ANNEX K

PERFORMANCE REQUIREMENTS
WALK-THROUGH METAL DETECTORS

1. Introduction

1.1. Walk-Through-Metal-Detection (WTMD) equipment is employed as an integral part of screening procedures required by this National Civil Aviation Security Programme in support of civil aviation security in the Philippines . Its purpose is to inform security staff that a person being screened is carrying an amount and type of metal greater than a predetermined limit. Metallic articles may be *legitimate* (e.g., keys, metal watch, etc.) or *prohibited (*e.g., a restricted items such as a handgun or knife). A person who causes a WTMD to alarm shall be subjected to a reasoned secondary search, which may include the application of Hand-Held-Metal-Detection (HHMD) equipment and shall include a physical body search. It is the responsibility of the searcher to discover the cause of the alarm.

2. Requirements

2.1 A WTMD shall meet the following requirements.

(a) Sensitivity.

The sensitivity of a WTMD determines the smallest object that can be detected. The variety of restricted articles is so large that it is not possible to specify a single ósmallest objectô. However, candidate examples are: small knifes and ammunition. The operator should be able to vary the sensitivity of the WTMD in order to respond to changing circumstances.

(b) Uniformity

The detection capability of the WTMD should be uniform across the whole aperture. Point of particular concern is performance at ankle height, and waist, and performance across the WTMD aperture (i.e., side to side) where the transmitter and receiver coils are housed one in each leg of the equipment.

(c) Speed of Passage

The performance of the WTMD should be independent of the speed of the person passing though. This is particularly important as a personôs foot may swing through the archway without touching the ground, or may come to rest on the ground between the equipment pillars.

(d) Aperture size

The aperture should be at least 2m high and 0.76mm wide.

(e) Passenger Reject Rate

No WTMD distinguishes perfectly between legitimate and prohibited items. This is because of similarities in composition and size. A WTMD may alarm when a person carrying only legitimate items passes through it. Such a person must be subjected to a reasoned secondary search, by hand supported by the employment of a hand-held metal detector. Because if this imperfection, there has to be a trade off between specificity and sensitivity.

(f) Interference Rejection

Interference, which is mains-borne or radiated by an external source, should not cause the equipment to alarm spuriously. It should be possible to use equipment such as personal radios, portable telephones and x-ray monitors at a distance of 2m from the equipment without causing spurious alarms.

(g) Static Metal Compensation

It may be necessary to install a WTMD close to fixed sheets or pieces of metal, which form part of the building or its fittings. The equipment should compensate for the presence of such metal, and its performance should not be degraded by it.

(h) Long Term Stability

The design of the WTMD should be such that its level of performance is constant over long period of time.

(i) Alarm Indication

There should be both visual and audible alarms. It should be possible to adjust the volume of the audible alarm. At its loudest setting, the volume should be adequate to overcome the ambient noise present at airport search facilities.

(j) Security

Adjustable controls should be activated only on the insertion of a removable key.

(k) Commissioning and Routine Testing

The WTMD shall be commissioned and tested in accordance with the requirements stipulated in manufacturerôs documentation[1] using an operational test piece, provided by the manufacturer and approved by the Director General of Civil Aviation.

(l) Health and Safety

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The WTMD shall comply with relevant health and safety legislation and any other applicable standards. The manufacturer shall be required to certify in writing that the equipment has no effect on heart pacemakers and provide evidence that this has been established by a competent body.