



International Civil Aviation Organization

## **INFORMATION PAPER**

TAG/MRTD/21-IP/4  
20/11/12  
English Only

### **TECHNICAL ADVISORY GROUP ON MACHINE READABLE TRAVEL DOCUMENTS (TAG/MRTD)**

#### **TWENTY-FIRST MEETING**

**Montréal, 10 to 12 December 2012**

#### **Agenda Item 5: Country and Organization Reports**

#### **A REVIEW OF THE REQUIREMENT TO DISPLAY THE HOLDER'S GENDER ON TRAVEL DOCUMENTS**

(Presented by New Zealand)

#### **1. INTRODUCTION**

1.1 The New Zealand Passport Office has produced the paper "Displaying the holder's gender on travel documents: Is it still appropriate in the age of e-travel documents". The paper is presented in Appendix A of this information paper.

1.2 This information paper summarises the key points of the paper presented in Appendix A and outlines a course of action for the TAG/MRTD.

1.3 When the paper refers to travel documents, it is referring to all machine readable travel documents.

#### **2. BACKGROUND**

2.1 Under 8.6 - Data element directory in IV - Technical Specifications for Machine Readable Passports of Part 1 Volume 1 Doc 9303 6<sup>th</sup> edition, travel documents are required to display the gender of the holder.

2.2 Displaying detailed biodata information about the holder, including their gender, has enabled travel documents to be used more effectively to identify the holder.

2.3 There have been significant changes in the technology travel documents use to identify the holder since the introduction of e-travel documents. The use of facial recognition technology and other biometric

identification methods provide an opportunity to look beyond relying on the biodata displayed on travel documents, including gender, to confirm an identity.

### **3. KEY COSTS OF CHANGE**

3.1 Removing the requirement to display a holder's gender on travel documents would complicate the operations of border authorities. Some border authorities use the gender field as an input into risk assessment before passengers arrive and to identify passengers travelling through border points.

3.2 Changing the requirement would impose significant costs on border authorities. Border control software would need to be upgraded and modified to handle travel documents that do not display the holder's gender.

3.3 The complications to border operations may have a corresponding effect of longer check in times for passengers and people encountering problems when travelling on a travel document that does not display their gender.

### **4. KEY BENEFITS OF CHANGE**

4.1 Border authorities would not have to deal with passengers travelling on a travel document displaying a gender that does not reflect the holder's identity. Transgender passengers would be less likely to encounter problems travelling.

4.2 Issuance offices may not have to collect gender information about applicants and would issue fewer travel documents with incorrect biodata information.

4.3 Removing the mandatory requirement to display a holder's gender on travel documents could pre-empt calls for change and show ICAO is a future focused organisation.

### **5. CONCLUSION**

5.1 The costs of the removing the requirement to display the holder's gender on travel documents outweigh the benefits at this stage. The costs of the change would be more significant given the adverse affects on the operations of border authorities and the potential inconvenience for passengers. However, the tangible benefits of not requiring travel documents to display the holder's gender mean there is still a significant opportunity for ICAO in changing the mandatory requirement in the future.

### **6. RECOMMENDATIONS**

6.1 The New Zealand Passport Office recommends ICAO:

- a) maintains the requirement to display the holder's gender at this stage;
- b) reassesses this requirement when future border control systems would be less affected by the removal of the gender field; and
- c) standardises any change to the requirement to display the holder's gender across all travel documents to minimise the complications for border authorities.

**7. ACTION BY THE TAG/MRTD**

7.1 The New Zealand Passport Office invites the TAG/MRTD to:

- a) note the contents of the paper “Displaying the holder’s gender on travel documents: still useful in the age of e-travel documents” presented in Appendix A; and
- b) periodically review the mandatory requirement to display the holder’s gender on travel documents in the future.

## APPENDIX A

TAG-MRTD/21-IP/4  
Appendix A

# Displaying the holder's gender on travel documents: Is it still appropriate in the age of e-travel documents

## *Executive Summary*

### ***Purpose***

*This paper:*

- *presents the results from the New Zealand Passport Office's research into the ICAO requirement to display the holder's gender on travel documents for identity purposes;*
- *explains the consequences of removing the gender field for official agencies and passengers; and*
- *recommends a course of action for ICAO.*

### ***Introduction***

*ICAO is a specialised agency of the United Nations that sets the standards necessary for safe and efficient international civil aviation. The inclusion of a travel document holder's gender was made a mandatory requirement for travel documents in the standards set out in ICAO Document 9303, first introduced in 1980. Displaying the holder's gender has enabled travel documents to be used more effectively to identify the holder. However, the introduction of e-travel documents and the advanced identification methods these documents use creates the argument that it is no longer necessary for travel documents to display the holder's gender.*

*ICAO gender requirements for travel documents were discussed during a Five Nations conversation on transgender issues. New Zealand agreed to review the wider issue of gender on travel documents on behalf of the Five Nations group.*

### ***Findings***

*From consultation with officials from Immigration New Zealand and the New Zealand Customs Service, the New Zealand Passport Office found some border authorities use information about a person's gender to:*

- *input into risk assessments before passengers arrive;*
- *identify passengers travelling through border points;*
- *process passport information while using travel document readers; and*
- *collect statistical information about passengers to provide to agencies who monitor changes in population.*

*The New Zealand Passport Office's research has also shown that:*

- *the gender field is not always a reliable way to confirm an identity as a holder's gender can change; and*
- *over the July 2011 to June 2012 period, approximately 0.009% of the travel documents despatched from the New Zealand Passport Office had the wrong gender displayed.*

### ***Conclusions***

*Based on these initial findings, we can conclude that removing details of the holder's gender on travel documents may have the negative consequences of:*

- *weakening the ability of border authorities to risk assess before passengers arrive and undermine the performance of electronic border systems, resulting in slower passenger processing and more interventions from border officials;*
- *passengers encountering problems when travelling on a travel document that does not display their gender to a country which does not accept these travel documents;*
- *requiring border authorities to modify their software at a significant cost to process travel documents with and without the gender field; and*
- *requiring passengers to provide their gender details in other formats to agencies and other parties who want this information.*

*Not displaying the holder's gender on travel documents may have the benefits of:*

- *preventing border officials dealing with travel documents that display a gender that does not reflect the holder's identity and reduce the risk of transgender people encountering problems while travelling;*
- *reducing the number of travel documents with incorrect biodata issued; and*
- *allowing issuance offices to avoid the time and cost required to collect gender information about applicants.*

### ***Recommendations***

*We recommend that ICAO:*

1. *maintains the requirement for travel documents to display the holder's gender at this stage as the costs of the change outweigh the benefits;*
2. *reassesses this requirement when future border control systems would be less affected by the removal of the gender field; and*
3. *standardises any change to the requirement to display the holder's gender across all travel documents to minimise the complications for border authorities.*

## **Discussion**

This section of the paper sets out:

- ICAO standards;
- Technology developments that may make the gender field less relevant;
- the costs of changing the mandatory requirement; and
- the benefits of changing the mandatory requirement.

## **ICAO standards**

International travel documents have historically displayed information to indicate the gender of the holder. When international standards for travel documents were put in place, the historic practice of displaying the gender was made a mandatory requirement for all machine readable travel documents. Using detailed biodata information about a person, including their gender, on travel documents reduces the risk of these documents being issued to the wrong identity or multiple documents being issued to one identity. Displaying the holder's gender also helps border officials to verify an identity by doing a quick visual check of the gender on the travel document compared to the holder.

## **Technology developments that may make the gender field less relevant**

There have been significant changes in the technology used in travel documents to identify the holder since the introduction of e-travel documents. These changes, outlined below, show the advanced identification methods which may remove the need to display the holder's gender on travel documents.

### **Facial Recognition Technology**

The international move to e-travel documents reduces the risk of illegitimate applicants obtaining legitimate documents. All e-travel documents use Facial Recognition Technology (FRT) to confirm the identity of a person and bind it to a legitimate document. FRT enables:

- one-to-one matches when e-travel documents are renewed to ensure the document is issued to the correct identity; and
- one-to-many matches that help to prevent a person obtaining travel documents over multiple identities.

Border authorities who use facial recognition systems can analyse the facial image contained in an e-travel document and seek to match that with the person presenting it.

The movement towards an international system based on e-travel document technology is ongoing. E-travel documents are not mandatory under ICAO standards and it will take some countries a significant amount of time to introduce these documents. Even in countries where e-travel documents have been introduced, the technology to process the documents is not in place at all border points.

While the use of FRT is currently limited, this advanced identification method is likely to be widely used and become more useful over time. The older method of displaying detailed biodata information, including gender, may become less necessary to confirm an identity.

### **Optional biometrics**

ICAO standards allow e-travel documents to store a holder's fingerprints or iris biometrics, which enables the use of further advanced identification methods. A number of European countries store fingerprint biometrics in e-travel documents and border authorities are increasingly capturing fingerprint information as part of identity management systems. As this technology matures and is integrated into border systems, it may provide an effective way to quickly identify passengers.

### **Modern databases**

Advances in database systems are another technological change that means knowing a person's gender is less important for identity purposes. Old databases typically searched based on surnames and initials. In

these databases, knowing a person's gender significantly narrows the results of a search in systems that hold information about a large number of people. However, searches in modern databases are often based on full names. Unless the name is unisex, adding the gender often does not narrow down the search results in the modern databases increasingly used by official agencies.

### **The costs of changing the mandatory requirement**

If ICAO changes the requirement to display the holder's gender on travel documents, the agencies most adversely affected would be border authorities. Unlike issuance offices, which generally can determine their own internal processes as long as they comply with ICAO standards, border authorities deal with passengers travelling on travel documents of many nationalities.

It is useful for border authorities to have access to information on the gender of passengers travelling through border points. Knowing a passenger's gender helps improve security as it allows border authorities to categorise passengers and do risk assessments before they arrive to be processed. Border authorities who process passengers using systems designed according to international best practice use gender as an input to increase the speed passengers are processed. Not knowing a passenger's gender would adversely affect their systems in the ways outlined below.

### **Border authorities' ability to risk assess would be reduced**

Border authorities would be less able to establish the context of a passenger's travel and do risk assessments before passengers arrive. Knowing the passenger's gender is useful in determining if someone matches the profile of a person of interest. This cannot always be done using a passenger's name because some names are unisex.

Border authorities may need to rely more on assessing passengers at border points. Passengers who may be a person of interest would have to be screened carefully by border officials. A shift to doing risk assessments on passenger arrival could lead to a greater reliance on a wider screening of passengers based on anxiety, hostility or other suspicious characteristics.

### **Increased risk of fraudulent travel documents**

There is a small risk that border officials may have to process more passengers using fraudulent travel documents. If the holder's gender is not displayed, it may be easier for fraudulent travel documents to be used by both males and females for travel under a false identity. This is particularly the case with photo-substituted travel documents. However, this risk is limited for the following reasons.

- An imposter would need to match the photo in the travel document if unaltered.
- The common method for forgery is to replace the entire biodata page with information tailored to the person attempting to travel on the document.
- Professional forgers are likely to possess a travel document with the desired gender.

### **The effectiveness of detection systems would be reduced**

A significant problem for border officials is the detection systems used to process passengers would be less reliable. Automatic systems such as watchlist checks would bring up more false matches if a passenger's gender information is not entered in border control systems. Excessive false alarms may undermine security as officials are more likely to ignore alerts if they are constantly dealing with false matches. These false matches would also decrease the speed passengers are processed.

### **The efficiency of electronic systems would be reduced**

The speed which passengers are processed would likely be further affected by electronic systems performing less efficiently. Many electronic systems that process passenger information use the gender

field during calculations and for name matching routines. The consequences of a reduction in speed of the electronic systems would be significant given the numbers of international travellers that need to be processed.

### **Systems would need to handle different types of travel documents**

The electronic systems used by border authorities would have to deal with the challenge of processing travel documents with and without the gender field. The systems would need to be modified to ensure travel documents with no entry in the gender field are not treated as an error. If this was managed by the software recognising the data on the various travel document nationalities, border authorities would have to modify their software whenever a country removed the gender field from their travel documents.

Upgrading and modifying software would impose significant costs on border authorities and airlines. Ongoing costs would be high as the systems used to read travel documents would have to handle processing the two types of travel documents for a significant period of time. If ICAO made not displaying the gender field mandatory, this period would be around 10 years. If displaying the gender field became optional, this period of having to modify software to process the different types of travel documents would be indefinite.

### **Less statistical information may be available for other agencies**

Border authorities would not be able to use their software to compile statistical information about the gender of passengers if this information is not available. This would limit their ability to provide information to agencies that are interested in the gender of people entering and exiting border points. Some agencies may find it problematic if they can't obtain this information as it is useful for making population estimates and determining:

- health and education needs;
- economic strategies; and
- projected fertility, crime and electoral enrolment rates.

The costs of changing the mandatory requirement outlined above indicate how removing details of the holder's gender on travel documents would complicate the operations of border authorities. A change that impacts negatively on how border authorities operate would have corresponding adverse effects on passengers.

### **Check-in would be slower**

Passengers would probably have to wait longer to be processed through border points. This delay would partly be due to reduced efficiencies of electronic border control systems. Also, border officials would be more likely to intervene because of increased reliance on passenger screening and the need to deal with more false alerts. Border official interventions may mean that in some instances they would have to ask passengers to confirm their gender to ensure that an official of the appropriate gender conducts the search.

### **Passengers may be required to provide gender information in other formats**

Passengers may be required to confirm their gender in other ways if it is not displayed on their travel document. Official agencies collecting passenger's information for statistical purposes may require gender details be supplied on a form as passengers enter or exit a country. Airlines may require a person's gender details to avoid the possibility of being held liable for not providing this information to official agencies where such information is required.

### **Travel documents may not be readily accepted by all border authorities**

Passengers with a travel document that does not display their gender may encounter problems while travelling. Border officials in some countries may take time to recognise or understand such a change in

ICAO standards. It may also take time for some border authorities to modify their electronic systems to handle travel documents that don't display the gender field.

A comprehensive international agreement to manage this change would be crucial. An agreement would help to ensure the different types of travel documents are widely recognised by border officials. The risk of passengers encountering problems travelling on a travel document that does not display their gender would be reduced further if a large number of countries used this type of travel document.

### **A secondary use of travel documents may be undermined**

The common secondary use of travel documents to provide identification in non-travel situations may be undermined if the gender field is removed. People issued a travel document that does not display their gender would lose an official way to prove their gender. This may be inconvenient where someone is required to provide an official document that displays their gender, perhaps to access a service restricted to only males or females.

### **The benefits of changing the mandatory requirement**

Given the significant negative consequences of travel documents not displaying the holder's gender for border authorities and passengers, the mandatory requirement should not be changed at this time. However, border authorities should consider moving towards systems that do not rely on knowing the gender details of passengers. If border authorities make this change, ICAO should reassess the mandatory requirement. There would be a number of benefits if travel documents did not display the holder's gender.

### **Travel documents would not display a gender that does not appear to match the holder**

Border authorities would not have to deal with passengers travelling on a travel document displaying a gender that is not useful to confirm their identity. The holder's gender is not always a reliable way to confirm an identity for the following reasons.

- The holder can change the gender on their travel document in many countries if they go through the appropriate process.
- The process to change the gender on travel documents is inconsistent between countries, which creates the possibility of a person with travel documents under different nationalities having different genders on these documents.
- The risk of inconsistencies may increase if more countries follow Australia and New Zealand's lead and allow travel documents with the gender displayed as X. ICAO standards defines X as unspecified, which allows individual countries to determine who is eligible for this option.

It is true that only a very small percentage of people change their gender. However, the ability of people to change their gender creates a potential problem for agencies that rely on this information to verify an identity.

### **The transgender community would benefit**

The risk of transgender people encountering problems while travelling would be reduced by removing the gender field on travel documents. Transgender people may experience an easier process as they would no longer have the problem of travelling on travel documents where the gender displayed doesn't match their appearance. Also, transgender people with their gender displayed as X would avoid dealing with border officials that do not recognise this option.

### **Issuance offices may not have to collect gender information**

Removing the requirement to display the holder's gender on travel documents would streamline the process of issuing travel documents. As long as an applicant's gender is not required for another reason, passport application forms would not need to request this information. Issuance offices would not have to

capture and store the gender details of applicants in their databases. Processing officers would not be required to ensure the correct gender is printed on travel documents.

**There would be fewer travel documents issued with incorrect biodata information**

Issuance offices would issue significantly fewer travel documents with incorrect biodata information if travel documents did not display the holder's gender. It is an easy mistake for applicants to choose the wrong gender option on an application and for processing officers to miss this mistake. Of the over 600,000 travel documents issued by the New Zealand Passport Office from July 2011 to June 2012, approximately 0.009% displayed the wrong sex. Not displaying the gender on travel documents would prevent:

- the inconvenience for customers of being issued a travel document with the wrong gender;
- issuance offices having to reissue travel documents due to the original document displaying the wrong gender; and
- border authorities having to process travel documents displaying the wrong gender.

**Changing the mandatory requirement may future proof ICAO standards**

ICAO could pre-empt calls for change by removing the requirement to display the holder's gender on travel documents if it becomes feasible to do so. While there may not be strong calls for this requirement to be changed now, this may change in the future. As the use of advanced identification methods based on biometrics increases, people may question why displaying their gender on travel documents is necessary. The requirement may also be hard to justify if there are moves to prevent discrimination of passengers based on their gender during processing through border points.

--- END ---