



TECHNICAL GUIDANCE MATERIAL

for the Deployment of Aviation Security Explosive Detection Dogs

SUBJECT: AVIATION SECURITY EXPLOSIVE DETECTION DOGS (EDD) DEPLOYMENT

EFFECTIVE DATE: 18 OCTOBER 2021

APPLICABILITY

This Technical Guidance Material (TGM) applies Aviation Security Screening Organizations (ASSO) deploying explosive detection dog teams (EDDT) within the service of civil aviation.

PURPOSE

The purpose of this TGM is to establish deployment criteria and processes for all explosive detection dog (EDD) teams providing service to civil aviation, to enable screening personnel to be effective in their duties and maintain compliance in terms of SACARS-110 and SACATS-110.

SCOPE

The guidelines shall apply to all employees, management and any stakeholders that perform any work or has any connection or ties with the organization.

ACCOUNTABILITY

Implementation and Enforcement of the guidelines is the responsibility of each organization. Screening organisations shall all times ensure that explosive detection dog teams are deployed in accordance with the specification contained in Document SACATS 110.

REQUIREMENTS

ASSO are responsible for the deployment of certified EDDT who perform screening operations related to civil aviation operations. This guidance material will detail best practice to ensure that canine/EDDT deployments achieves the desired outcome.

1. REFERENCE:

- i. ICAO Annex 17
- ii. South African Civil Aviation Regulations
- iii. Parts 108, 109 and 110
- iv. National Civil Aviation Security Programme

2. TERMS AND ABBREVIATIONS:

2.1 Terms

TERM	DEFINITION
K9	The term 'K9' or 'K-9' is derived from the English and French word 'CANINE' (which simply means 'DOG')

2.2 Abbreviations

ABBREVIATION	DEFINITION
ASSO	Aviation Screening Organisation
AVSEC	Aviation Security
SACAR	South African Civil Aviation Regulations
SACATS	South African Civil Aviation Technical Standards
EDD	Explosives Detection Dog
e.g.	For Example,
EDDT	Explosives Detection Dog Team
FREDD	Free Running Explosives Detector Dogs
M: PC	Manager: Personnel Certification
M: CS	Manager: Cargo Security
NASP	Nation Aviation Security Programme
SACAA	South African Civil Aviation Authority
SM: TC	Senior Manager: Training and Personnel Certification
SAPS	South African Police Service
TGM	Technical Guidance Material

3. GENERAL

3.1 The following is a list of factors that should be considered when assessing whether the FREDD is an appropriate method of screening of cargo consignment:

- 3.1.1 Cargo placement — Ensure that the shipment to be screened is within the stipulated requirement.
- 3.1.2 Where operators can address safety concerns, operators may consider allowing EDD to operate on an elevated platform for the EDD to reach areas of cargo higher than the determined maximum limits; alternatively, the EDD team can screen the cargo prior to packing the cargo at a height greater than the maximum limit; and
- 3.1.3 Size of consignments — cargo consignments come in different configurations, such as in homogenized consolidated shipments, loose cargo at piece level, built-up pallets and unit load devices (ULDs).
- 3.1.4 For larger consignments, the EDD team may need to carry out a series of searches, each covering a different part of the consignment to ensure that screening is thorough and covers all sections of the cargo, including the centre.

- 3.1.5 The appropriate authority should set out the maximum area each search can cover to ensure EDD teams conduct screening thoroughly, or the maximum height or width of a consignment cargo which can be subjected to EDD screening.
- 3.1.6 Soak time — the longer an explosive substance dwells in an environment, the larger the developing odour pool will be, thus enhancing detection.
- 3.1.7 Different explosives have different vapour pressures, and dependent on explosive quantity, the size and type of container, the time required for explosive vapours to become effectively detectable by EDD, or 'soak time', may differ.
- 3.1.8 The appropriate authority should consider such factors, and determine the minimum soak time for cargo, beginning with the packaging/consolidation of the cargo, before an EDD can screen the cargo.
- 3.1.9 The appropriate authority should consider incorporating soak time into current cargo operations to ensure both effective screening and smooth movement of cargo. For example, the soak time could include the time taken to transport the cargo to the location of screening, if the cargo was packed and consolidated at another location; and
- 3.1.10 Packaging — prior to conducting screening, handlers should check whether the packaging of cargo/baggage has not been accidentally damaged during transport.
- 3.1.11 Should there be no safety issues (e.g. leaking of contents such as powders and liquids), and the appropriate authority does not have a concern with the soak time applicable to the said package, EDD screening directed to the package could be conducted, and re-wrapped after the search is completed; and some types of packaging (e.g. plastic sealed/wrapped merchandise, 20 L buckets, pelican cases, welded barrels) could seal target odours within packaging and deter EDD screening.
- 3.1.12 In such instances, unless the appropriate authority and the cargo handling entity have agreed that, as part of the EDD screening procedure, the EDD team can adjust the packaging (e.g. puncturing outer plastic shrink wrap) to allow the canine to access target odours, such cargo should be screened using other methods.
- 3.1.13 When adjusting packaging, care should be taken to not damage cargo. Otherwise, a different method of screening should be applied.

3.2 Screening Environment

- 3.2.1 Temperature: temperatures should be considered in the use of EDD for screening of cargo as it may affect the availability of explosives vapours. It is important that the EDD is appropriately acclimatized to the environment;
- 3.2.2 Humidity: if the air is extremely dry, this will greatly reduce the transportation of target molecules in the air, making scent detection more difficult; humid conditions comparatively will have the opposite effect in keeping scent down, and typically improve detection

- 3.2.3 Wind speed and direction: strong winds may reduce the ability for the dog to indicate accurately. Indoor conditions may reduce the negative impact wind speeds and directions;
- 3.2.4 Distractions: dogs may be distracted by the presence of loud noises, bright lights, new surroundings, food, other animals, and persons uninvolved with air cargo or airport operations.
- 3.2.5 As far as possible, distractions should be minimized to ensure the effectiveness of the EDD team's operation.
- 3.2.6 Persons, moving vehicles, and other objects not relevant to the screening operations present at the screening area should be kept to a minimum.
- 3.2.7 Operate effectively in the cargo and terminal environment without being distracted or negatively impacted during the screening process.
- 3.2.8 In addition, maintaining the control of the EDD is integral to the safety of the EDD and others around the facility and/or aerodrome.
- 3.2.9 Initial and maintenance training is the foundation for effective screening
- 3.2.10 Eight point hit process for a pallet.
- 3.2.11 Each side of the pallet a K9 will sniff effectively low and up.
- 3.2.12 The handler will ensure the K9 covered all these eight areas of pallet and present missed point to guide the K9.
- 3.2.13 Screening shall be systematic, and completion of initial pallet should be achieved prior moving to the next one.

3.3 Luggage

- 3.3.1 Screening shall be systematic, and completion of initial luggage should be achieved prior moving to the next one.
- 3.3.2 The focus of the presentations should be where the scent is likely to escape/productive areas e.g. Zip and openings.

3.4 Dangerous Goods

- 3.4.1 Dangerous good should be screened using other methods of screening.
- 3.4.2 Screening of known or unknown dangerous must be entirely avoided as this may pose danger to canines (e.g. inhalation of dangerous fumes by K9's)

3.5 Perishable goods

Training shall be conducted in the environment of operation to climatize the K9 teams prior operational work during OJT.

3.6 Suspicious Items

- 3.6.1 Screening shall be systematic, and completion should be achieved prior moving to the next area, item or vehicle.
- 3.6.2 The focus of the presentations should be where the scent is likely to escape/productive areas e.g. openings

3.7 Appropriate Indication

When the canine/EDD indicates the presence of explosives material the appropriate resolve procedure shall be followed i.e. informing the SAPS The focus of the presentations should be where the scent is likely to escape/production areas e.g. Zip and openings

3.8 Record of working time

- 3.8.1 A record of the working hours of a canine/EDD shall be maintained
- 3.8.2 The handler shall ensure that the canine/EDD is removed from screening activities after 30 minutes uninterrupted screening duration or sooner if the dog displays signs of fatigue.

3.9 Documentation

- 3.9.1 Records / document should reflect the following:
 - a. Date and Time
 - b. Handler and his K9
 - c. Airway bill
 - d. OB reference
 - e. Area of operation
 - f. Cleared objects (Cargo, vehicle or luggage)

3.9.2 Team Requirements




- 3.9.3 A team must have relevant experience which at a minimum includes:
 - a. Trained and immunized K9
 - b. Initial and maintenance training
 - c. Current SACAA Certification

4. QUERIES

4.1 Any queries or requests for further guidance because of this communication should be sent to:

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5. AUTHORISATION

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SIGNATURE OF M: PC	NAME IN BLOCK LETTERS	DATE
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SIGNATURE OF SM: TC	NAME IN BLOCK LETTERS	DATE
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