Module 6
Passenger and Luggage Screening Methods

Module Objectives

- Understand the importance of applying a thorough passenger screening procedure
- Identify the hazardous elements that passengers may be concealing

Module Objectives

- Identify hazardous items concealed in hand luggage
- Understand the importance of knowing the capabilities and limitations of screening equipment
- Know the elements of an improvised explosive device

Types of Screening Methods

Threat detection:

- Manual search, passengers and hand luggage
- X-ray machines, hand luggage
- Trace detection equipment, passengers and hand luggage
- Metal detection equipment, passengers
- Millimetric wave equipment, passengers
- Multiview technology, hand luggage

Metal Detectors

Metal detection

- High rate of “false alarms”
- May have no-detection areas

Screening with a Hand-Held Detector

- Must be used no more than 1 inch (2.5 cm) away from the body surface
- Involves the use of most senses
- Direct interpretation

Manual Passenger Search

- Separate screening for security reasons or in special cases
- Risk of aggression
- Requires well-trained personnel
- Respect to gender
- Supervised if necessary

Manual Passenger Search

- A physical exam of outer clothing: back section, neck, lapels, shoulders, pockets (externally and internally) and arms
- A physical exam of belts and buckles

Manual Passenger Search

- A physical exam of shoes and boots, paying special attention to high heels and elevated shoes, if necessary use a hand-held metal detector or trace detector.

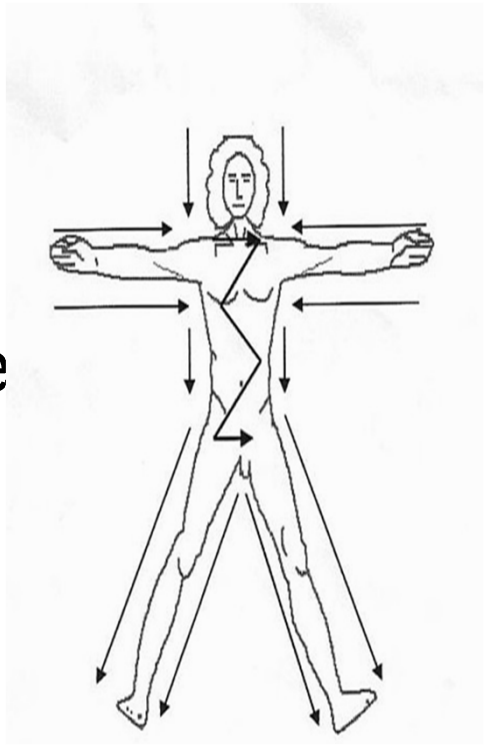
- A visual exam to detect unusual or suspicious bulges that need more thorough inspection.

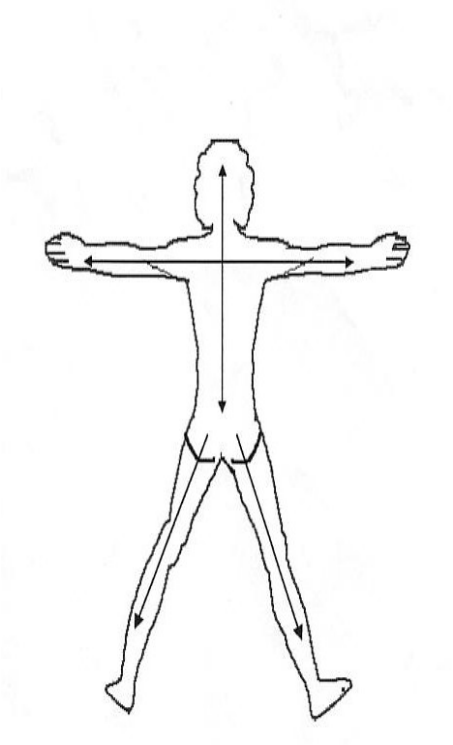
Manual Passenger Search

- Certain parts of the body, especially armpits, chest, between the legs, areas in the waist, parts of the body covered with medical elements, prosthetics, restriction elements (casts, bandages, orthopedic boots), ankles, and shoes.

Manual Search

- Systematic
- Comprehensive





Manual Search of Luggage

- Check that the luggage belongs to the passenger and place it on the inspection table
- Open suspicious packages and hand luggage, or screen again by X-ray or trace detector
- Do not return luggage to passenger until it has been manually searched

Threat

Corset with explosives

Footwear with explosives

Threat

- Passenger on Northwest Airlines flight 253 tried to detonate explosive material

Threat

Hair combs

Threat

Firearm in a pack of cigarettes

Threat

X-Ray Screening

- More precise
- Faster
- Non-invasive
- Detection of explosives

X-Ray Screening

- Known technology
- Homogeneous materials
- Can detect detonators

X-Ray Screening

- Requires trained and experienced personnel
- Complex items are difficult to interpret (liquid explosives)
- No more than 20 minutes in the monitor

Threat

Firearm
Cell phone

Threat

Liquid explosives

Shaving cream

Explosive

Real

Real

Shampoo

Explosive

Threat

Toothpaste

Real

Explosive

Deodorant

Real

Explosive

Explosive Detection Equipment

Equipment for detecting explosive fumes

Explosive Detection Equipment

- Detects explosive particles
- Most units are portable
- There are hand-held sniffing equipment and others work with traps
- May give a high percentage of false positives

Explosive Detection Equipment

- Does not detect all explosives
- Not available at all airports
- Trained personnel is required to operate the equipment

Explosive Detection Equipment

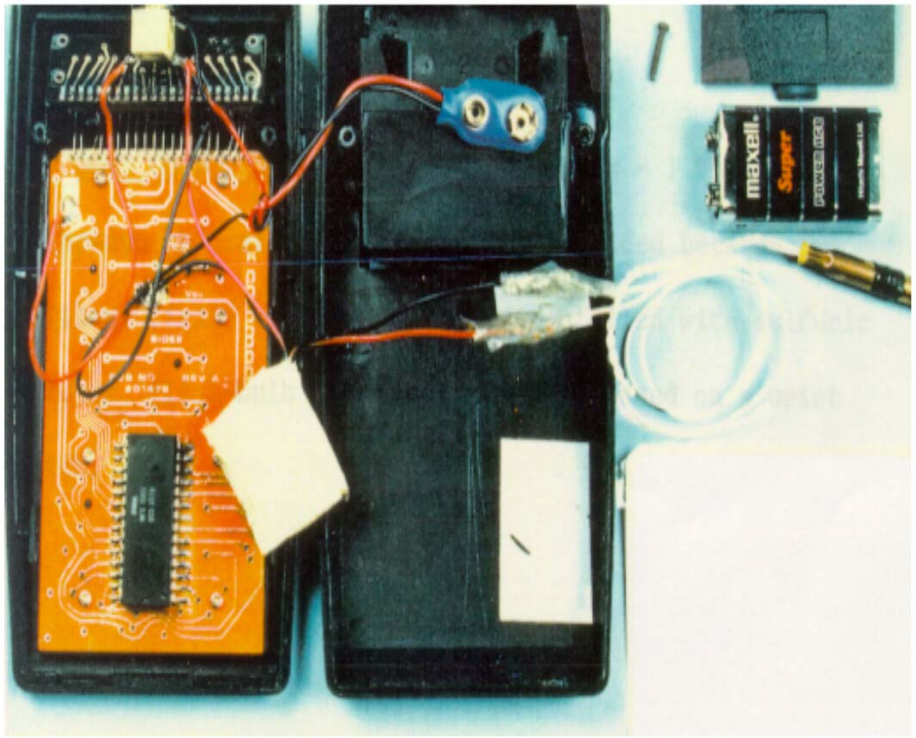
- Needs frequent calibration and maintenance
- Requires time for testing
- Requires testing techniques

Detection of Improvised Explosive Device

- Do not touch
- Notify the police
- Clear the screening checkpoint
- Notify the supervisor and management

Improvised Explosive Device

Improvised Explosive Device



Explosives

- Military
- Commercial
- Handcrafted
- Combined

Characteristics of Explosives

- Malleable
- Variety of colours
- Easy to paint
- Possible plastic smell

Electric Detonators

- Aluminum or copper tube
- Approximately 6 mm in diameter
- 2.5 - 15 cm long
- Full of initiator explosive
- Plastic-insulated cables on one end

Non-Electric Detonators

- They look like electric detonators

BUT

- Have no electric cables

- One end of the tube is left open to accommodate the safety fuse

Activation Mechanisms

- Digital meters
- Remote controls
- Clocks
- Cell phones

Power Sources

- C, D batteries
- AA batteries
- AAA batteries
- 9-volt battery
- Flat Polaroid battery
- Lithium coin-type battery

Summary of the Module

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End of Module 6