

## SGS SCANNER SERVICES

# BAGGAGE AND PALLET E-LEARNING SOLUTION

## IMAGE ANALYSIS TRAINING

### ADAPTED TRAINING

X-ray scanners are used worldwide to inspect baggage and cargo for hidden and prohibited items. However scanners by themselves cannot identify suspicious images; only appropriately trained and skilled operators can.

SGS Image Analysis Training can help you to respond to these challenges:

- How do you determine that all operators have the appropriate skill level?
- How can you assess their performance?
- How do you improve their skills?
- How do you select the right operators?
- How can you be sure that each and every operator is up to standard?

SGS has lengthy and established experience in scanner operations including image analysis. For that reason, we have been able to develop a complete range of training sessions. We are regularly mandated by different governments, Customs departments, international organisations, civil aviation, border security and other institutions worldwide to perform capacity building on their behalf.

### SGS SOLUTION

SGS offers different online training solutions based on the level of the operators and the needs of the organisation. The training combines theoretical and practical exercises. The theoretical part is accessed through SGS online academy, and contains various presentations and quizzes. The practical part is provided through SGS scanner simulator, accessible online. The trainee is directed through the course and passes from the academy to the simulator as required.

### Introduction to threat detection Guns, knives, Grenades

20 of 25



## RECOGNISING FIREARMS

Most firearms will be metallic and of a distinctive shape which often can be easily identified.

The simple silhouette of the X-Ray image of the gun shown below is easy identifiable as a firearm.



In complex bags this shape may not be so easy to distinguish. It is therefore necessary for a screener to be alert for individual smaller components such as the trigger and springs in the handle and under the barrel.

Any ammunition loaded should also help with identification.

Next

### 101 Awareness Level

This training is intended for beginners and presents the different methodologies to interpret radioscopic images and make the differentiation between several materials, objects and threats.

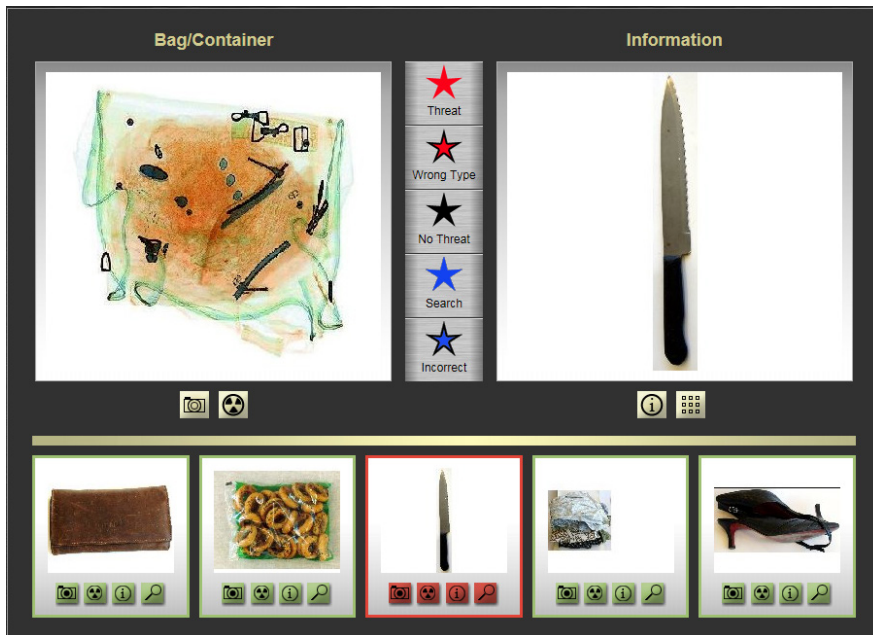
It also introduces the operator to the methods to correctly and safely use a scanner to its maximum potential and to fully understand how the equipment functions. A large part of the training introduces the operator on the technique of detection and the basis to distinguish normal items from threat items.

Awareness training also covers:

- The history of radiation
- X-ray properties
- Radiation safety basics
- Identifying everyday items
- Identifying prohibited items
- Introduction to threats (guns, knives, grenades)

The operator will undertake 11 theoretical modules and quizzes, 16 practical exercises and 8 tests. The total course varies between 8 and 10 hours, depending on the speed of the trainee. Test results will be communicated to the trainee's management.





## CBT SUPPORT

The SGS Image Analysis Training is structured around baggage/pallet scanner simulator software that replicates the image analysis functions of the baggage scanners, as if the users were operating the equipment in real time. The advantage of the simulator is that users can be introduced to and trained on the recognition of multiple types of threats that they may have never seen before, independent of the operational scanner equipment. Their level of comprehension can be developed and assessed, using different category of difficulties. This allows a clear identification of the competencies of each individual among a group and recognises their particular requirements for any additional training.

SGS Computer Based Training simulator includes an exhaustive database of image objects allowing the trainer to build different bags for different training topics such as explosives detection. The weapons, explosives or any prohibited items can be placed in various positions and rotated inside the bag to increase the difficulty of detection and provide maximal level of flexibility and realism.

For more information, please contact [sgsscanner@sgs.com](mailto:sgsscanner@sgs.com)

## 102 Advanced Level

This level is intended for operators who are familiar with baggage screening. It exposes them to more complex threats and ensures that have full understanding of the equipment they are using. Before an officer can be expected to identify a threat object, it is essential that he is aware of what it might look like from all angles, how to recognize and distinguish signature traits of various threat items on an X-ray image and how to detect them in complex bags.

To achieve this, the course includes modules on:

- The history of radiation
- X-ray properties
- Radiation safety basics
- Recognition of explosives and explosive devices
- Recognition of firearms from obscure angles
- Recognition of grenades from obscure angles
- Recognition of knives
- Recognition of prohibited items, including martial arts weapons

This online course contains 16 theoretical modules and quizzes, 20 practical exercises on SGS simulator and 11 tests. The total course duration with

the practical exercises lasts between 10 and 12 hours depending on the trainee.

Test results will be communicated to the trainee's management, with a detail analysis of the strength and weaknesses of the speed of the trainee.

## SGS TRAINING CREDENTIALS

- Compliant with EU Commission Regulation No. 185/2010; Detailed measures for implementation of common Aviation Security Standards for Baggage X-ray system Operators and Image Analysts
- Compliant with EU Commission Regulation No. 300/2008; Requirement for implementation of continuation of refresher training for all Image Analysts operating Baggage X-ray systems, in force and compulsory since April 2010
- ICAO Annex 17, 3.4.3
- ICAO-Manual on Human Factors in Civil Aviation Security Operations (Doc 9808)
- ICAO Human Factors Training Manual (Doc 9683), Part 1, Chapter 4, and Appendix 6, Appendix 32
- ICAO Security Manual for Safeguarding Civil Aviation Against Acts of Unlawful Interference, Doc 8973, Chapter 4, I-4-45