



International Civil Aviation Organization

Seventh Symposium and Exhibition
on ICAO MRTDs, Biometrics
and Security Standards

ICAO Headquarters, Montréal, Canada
12 - 15 September 2011



Non-compliant Travel Documents: Implications to Border Security

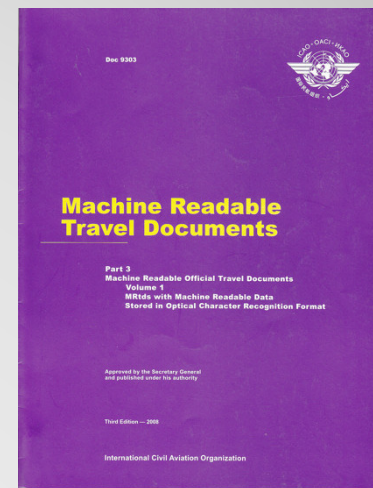
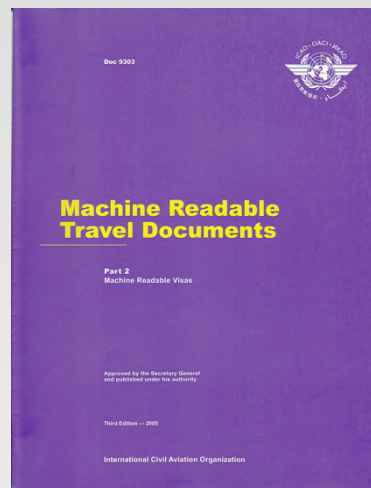
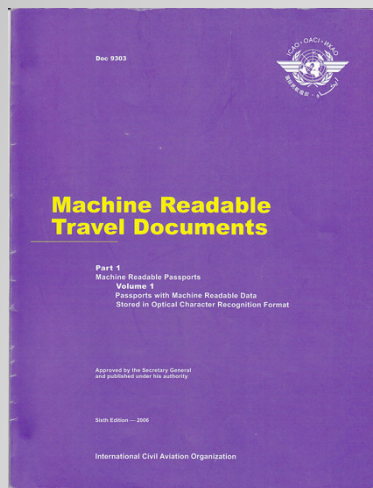
Dwight MacManus
ICAO Implementation & Capacity
Building Working Group (ICBWG)

Agenda

- Part 1: MRTDs and Border Control
 - The Basics: Doc 9303
 - Impact of non-compliance on Border Security
- Part 2: ICBWG subgroup on non-compliance
 - Tracking MRTDs
 - Update on ICBWG activities
 - Four (4) new case studies

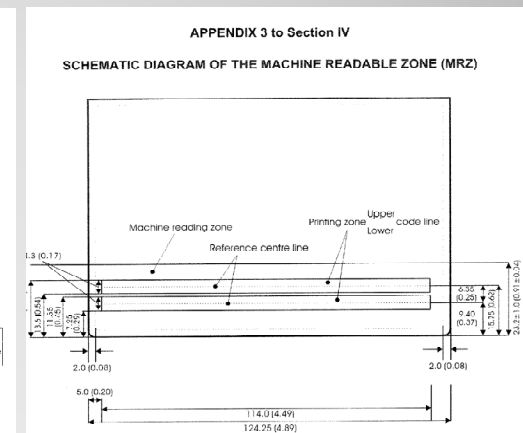
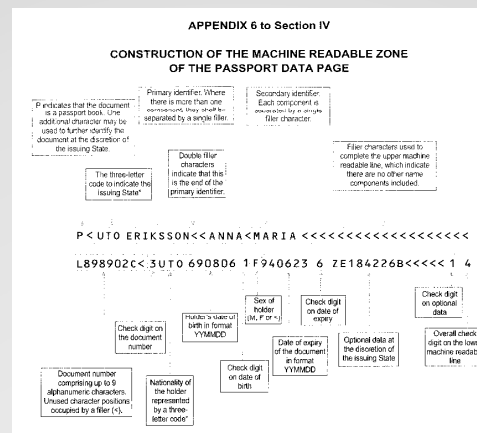
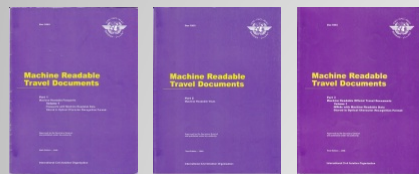
The Basics: Doc 9303

- Basis for ALL machine readable travel documents, including ePassports
- Compliance is critical to ensure effective border security
- www2.icao.int/en/MRTD/Pages/Document9303.aspx

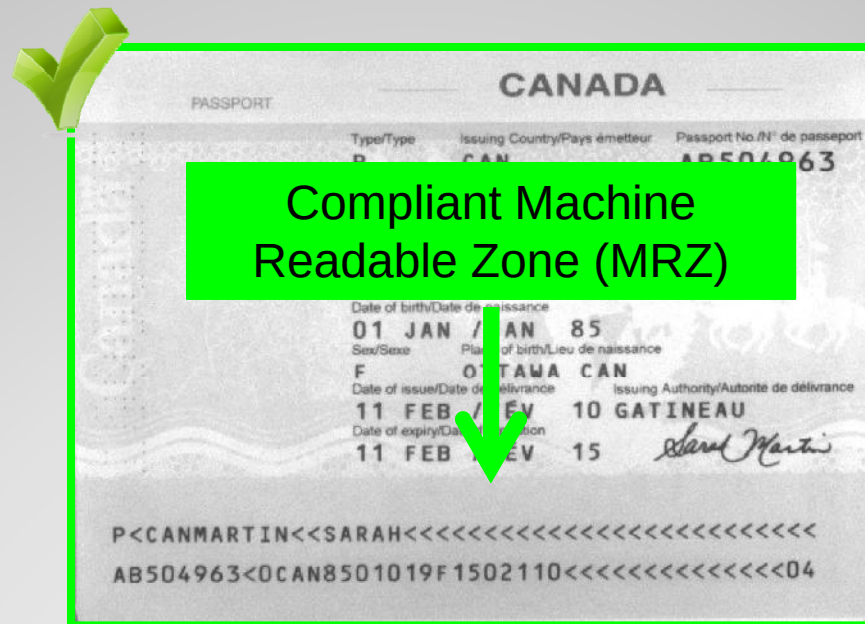


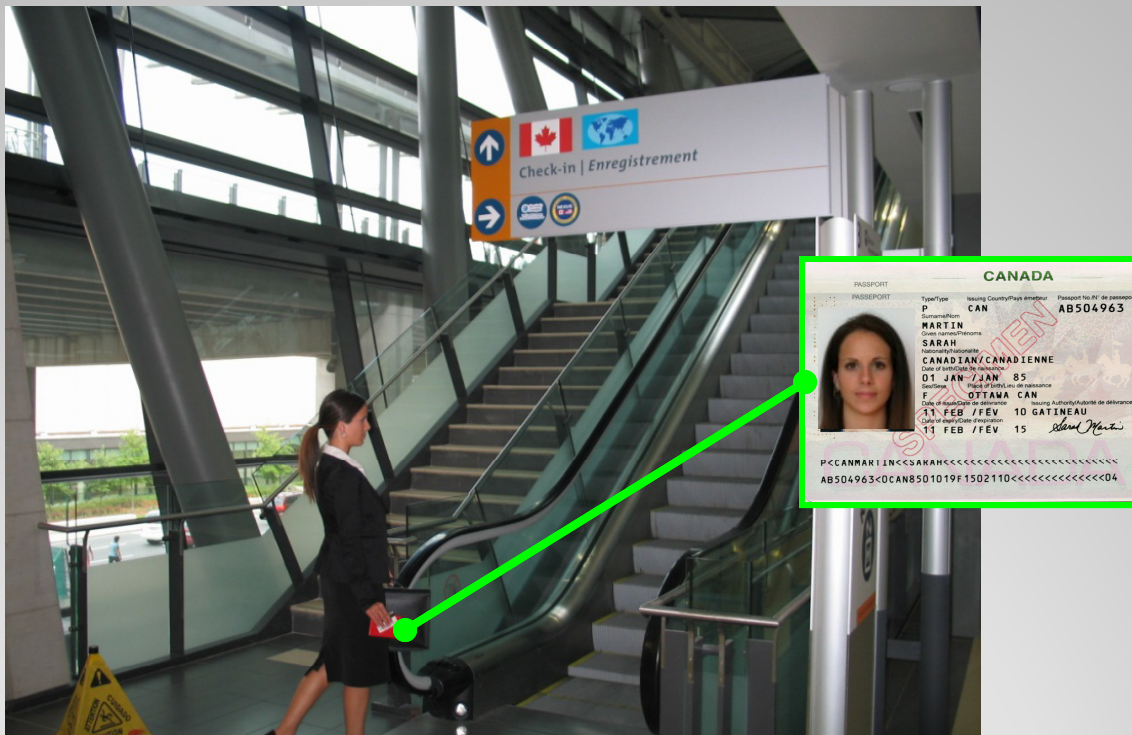
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- Universal formatting is required:
 - Structure, font, position, substrates, security features
- Designed for accuracy; ensures global interoperability



- Example: A compliant passport





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AB504963<OCAN8501019F1502110<<<<<<<<<<<<<<<<04

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Type:	Passport
Country:	Canada
Number:	AB504963
Surname:	Martin
Given:	Sarah
DOB:	01 Jan 85
Expiry:	11 Feb 15

READ CORRECTLY



Non-compliance & Border Security

- ✓ Proper verification of the document & traveler against databases

- ✓ Proper validation of the travel document

- ✓ Secure inspection and facilitation

Type: Passport
Country: Canada
Number: AB504963
Surname: Martin
Given: Sarah
DOB: 01 Jan 85
Expiry: 11 Feb 15

APPROVED

MRTD Validity
& Integrity



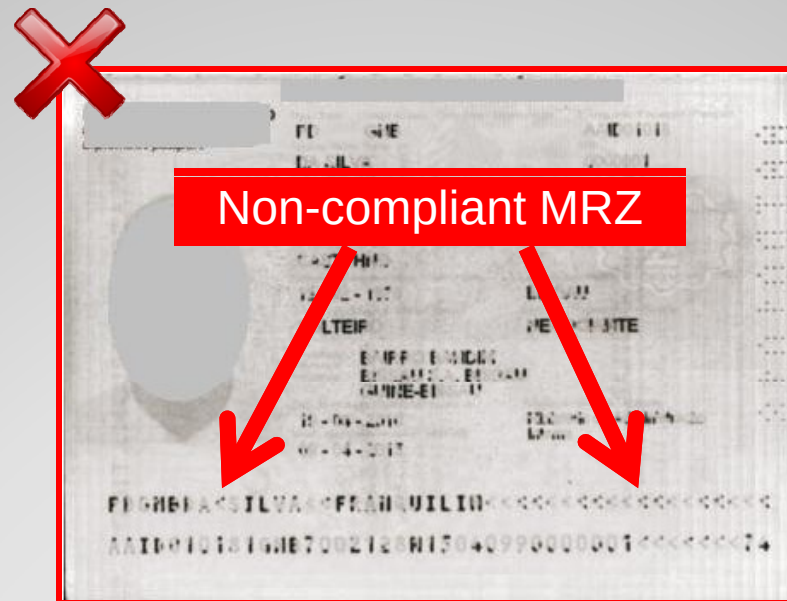
National Watch List

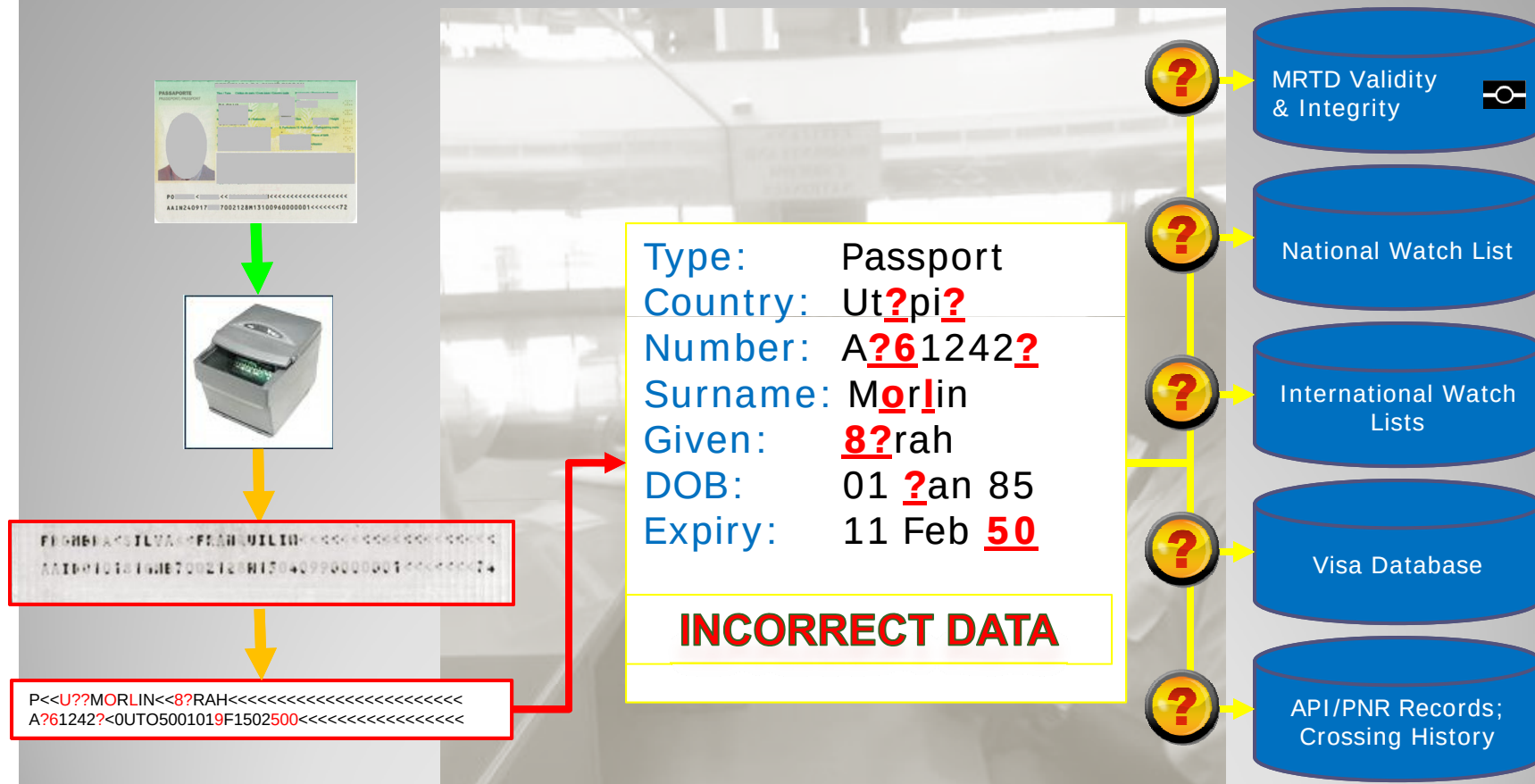
International Watch
Lists

Visa Database

API/PNR Records;
Crossing History

- Example: A non-compliant MRTD





Non-compliance & Border Security

- × Erroneous validation of the travel document
- × Erroneous verification of the MRTD & traveler against databases
- × Incomplete risk assessment of the traveler
- × Potential delays

Type: Passport
Country: Ut pi
Number: A 1242
Surname: M r in
Given: rah
DOB: 01 an 85
Expiry: 11 Feb

ALERT



PART 2: ICBWG & Non-Compliant MRTDs

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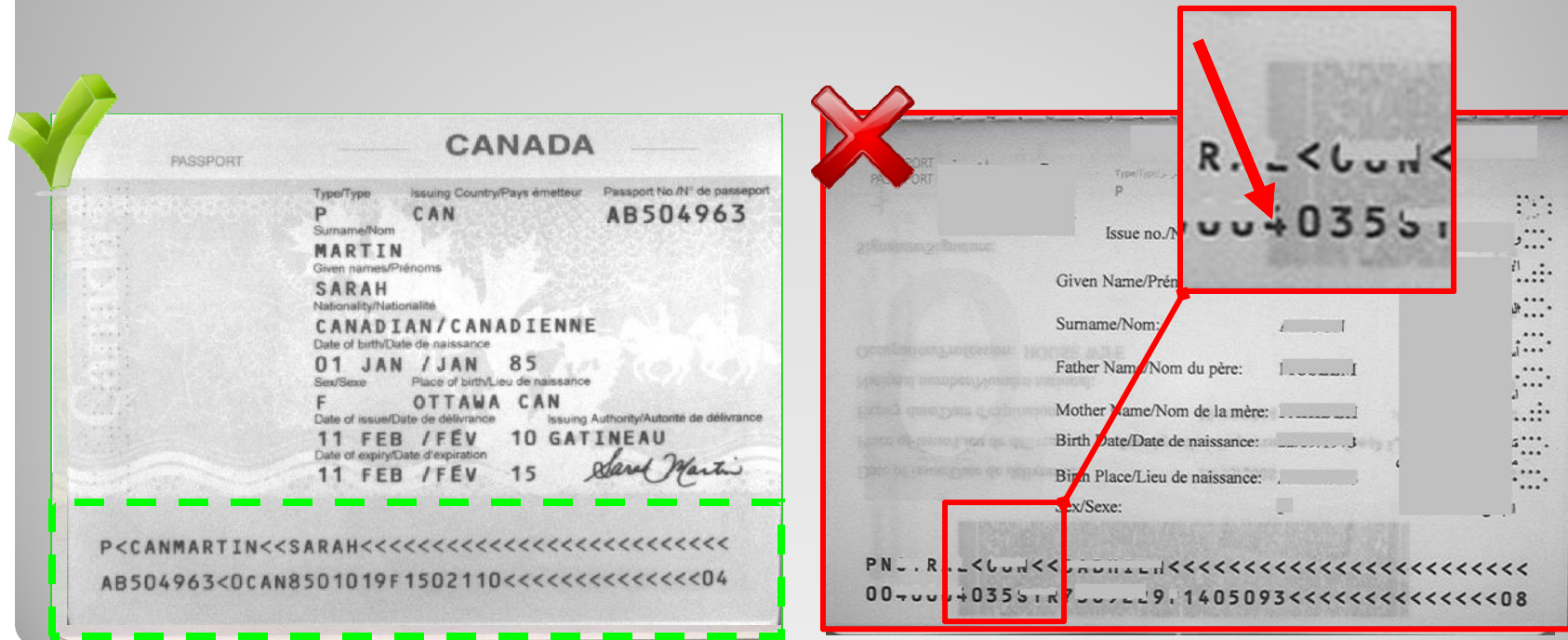
ICBWG

- Since 2009, ICBWG has:
 - Monitored readability issues related to MRTDs
 - Started to contact states to seek clarification on suspected issues
 - Provided guidance when requested

ICBWG

- Since the 2010 MRTD Symposium (2010):
 - Five nations were sent official letters
 - Assistance provided to one state
 - Additional research:
 - Conducted using commercial and government-only databases
 - Four (4) new case studies, which highlight the potential impact at the border

Issue:	Substrate thickness/opacity
Result:	Potential misrecognition of data
Impact:	Incorrect validation of the document and/or traveller



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Issue:

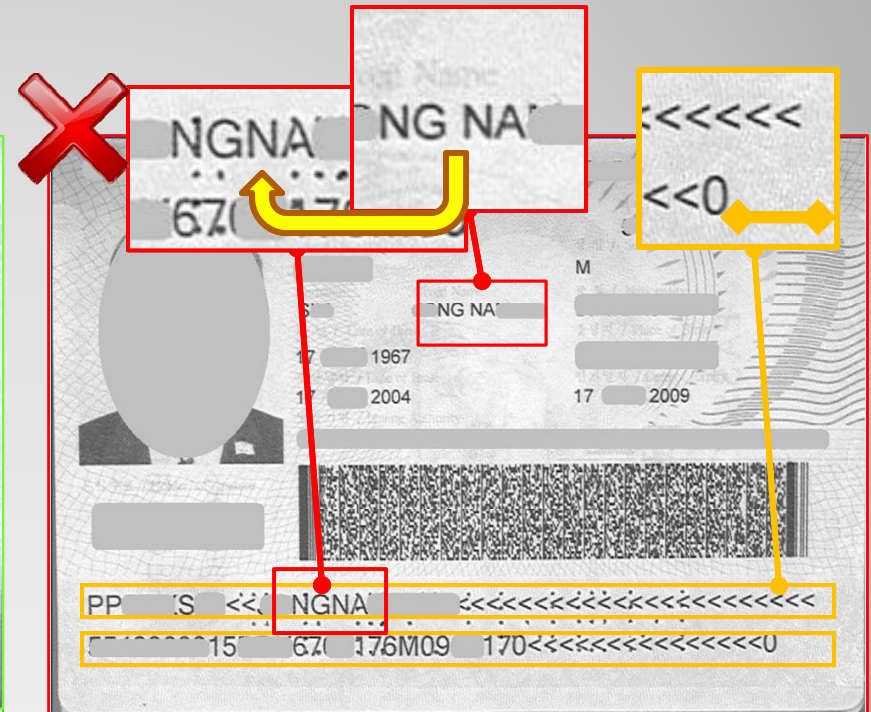
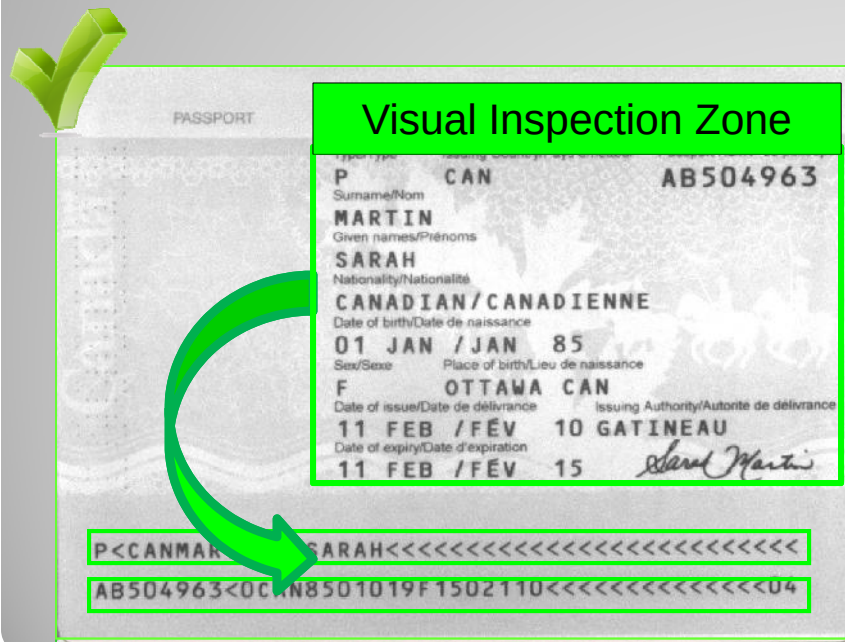
- 1) Error formatting VIZ to MRZ
- 2) Incorrect spacing of MRZ

Result:

Misrecognition of data and search

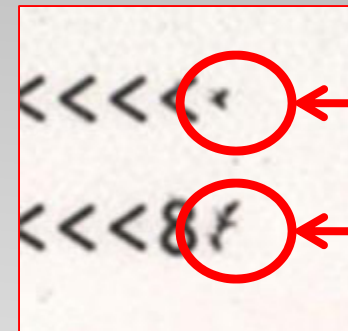
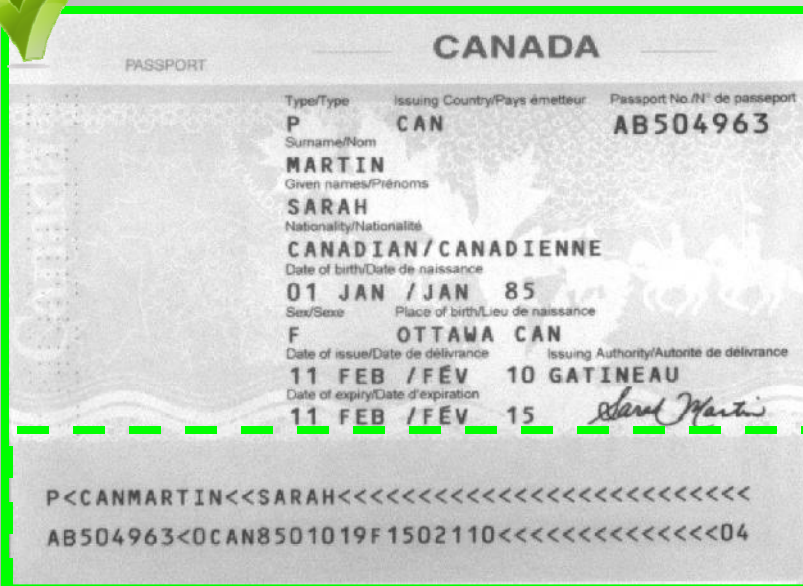
Impact:

Erroneous database query

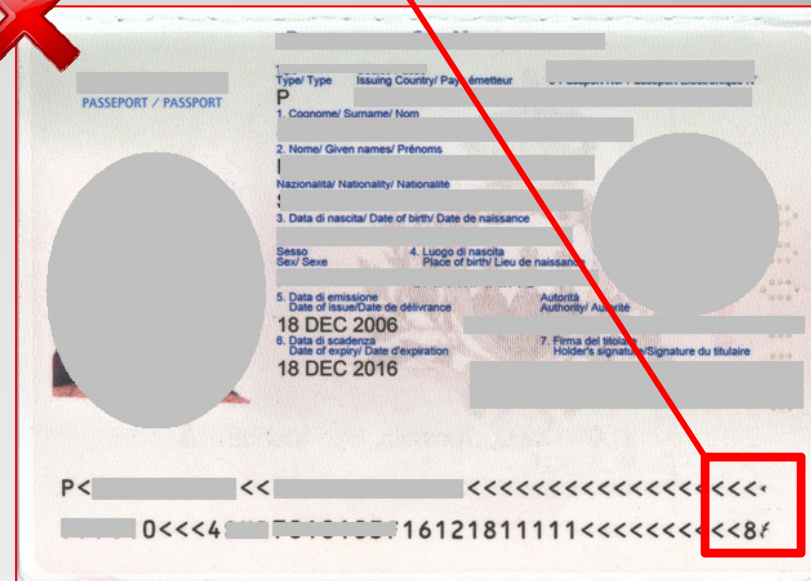


Issue:	Lack of quality control
Result:	Character misrecognition
Impact:	Inaccurate validation, manual intervention required

Impact: Inaccurate validation,
manual intervention required



“6” is cut off



Issue:	Lack of quality control
Result:	Skewed MRZ lines, distorted characters
Impact:	Erroneous data entry, manual intervention

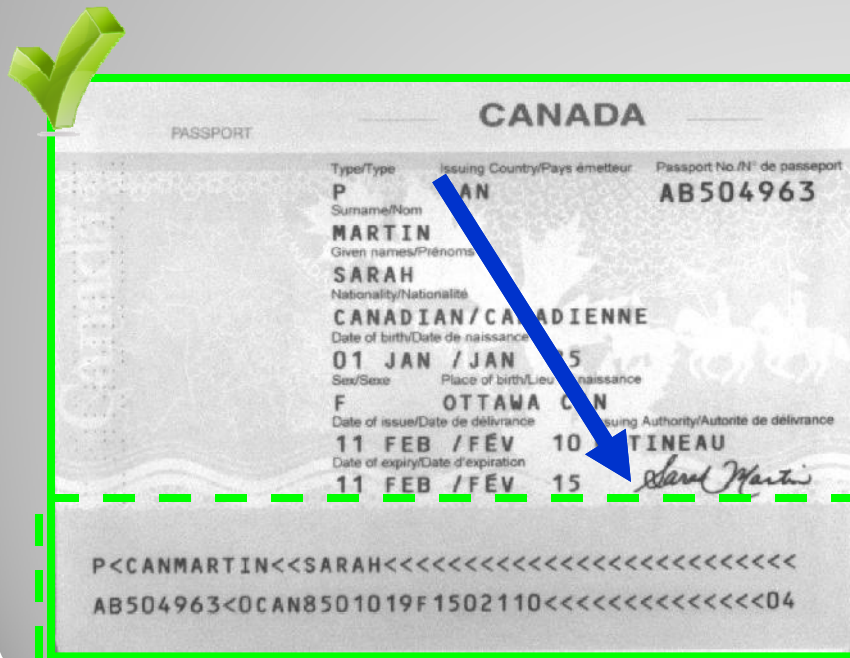
Impact: Erroneous data entry, manual intervention



Issue: Intrusions into the MRZ

Result: Potential interference with character recognition

Impact: Manual intervention required



Summary

- Compliant formatting of MRTDs is crucial for effective border security and facilitation
- Many of the aforementioned issues can be prevented through basic quality assurance practices
- Particular attention should be paid to eMRP....it must comply with 9303 Part 1, Volumes 1 & 2

Closing remarks

- ICAO Secretariat is interested in receiving information about suspected non-compliance/interoperability issues
- Contact:

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