



INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO Regional Seminar on MRTDs, Biometrics and Border Security

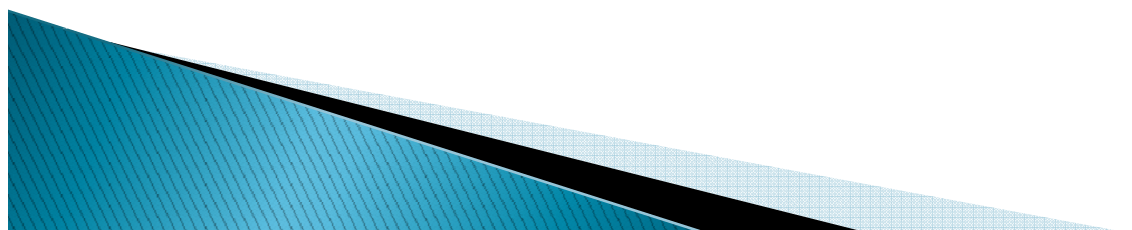
30 November - 2 December 2011
Singapore



HANDLING E-MRTDs THAT FAIL TO READ

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INTRODUCTION

- ▶ Background to the development of guidance
- ▶ Consistency
- ▶ Balance – security v facilitation

E-MRTD SECURITY

- ▶ Validation of data
- ▶ Avoiding chip problems –issuers responsibilities

BORDER INSPECTION

- ▶ Border authorities understanding of the technology
- ▶ Importance of the MRZ
- ▶ Notification of problems
- ▶ Validation


READING E-MRTD

ePassport Reader & Biometrics Clearance Demo

Data Page

Auto Trigger Scan Page Time 4.61 Seconds

White
 Ultraviolet
 Infrared
 Check Data Page Security



Name:
 Nation: Sex: Birth Date: Expiry Date:
 MRZ1:
 MRZ2:

Auto

ePassport Inserted!
 Completed Time: 13296.875ms.
 Biometrics Verification.
 Biometrics Verification Finished.

RFID and LDS

Reading DG2
Photo in RFID

Time: Seconds
 Speed: Kbps
 Size: KBytes

ISO Type:

Fingerprint Format: Count:
 Iris Format: Count:

Photo Format: Width: Height:

MRZ 2nd Line for BAC
 Silver Tsukuba Orchid Other

Data Groups Read Perform Passive Authentication

<input checked="" type="checkbox"/> COM	<input checked="" type="checkbox"/> SOD	<input checked="" type="checkbox"/> DG1	<input checked="" type="checkbox"/> DG2	<input type="checkbox"/> DG3	<input type="checkbox"/> DG4
<input type="checkbox"/> DG5	<input type="checkbox"/> DG6	<input type="checkbox"/> DG7	<input type="checkbox"/> DG8	<input type="checkbox"/> DG9	<input type="checkbox"/> DG10
<input type="checkbox"/> DG11	<input type="checkbox"/> DG12	<input type="checkbox"/> DG13	<input type="checkbox"/> DG14	<input type="checkbox"/> DG15	<input type="checkbox"/> DG16

Data Groups Present Perform Active Authentication (if DG15 present)

<input checked="" type="checkbox"/> COM	<input checked="" type="checkbox"/> SOD	<input checked="" type="checkbox"/> DG1	<input checked="" type="checkbox"/> DG2	<input type="checkbox"/> DG3	<input type="checkbox"/> DG4
<input type="checkbox"/> DG5	<input type="checkbox"/> DG6	<input type="checkbox"/> DG7	<input type="checkbox"/> DG8	<input type="checkbox"/> DG9	<input type="checkbox"/> DG10
<input type="checkbox"/> DG11	<input type="checkbox"/> DG12	<input type="checkbox"/> DG13	<input type="checkbox"/> DG14	<input checked="" type="checkbox"/> DG15	<input type="checkbox"/> DG16

Biometrics Verification

Auto

Live Photo

Score:

Auto

Live Fingerprint

Score:

Auto

Live Iris

Score:

Scanning Lights are Ready.

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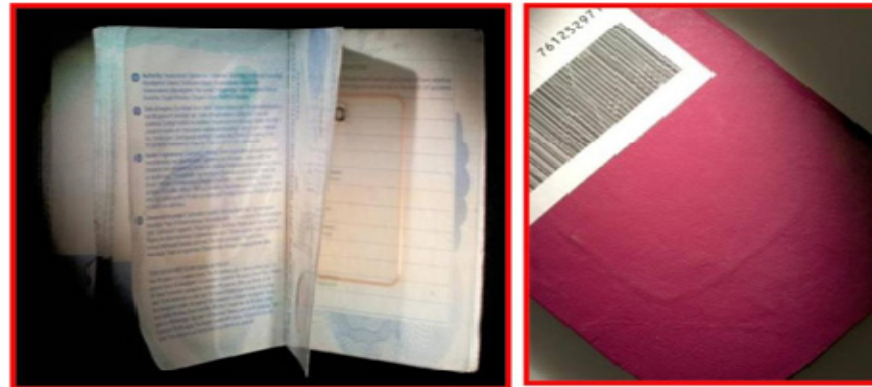
FAILURE TO READ

- ▶ Reader Communication fault
- ▶ Antenna/chip damaged
- ▶ Error by issuer
- ▶ Attempted fraud

DETECTING CHIP ATTACKS

- ▶ Disabling the chip
- ▶ Chip substitution

Chip Abuse

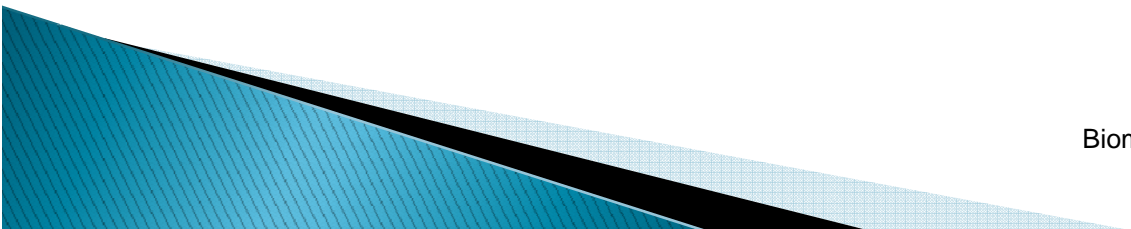


CONCLUSION

- ▶ E-MRTDs have enhanced document security
- ▶ Failure to read does not invalidate the document
- ▶ Fraud will be attempted BUT balanced approach is required
- ▶ Border authorities will continue to be challenged identifying the fraudster from the genuine traveller

Thank you

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