India's wildlife sniffer dogs in action

Deployed for patrolling, anti-poaching operations and surveillance, the dogs have helped track offenders, uncover expertly concealed contraband and crack trafficking networks. Their mere presence in vulnerable habitats often acts as a powerful deterrent to poachers and wildlife smugglers.

Since the programme's inception, WWF-India's wildlife sniffer dog squads have assisted in hundreds of wildlife crime cases, resulting in arrests, the recovery of endangered species, and the prevention of numerous crimes. Below is a sneak peek into the extraordinary contributions of these wildlife sniffer dogs in protecting India's wildlife.

The timber tracker of Kawal Tiger Reserve (Telangana): Hunter

Hunter, a young wildlife sniffer dog trained in 2025 under Batch XII of WWF-India's Wildlife Sniffer Dog Training Programme, has quickly become indispensable in combating illegal logging, a significant threat to biodiversity. In just three months of his deployment at the Kawal Tiger Reserve, he has helped crack four

timber-smuggling cases involving teak wood. In one notable instance, Hunter picked up a faint scent from a scrap of cloth left at the crime scene and followed it through village lanes for nearly 1.5 km to a concealed stash of smuggled teak in an alleged offender's residence. This precise tracking led to the arrest of the culprits. Hunter's remarkable abilities and rapid success underscore the vital role that specially trained wildlife sniffer dogs play in protecting our forests from illegal exploitation.

The tigress without stripes: Daisy, from Kanha Tiger Reserve (Madhya Pradesh)

Daisy, a young Belgian Malinois trained under WWF-India's Batch XI of the Wildlife Sniffer Dog Training Programme, deployed at Kanha Tiger Reserve, has, in less than two years of deployment, solved five wildlife cases. According to the forest department, in September 2024, Daisy assisted forest officials in cracking a poaching case involving a spotted deer (*Axis axis*) in Sakrahi Tola village, which led them to a suspect's house where ropes, nets, and poison were recovered. Just three months later, in December 2024, she followed a deer's scent trail for more than a kilometre in the Umardoni beat, uncovering blood traces that led straight to a suspect's home. Officials confirmed another case of spotted deer poaching, with roasted venison recovered on site. Recently, she played a crucial role in the ground search for the tiger case, which helped in collecting evidence demonstrating her remarkable versatility and precision in detecting wildlife crimes.

The legend of Satpura Tiger Reserve (Madhya Pradesh): Tina

Tina, the wildlife sniffer dog deployed at Satpura Tiger Reserve, has proven herself a tireless and indispensable asset in the fight against wildlife crime. After completing her intensive training in 2021, Tina became central to many remarkable cases. Her extraordinary ability to detect wildlife contraband and track suspects led to the apprehension of poachers and the recovery of hidden contraband. According to her handler, from 2019 to 2025, Tina assisted in solving approximately 60 wildlife crime cases, resulting in the successful prosecution of several accused individuals. This effort also helped secure vital evidence, often including leopard and tiger remains, snares, and bushmeat.

In individual investigations, her precise tracking helped forest officials recover chital and wild boar meat hidden in homes after following trails of 1-2 km, uncovering tiger remains, sometimes after days of careful searching, and retrieving contraband as varied as monitor lizard claws, blackbuck meat, and leopard skins. Her contributions continued right up to her final days, earning the respect and gratitude of colleagues and serving as a powerful example of the impact a dedicated sniffer dog can have in wildlife protection. She passed away recently in October 2025.

The guardian of Pench Tiger Reserve (Maharashtra): Willy

According to her handler, Wildlife

Sniffer dog Willy, a female German Shepherd deployed at the Pench Tiger Reserve, has been instrumental in solving over 40 wildlife crime cases, with a primary focus on detecting the poaching of tigers and leopards for their skins and bones. How she achieves this remarkable success is rooted in her rigorous training and innate olfactory prowess. Like other wildlife dogs, Willy can track complex scent trails invisible to humans, locate concealed wildlife products, even in vast forest terrain or in hidden storage, and follow the movements of poachers. Moreover, Willy's presence acts as a formidable psychological deterrent, reducing illegal activity in protected areas, making wildlife sniffer dogs like Willy crucial defenders of India's biodiversity.

Quarmy's role in combating rhino poaching at Kaziranga Tiger Reserve (Assam)

Quarmy, a female German Shepherd deployed in Kaziranga Tiger Reserve, Assam, was trained at the National Training Centre for Dogs of the BSF Academy in 2017. She played a critical role in anti-poaching efforts at Bishwanath Sanctuary and Kaziranga, solving several wildlife cases, including rhino horn seizures and other wildlife-related articles. In 2017, just a few weeks after deployment, Quarmy did something remarkable. Officials of the northern range of Kaziranga National Park received information about an alleged poacher and hidden arms intended for poaching, and they immediately set out with Quarmy and her handler, Laxmi Nandan Baruah,

to investigate. At the suspect's deserted house, Quarmy was given the scent from a shirt found inside. She picked up the trail and led the team nearly 2 km through a dark, forested path to a pond. While officials found nothing around the pond, Quarmy persisted, repeatedly signalling toward the water. A team member finally entered the pond and recovered weapons hidden at the bottom—evidence that ultimately led to the alleged poacher, and a notable demonstration of Quarmy's effectiveness. Quarmy has now retired from service, spending her time with the handlers under the care of the forest department.

Narrow and Simba: The force against poaching in Achanakmar Tiger Reserve (Chhattisgarh)

Narrow and Simba strengthened wildlife protection at Achanakmar Tiger Reserve in Chhattisgarh, consistently demonstrating their exceptional skills in curbing poaching and trafficking over their combined eight years of service. As playful, curious, and fast learners from a young age, both male sniffer dogs underwent rigorous training, mastering the art of detecting wildlife contraband in 2016 under batch-V of WWF-India's wildlife sniffer dog training programme. Together, they resolved over 60 cases involving the poaching of tigers, leopards, elephants, pangolins, bears, gaur, sambar, chital, nilgai, wild boar, wild hare, snakes, and more, leading to arrests and significant wildlife recoveries. After seven years of service, Narrow and Simba retired in 2023, leaving

behind a remarkable legacy.

Nirman: A diligent defender of wildlife in Tiger Strike Force, Satna (Madhya Pradesh)

Nirman, a male German Shepherd trained under Batch V of WWF-India's Wildlife Sniffer Dog Programme, was deployed with the Tiger Strike Force in Satna, Madhya Pradesh in 2016. His exceptional skills and relentless dedication assisted in solving 80 wildlife crime cases, including six involving tigers, a significant feat resulting in the arrest of multiple offenders and the recovery of poached tiger carcasses as well as seized body parts. After seven years of remarkable service protecting endangered species and supporting law enforcement, Nirman retired.

Rana's impactful service at Bandipur Tiger Reserve (Karnataka)

Rana, a male German Shepherd deployed at Karnataka's Bandipur

Tiger Reserve since 2015, became a well-known figure in wildlife crime detection. He was credited with solving more than 50 cases, including at least eight involving tiger poaching, over 45 involving leopards, and numerous incidents of Red Sanders theft. His presence was a powerful deterrent to wildlife criminals operating in Bandipur and adjacent reserves. After seven years of unwavering service, Rana retired in early 2022 and passed away on August 2, 2022, due to age-related ailments.

Why do these dogs matter?

Wildlife crime is difficult to detect: poachers operate at night, conceal evidence quickly and use remote terrains to their advantage. Wildlife parts are easy to transport and difficult to trace. Human senses cannot detect faint scents after days or weeks. Dogs can—and they work fast.

Even as the world embraces high-tech surveillance and AI tools,

these dogs prove their worth every day, exemplifying their crucial role.

These dogs are not machines. They feel the forest, read their handlers' cues, and act. Their contribution is irreplaceable.

Scaling up the fight

With India's vast wildlife habitats, ranging from mangroves and mountains to deserts and rainforests, demand for trained wildlife sniffer dogs continues to grow. Expanding the programme, increasing training capacity, and integrating wildlife sniffer dog squads into other law enforcement agencies on the borders would dramatically enhance India's capacity to detect and prevent wildlife crime.

As India continues its battle against illegal wildlife trade, the sniffer dogs will remain at the frontlines—noses low, tails alert, steadily leading the way in the relentless fight to safeguard our natural heritage.



Dilpreet has been working with WWF-India since 2005, managing various work profiles including communication and outreach, media relations, campaigns, publications, and the wildlife sniffer dog programme. She has over 20 years of experience in the field of animal protection and wildlife conservation.

USE OF POLICE WORKING DOGS IN RIOT CONTROL

Dr. Vinod Laxminarayan Thakur, Ex. Commandant/Vet, ITBPF.



In the recent past, India has experienced several significant incidents of violent public demonstrations and civil unrest, particularly in 2024 and 2025. Key instances include:

Ladakh Protests (September 2025): Demonstrations demanding statehood and inclusion under the Sixth Schedule of the Constitution turned violent in Leh, the regional capital. Protesters clashed with

police, resulting in at least four deaths and dozens of injuries among both civilians and security forces. Vehicles were set on fire, and a BJP office was targeted.

Murshidabad Violence (April 2025): Protests in West Bengal against the Waqf (Amendment) Act, 2025, escalated into severe communal violence in the Murshidabad district. The unrest involved stone-pelting, arson, looting, and mob

attacks on public properties., leading to at least three deaths and the displacement of hundreds of people.

Nagpur Violence (March 2025): Unrest broke out in Nagpur, which authorities suggested was a pre-planned conspiracy possibly linked to a film, "Chhaava," that reignited local emotions. The violence involved a mob gathering,

stone-pelting on residences and a hospital, the use of petrol bombs, and the torching of vehicles.

Haldwani Riots (February 2024): Violent clashes erupted in Haldwani, Uttarakhand, after the demolition of an unauthorized madrasa and mosque on government land. Protesters threw stones, set vehicles and a police station on fire, leading to six deaths and over 250 injuries. A curfew was imposed, and police were given shoot-at-sight orders in affected areas.

Farmers' Protests (February 2024 – present): The "Delhi Chalo" march by various farmer unions from Punjab and Haryana involved large-scale demonstrations, road blockades, and clashes with police at state borders. Tear gas and rubber bullets were used by police to disperse the crowds. The protests resulted in the deaths of at least five farmers and injuries to many others, including security force personnel.

Sambhal violence protest of November 2024, which saw 05 youth killed.

Ongoing Unrest:

Manipur Ethnic Conflict (since May 2023): The intercommunal clashes between the Meitei and Kuki communities have been an ongoing source of widespread violence and civil unrest, resulting in hundreds of deaths and the displacement of tens of thousands of people. Protests, curfews, and disruptions to normal life have been a persistent feature of the situation in the state.

The incidence of violent demonstrations in India over the

past couple of years reflects public discontent over a diverse range of issues including land acquisition, religious/communal matters, agricultural policies, demands for greater autonomy, and local administrative grievances. In recent past, public demonstrations became more frequent and often volatile. Several state police organizations experimented with deploying trained dogs during agitations. The concept of using canines in riot control was formally introduced in select Indian police units during the 1980s and 1990s. Today, riot control dogs form a part of many district and state police dog squads, particularly in states prone to public unrest.

The Selection of Riot Control Dogs:

Not every dog breed or individual animal is suitable for riot control work. Selection focuses on temperament, physical strength, nerve stability, and high thresholds for environmental stress. Police dogs have long been an indispensable component of law enforcement worldwide. Among their diverse operational roles, ranging from tracking, narcotics detection, and explosive identification to search and rescue, one of the most specialized and sensitive domains is riot control. Riot Control Dogs (RCDs) represent a unique synthesis of physical power, psychological deterrence, and disciplined obedience. This article explores the evolution, training methodology, deployment strategies, operational ethics, and challenges associated with the use of police dogs in riot control scenarios, with a particular

emphasis on their role within Indian policing systems.

Public order management remains one of the most challenging aspects of internal security. Riots, mob violence, political agitations, and civil disturbances test the very limits of law enforcement agencies' ability to maintain peace without excessive force. In such volatile environments, police dogs emerge as an invaluable non-lethal tool, offering both a psychological deterrent and an operational advantage. Police dog squads trained in riot control are increasingly being recognized as a force multiplier. Their mere presence can disperse unruly crowds, and when required, their controlled engagement can help subdue aggressive elements with minimal injury and collateral damage.

In today's scenario the preferred breed to be deployed as Riot Control Dog is:

Belgian Malinois: Extremely alert, energetic, and responsive.

Doberman Pinschers: Strong and disciplined, with an intimidating presence.

The chosen dogs undergo rigorous temperament testing. They must exhibit courage under noise, sudden movement, and physical provocation. Dogs prone to nervousness or over-aggression are rejected. The goal is a balanced temperament, fearless but fully controllable.

Training Methodology:

Training riot control dogs is a

complex process that focuses as much on restraint as on aggression. The objective is to develop a dog that can perform effectively amidst chaos, loud noises, shouting crowds, flying debris, smoke, and the presence of multiple individuals, while remaining under the absolute command of the handler.

a) Basic Obedience Training: Every riot control dog begins with intensive obedience conditioning. The dog must respond instantly to verbal and hand commands such as heel, sit, stay, attack, out, and return. The foundation of control and trust between handler and dog is established at this stage.

b) Socialization and Environmental Conditioning: Dogs are exposed to a variety of environments — crowds, sirens, tear gas, fireworks, and riot gear. This desensitization ensures that the animal remains calm and focused even under intense stimuli.

c) Controlled Aggression Training: In riot control scenarios, aggression must be precisely managed. The dog is trained to respond assertively on command but to cease immediately when ordered. Training often involves the use of padded agitators simulating rioters, enabling the dog to practice attack and release techniques safely.

d) Protective Gear Acclimatization: Riot control dogs are accustomed to working alongside personnel in helmets, shields, and body armor. In some specialized units, dogs themselves are equipped with protective vests, goggles, and harnesses designed for high-mobility engagement.

e) Handler Synchronization: Perhaps the most critical aspect is the bond between handler and dog. Riot control situations demand instantaneous communication. Handlers train to read subtle behavioral cues, ensuring the dog does not act independently. This level of mutual trust and coordination comes only after months of joint drills.

f) The Handler's Role: Behind every successful riot control dog stands a highly trained handler. Handlers are carefully selected police personnel, typically with years of field experience. Their relationship with the dog extends beyond duty hours. They often live, train, and travel together, forming a strong emotional bond.

A handler's calmness under pressure directly influences the dog's composure. In a riot scenario, the handler must assess crowd behavior, anticipate threats, and command the dog with precision. Continuous training and physical fitness are essential for maintaining this synergy.

Deployment Tactics in Riot Situations: Riot control dogs are typically deployed as part of specialized police contingents during large-scale public order disturbances. Their roles include deterrence, crowd dispersion, and targeted intervention.

a) Psychological Deterrence: The mere presence of trained dogs on the front line can have a calming effect on volatile crowds. The deep bark, disciplined posture, and visible readiness often discourage rioters from advancing toward

police formations.

b) Controlled Crowd Dispersal: In cases where verbal warnings and non-lethal measures fail, handlers may advance with dogs in a controlled line formation. The animals are not released into crowds but kept on strong leashes to maintain full control.

c) Targeted Apprehension: If individual agitators become violent or attack police personnel, dogs can be commanded to subdue or hold the aggressor until arrest. Their speed and precision make them effective in capturing fleeing suspects even in crowded areas.

d) Protection of Police Personnel: Dogs provide an additional security layer for officers equipped with shields and batons. They deter attacks on the police line, especially when rioters attempt close contact.

Advantages of Using Police Dogs in Riot Control : The use of K9 units in riot control offers several operational and ethical advantages such as:

a) Non-lethal Force: Dogs provide an effective alternative to lethal weapons, reducing the potential for fatalities.

b) Psychological Impact: Their presence often restores discipline among crowds more effectively than physical confrontation.

c) Agility and Mobility: Dogs can move quickly through dense or uneven terrain where vehicles or large formations cannot operate.

d) Morale Boost for Police: The presence of trained dogs enhances the confidence of law enforcement

personnel during high-risk operations.

e) Public Perception: Properly managed canine deployments demonstrate professionalism and restraint in handling public disorder.

Challenges and Ethical Considerations: Despite their effectiveness, the deployment of riot control dogs raises certain ethical and logistical concerns such as:

Public Misperception: The sight of police dogs may sometimes be perceived as intimidating or excessive, particularly if media portrayals misrepresent their role.

Injury Risks: Though rare, injuries to rioters or dogs can occur during physical engagement. Strict operational guidelines are necessary to minimize such incidents.

Animal Welfare: Dogs must be protected from injury, heat exhaustion, or chemical irritants like tear gas. Adequate veterinary care and rest are vital.

Training and Maintenance Costs: Specialized riot control training is resource-intensive and requires continuous refresher courses.

Legal Oversight: In democratic societies, use of dogs in crowd control must comply with human

rights frameworks and police conduct regulations.

Case Studies and Field Experiences: Internationally, police forces in the United Kingdom, Germany, and South Africa maintain highly disciplined riot dog units. The London Metropolitan Police's Dog Support Unit, for instance, integrates riot-trained dogs during high-tension public demonstrations, emphasizing deterrence rather than direct engagement. Their success lies in the combination of visibility, training, and restraint.



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KOMBAI: FROM NATIVE HERITAGE TO OPERATIONAL K9 -TRAINING EXPERIENCES AND INSIGHTS

B.Vikram, Dy. Comdt. (GD), DBTS, CRPF

Introduction

In alignment with the mandate issued by the PMO/MHA, DBTS CRPF initiated a structured programme to assess the viability of deploying the indigenous Kombai breed for operational roles. The objective of this initiative was to examine the breed's adaptability, trainability, and overall performance under field conditions, and to determine whether Kombai dogs could be a reliable indigenous alternative to conventional working breeds.

Based on the MHA directive, Kombai pups were procured from a well-regarded breeder from Tamil Nadu known for prioritizing genetics, temperament, and other key selection factors. These pups were 45 days old when they arrived at the training institution. They were placed for a month familiarization period to ensure acclimatization and health clearance before training commenced.

Upon completion of the familiarization period, formal

training began when the pups were three months old. Drawing from earlier experiences and documented feedback, including insights from the previous batch report, a refined and tailored training programme was developed for the breed's unique temperament and learning needs.

Training Curriculum and Progress

The training process was divided into clearly defined phases,



beginning with bonding and obedience during the initial four weeks. Emphasis during this stage was placed on building trust and familiarity between each handler and their assigned dog. Handlers were strictly advised not to compare Kombai dogs directly with more established working breeds such as the Belgian Shepherd Malinois, acknowledging that Kombai dogs follow a different developmental trajectory.

From weeks six to fourteen, the dogs were introduced to article searches, vehicle searches, and luggage detection tasks. The dogs showed promising progress, especially in early scent engagement. Among the trainees, K9 Rocky demonstrated quick adaptation to scent tasks, whereas K9 Diva progressed at a slower but steady pace.

The subsequent phase, from weeks fifteen to twenty-two, focused

on developing the dogs' ability to conduct ground searches, human search and building search. These training modules were designed to simulate real-world operational scenarios that would test the dogs' ability to work in diverse and unpredictable environments. From week twenty-two to twenty-four, route search training was introduced to prepare the dogs to follow and detect along designated paths—an essential skill for patrolling and convoy security roles.

Upon completion of the 24th week of training, an internal assessment of all K9s was conducted to evaluate their progress and task proficiency. Based on the outcomes of this assessment and in consultation with training staff and supervising officers, it was determined that the dogs would benefit from additional refinement of their existing skills. Consequently, from weeks 25 to

28 allowed deeper reinforcement of key operational capabilities such as scent discrimination, obedience, and search techniques. During this phase, the dogs displayed noticeable improvement in consistency and accuracy, confirming the value of the training schedule in preparing them for future field deployment.

In the final stage, from weeks twenty-four to twenty-eight, all previously learned skills were reinforced through consistent repetition and increasing task complexity, ensure each dog had ample time to internalize skills and overcome any remaining challenges. The handlers were fully cooperative and remained dedicated to the project objectives throughout the training.

Individual Dog Performance

K9 Rocky showed strong early adaptation and a clear



improvement was observed in both dog and handler over time. Diva was consistently accurate in scent indications and showed no signs of false sits or task disruption due to play. While she occasionally became distracted by physical irritants such as pricklers or rough terrain, she quickly regained focus and completed her tasks effectively. Diva's sharp detection capabilities and disciplined behavior point to her potential as a dependable K9 asset for operational use.

Observations and Analysis

Kombai dogs demonstrated encouraging progress throughout the training cycle, reinforcing the breed's potential for operational deployment in specialized roles. However, several behavioral and physiological traits specific to the breed were observed, which merit consideration for future training and deployment strategies.

A key observation was that the Kombais showed a markedly low response to conventional reward systems, such as treats or toys. Unlike traditional working breeds that are highly driven by such reinforcements, Kombais tend to be less reward-oriented. This necessitates a more individualized approach to motivation, with handlers required to closely monitor and identify what stimuli best engage each dog. Patience and creativity in training were crucial in maintaining focus and performance over time.

In Route Explosive Detection (Route ED) drills, the Kombai dogs performed reliably over short to moderate distances. However, a

understanding of basic obedience and scent tasks. During the mating season, however, a noticeable decline in performance was observed, likely due to hormonal distractions. Rocky displayed no false indications during scent detection tasks and maintained a good average speed during searches. Nonetheless, the dog occasionally showed reluctance when exposed to prolonged physical drills, especially during repetitive training. Rocky's performance tended to fluctuate with mood, suggesting the need for motivation-driven training strategies.

K9 Sweety maintained a generally positive attitude throughout the training cycle. While she

occasionally displayed sudden bursts of playfulness, this behaviour did not severely affect her training outcomes. K9 Sweety responded well to commands and demonstrated a high level of obedience. While there were a few false sits early on, these decreased over time with reinforcement. She was slightly distracted by environmental stimuli on occasion, but her focus and persistence during search tasks remained reliable. Notably, her performance did not decline during her heat cycle, indicating a stable work ethic.

K9 Diva started with some challenges due to initial inexperience on the part of the handler team. However, significant

noticeable reluctance in engaging with scent work was observed when distances extended beyond one kilometer. This may point to mental fatigue or reduced scenting motivation in prolonged detection assignments. Conversely, the dogs excelled in long-distance route patrolling, frequently covering 20 to 30 kilometers without signs of physical exhaustion. This impressive endurance demonstrates the breed's high physical stamina, making them well-suited for prolonged patrol duties in difficult terrain.

Behaviorally, Kombais displayed a slightly moody temperament. Their task engagement occasionally varied depending on their internal motivation, environmental conditions, or repetitive workloads. While this did not drastically impair performance, it introduced some variability that requires tactful handling and regular positive engagement to maintain consistency.

On the health front, the Kombai dogs exhibited exceptionally robust immunity and overall good health throughout the training period. According to regular veterinary evaluations, there were minimal instances of illness or infection, even during the high-exertion phases of training. This naturally strong immunity and physiological resilience is a significant advantage, particularly for deployments in remote or resource-constrained environments where veterinary access may be limited.

Male Kombai dogs typically exhibit greater distraction during the heat cycle of females when compared

to other working line breeds. This is normal and temporary behavioral deviation.

Recommendations and Suggestions

Based on the experiences and outcomes observed during the training and deployment of the Kombai dogs, the following suggestions and recommendations are made to optimize the programme and further enhance the operational readiness of the breed:

1. Extended Training Duration

It is recommended that the duration of training for Kombai dogs be extended to 40 weeks, especially for single trade Explosive Detection (ED) training. The Kombai breed's unique characteristics, including their varying motivation and slower adaptability in certain tasks, suggest that a longer training period would better accommodate their learning curve. Extending the training duration would allow for more in-depth skill development and greater consistency in task performance. One of the reasons for extending the duration is that the breed's behaviors mature late around 26-30 weeks as training so the additional time allows for more



refined training.

2. Early Puppy Foundation Training

To improve the trainability of Kombai dogs and accelerate their development, it is recommended to implement early Puppy Foundation Training at around 45 days of age, similar to the approach used for other working breeds. Early exposure to basic training principles, socialization, and environmental acclimatization would help in shaping the dogs' behaviors and readiness for more advanced tasks, while also capitalizing on their natural curiosity and learning capabilities at a young age.

3. Ongoing Breed-Specific Training Programmes

It is crucial to continue breed-specific training programmes for Kombai dogs, with the aim of gradually scaling the number of dogs trained and deployed. As the breed's unique traits become better understood, further customization of the training programme will be necessary to address specific behavioral tendencies and optimize task performance. Careful scaling of the programme, based on documented success rates and performance data, will ensure more effective integration of Kombai dogs into operational roles.

4. Detailed Behavioral and Performance Logs

To maintain consistency and effectiveness in the training process, it is essential to maintain detailed behavioral and performance logs for each individual Kombai

K9. These logs should include information on task performance, behavioral responses, motivation levels, and health status. This data will be crucial for tracking progress over time, identifying areas for improvement, and making data-driven decisions about deployment and ongoing training needs.

5. Collaboration with Experienced Breeders

It is recommended to extend collaboration with experienced breeders for future batches of Kombai dogs. By working closely with reputable breeders, who emphasize genetics, temperament, and other vital selection factors, the programme can continue to source high-quality dogs that meet the specific needs of operational training. This partnership will be instrumental in ensuring that each new batch possesses the optimal traits for service work, including health, behavior, and physical capabilities.

6. Periodic Refresher and Scenario-Based Training

To ensure the operational readiness of Kombai dogs, it is advised to provide periodic refresher training and scenario-based drills post-deployment. This will help dogs maintain their skill proficiency and



adapt to evolving field conditions. Regular training sessions in the form of mock missions, scent exercises, and other real-world scenarios will reinforce previously learned skills, allowing handlers to assess the dogs' performance.

Conclusion

This Kombai Training Programme has demonstrated that the breed possesses significant potential for use in operational scenarios, provided the training is designed around their unique behavioral traits. This batch of Kombai has produced encouraging results, with all dogs showing measurable progress and operational readiness.

We remain in the learning phase; however, through selecting breeding and incorporation of superior quality dogs, the breeds intelligence, drive and temperament can be progressively refined to align with overall k9 operational requirements

In conclusion, the Kombai breed presents a unique combination of high endurance, disease resistance, and moderate trainability, albeit with specific behavioral considerations such as variable motivation and reward response, with a tailored approach to training and handler pairing, these dogs hold considerable promise as reliable, indigenous working dogs for various operational roles.



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OPTIMIZING K9 DEPLOYMENT IN NIGHT OPERATIONS WITHIN LWE THEATRES: CHALLENGES, MITIGATIONS, AND OPERATIONAL RECOMMENDATIONS

Karthikeyan Sakthivel, Assistant Commandant, DBTS, CRPF



Introduction

Conducting operations in Left-Wing Extremist (LWE) theatres during hours of darkness presents a complex set of challenges, where stealth, terrain adaptability, and operational precision are critical. K9s, with their innate sensory advantages, provide a decisive edge in such environments—facilitating detection, tracking, and early warning capabilities.

However, night operations impose specific constraints on both handlers and canines. Addressing these requires tailored training, refined communication techniques, and judicious use of equipment. This

document outlines the primary operational challenges, presents practical mitigation strategies, and offers recommendations to enhance mission success through optimal use of K9 assets in low-visibility conditions.

2. Operational Constraints in Night Deployments with K9s

2.1 Reduced Visibility and Its Tactical Implications

In night operations, visibility is significantly compromised for both handler and dog. While K9s have biologically superior night vision due to a higher concentration of rod

cells and the presence of a tapetum lucidum, their depth perception and motion tracking can still be impaired under extreme low-light conditions or in cluttered terrain. Human handlers, whose vision depends more heavily on cone cells, are at a greater disadvantage, making mutual coordination more challenging.

2.2 Degraded Communication in Noisy or Hostile Environments

The auditory chaos often encountered in LWE theatres—ranging from gunfire and explosions to environmental noise—diminishes the effectiveness

of verbal and visual commands. This disruption hampers timely execution of instructions and reduces the handler's ability to maintain silent, coordinated movement with the K9.

2.3 Difficulty in Detecting and Interpreting K9 Behavioral Cues

At night, subtle behavioral indicators such as body stiffness, change in gait, or leash tension may go unnoticed. These signals are vital for identifying threats such as concealed explosives or hostile presence. In darkness, the handler's diminished visual perception increases the risk of delayed or missed responses to K9 alerts.

2.4 Elevated Risk During Off-Leash Navigation

Operating a K9 off-leash during night patrols elevates the risk of separation, especially in dense foliage or broken terrain. This not only jeopardizes the mission but also compromises the safety of the dog and handler, particularly in scenarios involving traps or ambushes.

2.5 Constraints in Equipment Availability

Limited access to advanced night operations gear, such as GPS collars, thermal imagers, or team-based infrared systems, is a recurring challenge. However, even under these limitations, handlers can wear night vision devices (NVDs) to improve situational awareness and accurately interpret canine behavior in darkness—thereby enhancing operational effectiveness and safety.

3. Tactical Measures to Enhance K9 Effectiveness at Night

3.1 Implementation of Non-Visual Command Protocols

In low-visibility operations, priority must be given to non-visual communication methods. Tactile cues (e.g., leash pressure) and consistent auditory commands (e.g., whistles, clicks, or coded vocalizations) form the foundation for effective K9 control. These modalities must be standardized and reinforced through repeated night-based training scenarios.

3.2 Controlled Leash Handling for Enhanced Responsiveness

A long leash folded to maintain a working length of 5 to 7 feet strikes a practical balance between mobility and control. This distance allows the canine to perform proactive threat detection while affording the handler a standoff position critical in IED-prone areas. Folded leash control also provides flexibility to adjust leash length quickly based on the terrain or tactical requirement.

3.3 Focused Sensory Training for Non-Visual Threat Detection

Training should emphasize the use of olfactory and auditory faculties for threat identification and response. Dogs must be conditioned to deliver sound-based or tactile alerts to compensate for the absence of





While modern equipment can assist K9 teams in night operations, the cornerstone of effective deployment in LWE theatres lies in training adaptability, environmental conditioning, and handler-canine synergy.

Teams must invest in:

- Doctrine-aligned non-visual communication frameworks
- Operationally realistic night training regimes
- Handler awareness enhancement programs
- Trust-building drills and scenario-based exposure

Investing in these core capabilities ensures that K9 teams retain tactical superiority, minimize operational risks, and deliver high-value outcomes in complex, low-light environments.

5. Key Operational Directives

- Standardize folded leash usage at 5–7 feet for optimal control and threat response.
- Integrate NVDs for handlers wherever feasible to assist in K9 behavior interpretation.
- Focus training on scent and sound recognition over visual cues.
- Ensure frequent night-time joint exercises under realistic threat conditions.
- Prioritize trust and instinctive coordination between handler and K9.

The Way Forward: Training, Adaptability, and Teamwork

handler visual contact. Exercises should simulate realistic low-light scenarios to develop consistency and reliability in such cues.

3.4 Night-Specific Drills Across Variable Terrain Types

Regular nocturnal exercises across forests, urban fringes, and rural terrain enable both the handler and the canine to become attuned to the unique sensory and tactical demands of night operations. Drills should simulate real-time engagement conditions, including exposure to IED cues, hostile movement, and environmental distractions.

3.5 Utilization of Economical Equipment Enhancements

Where budget or logistical constraints exist, cost-effective measures can be employed without compromising stealth:

- Reflective markers on K9 vests for passive identification.
- Low-lumen LED collar lights to maintain visual tracking without drawing attention.

- Textured leashes for tactile feedback in darkness.

3.6 Reinforcement of Handler Intuition and Perceptiveness

Handlers must undergo progressive training designed to develop a keen sensitivity to their dog's non-verbal signals, even under sensory-limited conditions. Emphasis on muscle memory, environmental awareness, and tactile responsiveness ensures fast and accurate threat interpretation.

3.7 Establishment of a Trust-Centric Training Regimen

Consistent and immersive training fosters trust between K9 and handler. This bond is crucial for synchronized responses and mutual safety. Joint exposure to night operations builds instinctive understanding and allows for seamless operational maneuvering during high-pressure missions.

4. Strategic Recommendations and Conclusion

K9 HANDLER NIGHT TRAINING DRILLS

S No.	Training Drill	Method	Skill Developed
1	Eyes-Closed Long-Line Drill	Handler closes eyes and identifies dog movements through leash tension.	Tactile sensing of leash cues.
2	Blindfolded Short-Search	Handler is blindfolded and follows the dog using leash feedback.	Instinctive leash-based navigation.
3	Freeze Detection Drill	Dog freezes at the source; handler detects this through stabilized leash tension.	Non-visual alert recognition.
4	Silent Communication Training	Only leash taps are used; no verbal commands.	Silent handling during operations.
5	Low-Light Obedience Routine	Dog performs Sit–Down–Stay–Heel in low-light or dim environments.	Dog confidence in darkness.
6	Tactile Obstacle Navigation	Handler (blindfolded) guides the dog over obstacles using leash and touch cues.	Stable teamwork in uneven terrain.
7	Controlled-Pace Drill	Handler regulates the dog's pace using leash tension to maintain a steady search rhythm.	Prevents the dog from speeding; improves search consistency.
8	No-Light Search Conditioning	Dog conducts searches in complete darkness; return-to-handler alerts and passive indications are reinforced.	Builds search drive and confidence in darkness.

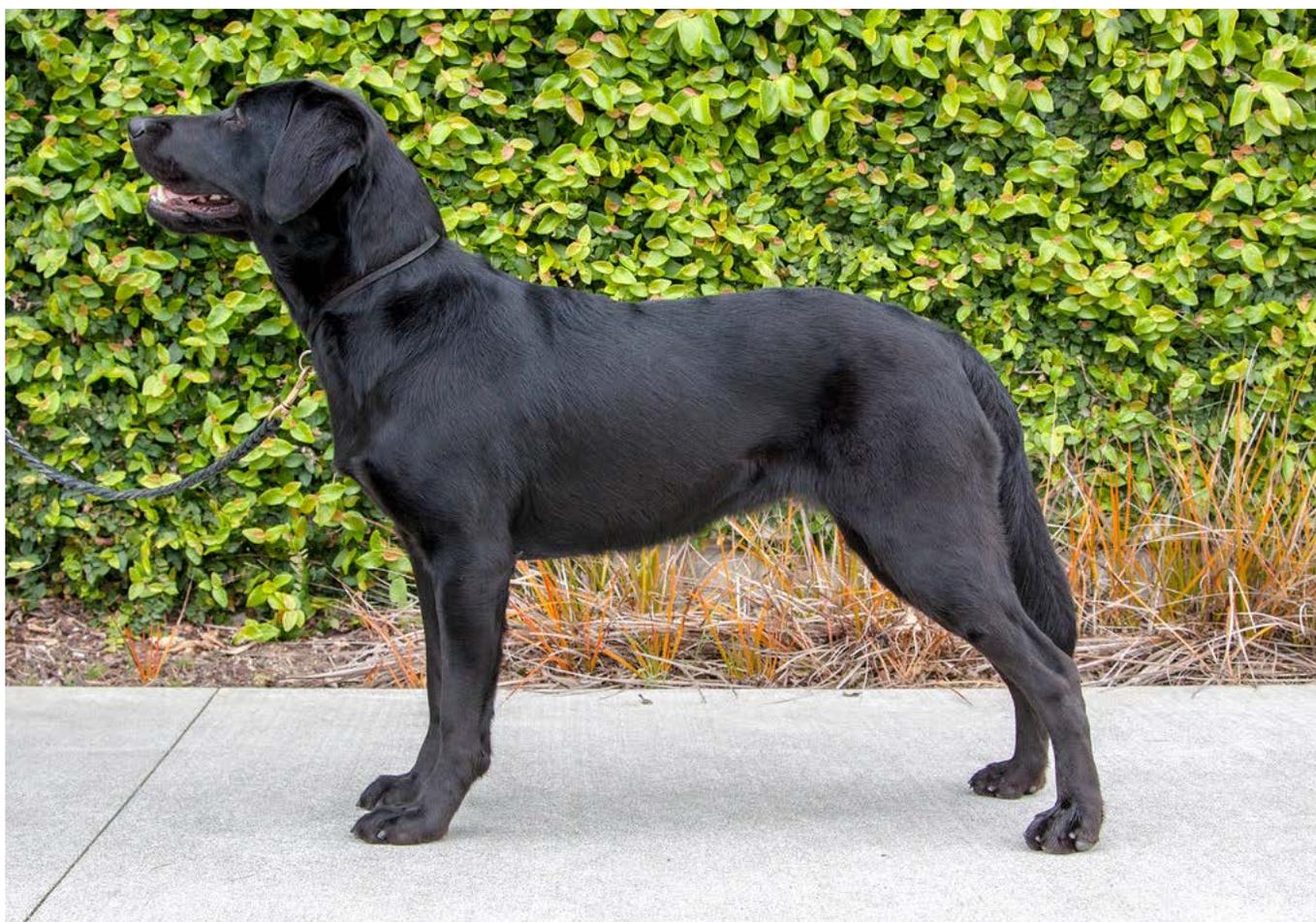
FIELD APPLICATION MATRIX

SI No.	Identified Challenge	Operational Mitigation
1	Visual limitations in darkness	Leash-based tactile control, auditory signals, handler NVDs
2	Noise interference with commands	Whistles, coded low-frequency verbal cues
3	Inconsistent cue detection	Folded leash (5-7 ft), instinct-based response training
4	Risk during off-leash movement	Keep off-leash movement minimal; use reflective gear
5	Limited high-tech support	Low-cost lighting, textured leashes, handler night aids

Night operations in the LWE theatre require careful adaptation, practical solutions, and consistent training. While high-tech equipment can provide advantages, the key to successful operations lies in the trust between the handler and the dog, as well as the development of effective non-visual communication techniques. Continuous training, a focus on tactile and auditory methods, and an emphasis on enhancing handler instincts will ensure that K9 teams remain operationally effective in even the most challenging low-light conditions.



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FROM WATER DOG TO WORKING WONDER: THE REMARKABLE STORY OF THE LABRADOR RETRIEVER

Dr Lalit Deori, 2IC (Vet), SSB

The Labrador Retriever stands today as one of the most beloved and widely recognized dog breed in the world, consistently ranking as the most popular companion dog in the United States and admired globally for its gentle disposition and adaptable nature. Originating from the rugged coasts of Newfoundland, where early Labradors assisted

fishermen as resilient water dogs, the breed has undergone a remarkable evolution shaped by careful breeding, intelligence, and an innate eagerness to work alongside humans. This exceptional combination of physical capability, keen scenting skills, and unfailingly friendly temperament has made the Labrador Retriever indispensable

far beyond the household. In modern times, Labradors are extensively deployed in detection roles; ranging from narcotics, explosives, wildlife contraband, and search-and-rescue operations; where their accuracy and reliability are unmatched. Additionally, their calm demeanor and intuitive sensitivity have established them as

one of the foremost breeds used as service and therapy dogs, providing critical assistance to individuals with disabilities, medical conditions, and emotional needs. Whether in the heart of a family home or at the frontline of demanding operational environments, the Labrador Retriever continues to exemplify versatility, loyalty, and an extraordinary capacity for partnership with humans.

The Evolution of the Labrador Retriever

The history of the Labrador Retriever traces back to the early water dogs of Newfoundland, with roots extending as far as the 16th and 17th centuries. During this period, English fishermen and outdoorsmen, particularly from Devon brought hunting dogs to Newfoundland, where selective breeding shaped by harsh coastal conditions and fishing needs gradually produced the St. John's Water Dog (SJWD), a landrace and the direct ancestor of all modern retrievers, including the Labrador. References to these dogs appear as early as 1576 in George Turbervile's *Booke of Hunting*, which mentions black "Saint Hubert's hounds," believed by

some historians to be part of the SJWD's ancestral lineage. By the early 1800s, the SJWD had become a valued working companion for Newfoundland fishermen, retrieving nets, game, and even waterfowl from icy waters. Col. Peter Hawker's 1814 *Instructions to Young Sportsmen* offers one of the earliest detailed accounts of these "true Newfoundlands" described as small, strong, short-coated retrievers "scarcely bigger than a pointer," with remarkable aquatic abilities.

Their reputation soon reached England. In the early 19th century, the Earl of Malmesbury imported these "small water dogs," recognizing their superb working qualities and referring to them as "Labrador dogs" as early as the mid-1800s. In a 1880s letter to the Duke of Buccleuch, the 3rd Earl emphasized maintaining purity of the breed, noting its hallmark traits: a close, water-repellent coat and an otter-like tail. As SJWDs arrived in Britain, they were sometimes crossed with English hunting dogs, especially on shooting estates where land-based game, rather than waterfowl, formed the primary quarry. Despite occasional outcrossing, the Labrador type

consistently predominated, and by 1903 the United Kingdom Kennel Club officially recognized the Labrador Retriever as a distinct breed. Field trials at the turn of the century, including the 1899 trial dominated by Flat- and Curly-Coated Retrievers, helped refine the Labrador's working abilities, while aristocratic patrons like the Dukes of Buccleuch kept meticulous breeding records that still guide historians today.

The breed's expansion to North America accelerated when the American Kennel Club (AKC), formed in 1884, began registering Labradors officially in 1917. In the early years, field trials in the United States were largely the pursuit of wealthy families, but the Labrador's intelligence, versatility, and remarkable working instinct soon propelled it into mainstream popularity. From its early development in the 1880s United Kingdom to becoming a true "dual-purpose" breed; equally valued in the field and in conformation, the Labrador Retriever has evolved into one of the world's most admired dogs, seamlessly blending its heritage as a rugged water dog with its modern role as a skilled working and companion breed.



Figure 12: St. Jhon Water Dog



Figure 2: Last Pair of St. Jhon Water Dog



Figure 3: AKC Recognized Labrador in 1917

Types of Labrador Retrievers: Understanding the Two Distinct Lines:

Although the Labrador Retriever is officially recognized as a single breed by major kennel clubs such as the American Kennel Club (AKC) and The Kennel Club (UK), two informal yet widely acknowledged types have emerged through selective breeding: the English Labrador and the American Labrador. English Labradors; also known as bench, show, or British Labs, were primarily bred for conformation shows and companionship, resulting in dogs that are typically stockier, calmer, and more family-oriented. In contrast, American Labradors; commonly called field or working Labs were developed for hunting, retrieval, and high-performance field work, which led to a leaner build, higher energy levels, and a strong drive for activity and training. While coat variations such as fox red or silver exist, these represent color differences within the standard yellow, black, and chocolate categories rather than separate types. Despite their distinctions, both English and American Labradors share hallmark breed qualities, including intelligence, loyalty, friendliness, and an innate love of water and retrieving. With a typical lifespan of 10–12 years, a double coat that sheds seasonally, and similar health screening needs for conditions like hip and elbow dysplasia or inherited eye issues, choosing between the two types often depends on lifestyle: English Labs excel in calmer, family-centered

Key Differences Between English and American Labradors:



environments, while American Labs thrive in active, working, or sport-focused homes.

Coat Colors in Labradors: Black, Yellow, and Chocolate:

Labrador Retrievers come in three officially recognized coat colors—black, yellow, and chocolate—according to the American Kennel Club (AKC), and this applies equally to both English (show/bench)

and American (field/working) Labradors. Historically, black Labs were the most common and preferred, largely because black is the dominant coat color genetically. Labrador color genetics are governed by two main pigments: eumelanin (responsible for black and chocolate) and pheomelanin (responsible for yellow to fox-red shades). The B gene controls black (dominant B) versus chocolate (recessive b), while the E gene

Below is a comparison table summarizing the main differences between English and American Labrador. These are generalizations; individual dogs vary based on breeding, training, and environment.

Aspect	English Labrador (Show/Bench Type)	American Labrador (Field/Working Type)
Physical Appearance	Stockier, broader build with shorter legs and body; blocky, wider head and muzzle; thicker "otter" tail (short, thick at base, tapering to tip); deeper chest; often yellow-coated (including fox red shades); height: 21–22.5 inches (males), 20.5–21.5 inches (females); weight: 65–80 lbs.	Leaner, more athletic and streamlined build; taller and lankier with longer legs; narrower muzzle and neck; less furrowed brow; thinner coat; tail may be whip-like; height: 22–24 inches (males), 21.5–23.5 inches (females); weight: 55–80 lbs.
Temperament	Calmer, more laid-back, and level-headed as adults; outgoing and affectionate but less excitable; eager to please with lower drive; highly trainable but can be distractible in busy settings; less likely to chase wildlife.	Higher energy and enthusiasm; more focused and resilient under pressure; strong work ethic and prey drive; sensitive to handler but quick learners; may remain boisterous longer; thrives on challenges but can get bored easily.
Breeding Purpose	Primarily for dog shows, conformation, and as family companions; emphasizes adherence to breed standards for appearance and temperament.	Bred for practical work like hunting, retrieving game, field trials, search-and-rescue, or service roles; prioritizes stamina, speed, and functionality over looks.
Exercise Needs	Moderate to high: 1–2 hours daily of walks, play, or swims; prefers relaxed activities; easier to manage in suburban homes but needs space to prevent boredom.	High: 2+ hours of vigorous activity daily (e.g., running, hiking, fieldwork); built for endurance; ideal for active owners or rural settings.
Health Considerations	Similar breed risks (e.g., hip/elbow dysplasia, obesity if overfed); stockier build may lead to joint issues if overweight; hip scoring recommended for breeders.	Same general risks; leaner frame may offer better agility but higher injury risk in intense work; sensitivity can lead to stress-related behaviors if mismatched to home.
Suitability & Other Notes	Best for families, apartments (with exercise), or novice owners; great therapy/guide dogs; more expensive due to show-line consistency; grooming: moderate (heavy shedding).	Suited for hunters, athletes, or farms; needs experienced handling to channel drive; versatile in sports like agility; grooming: low-moderate.

controls whether the dog expresses dark pigment at all. A unique feature of yellow Labradors is the recessive e gene, which can completely mask both black (B) and chocolate (b) genes, resulting in a yellow coat even if the dog carries dark-color alleles. Thus, combinations such as

E^{EE}B^B, E^{EE}B^b, E^{Ee}B^B, E^{Ee}B^b produce black Labradors; E^{EE}b^b, E^{Ee}b^b produce chocolate Labradors; and e^{ee}B^B, e^{ee}B^b, e^{ee}b^b produce yellow Labradors ranging from pale cream to rich fox-red. Interestingly, while black remains genetically dominant across the breed, all

three colors appear in both English and American Labradors. Coat color has no proven correlation with temperament, working ability, or intelligence, although some field-line breeders historically favored black Labs due to tradition and perceived performance. Rare

colors like “fox-red” (a dark shade of yellow) or “white” (a very pale yellow) are simply variations within the standard yellow category, while colors such as “silver,” “charcoal,” or “champagne” result from dilution genes and are not universally accepted by kennel clubs. Overall, Labrador coat color is a fascinating interplay of genetics, breeding history, and owner preference; yet regardless of shade, all Labs share the same loyal and hardworking nature.

From its humble beginnings as a rugged water dog on the shores of Newfoundland, the Labrador

Retriever has journeyed through centuries of selective breeding, refinement, and partnership with humans to become one of the world’s most versatile and beloved dog breeds. Although not as intensely agile or driven as high-performance working breeds like the Belgian Malinois, German Shepherd Dog, or Dutch Shepherd, the Labrador’s exceptional scenting ability, steady temperament, and remarkable trainability have ensured its continued use across security forces worldwide for detection work, tracking, and search-and-rescue operations.

At the same time, its gentle disposition, intuitive intelligence, and unwavering loyalty have made it the foremost choice for service and assistance roles, supporting individuals with visual, mobility, medical, and emotional needs. Today, the Labrador Retriever stands as a testament to the perfect balance between work and companionship; a breed that has not only retained the resilience of its water-dog ancestors but has also evolved into an indispensable partner in homes, communities, and frontline services across the globe.



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OPERATIONAL EFFICACY IN SEARCH AND RESCUE (SAR) K9 TEAMS: HANDLER ERRORS AND BEST PRACTICE IMPLEMENTATION

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challenges. Emphasis is placed on a preventative methodology encompassing appropriate canine selection, application of positive reinforcement techniques, maintenance of optimal canine physiological and psychological health, and continual handler skill development.

1. Analysis of Handler Operational Deficiencies

1.1 Training Protocol Acceleration

The efficacy of K9 conditioning is contingent upon gradual progression and methodological precision:

- a) Sequential Skill Acquisition: Initial training must establish fundamental search behaviors before introducing scenarios of increased spatial scope or complexity.
- b) Performance Threshold: Advancement to subsequent training phases is unwarranted until the canine demonstrates proficiency, defined as a 90% correct response rate, in the preceding skill set.
- c) Memory Consolidation: Repetition is essential for transferring learned behaviors from short-term to long-term

Abstract

Effective Search and Rescue (SAR) K9 operational capability is predicated upon seamless handler-canine interaction and adherence to rigorous training protocols. This analysis systematically addresses

prevalent errors committed by SAR dog handlers, details mandatory documentation standards for legal and performance validation, and proposes remedial strategies for common behavioral and olfaction-related



- a) Canine Autonomy: **Micromanagement**—characterized by frequent, directive verbal or physical cues—inhibits the canine's ability to develop independent reasoning and self-correction crucial for complex scent problems.
- b) Olfactory Primacy: Handlers must refrain from behavior that suggests they possess scent knowledge, as the canine's superior olfactory capability dictates the operational strategy.
- c) Self-Correction Mechanism: Should the canine deviate from the scent path, redirection is discouraged. The canine must be allowed to autonomously recognize the scent loss and reacquire the trail by processing environmental variables (e.g., wind dynamics, topography).
- d) Mitigation of Handler Dependency: Consistent redirection establishes dependency, compromising performance in high-stakes operational environments (e.g., blind searches) where handler knowledge is absent.

1.3 Communication and Distraction Management

Minimizing extraneous handler communication is essential for maintaining canine focus:

- a) Verbal Economy: Excessive handler vocalization during the search phase is a significant source of distraction and confusion.
- b) Operational Cues: Communication must be restricted to the delivery of

memory for reliable recall under stress.

- d) Pacing and Standardization: Training tempo must be individualized; comparative performance metrics between teams should be avoided, with focus maintained on achieving certified operational

competency.

1.2 Handler Micromanagement and Cognitive Interference

Excessive handler intervention is counterproductive to canine independence and problem-solving capacity:

defined commands and the immediate application of positive reinforcement upon compliance.

2. Training Consistency and Scent Protocol Standardization

2.1 Environmental and Scenario Conditioning

Operational readiness requires routine exposure to diverse contexts to prevent performance degradation:

- a) Mitigating Contextual Specificity: Canines conditioned to a narrow training environment (e.g., urban debris) may exhibit performance instability ("blackouts") when deployed to novel, non-familiar scenarios (e.g., landslide terrain).
- b) Robust Exposure: Training regimens must incorporate routine exposure to all potential operational sites and terrain types to ensure performance generalization.

2.2 Scent Signature Standardization

Training must account for the variability within the target scent signature:

- a) Target Signature: SAR K9s target the live human scent, a complex mixture of Volatile Organic Compounds (VOCs).
- b) Cohort Diversification: While the target is universal human scent, training must include exposure to a diverse cohort of individuals (e.g., different genders, ages, occupations) to mitigate variations in response

when encountering unexposed victim types.

2.3 Search Discipline and False Positive Management

Maintaining search integrity is critical for effective resource allocation:

- a) Indication Accuracy: Handlers must train the canine to avoid indicating (e.g., barking) on non-target or false positive sources (non-live human sources), preventing the misallocation of rescue assets.
- b) Search Sector Protocol: The canine should only be permitted to proceed to a subsequent search sector after a confirmed successful indication or a confirmed negative search. Failure to enforce this sequential process introduces risk to live victims.

2.4 Drive Maintenance and Reward Transitioning

Multi-victim scenarios necessitate a specialized reward system to sustain motivation:

- a) Continuous Search Conditioning: K9s must be trained for continuous, multiple-victim searches within a single deployment.
- b) Secondary Reinforcement: To maintain drive in this context, each successful indication must be immediately followed by a verbal marker or clicker cue (non-tangible secondary reinforcement).
- c) Protocol Prioritization: Routine practice of this non-tangible reinforcement protocol is required to ensure the canine

accepts these cues over immediate primary rewards (e.g., toys or food).

2.5 Minimizing Visual Cue Dependence

Training aids should be phased out to ensure cues are universally applicable:

- a) Phasing Out Physical Aids: Initial directional training using visible aids (e.g., remote control boxes) must be promptly discontinued once basic understanding is achieved.
- b) Cue Transition: Subsequent conditioning should transition to the exclusive use of subtle handler hand signals or verbal commands to prevent the canine from becoming reliant on the visual presence of training equipment in operational settings.

3. Essential Documentation Standards

Meticulous Training Logs

Detailed log documentation is required for performance monitoring

- a) Data : Records must detail the session goal, scenario configuration, canine performance metrics, and planned remediation steps.
- b) Environmental Variables: Includes documentation of wind velocity and direction, temperature, terrain type, and humidity.
- c) Scent Control: Notation of scent article handling procedures to ensure integrity and prevent contamination.

- d) Validation: Documentation of blind and double-blind testing results is required to substantiate reliable identification capability.
- e) Transparency: All instances of non-compliance (failures) must be recorded; logs demonstrating only successes lack credibility and forensic utility.

4. Remedial Strategies for Operational Challenges

4.1 Incomplete Victim Indication (Short-Stopping)

- a) Possible causes: Handler error where early, unintentional cues signal knowledge of the victim's location, leading the canine to believe a partial indication is adequate.
- b) Correction: Reinforcement must be delivered only upon the handler reaching the victim's precise location. Retrain using high-drive scenarios, ensuring the victim aggressively solicits the canine's presence to enforce the full lead-in component.

4.2 Victim Proximity Fixation

- a) Possible causes: Canine fixation on the victim, failing to execute the return-to-handler (Next-find) component. This commonly results from the victim providing the primary reward during early conditioning.
- b) Correction: The reward must be administered exclusively by the handler. For canines exhibiting high food motivation, a non-food toy reward is preferred to maintain focus on the task rather than the reward source. The handler must delay movement, requiring the canine to return



for reinforcement before proceeding to the victim.

4.3 Diminished Drive on Extended Search Problems

- a) Possible causes: Insufficient search drive, conditioning that prematurely terminates the search after the initial find, or an insufficiently high-value reward for sustained effort.
- b) Correction: The reward must consistently originate from the handler. Gradually increase the distance the handler maintains from the victim during the next find, reinforcing the requirement for the canine to retrieve the handler to obtain reinforcement.

4.4 Olfactory Performance Variability

- a) Transient Impairment: Infection (e.g., colds, viruses), allergies, or chemical exposure can temporarily compromise olfaction.

- b) Rest: Brief cessation of search activity when the canine moves its nose away from the scent line is indicative of olfactory fatigue; intervention is contra-indicated.
- c) Re-Commanding Error: Issuing a new command while the canine is actively analyzing a complex, mingled scent picture risks directing the canine to an undesired secondary scent source.

4.5 Environmental Drive and Behavioural Drift

- a) Prey Drive Management: In cases of canine distraction by wildlife, immediate and intensive "Leave It" conditioning is required, establishing the command as an urgent avoidance cue.
- b) Leash Dynamics: During tracking harness work, corrective leash jerks are prohibited. The canine's natural pull must be distinguished from handler-initiated punishment.
- c) Working Style: Forcing a canine to adopt a non-native working speed (e.g., faster or slower) induces frustration, potentially leading to cessation of work.

5. Prevention: Strategic Implementation of Best Practices

5.1 Canine Selection Criteria

Selection must prioritize intrinsic suitability for SAR work:

- a) Aptitude: Demonstration of physical robustness and cognitive capacity for independent work.
- b) Drive: High search drive and willingness to execute the share-the-find behavior.

- c) Temperament: Courage in adverse environments, low aggression towards humans and animals, and minimal disruptive prey drive.
- d) Self-Control: Obedience is defined as the ability to exert self-control and execute the handler's request over instinctive desires.

5.2 Professional Training Methodology

- a) Positive Reinforcement: Adherence to positive training methods is mandatory. Aversive tools (e.g., electronic, prong, or pinch collars) and physical coercion (e.g., toe or groin pinches) compromise canine welfare and training efficacy.
- b) Expert Consultation: Collaboration with professional trainers facilitates sound

technique and the identification of subtle, unintentional handler cues.

- c) Structured Progression: Training modules must be unifocal (one main goal per lesson) and sequentially structured.
- d) Burnout Mitigation: SAR work must remain a high-value activity. Handler fatigue and canine overworking must be actively avoided through adequate rest protocols.

5.3 Physiological and Psychological Health Maintenance

- a) Veterinary Oversight: Maintain optimal physical and mental fitness through regular veterinary examinations, including screening for age-related diminished capacity.
- b) Nutritional Standards: A

working canine necessitates a high-quality, high-density diet. Suboptimal nutrition negatively impacts long-term health and short-term behavioral regulation (e.g., hyperactivity).

5.4 Handler Competency and Professionalism

- a) Role Realization : The SAR handler is a trained rescue professional specializing in the deployment of the canine as a search tool.
- b) Contextual Awareness: Recognition that a "find" is a rare outcome and that operational success is achieved through collective team effort.
- c) Continuing Education: Engagement with senior professionals and trainers is essential for knowledge sharing and professional development.



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SCENT AIDS IN CANINE DETECTION TRAINING: TYPES, CONTAMINATION RISKS, AND EMERGING SOLUTIONS

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



managed throughout the training process and maintenance training thereafter. In this write up the training aids are described with the advantages and disadvantages, potential contamination sources and emerging solutions.

Training Aids and Types: Training aids are materials that composed of source materials, which deposits volatile organic compounds (VOCs) in the headspace. These vapours, simulate target odours, helping dogs learn to recognize and respond to the target odours. It is well established that, detection dogs are capable of identifying the odour on which they have been imprinted, a process that closely parallels their ability to locate controlled items during search operations.

1. Authentic or Parent Material

These are the actual substances that dogs are trained to detect—such as narcotics, explosives, or biological samples. These aids offer the most accurate and complex odor profile, closely mimicking real-world scenarios. For example, training a dog to detect heroin would ideally involve exposure to actual heroin under controlled conditions. However, obtaining, transporting and storing the

Introduction: Trained canines represent one of the most widely used and time proven method of detection, and trained to assist in various scenarios to provide numerous benefits. Their ability to identify specific odours with precision depends heavily on the quality and type of training/scent aids used during Scent imprinting and maintenance training. Among

the most critical challenges in scent detection training are the type of training aids, lack of standardization in uses, storage and contamination with associated odours, cross-contamination, and inverse contamination. These factors can significantly compromise the reliability of a detection dog to locate and acquisition of desired outcomes and must be carefully

original target material is subject to strict regulations and carries a risk of misuse. Even though parent material are the most widely accepted training aids in most field disciplines such as narcotics, explosive, cadaver, accelerant etc. for detection training.

2. Simulate or Mimic Aids

Simulated or mimic aids are designed to reproduce the odour profile of genuine substances through odour residues or extracts from real substances and equivalent scent delivery mechanisms. This is typically achieved by incorporating a portion of the authentic material as the odour source, with its volatile signature adsorbed onto or embedded within a non energetic, non hazardous carrier medium such as silica, petrolatum, or cotton gauge and make available when it is used as scent aid. These aids strike a balance between safety and realism, such aids are particularly employed in contexts where direct access to the true materials is restricted, impractical, or poses safety concerns.

3. Pseudo Training Aids

Pseudo training aids differ fundamentally from both authentic and simulated aids. Unlike parent-material or mimic aids, pseudo aids do not employ the original substance as the odour-generating source. Instead, they replicate the headspace odour profile through synthetic or naturally derived formulations. The use of synthetic pseudo aids remains a subject of considerable debate, as these proprietary preparations—typically powders

or liquid chemical blends—are designed to approximate the volatile organic compounds (VOCs) signature of genuine materials. They do not capture the full complexity of authentic odours, which means dogs trained exclusively on pseudo-scents may face challenges when transitioning to real-world detection scenarios.

Issues pertaining to the use of training aids: There are several concerns while using these aids in imprinting and maintenance training of dogs, it includes purity, storage, standardization in uses, sources of contamination and destruction.

i. Purity: In detection dogs training especially scent imprinting and maintenance training purity of the training aids is critically important, because the further performance of the sniffer is based on the association with the target odour. However, the preserving the purity of the aid is a challenge while handling, storing and using. In India, narcotics samples designated for canine scent training are supplied by the Central Bureau of Narcotic (CBN). The integrity of these samples is paramount, as they serve as the benchmark for training aid purity.

Table-I: Mean Vapor pressure of explosives at 25°C (77°F)			
S.No	Name, Abbreviation	Mol Weight (g/mol)	Vapor Pressure (mm of Hg)
1	Nitromethane, NM	61	36
2	Hydrogen peroxide, HP	34	2.2
3	Diacetone diperoxide, DADP	148	0.19
4	Triacetone triperoxide, TATP	222	0.048
5	Nitroglycerin, NG	227	4.9X10-4
6	2,4- dinitrotoluene, 2,4-DNT	182	3.1X10-4
7	Ammonium Nitrate, AN	80	1.1X10-5
8	2,4,6- Trinitrotoluene, 2,4,6-TNT	227	7X10-6
9	Urea Nitrate, UN	123	2.9X10-7
10	Cyclotrimethylene trinitramine, RDX (C4)	222	3.7X10-9
11	Ammonium perchlorate, AP	118	3.0X10-11
12	Cyclotetramethylene tetranitramine, HMX	450	1.8X10-14
13	1,3,5- Triamino-2,4,6-trinitrobenzene, TATB	258	1.8X10-15
14	Hexanitrostilbene, HNS	450	4.6X10-18
15	Guanidine nitrate, GN	122	2.0X10-20

Consequently, their acquisition, storage, and dispatch must be conducted with the highest degree of diligence. Strict protocols are required to prevent contamination during testing, storage, and transportation, ensuring that the samples remain uncontaminated and representative of the true target odor. Adherence to these standards is essential to maintain reliability in detection dog training and to safeguard the credibility of operational outcomes. In India, the majority of explosive training aids consist of actual explosives supplied by the ordnance factories. These materials are classified into five principal compound groups, each serving as a potential training aid.

ii. Handling and storage: Handling and storage of the training

aid is another domain of contamination, however it may be limited to great extent with the information of the ways and means through the aid may be contaminated. The odor availability of any substance depends on the container volume, vapor pressure and temperature. Vapor pressure of the substance is the ability of the matter to generate vapors; a high vapor pressure substance overwhelmed the other substances having low VP. Table-I and II depicts the mean vapor pressure of common explosives and narcotics respectively. Similarly, the surface area of the substance characterizes the amount of odor availability not the weight, which is common myth.

a. Training aids must be maintained

and handled with strict care to prevent loss, spillage, degradation, or contamination. Personnel should possess adequate knowledge of potential contamination pathways and appropriate preventive measures.

b. Loading and unloading of aids for scent lineups should be conducted with diligence at designated workstations, separate from storage areas, under proper lighting and ventilation.

c. To minimize human scent transfer, polythene gloves must always be used. When multiple aids are employed, those with lower vapor pressure should be prioritized before higher vapor pressure aids to reduce odor overshadowing.

d. Storage of training aids shall be conducted in a manner to prevent odor contamination and avoid permeation of source odor. Multiple aids placed in close proximity can cross-contaminate each other, so that none produce the same odor as their primary source materials.

e. A stainless steel or glass container having lid with labyrinth or other type of seal preventing exchange of air and to also prevent the absorption or leaching of odor from the stored material or the container itself.

f. Target materials shall be stored in separate labelled containers Target materials shall be stored separately from non-target and/or masking odors.

g. During sample placement, separating media such as wax

the pressure exerted by a vapor on a liquid when they are in equilibrium

lower

higher



vapor pressure

Game Smartz flashcard

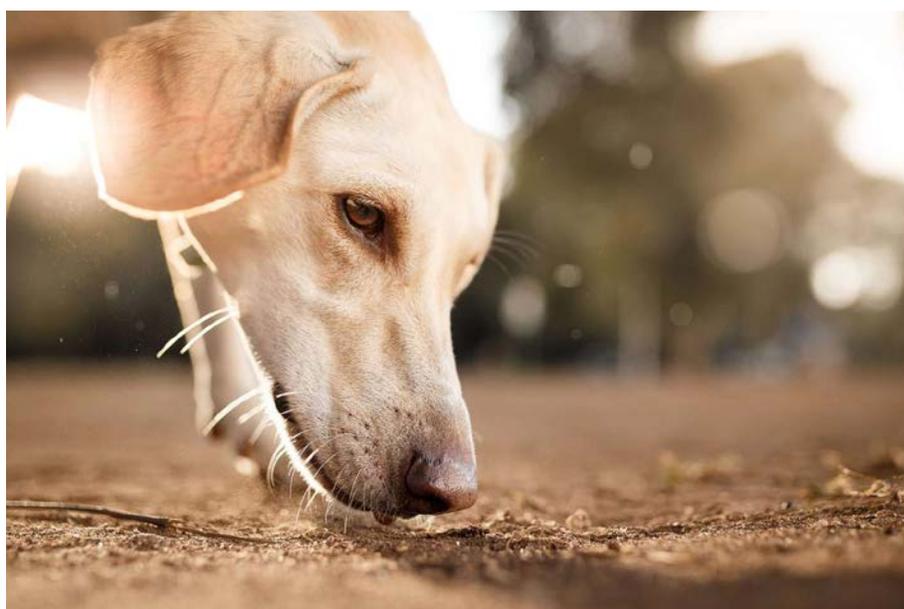
Table-II: Mean Vapour pressure of narcotics at 25°C (77°F)				
S.no	Drug	Scent Volatiles	Mol Weight (g/mol)	Vapor Pressure (mm of Hg)
1	Marijuana	α -Pinene	136	3
		β -Pinene	136	3
		Limonene	136	1.3
2	Cocaine	Methyl benzoate	136	0.4
3	Heroin	Acetic Acid	60	13
4	Methamphetamine	Benzaldehyde	106	1.3
5	Ecstasy (MDMA)	Pipernal	150	0.01

acquisition till destruction. It could be based on staggered system in which training aids should go through as per aging. For example, most pristine material could be used for scent imprinting training, making odor-saturated simulates and double-blind testing. Second category be set for limited use i.e. semi-pristine environment where the hide is not likely to be contaminated. The third category used in normal maintenance routine training. Under fourth sequence aids may be used in the extremely dusty/dirty environments; then it followed by use of aids in intense ambient odour such as hospital/store (dry masking training) and finally aids may be used in extremely contaminated areas such as next to gasoline, wrapped with grease, inside oil cans (Wet masking training).

V. One of the most overlooked yet impactful sources of contamination is the transfer of

- paper or sterile cotton should use to prevent particulate cross contamination and inverse contamination of the area.
- h. Whenever possible, training aids should be rotated, coverings changed, and all feasible measures taken to neutralize human-associated odors. This ensures that canine indications are directed toward the true target odor rather than residual human scent.
- i. Certain drug samples may contain adulterants or cutting agents such as baking soda, boric acid, caffeine, cornstarch, flour, infant formula, talc, or other odorous substances added to increase bulk. These impurities complicate and alter the odor profile of the pure substance, potentially affecting detection accuracy.
- j. Many handlers have access to only a limited number of training aids, resulting in repeated use of the same materials. In the absence of pure samples, dogs may inadvertently learn to recognize the composite odor

- of the aid rather than the parent compound. This limitation often becomes apparent when dogs are tested or trained with unfamiliar aids.
- iii. Safety: For each material employed as training aid, corresponding Material Safety Data Sheets (MSDS) must be readily available.
- iv. Life span of the training scent aid should be based on the sequential use of it after



human scent—especially from the handler—onto scent aids or training equipment. Dogs are highly sensitive to human odors, and even trace amounts of skin oils, sweat, or personal fragrances can influence their behavior. When a handler repeatedly touches scent aids without gloves or uses the same containers across sessions, dogs may begin to associate the handler’s scent with the target odor. This can lead to false alerts, where the dog responds to the handler’s presence rather than the actual scent.

vi. To mitigate this risk, trainers must adopt strict hygiene protocols, including the use of gloves, scent-neutral containers, and minimal direct contact with odor sources.

Conclusion

Detection dog training is a multidisciplinary endeavour that requires coordinated efforts from scientists, veterinarians, chemists, and trainers to ensure reliability and credibility. While dogs remain the gold standard in scent detection, the accuracy of their performance depends on the integrity of

training protocols. Contamination in scent detection is not a minor technical issue but a significant behavioural and operational risk that can compromise learning and reduce detection effectiveness. Establishing and adhering to rigorous contamination control measures is therefore essential. Such practices not only safeguard the validity of training outcomes but also strengthen the operational reliability of detection dogs, thereby reinforcing their indispensable role in critical security and investigative functions.



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THE ROLE OF ITBP DOGS IN ANTI-NAXAL OPERATIONS AS A CRITICAL FORCE MULTIPLIER

Dr. Ashwani Kumar, 2IC(Vet), ITBP

Introduction

India's internal security landscape has long been challenged by the Maoist insurgency, often referred to as the Naxal movement. Active across multiple states such as Chhattisgarh, Jharkhand, Odisha, Maharashtra, Bihar, and parts of Andhra Pradesh this insurgency has posed serious challenges to law enforcement agencies. Operations in these dense forests, rugged terrains, and hostile environments demand extraordinary skill, endurance, and adaptability from security forces.

In such scenarios, ITBP working dogs have emerged as force multipliers. Their exceptional olfactory senses, agility, and trainability enable them to perform specialized tasks beyond human capability. Whether it is detecting improvised explosive devices (IEDs), tracking the movement of Naxal cadres, or providing security at forward operating bases, K9s contribute significantly to minimizing casualties and ensuring mission success.

Historical Context of K9 Use in Counter insurgency

The use of dogs in policing in India dates back to the early 20th

century, when British colonial police employed them for tracking criminals. Post-Independence, Indian police forces began establishing dedicated dog squads, primarily for crime detection and tracking fugitives. However as far as ITBP is concerned, it was only in nineties, during the rise of militant and insurgent activities in Punjab and Jammu & Kashmir, that ITBP began to realize the tactical potential of K9s in counterinsurgency environments and started training dogs for various trades at their Dog training centre at Basic Training Centre at Bhanu, later on named as National Training Centre for Dogs.

ITBP has been deployed in Anti-Naxal Operations in Chhattisgarh since 2009. The extension of these practices into anti-Naxal operations gained prominence during the early 2000s, when state police forces such as those of Chhattisgarh and Jharkhand started deploying trained dogs for bomb detection and tracking operations in forested terrains. Today, nearly every state police force in Naxal-affected areas maintains a K9 unit, and these dogs have become an integral part of security planning in anti-Naxal grids.

OPERATIONAL ROLES OF ITBP DOGS IN ANTI-NAXAL AREAS

1. Explosive Detection

One of the gravest threats in Naxal-affected zones is the extensive use of improvised explosive devices (IEDs). Naxalites plant pressure bombs, command wires, and booby traps along forest paths and patrol routes. These devices, often concealed under soil, tree roots, or in metal containers, have caused numerous fatalities among State Police Forces and Central Reserve Police Force (CRPF) personnel.

Explosive Detection Dogs (EDDs) are trained to detect minute traces of explosive substances such as RDX, TNT, PETN, and ammonium nitrate-based mixtures. Their ability to differentiate among various odors and locate buried or concealed devices far exceeds any mechanical detector.

Units like German Shepherds, Belgian Malinois, and Labrador Retrievers are commonly employed due to their intelligence, endurance, and adaptability.

Several operations have recorded success due to the alertness of EDDs. In 2022, for instance, a K9

from the Chhattisgarh police named Jassi detected a pressure IED near Sukma, preventing a major ambush. Such cases underscore the life-saving contributions of these dogs and highlight their indispensable role in the anti-Naxal grid.

2. Tracking and Pursuit Operations

Naxal cadres often rely on guerrilla tactics—hit-and-run attacks followed by dispersal into dense forests. Tracking their movement through broken terrain and deceptive trails poses a formidable challenge. Tracker Dogs are trained to follow ground scent trails left by humans, often several hours old.

Once a crime scene or ambush site is secured, tracker dogs help identify the escape route, leading to recovery of camps, supplies, or even apprehension of suspects. The dogs' ability to discriminate between scents, follow minute human residues on vegetation or soil, and maintain trail integrity over long distances is invaluable.

An example of such success is recorded in Gadchiroli district, Maharashtra, where a dog named Rocky, a Belgian Malinois, helped trace the movement of a Naxal squad following an encounter in 2021, leading to the recovery of hidden arms and ammunition. These cases demonstrate how K9s bridge critical intelligence gaps in the post-operation phase.

3. Search and Rescue

Anti-Naxal operations often involve jungle warfare, encounters, and ambushes in remote regions. Search and rescue (SAR) dogs

assist in locating injured personnel, retrieving bodies after IED blasts, or finding missing civilians caught in crossfire. Their swift detection capability often determines the difference between life and death in such situations.

SAR dogs have also been employed after Naxal attacks on security convoys to locate survivors under debris or dense vegetation. Their contribution extends beyond tactical assistance—they also provide emotional reassurance to troops and civilians traumatized by violence.

4. Area Domination and Camp Security

K9 units are integral to camp security protocols in forward operating bases (FOBs) situated deep in forest areas. The presence of alert sentry dogs acts as a deterrent against night raids and infiltration attempts by Naxal insurgents. Their heightened senses enable early detection of suspicious movement or the approach of hostile elements, allowing personnel to respond proactively.

In some ITBP, CRPF and STATE POLICE camps, sentry dogs patrol perimeters during night hours, particularly in jungle bases where visibility is limited. Their silent alerts and behavioral cues provide early warning systems, significantly enhancing the safety of deployed personnel.

5. Public Confidence and Psychological Impact

Beyond their operational contributions, police dogs play a vital psychological role. For troops

operating in hostile environments, prolonged deployment can lead to stress, isolation, and fatigue. Interactions with dogs have proven to improve morale, reduce anxiety, and foster emotional resilience. Moreover, during community policing initiatives in LWE-affected areas, K9 demonstrations help bridge trust between local populations and security forces, humanizing the police image.

OPERATIONAL CHALLENGES

Despite their proven value, several challenges persist in the effective deployment of K9 units in anti-Naxal operations:

1. Environmental Constraints:

High humidity, heat, dense vegetation, and leech-infested forest floors make prolonged deployment challenging. Dogs tire quickly and may suffer from dehydration or insect-borne infections.

2. Logistical Issues:

Transporting dogs to operational zones, especially via helicopters or narrow forest tracks, requires specialized crates, mobile kennels and planning. Lack of adequate budget allocation often restricts mobility.

3. Shortage of Trained Handlers:

Frequent transfers and inadequate replacement training lead to disruption in handler-dog continuity. Given the importance of trust in handler-dog communication, such disruptions can diminish efficiency.

4. Underutilization in Intelligence Roles:

While K9s are used for detection and tracking, their potential in covert reconnaissance, forensic scent identification, and surveillance support remains underexplored.

STRATEGIC IMPORTANCE IN COUNTERINSURGENCY DOCTRINE:

The integration of K9 units aligns with modern counter insurgency (COIN) principles emphasizing intelligence-led, human-centric, and minimally invasive operations. K9s offer a blend of stealth, precision, and sensory advantage unmatched by technology alone. Their use complements electronic surveillance and drone reconnaissance, providing ground-level sensory confirmation.

Moreover, K9s embody the philosophy of “winning hearts and minds.” During civic action programs, their presence helps demystify police forces for local villagers, especially children, promoting cooperation and

reducing the alienation exploited by Naxal propagandists.

Technological Synergy: K9s and Modern Equipment

Recent developments include integrating K9s with GPS-enabled harnesses, body cameras, and remote communication modules. Such innovations allow handlers to monitor dogs’ movement during search operations in high-risk zones. Drones can also guide K9 movements and relay live video feeds.

This human-animal-technology triad represents the next evolution in anti-Naxal strategy—combining instinct, intelligence, and innovation.

Welfare and Post-Service Care

A critical but often overlooked aspect of K9 deployment is welfare. Dogs face extreme stress, physical exertion, and risk of injury. After years of dedicated service, they deserve dignified retirement and medical care. ITBP and Several

police departments, such as in Maharashtra and Karnataka, have initiated K9 retirement homes or adoption programs. Ensuring continued care not only reflects ethical responsibility but also inspires morale among handlers and the wider force.

CONCLUSION

Police dogs are silent soldiers of India’s anti-Naxal war—alert, loyal, and fearless. Their contributions, often unheralded, have saved countless lives, disrupted insurgent plots and strengthened the operational capabilities of police and paramilitary forces. As Naxalism continues to evolve with new tactics and technologies, the integration of K9 units—backed by scientific training, welfare support, and modern equipment—remains essential to ensuring tactical superiority and moral strength.

In the jungles where sight is limited and silence is survival, it is often the sensitive nose and unwavering spirit of a trained police dog that first senses danger—and saves the day.



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Training Note:

“TRAINING JEEVA: A RAMPUR HOUND’S JOURNEY AND THE FUTURE OF INDIA’S INDIGENOUS POLICE K9s”

Dr. Kanika Yadav, Assistant Commandant (Veterinary), BSF



Introduction

India’s indigenous dog breeds carry within them an ancient legacy—shaped not by selective breeding programmes but by centuries of

survival, climate adaptation, and instinctive intelligence. Among these, the Rampur Hound stands tall as one of the most agile, alert, and resilient Indian working dogs.

This article presents a detailed case study of “Jeeva”, a Rampur Hound trained during a Dog Handling and Management Course. Her training journey reflects the challenges, adaptability, and extraordinary

potential of indigenous breeds. It also highlights how training methodologies can be improved to unlock the full capabilities of Indian dogs for future CAPF and state police deployments.

Beginning the Journey: Receiving the Four-Month-Old Jeeva

Jeeva arrived in my hands as a timid, alert, movement-sensitive four-month-old pup. Most foreign breeds are genetically primed for:

- Food motivation
- Play drive
- Human bonding
- Object fixation
- Jeeva showed none of these.

Initial Behavioural Profile

- Very low food motivation: She refused treats of all types except raw bones.
- No ball or toy interest: A major challenge for reward-based training.
- Highly sensitive to movement: Any slight change in the environment distracted her.
- Wild-type habits:
 - Predatory stalking gait
 - Hiding food or bones
 - Avoiding unnecessary human contact
- High sound sensitivity: Sudden noises cause startling reactions.
- Selective social bonding: She stayed near me but wasn't interested in petting or affection.

This was not stubbornness—it was pure ethology, the behavioural blueprint of a true Indian hound.

Why Indigenous Breeds Behave Differently

Foreign working breeds have undergone intensive artificial selection over the last 100 years for predictable temperament and strong food/play drives.

Indigenous breeds, including the Rampur Hound, have undergone thousands of years of natural selection, which has resulted in:

- Independence over obedience
- High environmental sensitivity
- Low object and possession drive
- Strong survival instinct
- Deep but slow-forming bonds
- High flight-distance threshold
- Enhanced stamina and heat tolerance

Research from ICAR and GB Pant University on native canine genetics confirms that Indian breeds:

- Possess superior heat adaptation
- Display lower genetic disease incidence
- Show higher cardiovascular endurance
- Retain primitive predatory motor patterns

Training Challenges with Jeeva

1. Poor Food Drive

Most obedience shaping relies on food rewards. With Jeeva, this foundational tool was ineffective.

2. Zero Toy/Play Drive

No tugging, no ball chasing—so we lacked the second major category of canine rewards.

3. Extreme Movement Sensitivity

Her sight-hound instincts pulled her attention towards every leaf, bird, or movement.

4. Human Contact Aversion

She tolerated me but did not enjoy petting, which slowed bonding.

5. Sound Sensitivity

Training grounds with sudden noises created startle responses and loss of focus.

These challenges forced me to redesign my training strategy entirely.

Training Methodology: What Worked for an Indigenous Hound

1. Movement as the Reward

When nothing else motivated her—running did. So, I made movement the reinforcement:

Sit → release → short sprint

Recall → release → longer sprint

Heel → reward through running in arcs

Once she learned that correct behaviour led to running, her enthusiasm increased.

2. Micro-Sessions

For an indigenous hound:

- Long sessions reduce engagement
- Short bursts maintain excitement
- We structured training into:
 - 2–3 minute drills
 - 5–6 repetitions

- High-value movement release

This prevented frustration and allowed her natural instinct to flow.

3. Trust-Based Bonding

Instead of touching:

- Parallel walking
- Calm presence
- Feeding rituals
- Grooming

Trust grew naturally.

Although Jeeva initially rejected most treats and showed no interest in toys or the ball, her motivation improved gradually and naturally—not through any special technique but through day-to-day confidence building and trust formation.

1. Confidence Reduced Her Environmental Scanning

As she became familiar with the training ground, routine, and surroundings, she stopped constantly scanning for movement or threats. A calmer mind allowed her to notice the ball and treats more.

2. Trust in the Handler Made Rewards More Meaningful

Indigenous hounds value the person before the object. Once she trusted me, even simple treats began to gain value because the interaction became rewarding, not just the food.

3. Movement-Based Play Triggered Her Natural Instinct

Rolling or bouncing the ball lightly began connecting with her natural chase instinct. Over time, she explored it more, chased

it occasionally, and gradually developed a basic ball-drive, which was absent initially.

4. Routine Strengthened Reward Association

Because rewards were offered calmly, consistently, and predictably, she began forming a positive association with them. This slow shift marked the beginning of her reward-based learning. This progression is highly characteristic of indigenous breeds:

Their drive develops later than exotic breeds, but once it emerges, it becomes stable and reliable.

Training Outcomes

By course completion:

- She performed basic obedience reliably.
- She followed commands despite environmental movement
- Her fear of sound was reduced drastically.
- Her bonding with me became secure.
- She executed structured recalls.
- Her confidence in training environments improved.

Jeeva did not become a foreign-breed replica—she became the best version of a Rampur Hound.

Behavioural Transformation & Lasting Bond: Jeeva Today

Even after completing my training course, Jeeva was assigned to a new handler for tracker trade training, where she is currently progressing well. Yet, what remains

remarkable—and scientifically significant—is her behavioural response whenever she sees me. The moment my presence enters her sensory field, her ears instantly become erect, her eyes brighten, and her entire posture shifts from neutrality to alert enthusiasm.

Indigenous hounds express affection subtly. In Jeeva's case, a simple soft eye-blink from me is enough for her to break into a sprint and run straight towards me. This is not typical excitement like in Labradors or German Shepherds—it is the refined, selective loyalty of a primitive hound who chooses her person with great care.

This behaviour reflects a powerful psychological indicator: indigenous dogs, once bonded, build enduring and deeply rooted connections. Such handler-specific bonding is invaluable in roles that demand silent communication, mutual trust, and quick interpretation of cues—especially in tracking and night reconnaissance tasks.

Future Potential of Indigenous Breeds in Forces

India's indigenous breeds, especially the Rampur, Mudhol, and Rajapalayam, offer considerable advantages for future CAPF and state police operations.

1. Exceptional Heat Tolerance

Foreign breeds frequently suffer heatstroke. Indigenous breeds thrive in:

- Hot plains
- Desert sectors
- Humid tropical zones

2. Better Stamina for Long Patrols

Rampur and Mudhol hounds can patrol 15–20 km with minimal fatigue.

3. Low Maintenance and High Disease Resistance

They naturally resist many:

- Skin conditions
- Ear infections
- Orthopaedic disorders

4. Cost-Efficient for Large-Scale Deployment

Lower feeding and maintenance costs than foreign breeds.

5. Natural Tracking Ability

Indigenous hounds possess:

- Strong prey drive
- High movement detection
- Silent stalking ability

6. Cultural and Strategic Value

Promoting indigenous breeds aligns with:

- Atmanirbhar Bharat
- Indigenous security doctrine
- Breed conservation efforts

How Training Methodologies Can Be Improved for Indigenous Dogs

These conventional training methods should not be used for training of indigenous dog breeds. Training methods should be according to their behaviour. Their motivation is completely different from exotic breeds as they are product of natural selection, and they have survival instincts. Along with change in training methodologies, there is a need for the adoption of a scientific and structured breeding plan.

1. Shift from Compulsion to Motivation-Based Training

Indigenous breeds shut down with harsh corrections.

2. Increase Sensory Stability Training

Noise desensitisation and environmental conditioning must be core modules.

3. Modify Foundation Training

Instead of:

- Long sit-stays

- Repetitive heel work

Use:

- Short engagement windows
- High-movement drills
- Focus games

4. Structured Socialisation Protocols

Expose pups early to:

- Uniforms
- Vehicles
- Crowds
- Multiple handlers

5. Genetic Line Improvement

A national breeding programme to select temperamentally stable, working-suitable indigenous lines.

Conclusion

Jeeva's journey is not just the story of one Rampur Hound—it is symbolic of a larger truth. Indigenous breeds do not fail training; our traditional training models fail them. When their instincts are understood and their natural strengths respected, they transform into intelligent, resilient, mission-ready working dogs.



Dr. Kanika Yadav, AC (Vet) currently posted at the National Training Centre for Dogs (NTCD), Border Security Force, Gwalior. She joined the Force in 2023. She completed her BVSc & AH from the Veterinary College Shivamogga, KVAFSU. She pursued her MVSc. in the discipline of Veterinary Surgery and Radiology from the Veterinary College Bikaner, Rajasthan University of Veterinary and Animal Sciences (RAJUVAS).

A NOVEL FIELD TRIAL FOR DETECTION OF LITHIUM BATTERIES/CELL PHONES BY AN INFANTRY PATROL DOG

Dr Vinay Yadav, Comdt. (Vet), BSF & Dr Chopel Gyatso, DC(Vet),BSF



the usual ED, ND, Track, Assault, Ambush work.

Globally, K9's are being trained for detection of lithium batteries, SIM cards, memory chips individually or in combination in prisons, airports and by police. TPPO (Tri Phenyl Phosphine Oxide) is a chemical that coats memory chips/ SIM cards to protect them from overheating. Lithium batteries contain solvents mainly DMC (Di methyl Carbonate) and DEC (Diethyl carbonate), DMC metabolizes into methanol and too much exposure and inhalation of methanol odour can cause health problems. The odour expelled by lithium batteries resembles that of nail varnish/ polish remover and is easily detectable by trained K9.

Selection of dog

K9s which have a high degree of hunting drive, a frenetic desire to retrieve, and environmentally sound, are best for detecting digital devices. GSD, Malinois and Labradors have performed better globally. So, a healthy, active infantry patrol PSK Xavo (lab, male), aged 3 ½ years of 62Bn BSF, Coochbehar (WB), was selected to conduct the trial.

Module of training

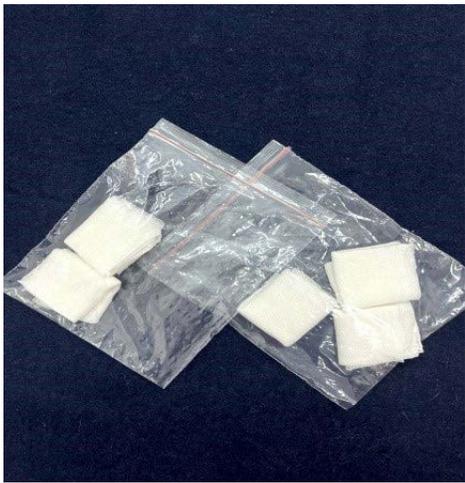
Being a new project, an already trained IP/Ambush dog was

Introduction

Our lives are being impacted by greater and greater use of complex technology. Social media are greatly influencing our day-to-day life. Being in uniform, we are being directed to restrict use of social media, so that sensitive information is not openly available and, our men can be saved from honey-traps and frauds. However, to become famous and viral on social media, many personnel carry mobile phones to their place of duty at zero line and share their live location, border fencing, arms etc. and make forces more vulnerable as this data can be used by state enemies against us. Regular instructions are issued

for personnel not to carry a mobile, GoPro, camera to duty places and while going on duty. They deposit their secondary phone and carry along their primary phone hiding in their clothes/belongings, or hide it in their place of duty in Observation Post (OP) towers.

02 such cases were detected because of personnel sharing data on social media and going live on YouTube/Facebook. So, the intelligence branch inquired about how our low-tech companions/workmates (PSK's) could help them. Thus, a trial to train a dog on a lithium-ion battery was planned and, our dog found a new application in the field from



selected. The main aim was to sensitise and do conditioning of K9 for a new scent of Lithium. The trial was planned for 05 weeks, where in different stages, K9 was conditioned to detect and indicate lithium battery containing electronic devices hidden under the ground, inside luggage, inside building, vehicles and in humans.

Article Preparation For Scent Sensitization

A Lithium battery, SIM card & memory card were kept in a sterilized air-tight glass container along with a 2-inch square sterile



gauze pad and sealed for 10 days. The scent-impregnated gauze pads were taken out of the boxes and stored in airtight polybags for training/conditioning of the dog.

The lithium battery (coin battery) or the direct smell of a punctured battery or crystals of lithium after breaking the battery should not be used commonly for scent conditioning articles as dog may ingest the battery and lithium being corrosive may result as a health hazard to the dog, rather the scent-impregnated gauges should be used.

Trade training

a) Scent conditioning (Based on Pavlov's conditioning theory)

The odour-impregnated gauze was wrapped in a cloth to make a ball and PSK Xavo was made to play a fetch game. As soon as the dog fetched the ball, a sit/ speak command was given. After a few days of play, another scent-impregnated gauze was placed in small steel boxes with perforated lids. During the initial scent conditioning, handler

accompanied the dog for sniffing of boxes. While sniffing the box containing gauze, the dog was marked with command to sit/ speak followed by a food reward. After repeated practices and regular corrections, the dog was conditioned to detect the odour of lithium plus TPPO.

b) Ground search:

In this stage, the scent-conditioned dog was allowed to sniff the ground for hidden cell phone, battery and memory card. For this, 9 shallow pits were made linearly and placed about 10 feet apart. The dog was prepared for detection and sent in an up- wind direction. The dog handler was directed to praise the dog and the command "Sungho - Dhundo" (Seek & find) was given to start the search for articles. As the dog sniffs and reaches near each pit, the command was repeated. When the dog starts to change its activities in the pit containing article then command sit was followed by praise/play/food reward. This exercise was repeated again and again by changing patterns and depth of pits to 1 foot till an 80% result was obtained.

c) Luggage search



As dog started to give correct indications in ground searches, training was started on luggage. Initially, the handler was allowed to see the luggage in which a cell phone/lithium battery/memory card was placed to encourage dog on the spot and notice changes in the activities of the dog for a positive indication, dog was rewarded and on negative indication, the dog was reconditioned with sent and this exercise was repeated till achieving an 80% positive result.

d) Human search

During this period of training and corrections, the dog easily discriminated against other scents and was able to detect and indicate the presence of cell phones. The primary reason for which this trial was started was to stop the use of

cell phones by personnel during and at place of duty. So, every morning and evening when the men march for their OP points, personnels were made to be screened by dog. At first, 02 men were screened and on daily basis, personnel for screening were increased to 15 at a time.

e) Building search

Since cell phones may be hidden at OP towers at borders by personnel and in some places by smugglers, like the Indo-Bangladesh IB is habituated almost up to Zero Line. Dog Xavo was prepared to search first around the OP towers and later inside. A few articles were placed at a height where dog cannot reach and see. By continuous training, the dog could indicate up to a height of 8 feet easily.

f) Vehicle search

Even though at borders, vehicle search was not much required for cell phones as per the crime pattern however dog was trained to search for common vehicles available near border like rickshaws, boats plying in the river Brahmaputra for the future, as many times mobile phones were seized at international borders.

Discussion

Dogs can detect cell phones even when they are switched off, so when criminals hide these devices and switch them off or the last location of the cell phone is not available, the K9 serves right and is of great help in nabbing the criminal or preventing the crime. Globally, there is a tremendous increase

Week wise test results

S/No.	Name of dog	Team association	Basic Training Skills	Scenario based skills						Right indication/ Article Held	Marks Obtained/ Max Marks	%	Grade	Remarks
				Ground Search			Human Body							
				Articles	+ve	-ve	Articles	+ve	-ve					
Zero & 1st Week scent conditioning lithium ion battery														
1st week														
1.	Xavo	Pass	Pass	05	02	05	05	01	03	03/10	30/100	30%	Poor	
2nd week														
1.	Xavo	Pass	Pass	05	03	02	05	02	03	05/10	50/100	50%	Poor	
3rd week														
1.	Xavo	Pass	Pass	05	04	02	05	03	02	07/10	70/100	70%	Satisfactory	
4th week														
1.	Xavo	Pass	Pass	05	05	01	05	03	03	08/10	80/100	80%	Satisfactory	
Poor (<70%) Satisfactory (70-80%)/Good (80-90%)/Outstanding (>90%)														

in training and use of cell phone detector dogs. All prisons keeping a K9 squad who can detect cell phones kept by inmates/ prisoners. Further many cases were solved by such dogs by detecting hidden mini cameras, memory cards by criminals and helping in solving criminal cases. Lithium batteries are currently posing the biggest threat to airline safety. Lithium batteries are generally safe in devices but can be punctured and can ignite or even explode, so the airport authorities are utilising services of these dogs. Lithium battery detector dogs have detected even a single battery in the middle of a cubic metre-sized shipment.

The utility of such trained dogs at the borders is still in a primitive stage. However, they could be instrumental in the future to prevent smuggling of lithium batteries/ mobiles across the border, to detect mobiles of smugglers hidden for data retrieval so that they can be used as evidence to catch and break the nexus of smugglers and to detect mobiles of personnel, if they are carrying while performing border guarding duties.

Conclusion

An infantry patrol ambush K9 or a green dog can be trained for detection of cell phones. If a green dog is used, then 11-12 weeks'

training will be sufficient. However, for a K9 who is already trained for basic obedience, 5 to 6 weeks of training can bring in fruitful results. In this trial, PSK Xavo was trained for all case scenarios to detect lithium battery/memory card/cell phone in the ground, luggage, buildings, vehicles and humans. In this trial, up to 80% results were obtained after training of 5 weeks. A global standard of more than 90% success can be obtained by regular training and selecting a good dog. As per requirements of field units, more dogs may be trained and more customization may be brought into training as per the crime pattern where dogs are deployed.



Dr. Vinay Yadav, Commandant (Vet) joined BSF in 2006. He has provided specialized Veterinary care to Force animals (Equine, Camel & Canine) across Jammu & Kashmir, Rajasthan, Punjab, Manipur, Nagaland, Mizoram, and Assam. Notable achievements include six consecutive years of vet cover to camels marching on Republic Day Parade and establishing veterinary facilities at Jammu and Silchar. He holds an MBA & Post graduate degree in Microbiology. He has been awarded 10 DG's Disc and commendation along with more than 20 IG's commendation card. He has served as Officer-in-Charge at Subsidiary K9 Training Centre Guwahati, and trained pups in dual purpose trades.



Dr. Chopel Gyatso Lachungpa is an alumnus of Madras Veterinary College, TANUVAS, and holds a postgraduate degree in Clinical Medicine. He has vast experience in canine critical care management as well as in K9 training. He played a key role in establishing the Subsidiary K9 Training and Breeding Centre (SKTC) in Bikaner and has trained hundreds of dogs in various trades that are currently deployed along the India-Pakistan & India-Bangladesh International borders. He is currently serving as Officer Incharge of SKTC, Bikaner.

प्रश्न और उत्तर

श्वान प्रशिक्षण एवं प्रजनन केंद्र सशस्त्र सीमा बल डेरा अलवर (राजस्थान) में प्रशिक्षण के दौरान आम तौर पर पूछे जाने वाले सवाल और उनके जवाब ।

प्रश्न 1: अधिकांश पप्पी फीड खाते समय हाथ पर दांत लगा देते हैं, जिससे लगता है कि वे काट रहे हैं। ऐसा क्यों होता है ?

उत्तर: असल में पप्पी जानबूझकर हाथ नहीं काटता। ऐसा तब होता है जब हैंडलर फीड देने की गलत तकनीक अपनाता है। अधिकतर लोग बंद हाथ से या तिरछे कोण पर फीड देते हैं, जिससे पप्पी के दांत गलती से उंगलियों से टकराते हैं।



सुधारात्मक उपाय— प्रारंभ में फीड को हाथ की तर्जनी, मध्यमा अंगुली पर हथेली के पास और अंगूठे की मदद से दबाएँ जिससे कि एक कोण की आकृति बनेगी और श्वान के मुँह को हाथ के कोण में आने पर अंगूठे से फीड को छोड़ देना है ताकि श्वान फीड को खा सके। जब श्वान पूरे हाथ को मुह में लेता है तो तुरंत हाथ को हटा लें और जब भी श्वान का मुँह हाथ के कोण पर आये फीड खाने दें। इस तकनीक से श्वान धीरे-धीरे बाइट को छोड़कर हाथ से फीड को खाना सीख जाता है ।

प्रश्न 2: कई पप्पी (विशेषकर GSD) बॉल से खेलने में रुचि क्यों नहीं दिखाते?

उत्तर: यह स्थिति आमतौर पर तब आती है जब श्वान की प्राकृतिक ड्राइव — विशेषकर Play Drive और Prey Drive — सही ढंग से सक्रिय नहीं होती। इन प्रवृत्तियों को सक्रिय किए बिना प्रशिक्षण सीमित परिणाम देता है।

सुधारात्मक उपाय: बॉल या टॉय को रस्सी या लीस से बाँधकर धीरे-धीरे गतिशील वस्तु के रूप में दिखाएं ताकि



उसमें शिकार जैसी रुचि जगे । बॉल के साथ खेलते समय जोश भरी आवाज, उत्साह और पुरस्कार का उपयोग करें। कभी-कभी बॉल में हल्का मांस या फीड लगाकर इसे और आकर्षक बनाया जा सकता है। खेल का समय सीमित रखें (2-3 मिनट) ताकि श्वान की रुचि हमेशा बनी रहे। इन गतिविधियों से न केवल श्वान की प्राकृतिक प्रवृत्तियाँ जागृत होती हैं बल्कि हैंडलर के साथ उसका इंटरैक्शन भी मजबूत होता है।

प्रश्न 3: श्वान के साथ अच्छा बॉन्डिंग कैसे बनाई जाए ? इसका मूल आधार क्या है ?

उत्तर: एक अच्छे हैंडलर और डॉग के बीच मजबूत बॉन्ड तीन चीजों पर आधारित होता है —खाना, खेल, और श्वान को घूमना । ये तीनों गतिविधियाँ न केवल ट्रस्ट बढ़ाती हैं बल्कि कमांड फॉलो करने की क्षमता भी सुधरती हैं।

सुधारात्मक उपाय:

Feed: हमेशा पॉजिटिव इंटरैक्शन के दौरान हाथ से फीड दें। इससे डॉग आपके साथ सुरक्षा और भरोसे का संबंध जोड़ता है।

Play: रोजाना कुछ समय सक्रिय खेल में बिताएं। इससे

ऊर्जा का सही उपयोग होता है और मानसिक जुड़ाव मजबूत होता है।

Walk: टहलाने या आउटडोर गतिविधियों के दौरान डॉग को थोड़ा स्वतंत्र छोड़ें, ताकि वह वातावरण को एक्सप्लोर करे और आपकी उपस्थिति को सुरक्षित माने। इन तीनों गतिविधियों को नियमित रूप से दोहराने से डॉग स्वाभाविक रूप से अपने हैंडलर के प्रति अधिक समर्पित और विनम्र बनता है।

प्रश्न 4: ट्रेनिंग के दौरान कई श्वान मांस (मीट) को तो खुशी से खाते हैं, लेकिन कमर्शियल/प्लेटेड फूड या बिस्किट को उतना पसंद नहीं करते। इसका क्या कारण है ?

उत्तर: श्वान हमेशा उच्च स्वाद या गंध वाले भोजन को प्राथमिकता देते हैं। यदि हर बार सिर्फ मांस से रिward दिया जाए, तो डॉग की रुचि कमर्शियल/प्लेटेड फूड में घट जाती है।



सुधारात्मक उपाय: रिward के प्रकार को बार-बार बदलें ताकि श्वान की आदत में विविधता बनी रहे। रिward सिस्टम को Low Value से High Value क्रम में आगे बढ़ाएं।

शुरुआती प्रशिक्षण हमेशा लो-वैल्यू फूड (कामर्शियल फीड) से ही करना चाहिए धीरे-धीरे हाई-वैल्यू फूड का उपयोग किया जा सकता है/इसमें भी कभी हाई-वैल्यू फूड और कभी लो-वैल्यू फूड दिया जाए, ताकि श्वान को अंदाजा ना लगे की किस वैल्यू का रिward मिलने वाला है। ताकि डॉग हर प्रकार के रिward को स्वीकार करना सीखे। इस प्रक्रिया से श्वान केवल स्वाद के अनुसार नहीं बल्कि कमांड और परफॉर्मेंस के अनुसार रिward का मूल्य समझने लगता है।

प्रश्न 5: GSD श्वान सेंट पाइप इम्प्रिन्टिंग अभ्यास के दौरान पाइप में रखे फीड के बजाय अक्सर जमीन पर गिरे फीड को ज्यादा पसंद करता है। ऐसा क्यों होता है?

उत्तर: यह व्यवहार अक्सर हैंडलर की असावधानी के कारण होता है। जब सेंट पाइप में रिward देते हैं, तो कभी-कभी थोड़ा फीड नीचे गिर जाता है और डॉग की नाक स्वाभाविक रूप से उस आसान टारगेट की ओर आकर्षित होती है।

सुधारात्मक उपाय: सेंट पाइप सेट करते समय यह सुनिश्चित करें कि आस-पास जमीन पर कोई फीड का टुकड़ा न गिरा हो। अभ्यास क्षेत्र हमेशा साफ रखें, ताकि डॉग की सर्च केवल पाइप पर केंद्रित रहे। धीरे-धीरे कठिनाई बढ़ाकर डॉग की Scent Focus और एकाग्रता शक्ति विकसित करें। सही परफॉर्मेंस पर श्वान को तुरंत रिward दें ताकि वह पाइप की गंध और सफलता को जोड़ सके। इस अनुशासनात्मक अभ्यास से डॉग की नाक की सटीकता, नियंत्रण और ध्यान वृद्धि होती है।



प्रश्न 6: पप्पी सेंट पाइप इम्प्रिन्टिंग में इंटरेस्ट नहीं दिखाते, इसका कारण क्या हो सकता है?

उत्तर: अक्सर समस्या यह होती है कि ट्रेनिंग से पहले पप्पी की Free Shaping सही तरह से नहीं करवाई जाती। यदि पप्पी को आराम से सूंघने, जगह एक्सप्लोर करने और नाक का उपयोग करने का अवसर नहीं मिलता, तो वह सेंट पाइप में विशेष रुचि नहीं लेता।



सुधारात्मक उपाय: Free

Shaping को ट्रेनिंग का नियमित हिस्सा बनाएं। पप्पी को सुरक्षित क्षेत्र में खुलकर सूंघने दें ताकि उसकी नाक का आत्मविश्वास बढ़े। सेंट पाइप के साथ पहली बार काम करते समय सही समय पर रिward देने से Free Shaping सही तरीके से होता है और सेंट पाइप में रुचि बढ़ने लगता है।

प्रश्न 7: GSD श्वान ट्रेनिंग के दौरान अन्य श्वान की तुलना में कमांड देरी से सीखते हैं, जबकि वे अधिक इंटेलिजेंट (होशियार) माने जाते हैं। ऐसा क्यों?

उत्तर: GSD में मानसिक और शारीरिक मेच्योरिटी कई अन्य ब्रीड की तुलना में थोड़ा धीरे आती है। इसी कारण शुरुआती ट्रेनिंग फेज में उनका रिस्पॉन्स कुछ स्लो दिख

सकता है, जिससे नया हैंडलर गलतफहमी में निराश हो जाता है कि डॉग नहीं सीख रहा।

सुधारात्मक उपाय: ट्रेनिंग की शुरुआत में ही हैंडलर को यह जानकारी दे दें कि GSD में मेच्योरिटी थोड़ा समय लेकर आती है, इसलिए धैर्य बहुत जरूरी है। ट्रेनिंग में जल्दी-जल्दी सिखलाई में श्वान को bore ना होने दें नहीं तो इसका डॉग पर नकारात्मक प्रभाव पड़ेगा। छोटे - छोटे सेशन, क्लियर कमांड और पॉजिटिव reinforcement के साथ शांत तरीके से लगातार ट्रेनिंग जारी रखें। डॉग को मानसिक रूप से ओवरलोड न करें, बीच - बीच में प्ले और ब्रेक दें, ताकि उसका दिमाग फ्रेश रहे और वह धीरे - धीरे कमांड्स पर स्थायी पकड़ बना सके।

प्रश्न 08: ट्रेनिंग के दौरान श्वान अच्छा सेंट वर्क करत-करते अचानक काम छोड़ देता है, ऐसा क्यों होता है ?

उत्तर: (संभावित मुख्य कारण): हार्मोनल बदलाव (Hormonal Changes) के कारण डॉग का मूड, ध्यान और ऊर्जा स्तर अचानक बदल सकता है। ओवर-प्रैक्टिस या बार.बार एक ही प्रकार का काम कराने से डॉग मानसिक रूप से थक जाता है और ऊब (Bore) महसूस करता है। Nose Fatigue (नाक की थकान) हो सकती है, यानी लगातार सेंट लेने से नाक की क्षमता अस्थायी रूप से कम हो जाती है और श्वान आगे काम नहीं करना चाहता।

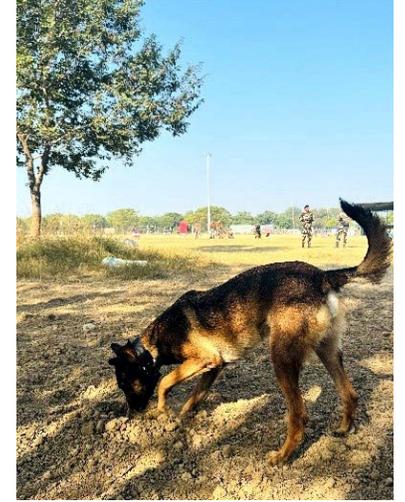


सुधारात्मक उपाय: ऐसे समय पर तुरंत सेंट वर्क रोककर श्वान को 1 दिन या कम से कम कुछ अच्छे लंबे ब्रेक देकर आराम दिया जाए, ताकि दिमाग और नाक दोनों फ्रेश हो सकें। इसके बाद ट्रेनिंग दोबारा शुरू करते समय एक स्टेप पीछे जाएं, यानी आसान लेवल से सेंट इम्प्रिंटिंग शुरू करें, ताकि डॉग का आत्मविश्वास और रुचि दोनों वापस आए। सेशन हमेशा छोटे-छोटे रखें, बीच-बीच में खेल और फ्री टाइम दें, ताकि ओवर.लॉडिंग न हो और डॉग का सेंट वर्क हमेशा पॉजिटिव अनुभव बना रहे।

प्रश्न 09: सेंट इम्प्रिंटिंग के दौरान डॉग Pawing (पैर से मारना) या Mouthing (मुँह से छेड़ना) क्यों करता है?

उत्तर: जब श्वान किसी सेंट को पहचान कर सही जगह

पहुँच जाता है, तो वह जल्दी से जल्दी रिवार्ड पाने के लिए अपने तरीके से इशारा करता है। Pawing या Mouthing अक्सर उसी प्राइमरी इंडिकेशन का हिस्सा होता है, जिससे वह हैंडलर को बताना चाहता है कि "सेंट यहाँ है, मुझे रिवार्ड दो।



सुधारात्मक उपाय: जैसे ही श्वान सही

सेंट या सही पाइंट पर हल्का सा इंडिकेट करे तुरंत ही हैंडलर को सिखाये हुये Passive इंडिकेशन का कमांड दें तथा जैसे ही इंडिकेट करे तुरंत फ्रीमार्कर उपयोग करें। इस तरीके से लगातार अभ्यास करने से Pawing या Mouthing का आदत छुट जाते हैं।

प्रश्न 10: नया पप्पी ट्रेनिंग सेशन के बाद केनल में ले जाते समय केनल में जाने से डरता है, इसके कारण क्या हो सकते हैं?

उत्तर: (मुख्य कारण): Negative Imprinting: यदि पहले कभी केनल में जबरदस्ती बंद किया गया हो, डांटा गया हो या अंदर कोई डरावना अनुभव हुआ हो, तो केनल उसके लिए नेगेटिव जगह बन जाती है। केनल के पास तेज पटाखा या पटाखे जैसी आवाजें होने से पप्पी के दिमाग में "केनल = तेज आवाज और डर" का कनेक्शन बन सकता है। ट्रेनिंग के दौरान पप्पी को बाहर खेल, फूड और ध्यान मिलता है, इसलिए वह उन सबको छोड़कर बंद जगह (केनल) में वापस जाना नहीं चाहता।

सुधारात्मक उपाय: केनल को पनिशमेंट की जगह कभी न बनाएं उसे आराम, सुरक्षा और रिवार्ड की जगह बनाएं। अंदर आरामदायक बेड, पसंदीदा टॉय और कभी-कभी फीड रखें। शुरुआत में पप्पी को खुद से केनल एक्सप्लोर करने दें, दरवाजा खुला रखें और जब वह अंदर जाए तो तुरंत शाबाशी और रिवार्ड दें, ताकि केनल पॉजिटिव जोन लगे। पटाखे जैसी आवाजों के दौरान यदि संभव हो तो केनल के आस-पास शांत माहौल रखें एवं साउंड के सोसेलिजेसन प्लेटाइम में करवाये।

प्रश्न 11: पप्पी ल्यूरिंग के दौरान अपने हैंडलर को छोड़कर दूसरे हैंडलर या दूसरी दिशा में भागता है, ऐसा क्यों?

उत्तर: इसका मुख्य कारण हैंडलर के मोटिवेशन में कमी, श्वान का बोर हो जाना या हैंडलर की बॉडी लैंग्वेज में ढीलापन है। यदि हैंडलर खुद सुस्त, धीमा या बिना उत्साह के दिखता है, तो पप्पी को उसकी तरफ आकर्षण कम लगता है और वह नई दिशा या नए व्यक्ति की तरफ भागने लगता है।

सुधारात्मक उपाय: ल्यूरिंग करते समय आवाज लुभावनी, ऊर्जावान और बुलंद होनी चाहिए, ताकि पप्पी को लगे कि सबसे मजेदार चीज हैंडलर के पास ही है। हैंडलर की बॉडी लैंग्वेज एक्टिव, हल्का-फुल्का आगे की तरफ झुका हुआ, तेज लेकिन कंट्रोल्ड मूवमेंट वाला हो, न कि सुस्त या डराने वाला। बीच-बीच में पप्पी के साथ छोटा खेल, टग या छोटी दौड़ लगाएं, ताकि वह बोर न हो और हर बार हैंडलर के आसपास रहना ही उसके लिए सबसे बड़ा मजा बने।

प्रश्न 12: केनल में श्वान गोल-गोल घूमता है, डिगिंग (खुरचना/खोदने जैसा) करता है या करने की कोशिश करता है, क्यों?

उत्तर: ऐसा व्यवहार आमतौर पर हाई एनर्जेटिक डॉग में देखने को मिलता है। जब उसकी शारीरिक और मानसिक ऊर्जा का सही आउटलेट (जैसे वॉक, रन, ट्रेनिंग, खेल,



श्वान AK एवं DH अभिषेक की सटीक हील वॉक: उच्चस्तरीय अनुशासन और बेहतरीन ट्रेनिंग का शानदार प्रदर्शन।

सेंट वर्क) नहीं मिलता और boredom के वजह से केनल के अंदर घूमना, दीवारें या फर्श खुरचना, या खुद को किसी तरह व्यस्त रखना शुरू कर देता है।

सुधारात्मक उपाय: डॉग की ब्रीड, उम्र और स्वभाव के हिसाब से रोजाना पर्याप्त शारीरिक व्यायाम (वॉक, रन, प्ले, सेंट ट्रेनिंग इत्यादि) और मानसिक एक्टिविटीज (सेंट गेम, बेसिक कमांड्स, पजल टॉय) जरूर दें। केनल टाइम से पहले डॉग को इतना व्यस्त और थका हुआ रखें कि केनल में जाने पर उसे आराम की जरूरत महसूस हो, न कि अतिरिक्त ऊर्जा से बेचौनी। यदि डिगिंग या घूमना बहुत ज्यादा है, तो सेशन प्लान और एनर्जी आउटलेट को फिर से रिव्यू करके उसमें सुधार करें सिर्फ डांटने से यह समस्या खत्म नहीं होती।



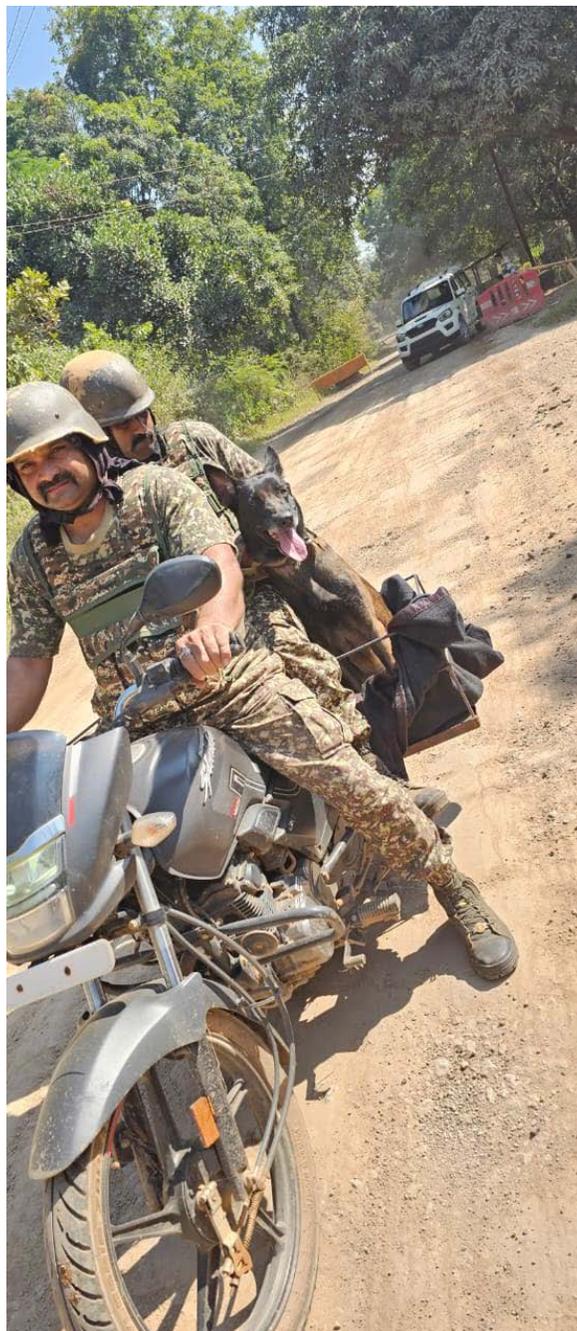
From right: CT/GD Vikash, HC/GD K.Kanagraj Sunder, CT/GD mar Singh, Dr. Lalit Deori , 2IC (Vet), CT /GD Vikash Kumar (2), CT/GD S.Sridhar, CT/GD Ishwar Singh, CT/GD Rahul Gavade.

INNOVATIONS

“TACTICAL K9 MOBILITY (TAKMO) VEHICLE”

Dr. Brajesh Kumar, Dr. K.D. Sharma, Dr. Mohana Sundaram and Dr. Mahipal Singh

A

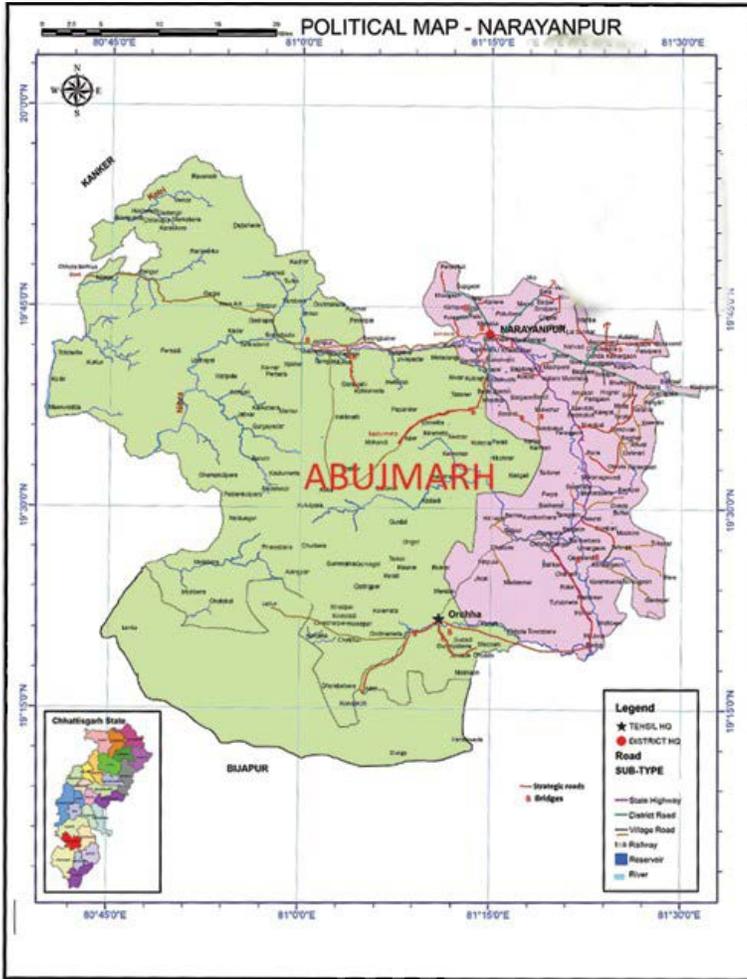


Union Home Minister Amit Shah has repeatedly stated about the Modi Government's dream to completely eliminate Naxalism from India by March 31, 2026. A unified, operational approach provided to state police and central security forces for targeted operations, intelligence sharing, and capacity building. This has led to a significant reduction in violence and a high number of Naxalites being neutralized, arrested, or surrendered in recent years.

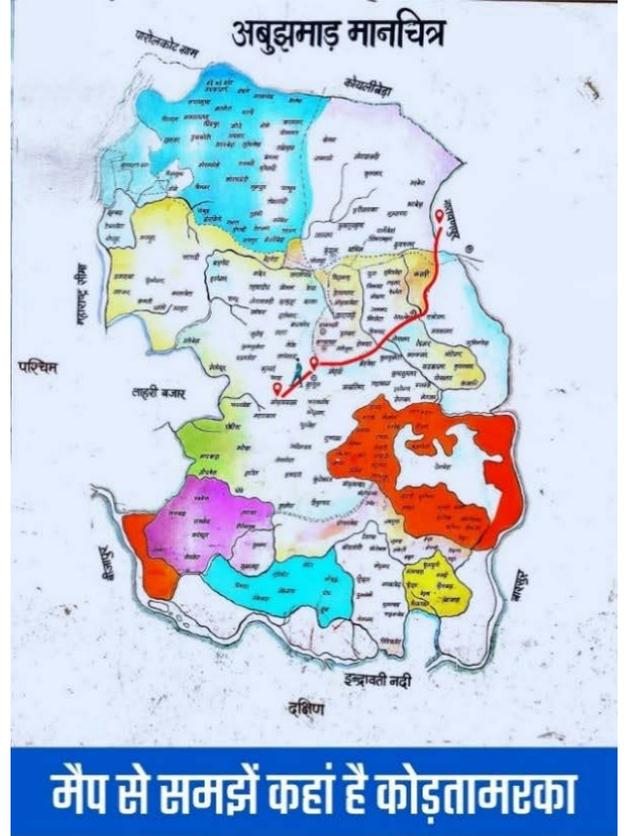
For timely completion of Govt. motto, No. of COBs (Company Operating Base) are being shifted from low sensitive zone to high sensitive zone inside the Abujhmarh area (Picture: B & F). New shifted Locations of COBs have poor Govt. facilities in respect of electricity, road, infrastructure, transportation, communication and villages/para with limited population. The natural factors that increases the sensitivity of the area like terrain, dense vegetation, nallah/rivers and geographical area connected with other district/state boundaries which favour naxalies for free movement as they are real inhabitant of those areas. Hence, to minimise the sensitivity and to develop sense of security among locals, high operational commitment is required. Owing to limited K9s at ALWEO (Anti-Left Wing Extremism Operation) there is heavy workload on ITBP K9s, consequently, suffers from injury, muscle fatigue, weakness, heat stroke which ultimately leads to life threatening condition.

During the Visit of Dr. Sudhakar Natarajan, DIG/VET, Dte Gen in ALWEO theatre. On 09.11.2025, a serious discussion was held among all Vets (SHQ, BBSR and Central Ftr.) including DIG/VET at Narayanpur, regarding how to reduce heavy work load over K9s. Discussion ended with two final solution: 1. Introduction of new young K9s at ALWEO area. 2. Tactical solution to enhance mobility of ITBP K9s during RSO (Road Safety Operation) / ADPs(Area Domination Patrol) and in other operations.

B



F

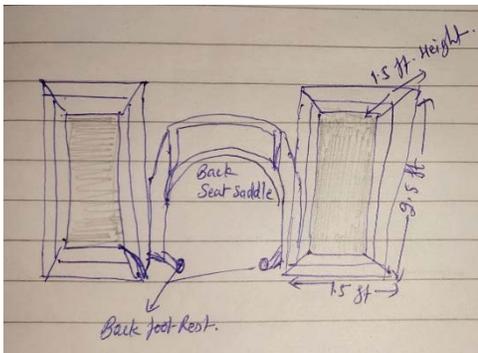


नारायणपुर से कुतल की दूरी 40 किमी.

कुतल से कोड़तामरका की दूरी 20 किमी.

कुतल से कोड़तामरका का सिर्फ पैदल रास्ता.

C



D



E



The idea of TaKMo vehicle (Picture: D) came into force by using a locally modified carriage "LMC" (Picture: C & E) to carry individual luggage and other operational material in emergency to minimize the time gap in operational area. The approximate size of LMC which saddle run over the back seat by simple two half circle iron rods and attached with bike back seat foot rest on both side (Picture: C & D)

which are as under: height-1.5 ft, width-1.5 ft and length-2.5 ft. Both side of LMC can be used for K9s or one side for K9 and the other side for any operational emergency requirement/Medical or K9's first aid kit. This successful TaKMo vehicle trial with LMC was conducted at THQ Narayanpur under the precious guidance and supervision of DIG/Vet Dte Gen.

In future this LMC will be technically modified to make it more comfortable for K9s and riders. This practice would be a game changer for ITBP and really it will enhance the operation efficacy of K9 squad. TaKMo vehicle will reduce the operational fatigues of K9s with nearly zero cost solution and motivation of K9 squad will be increased to perform his duty efficiently.



Dr. Brajesh Kumar, Second In Command(Vet) completed his BVSc & AH as well as MVSc (Veterinary Parasitology) from GBPUA & T, Pantnagar (UK).Dr. Kumar Joined I.T.B. Police Force in 2013 .Presently posted at HQ, Central Ftr, I.T.B. Police, Bhopal (MP)

OPERATIONS & CASE STUDIES

-Real World Case Studies



Field Experience of Explosive Detection Dog – Babu of 30 BN BSF

30 Bn BSF was deployed in ANO (Anti Naxal Operation) theatre under Sector Head Quarter BSF Durg of FTR HQ IG (Special OPS) Chandigarh having Tactical Head Quarter (THQ) at Koyalibeda along with its 06 COBs (Company Operating Base) in Chhattisgarh. All COBs are located on the fringes of AbujhMaad bordering Narayanpur district towards South of Kanker which is the stronghold of Maoist cadres (Naxals). The area of COB Chilparas is located in south direction at a distance of approx. 9 KM from THQ Koyalibeda. The terrain in the AOR of COB Chilparas is undulating, interspersed with perennial rivers/ seasonal nalas, area is thickly forested with scanty habitation. The area is highly infested with top Naxal cadres.

On the basis of specific Int, an Aggressive/Demining/Sensitization Ops was planned and launched on 30/11/2024 at about 0500 hrs from COB Chilparas Ex-30 Bn BSF (Presently 40 Bn BSF). The Ops consisted of two teams- (Team A & Team B). During the Ops at about 300845 hrs, party Comdr telephonically intimated that Ops party had detected 04 IEDs (Lat 19°51'43"N.

Long S0°55 55'E) appx 06 Kms South-West from COB Chilparas. The Ops party then cordoned the area taking all safety precautions as per SOP/instructions.

Keeping in view of the sensitivity of Area and high threat perception of IEDs, Dogs namely Babu, Uno and Sunny were included in search team A & B. The cordoned area was again searched by Team A & B with the help of all three dogs Babu, Uno and Sunny. Whole team along with bomb disposal party thoroughly searched the area and were able to successfully recover 04 IEDs at about 301330 hrs with the help of Dog Babu, Belgian Shepherd (BSD) and HC(DH) Raj Kumar of 30 Bn BSF.

On specific information received from FGT (Field G. Team) SHQ Bhanupratappur on 18/03/2025 regarding planting of IEDs in the road axis of village Panidobir to Chilparas. Total 30 personnel along with 01 Dog Babu, marched for said Ops area. During the thorough search, Ops (Operational) party of COB Panidobir detected suspected flexible wire at the site. Further at about 0920 hrs confirmed with the help of Dog babu and DSMD/F-3 that 01 suspected wire guided command IED was found along with flexible wire from the site. The Search Demining Ops party cordoned the area taking all safety precautions as per SOP instructions. Sector Bomb Disposal team was called to site and thoroughly searched the area and recovered IEDs planted in Steel container. The IEDs were demolished in situ by BD team.

Overall it was a result of good



planning based on int report. Above all, prompt and cautious use of the dogs in carrying out search led to the detection of IEDs. The dogs involved in this Ops executed the given task meticulously. The alertness of the team in identifying the IEDs and the follow up of search by dogs and demolishing the recovered/detected IEDs in situ helped in averting a mater incident which could have inflicted heavy casualties on the security forces operating in the area.

Dog Babu of 30 BN BSF (Now in 40 BN BSF) was honoured with the National K9 Bravery Award by SVP RRU for his outstanding

achievement in detecting nine Improvised Explosive Devices (IEDs) in the forward LWE zones within the AOR of 40 Bn BSF. His exceptional performance was evaluated in competition with other elite dogs representing NSG, SSB Telangana Police, CRPF, and Chhattisgarh Police, where his operational excellence and precision in explosive detection were highly acclaimed. In recognition of his remarkable courage, alertness, and contribution to safeguarding the lives of security personnel and civilians, Dog Babu was conferred the title of "K9 Naxal Sentinel" along with the National K9 Bravery Award.



Dr. Rajeev Kumar, Assistant Commandant (Vet) currently posted at SHQ BSF Raipur. He joined the Border Security force in 2023. He completed his BVSc & AH from the Veterinary College Anjora, Chhattisgarh Kamdhenu University Durg. He did his MVSc. in Veterinary Clinical Medicine from the Veterinary College Bhubaneswar, Odisha University of Agriculture and Technology.

Banaskantha District (Gujarat)

Police Dog–“Diesel” (Labrador-Male) Tracker Dog

Dog Handler–Mr. Sureshabhai I. Solanki Date-26/10/2025

Banaskantha District’s Thara Police Station, Crime Register No. 50749/2025, as per Sections 103(1) of the Bharatiya Nyaya Sanhita (BNS) and Section 135 of the Gujarat Police Act, dated 26/10/2025, a dead body in an unclaimed condition was found near the pond beside the Shaktimata Temple on the outskirts of Una village under the jurisdiction of Thara Police Station. To assist in the investigation, the tracker dog “Diesel” from Banaskantha (Palanpur) District was brought to the scene. During the police investigation, a handkerchief was found at the spot, which was seized, packed in a plastic bag, and taken to the police station. Later, five suspects were brought to the police station. The seized handkerchief was given to the police dog “Diesel” for scent identification. When the suspects were lined up for the identification process, the police dog “Diesel” indicated towards one suspect. Based on this indication, police conducted further inquiry and interrogation, during which the indicated suspect confessed to the crime. In this case, the police dog “Diesel” performed outstanding work and significantly contributed to identifying the accused.



Bhavnagar District (Gujarat)

Police Dog–“Beena” (German Shepherd-Female) Tracker Dog

Dog Handler– Mr. Balubha S. Gohil Date-24/10/2025

Bhavnagar district’s Vartej Police Station, Crime Register No.50972/2025, as per Sections 103(1), 238(C), and 54 of the Bharatiya Nyaya Sanhita (BNS) — At the check dam near Bhikda village, within the jurisdiction of Mahuva Police Station, a young woman’s dead body was found. The tracker dog “Beena” from Bhavnagar district was brought in to assist with the investigation. At the scene, the dog picked up the scent and tracked it all the way to the deceased woman’s house. There, when the police lined up all the family members, the police dog “Beena” indicated toward the deceased’s brother and mother. Further investigation by the police revealed that both accused confessed to the crime. In this case, the police dog “Beena” performed outstanding work and successfully identified the accused persons.



Vadodara City (Gujarat)

Police Dog—"Faster" (Belgian Shepherd-Male) Narcotics Dog Dog Handler—Mr. Girishbhai S. Patel Date-06/10/2025

Under the campaign "Mission Clean Station" organized by the Western Railway Unit, Vadodara — aimed at eradicating drug tracking — a joint operation was carried out by the Vadodara Railway Police Station, S.O.G. Branch, and the Dog Squad. During intensive checking of incoming and outgoing trains as well as platforms, while inspecting train No. 12843 Puri–Ahmedabad Express, in Coach No. 01, a trolley bag and one bag were found lying unattended and in suspicious condition in the corridor area. The narcotics police dog "Faster" was called to the scene. When the dog inspected the unattended trolley bag and the bag, police dog "Faster" indicated the presence of narcotic substances. Upon further checking, a total of 15 kilograms of ganja (cannabis) worth approximately ₹1,50,000 was found inside. Legal action was taken accordingly, and a case was registered at Vadodara Railway Police Station, Part-B, Crime Register No. 0516/2025, under the provisions of the NDPS Act – Sections 8(c) and 20 (b-II). In this case, the narcotics police dog "Faster" performed outstanding work and played a crucial role in detecting the contraband.



Amreli District (Gujarat)

Police Dog—"Demi" (German Shepherd-Male) Narcotics Dog Dog Handler— Mr. Rahulkumar K. Maheta Date-29/08/2025

In Bhukhariya village of Lathiarea, Amreli district, a person was found to be illegally storing and selling a quantity of the narcotic substance poppy husk (posh doda) at his residence. Acting on specific and reliable information, a raid was carried out by the Amreli District Narcotics Police, accompanied by the police dog "Demi." During the raid, 59.880 kilograms of poppy husk and other materials were recovered, valued at approximately ₹1,86,140. The accused person was apprehended along with the empty containers and storage materials found at the site. Accordingly, an offence was registered under the provisions of the NDPS Act, and during the raid, the narcotics police dog "Demi" performed outstanding work in assisting the police team.



Ahmedabad City (Gujarat)

Police Dog—"Electric" (Belgian Shepherd- Male) Tracker Dog

Dog Handler—Mr. Ramdevsinh P. Jadeja Date-22/07/2025

Under Meghaninagar Police Station, Ahmedabad City, Crime Register No. 50369/2025, as per Section 305(A) of the Bharatiya Nyaya Sanhita (BNS) — on 22/07/2025, a theft of ₹8,00,000 occurred from the cupboard inside the office of Shubham Hospital/Nursing College, located near the last bus stand at Kalapinagar. For investigation, the tracker police dog "Electric" of Ahmedabad City was called to assist. At the crime scene, the police dog was given the scent from the cupboard key along with its keychain. While tracking, the dog exited the office, moved around the first floor and the ground floor, and then returned to the office, where it stopped. Based on this, all the office staff were lined up for identification. During the lineup, the police dog "Electric" indicated towards suspect. Upon further interrogation by the police, she confessed to the theft. The stolen amount was recovered, and further legal proceedings were initiated. For this case, owing to the excellent performance of the police dog "Electric", the Commissioner of Police, Ahmedabad City, congratulated both the dog and its handler for their commendable work.



Amreli District (Gujarat)

Police Dog—"Demi" (German Shepherd - Male) Narcotics Dog

Dog Handler— Mr. Rahulkumar K. Maheta Date-12/05/2025

In Amreli district, near Pathak School on Main Road, Hanumanpura, Amreli Town, a person was found illegally storing and selling dry ganja (cannabis) at his residence. Acting on specific and reliable information, a raid was conducted by the Amreli District Narcotics Police, accompanied by the police dog "Demi." During the raid, 1.394 kilograms of dry ganja, valued at approximately ₹48,940, was recovered. The accused person was arrested along with the seized contraband. Accordingly, an offence was registered under the provisions of the NDPS Act, and during the raid, the narcotics police dog "Demi" performed outstanding work and effectively assisted in the operation.



HEROIC NOSES IN HOSTILE JUNGLES: IEDs RECOVERY BY ITBP K9 IN ABUJHMAAD (CHHATTISGARH)

Dr. Mahipal Singh, AC (Vet), ITBP



Introduction

The dense forests of Narayanpur district of Chhattisgarh represent one of the most challenging internal security environments in India. Characterized by thick vegetation, rugged terrain, and persistent Left-Wing Extremism (LWE) activity. This region frequently witnesses the use of Improvised Explosive Devices (IEDs) by hostile elements. In this high-risk landscape, the K9 units of the ITBP have emerged as silent warriors, playing a decisive role in the detection and recovery of deadly explosive devices.

Operational Challenge

Narayanpur's forested zones present multiple operational obstacles:

- Extremely low visibility due to thick jungle and undergrowth
- Limited vehicular movement, forcing long foot patrols
- Presence of pressure IEDs, command-wire IEDs
- High humidity, extreme temperatures, and persistent wildlife threats
- In such terrain, technological tools often encounter limitations & trained K9 teams become indispensable force multipliers.

Successful detection of two pressure cooker IEDs by K9

Shera of 29th Bn ITBP averted major mishappening to security force: A case study

An area domination patrol was launched by Small Action Team (SAT) of 29th Bn ITBP from its COB (Company Operating Base) in Abujhmaad area of Dist. Narayanpur (Chhattisgarh) on dtd. 04/12/2025. During said operation, the search party noticed suspicious components resembling parts of an IED (improvised explosive device) at two different locations. Accordingly, party commander immediately alerted the troops and secured the area by placing cordon, subsequently the K9 of 29 Bn ITBP Shera (Dobermann Male) and his handler CT/GD (DH) Manoj Kumar were instructed search the suspected sites, both sites were perfectly confirmed for presence of 2 IEDs by brave K9 Shera. Accordingly, both pressure cooker IEDs, one having pressure and



another with command mechanism were successfully destroyed on the site by BDDS (Bomb Detection & Disposal Squad) team. These timely detections have prevented casualties and safeguarded both personnel and civilian movement.

Conclusion

The ITBP K9 units operating in

the dense jungles of Chhattisgarh have proven to be invaluable assets in counter-IED operations. Their courage, precision, and unwavering loyalty have saved countless lives and strengthened the operational success of security forces. These four-legged warriors continue to stand as a powerful symbol of dedication and sacrifice in India's fight against insurgency.



Dr. Mahipal Singh, Assistant Commandant (Vet) completed his BVSc & AH from RAJUVAS, Bikaner and MVSc (Animal Nutrition), IVRI, Izatnagar, Joined I.T.B. Police Force in 2022 .Presently posted at 41st BN (ANO), I.T.B. Police, Khurda (OD).

SELFLESS SERVICE TO NATION BY K9 HEMA

Dr. Rajbir Singh, 2IC(Vet), ITBP



K9 Hema BSD female Age 6 years trained in ED trade is presently serving in highly Naxal influenced area in Chhattisgarh. K9 Hema deployed in ANO since 26.11.2019 and is continuously serving with her olfaction acuity towards target odour response. K9 Hema was inducted in refresher training in January 2025 owing to battalion's Re-deployment in highly sensitive Naxal affected pockets in Chhattisgarh by Dr. Rajbir Singh, Second-in-command (veterinary) of 38th Bn at unit COB as a training Officer.

Innovative Technique and Training Methodology: - K9 Hema was put on for Refresher training for target odour response with the bare minimum quantity of explosive article created from a single round bullet with an aim to achieve target odour response with just few grams of explosive article.





Operational Achievement: - On dated 30.03.2025, K9 Hema was engaged in Area domination patrol (ADP) in highly sensitive Naxal Influenced area in Chhattisgarh. During conduct of Ops on the route, K9 Hema detected and confirmed Cooker IED (approximate 5 kg), which was a command IED and thereby saved precious life of our troops and presented selfless service to nation.

Challenges faced in utilising police Dogs:- Extreme peak temperature during summer season in Chhattisgarh is the key challenge to save energy and target odour response attribute of K9.

Solution:- An inhouse solution is devised by providing wet gunny bags/sacks to K9 handlers to use during Ops for shooting down the extreme peak heat of Chhattisgarh terrain for maintaining the K9 vigour towards target odour response.

Achievement and Accolades: DG ITBP awarded K9 Hema of 38 Bn ITBP with Best ITBP K9 medal for the noble work on the occasion of Force Raising Day Parade organised at 15 Bn ITBP.



Dr. Rajbir Singh, Second-in-command (Vet) joined ITBP in 2013 and completed more than 12 years of service and remain involved with PSK9 training since his recruitment. Presently he is posted in Anti-naxal Operation (ANO) duties in Narayanpur district of Chhattisgarh.

STRENGTHENING DISASTER RESPONSE: THE ROLE AND RESULTS OF CADAVER DETECTION DOGS IN NATIONAL AND INTERNATIONAL SAR MISSIONS

Dr. Surya Kumar Maurya, 2IC(Vet), NDRF



organic compounds (VOCs) produced during human decomposition. These VOCs form complex odor signatures influenced by time, temperature, soil depth, tissue type, and environmental moisture.

Training at NDRF includes odor imprinting using putrescine-based pseudo-scent (ScentLogix), terrain adaptation, systematic exposure to decomposition VOCs, and alert-behavior conditioning. Cadaver (HRD) dogs are trained to identify surface remains, deep-buried bodies, skeletal fragments, blood and body fluids, and dismembered or decomposed tissue.

Their robustness was validated in Sri Lanka when a cadaver dog correctly discriminated between a peacock carcass and suspected human remains—indicating high scent differentiation accuracy.

Cadaver detection dogs—also known globally as Human Remains Detection (HRD) dogs—have emerged as one of the most critical assets in modern Search and Rescue (SAR) operations, especially during natural disasters, mass-casualty events, and complex emergencies. Within the National Disaster Response Force (NDRF) of India, these specially trained canines are transforming the speed and accuracy of victim recovery, enabling dignified handling of human remains, supporting investigation processes, and bringing emotional closure to families.

Their importance has recently been demonstrated through deployments during the Dharali (Uttarkashi) landslides and the international humanitarian mission in Sri Lanka under Operation Sagar Bandhu—both of which showcased the exceptional operational reliability and scientific precision of cadaver dogs.

The Science Behind Cadaver (HRD) Dogs Nature, Training, and Operational Uniqueness, cadaver dogs differ fundamentally from live-victim search dogs. While SAR dogs locate survivors using human live scent and respiration, cadaver dogs are trained to detect volatile



Case Study Dharali Operations – Precision Under Himalayan Adversity

In August 2025, devastating landslides buried multiple structures in Dharali, Uttarkashi under 30–40 feet of debris. NDRF deployed two newly trained cadaver dogs, Vikki and Rocky, from 8th Battalion. Despite the unstable terrain, marshy patches, and deep debris layers, the dogs demonstrated exceptional capability.

Key achievements included

One confirmed alert by Vikki validated by Rocky, along with four additional positive and accurate indications, demonstrated high focus, stamina, and strong search drive despite difficult terrain, and highlighted the effectiveness of deploying SAR dogs first followed by cadaver dogs.

Handlers reported that dog Vikki showed operational steadiness, maintained discipline, and delivered consistent behavior even in hazardous terrain. Their indications helped rescuers prioritize excavation sites intelligently.



Case Study Sri Lanka – Operation Sagar Bandhu and NDRF's First International Cadaver Dog Success

Deceased person recovered from alert given by dog Vikki

Cyclone Ditwah struck Sri Lanka on

28 November 2025, affecting over 1.4 million people and causing catastrophic floods and landslides. The disaster resulted in 627 deaths (Dec 7, 2025), with more than 350 people missing, and economic losses estimated at US \$6–7 billion, making it one of the country's worst natural calamities in decades.

India deployed NDRF Teams IND-10 and IND-11 as part of Operation Sagar Bandhu, including cadaver dogs on their first-ever international deployment.

During Search

On the first day of operations in Badulla District, Pathanawaththa–Kandedgedara area on 30 November 2025, the reconnaissance (recce) was carried out on foot, as road access to the site was not possible.

On 1 December, after walking 8–9 km, we reached the operational site in hilly terrain. The dog was deployed, but due to the long and difficult approach, the dog became tired to such an extent that they were not showing adequate interest in sniffing work.

On 2nd December 2025, we received transportation from Lema up to a point about 900 meters from the site. As soon as we reached the location, the dog was deployed. Dog Vikki subsequently gave two clear pinpoint alerts.



From the first alert, one dead body was recovered.

At the second alerted location, excavation could not be completed due to time constraints and limitations of manual digging. Operations were called off at 1730 hrs. for the day.

On 3rd December 2025, Lema assigned a new site in Badulla District, Passera region. Initial search cycles showed no final alerts, but the dogs displayed interest in potential scent zones. Excavation in one such zone led to the recovery of a peacock, demonstrating high scent discrimination accuracy of the HRD dogs.

A second search conducted 200 meters downhill resulted in a clear alert by Vikki, leading to the recovery of a human body buried 4–5 feet deep—a significant international cadaver dog success for NDRF.

Subsequent alerts also resulted in another confirmed detection after digging approximately 1 foot.

Operational challenges included heavy rain, landslide blockages, long foot approaches through hilly terrain, and limited machinery access. Yet cadaver dogs allowed precise area prioritization, significantly reducing blind extraction efforts.

Operational Importance and Future of cadaver Dogs in NDRF

These deployments confirm that cadaver dogs are among the best tools in NDRF for locating deceased persons under the rubble during

disaster response, enabling speedy recovery. Their contributions include reducing search time and manpower, minimizing unnecessary excavation, detecting remains in inaccessible terrain, and enhancing scientific and humanitarian response capability.

NDRF has now trained six cadaver dogs, with more in development, strengthening India's readiness for future natural disasters and international missions.

Conclusion

The success of cadaver detection dogs in Dharali and Sri Lanka

marks a milestone in India's disaster response evolution. Their discipline, precision, and resilience highlight how canine assets enrich NDRF's operational fabric—honoring lives lost, supporting families, and reinforcing India's commitment to compassionate and science-driven disaster response.



Dr. Surya Kumar Maurya, M.V.Sc. (Gynae), 2IC(Vet), has undergone specialized training in "Modern Approach to K9 Training" and is a master trainer for K9 SAR and Cadaver. He has rendered his service as an INSTRUCTOR for CSSR operations, having completed the PEER (Programme for Enhancement of Emergency Response) international course of NDRF. He joined ITBP in 2013 and currently serving as Officer commanding of "K9 wing" of 8th Bn NDRF in Ghaziabad for almost five years.

ACCOLADES

K9 Chetak



K9 Chetak , Belgian Shepherd, Male participated in National Joint counter IED Exercise “Ex Visfot of Kavach” IX” & clinches 3rd position , competing against 23 elite team of the Country

K9 Hema



DG ITBP awarded K9 Hema of 38 Bn ITBP with Best ITBP K9 medal



Dog Babu

Dog Babu was conferred the title of "K9 Naxal Sentinel" along with the National K9 Bravery Award.

WAG N TAILS















FEEDBACK & COMMENTS



(कपिल देव)

डॉग स्काड / प्रभारी

के.ओ.सुब इकाई अहमदाबाद ,एयरपोर्ट

छठे संस्करण पर टिप्पणियाँ और सुझाव

राष्ट्रीय पुलिस के-9 पत्रिका का छठा संस्करण अत्यंत जानकारी पूर्ण है और आम जनता में श्वानों के बारे में जागरूकता को उल्लेखनीय रूप से बढ़ाता है। पहली बार, इस संस्करण ने वन्यजीव संरक्षण में श्वानों की महत्वपूर्ण भूमिका को प्रभावी ढंग से उजागर किया है। इसमें खूबसूरती से दर्शाया गया है कि कैसे एन.डी.आर.एफ (राष्ट्रीय आपदा प्रतिक्रिया बल) संकट के समय जान बचाने के लिए, श्वानों का उपयोग करता है।

श्वानों के प्रशिक्षण में प्रलोभनों की भूमिका को अच्छी तरह से समझाया गया है, साथ ही श्वानों के स्वभाव, क्षमताओं और प्रशिक्षण के विभिन्न पहलुओं का स्पष्ट प्रस्तुतीकरण भी किया गया है।

“समस्या, और समाधान” (प्रश्न और उत्तर) खंड इस पत्रिका का हृदय है, क्योंकि यह उन समस्याओं पर विस्तार से चर्चा करता है जिनका सामना श्वान के संचालक श्वानों के साथ काम करते समय अपनी दैनिक दिनचर्या में करते हैं। विभिन्न बलों के कर्मियों द्वारा उठाये गए, विभिन्न प्रश्नों के उत्तर सरल, सटीक और बहुत ही सुस्पष्ट हैं, जो सभी के लिए, लाभकारी रहे हैं।

इसलिए मेरा पुरजोर सुझाव है कि इस कॉलम को भविष्य के संस्करणों में अधिक स्थान दिया जाए। इसके अतिरिक्त, यदि पत्रिका में विस्फोटक का पता लगाने के कार्य के दौरान अवांछनीय व्यवहारों को ठीक करने के बारे में विशेष जानकारी शामिल की जाए, – जैसे कि बैग को मुंह में डालना या उसे हिलाना – तो यह कई संचालकों के लिए, अत्यंत उपयोगी होगा।

Dr. R. Dhinakaran, IPS.,
Additional Director General of Police
Operations.



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Email : dhinakaranips@gmail.com

Date: 22.12.2025

Dear *Manjur,*

I am sending the feedback on the last edition of National Police K9 Journal (Vol-VI, Issue-I) as follows:

- i. The article written on the Drone Detection Dogs (Article No.4, 20) enumerates the potential counter measures against nefarious Drone attacks in future.
- ii. The first women DH of ITBP CT/DH Partibha (Article No.44) is an inspiration for all State Police, CAPFs to have women DH in K9 units.
- iii. Effective Stress management strategies for K9 (Article No.30, 49) is useful, informative.
- iv. The case studies/operational achievements are encouraging, motivating.
- v. Emphasis on Research articles related to the training, deployment, Achievement of native Dog breeds may be highlighted.

Best wishes

Yours Sincerely,

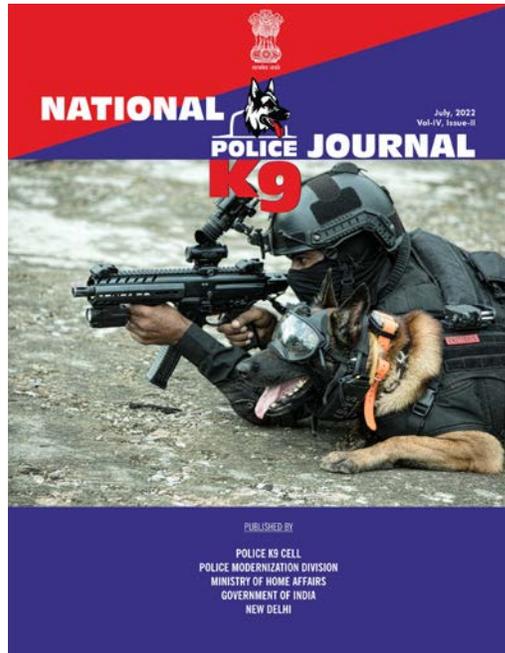
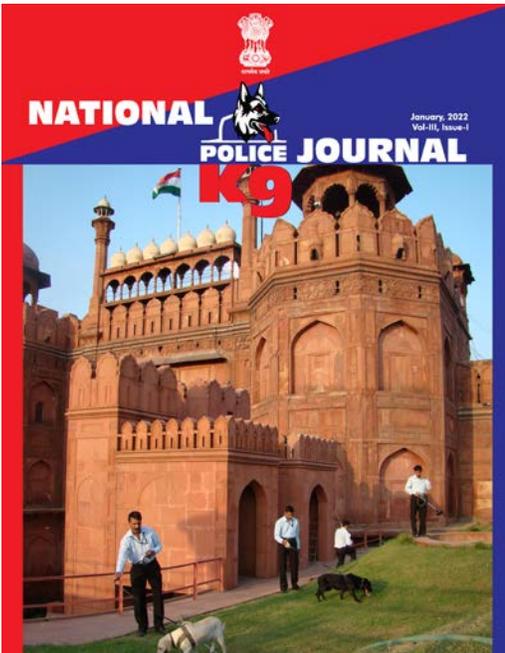
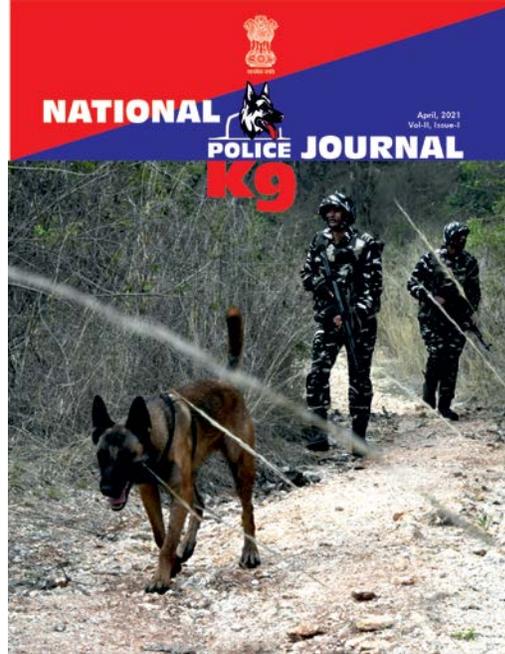
R. Dhinakaran
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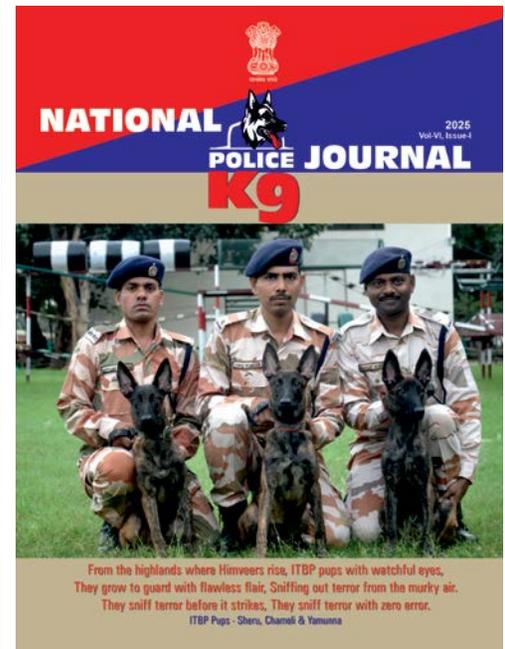
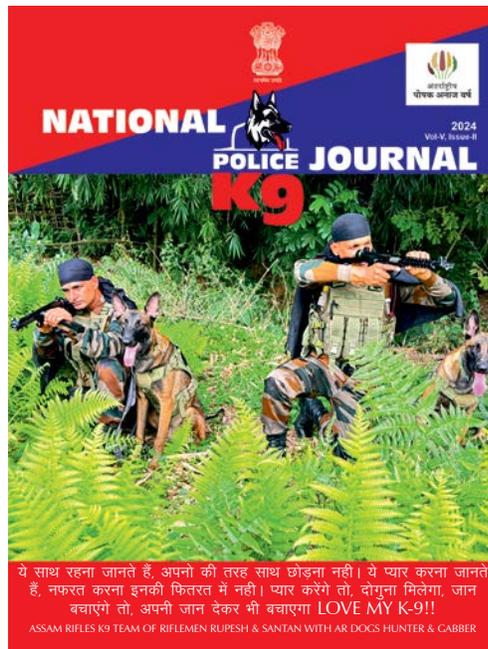
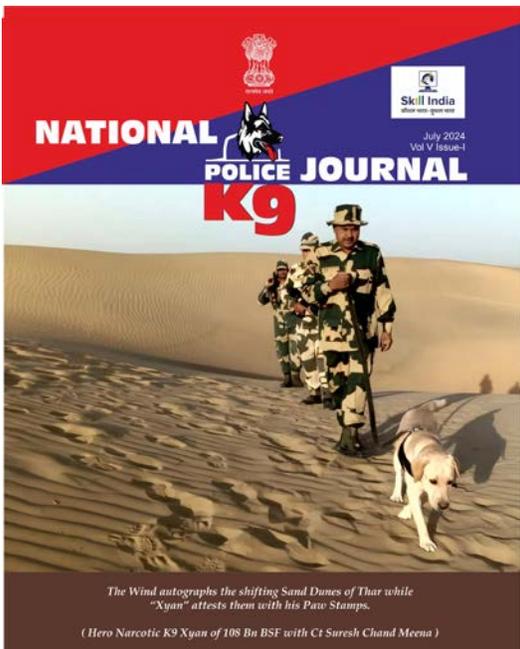
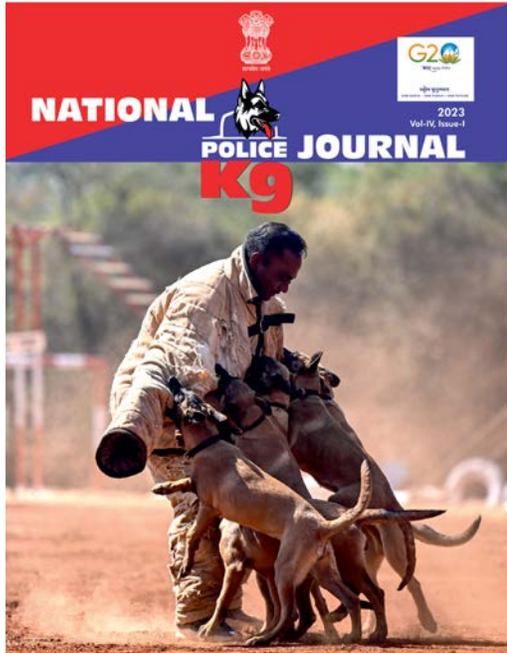
(R. Dhinakaran)

To

**Dr. Manjur Uddin Ahmed,
Consulting Director,
Police K9 Cell, PM Division, MHA,
Govt. of India, Jaisalmer House,
26 Man Singh Road, New Delhi-110011.**

पूर्व प्रकाशित संस्करण







जुलाई 2026 में प्रकाशित होने वाले गृह मंत्रालय राष्ट्रीय पुलिस के९ पत्रिका के Vol. VII (Issue-I) ग्यारहवें संस्करण हेतु निम्नलिखित विषयों पर लेख आमंत्रित किये जाते हैं।

- 1. तकनीकी लेख:-** उच्च गुणवत्ता वाली तस्वीरों के साथ के९ में प्रशिक्षण, तैनाती, प्रबंधन आदि से संबंधित शोध लेख, फील्ड ट्रायल रिपोर्ट, व्यक्तिगत अथवा संगठनात्मक अनुभव।
- 2. ऑपरेशनल के९ केस स्टडीज:** केंद्रीय सशस्त्र पुलिस बल/राज्य और केंद्र शासित प्रदेश पुलिस/सुरक्षा बलों द्वारा अपनाई गई के९ 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 के९ प्रशिक्षण की सेवाओं के दौरान सभी हितधारक 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 के९ 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. नोटपैड:** के९ प्रशिक्षण में शामिल अधिकारियों और कर्मियों द्वारा संक्षिप्त नोट के लिए एक विशेष अनुभाग को समर्पित किया जाएगा।
- 6. संगठनों पर फोकस:-** प्रत्येक प्रकाशन में किसी भी एक संगठन के के९ स्कंध को उजागर किया जाएगा। पुलिस के कर्तव्यों के वास्तविक संचालन में के९ विंग के समग्र प्रदर्शन का उल्लेख करते हुए उच्च गुणवत्ता वाली तस्वीरों के साथ लेख भेजे जा सकते हैं।
- 7. वर्दीधारियों में के९ का हास-परिहास :-** इस अनुभाग का उद्देश्य हमारे पुलिस के९ 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 एरियल फॉन्ट, साईज-12 एवं जे०पी०ई०जी० फॉर्मेट में उच्च गुणवत्ता वाली तस्वीरों के साथ सॉफ्ट एवं हार्ड प्रति में इस कार्यालय को ई० मेल आई०डी० i.111114976@itbp.gov.in पर भेजने का श्रम करें।

(मंजूर उद्दीन अहमद)

द्वितीय कमान (वैट)

(पुलिस के९ प्रकोष्ठ / पुलिस आधुनिकीकरण प्रभाग)





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