

TESTING AND CERTIFICATION OF IN-LINE X-BIS SCREENERS

BCAS-TRG-DIV

FORM – 15

COURSE DESCRIPTION

Course Description Purpose and Entry Requirement	Course Code: 123/In-line/XST& C/BCAS
	Duration: 02 working days
TESTING AND CERTIFICATION OF IN-LINE X-BIS SCREENERS	Issued : March 8, 2008
	By : BCAS, TRG- DIV

Testing and Certification – Purpose :

As per Standard 3.4.2 and 3.4.3 of Annex 17 of ICAO, it is mandatory that persons implementing security control are properly trained and also that the persons carrying out screening operations are certified according to requirement of National Civil Aviation Security Programme.

A. Target population :

- (i) Airports Authority of India/respective airport operator or their joint venture companies;
- (ii) Subsidiary companies of the National Carrier or their Joint Venture established for ground handling services subject to satisfactory observance of performance standards as well as based on revenue sharing with the AAI/Airport operator; and
- (iii) Any other ground handling service provider selected through competitive bidding on revenue sharing.
- (iv) ASG/APSU – SI/Exe and above
- (v) BCAS – Security Officers and above

B. Entry Requirements:

Trainees are required to satisfy the following criteria:

- (a) Educational qualification: Graduation level
- (b) Basic AVSEC - STP 123
- (c) Age preferably 45 yrs or below but can be up to 55 yrs subject to being medically fit.
- (d) Certification & Testing capacity: 20
- (e) Have written and oral proficiency in medium of instructions (English/Hindi).
- (f) Have forty hours of working experience with in-line HBS under the guidance of an AVSEC trained supervisor.

COURSE SCHEDULE IN-LINE X-BIS SCREENERS

SESSION	DAY 1	DAY 2	1.1.1 1.1.2 DAY 3
ONE	<u>MODULE # 1</u> Opening Ceremony. Introduction Course objectives, Trainee profiles.	BCAS Specification on In-line X-ray BIS	System specification Operations & analysis of X-ray images & TIP
TWO	World overview, threat to civil aviation & measures to counter them	Hold Baggage Handling System and Design	Contingency Plan and Fall Back Procedure of HBS
THREE	Role of BCAS and National Civil Aviation Security Programme	Analyst Work Stations and Image Keys EDtS and EDS system over view	Explosive Detectors – Principle, operation of different models
FOUR	<u>MODULE # 2</u> BCAS Circulars and AVSEC Orders Terminology-Glossary	OOG System overview HBS requirements and specifications	Security control measures of Registered Baggage / Diplomatic Bags/
FIVE	General Principles Screening Principles	Level wise procedure	Security control measures of Sensitive Store/ Human remains / Perishables etc
SIX	Introduction/Definition of X-ray theory Safety precautions- Radiation-Gen safety	Visit to In-line X-BIS	Combined Test Piece (CTP) – testing procedure
SEVEN	Recognition of explosive devices, Dangerous goods	System specification Operations & analysis of In-line X-ray images	Factors influencing the X-ray screening process
EIGHT	Bomb Threat Procedure.	<u>MODULE # 3</u> Threat Image Projection (TIP), Principle, operation, MIS	Passenger Profiling/Questioning Technique

Note : After this training, the trainees shall have forty hours of working experience with in-line HBS under the guidance of an AVSEC trained supervisor to be eligible for testing & Certification of screeners.

STP 123/In-line/XST& C/BCAS

**PROTOCOL AND GUIDELINES FOR TESTING AND CERTIFICATION OF
IN-LINE X-RAY SCREENERS**

(Duration : 02 Working Days)

Introduction : As per Standard 3.4.2 and 3.4.3 of Annex 17, ICAO, it is mandatory that persons implementing security control are properly trained and also that the persons carrying out screening operations are certified according to requirement of National Civil Aviation security programme. The requirement has been incorporated with the National Civil Aviation Security Training Programme in the country.

2. In order to implement above requirement, committee of officers as under shall be constituted by Commissioner of Security (CA) to test and certify the In-line screeners: -

- (a) Dy. Commissioner of Security (CA) / BDDS /COE
- (b) Asst. Commissioner of Security (CA)

3. **Venue for the test:** Test will be normally conducted at Delhi, Mumbai, Kolkata, Hyderabad, Bangalore & Chennai; or any other place decided by Commissioner of Security (CA).

4. **Total marks for the test : 100 Marks**

- (a) Theory Test : 40 Marks
- (b) Practical Test : 60 Marks

5. **The allocation of marks for practical test shall be as under: -**

- (a) Pre-operation checks. - 03 marks
- (b) Performance on Operator Training System / CBT - 10 marks
- (c) Documentation - 04 marks
- (d) Contingency and Fall back procedure - 03 marks
- (e) Threat Image projection (TIP) - 05 marks
- (f) CTP performance test - 05 marks
- (g) Interpretation of image at Level -4 - 10 marks
- (h) Manual check of baggage at Level -4 - 05 marks
- (i) Pre-ops check of Explosive Detectors - 05 marks
- (j) Use and Operation of Explosive Detectors - 05 marks
- (k) Response and reaction - 05 marks

Note : Minimum pass marks in the Theory and Practical mentioned above shall be 80 % ; and the aggregate of the candidate must also be minimum 80 % to be declared pass.

6. Course contents for Theory test: -

- (a) World overview, threat to civil aviation operation & measures to counter them
- (b) Role of BCAS and National Civil Aviation Security Programme.
- (c) BCAS Circulars and AVSEC Orders
- (d) Terminology – Glossary
- (e) General Principles and Screening Principles
- (f) Introduction/Definition of X-ray theory - Safety precautions- Radiation & General Safety
- (g) Dos & Don'ts for screeners
- (h) Recognition of explosive devices, Dangerous goods.
- (i) Bomb Threat Procedure.
- (j) BCAS Specification on In-line X-ray BIS.
- (k) Hold Baggage Handling System and Design
 - (i) Analyst Work Stations and Image Keys
 - (ii) EDtS and EDS system over view
 - (iii) OOG System overview
- (l) Combined Test Piece (CTP) – testing procedure.
- (m) Threat Image Projection (TIP), Principle, operation, MIS.
- (n) System specification Operations & analysis of In-line X-ray images
- (o) System specification Operations & analysis of X-ray images & TIP
- (p) Contingency Plan and Fall Back Procedure of HBS
- (q) Explosive Detectors – Principle, operation of different models.
- (r) Security control measures of Registered Baggage / Diplomatic Bags / Sensitive Store/ Human remains / Perishables etc.
- (s) Passenger Profiling/Questioning Technique
- (t) Factors influencing the X-ray screening process.

7. Guidelines for Practical Test :

- (a) It is essential that testing requirements e.g. equipments, baggage etc. and access to operational security equipment is planned well in advance by a coordinator nominated by BCAS.
- (b) Prior to the test, test team will ensure that the X-ray BIS, Explosive Detector, Operator Training System are in working order.
- (c) The individual shall be tested on OTS/CBT since In-line X-BIS at airports, once operational, will not be available for T & C of In-line X-BIS screeners. At Level-4, s/he shall be tested in stand alone X-BIS image interpretation and response etc.

- (d) Coordinator shall arrange live models and dangerous goods to be made available for test purposes. It is suggested that minimum of 10 baggage of different size and shapes are prepared with live explosives, dummy detonators, assorted batteries, bomb initiating mechanism, dangerous goods such as replica of weapons, toy pistols, grenades, mines, IEDs, different types of fruits such as apple, coconuts, bananas; water, alcohol and articles that are generally carried by a passenger. Test to be conducted on a X-ray BIS in which candidate has more confidence of the machine of his choice available at the location of the test.
- (e) In addition the test team may use readily available items, such as knives, axes, screwdrivers and chisels for screening on the person and in the baggage for testing purposes.
- (f) The coordinator shall also arrange the assistance of a trained X-ray operator / supervisor during the test.
- (g) In consultation with DCOS (BDDS)/COE, the explosives such as TNT, RDX, PETN, PEK, Sheet / plastic explosives, dummy detonator, power source may also be cleverly introduced in these bags. If live explosives are not available, dummy explosives having similar shape, size and atomic number may be prepared

Note: Representative of BDDS must ensure that all live explosives, which are taken for practical test, are properly checked and accounted thoroughly after training. DCOS (BDDS) may devise an appropriate system to ensure safety measures and accounting of explosives.

- (h) The practical test may be undertaken at airports in real time environment.
- (i) 05 bags may be used for sample checks through X-ray as under: -
 - (i) **Bag No. 1** One thick metallic container / item, which will show dark or dense mass on the X-ray monitor;
 - (ii) **Bag No. 2** One common item that could be a dangerous articles;
 - (iii) **Bag No. 3** A pocket calculator/mobile phone/any electronic item with dummy detonator;
 - (iv) **Bag No. 4** A portable radio with dummy / live plastic explosives approx 200 gms;
 - (v) **Bag No. 5** A clean bag without any dangerous article. It may contain normal clothing and other articles carried by passengers.

- (j) The Test Team will explain to the candidates that test will be conducted in three parts.
 - (a) Part I: will consist of the candidates practicing and checking of the security screening equipment.
 - (b) Part II: will allow the candidates to practice the screening tasks.
 - (c) Part III : will involve monitoring and interpretation of X-ray image

8. General :

- (i) OTS/CBT of the manufacturer, whose system is installed at airport for In-line X-BIS, shall be procured by airport operator concerned and made available for T & C of In-line X-BIS screeners; and training purpose.
- (ii) The Test Team will ensure that test proceedings are kept confidential till it is approved by Commissioner of Security (CA);
- (iii) The Team will complete the test proceedings and finalise the test results before dispersal to their respective headquarters.
- (iv) Certification of successful participants shall be done by BCAS HQ Training Division within a fortnight.
- (v) Training Division shall maintain proper records of certified screeners (agency – wise).

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