

ICAO MRTD REPORT

NEWS AND FEATURES ON TRAVEL DOCUMENT AND IDENTITY MANAGEMENT ISSUES - VOL.9 - NO.1

ABC SYSTEMS BENEFITS AND CHALLENGES

INDUSTRY PERSPECTIVES

FASTPASS: EUROPEAN eMRTDS FOR ABC
EasyGO IN THE CZECH REPUBLIC

ALSO:

REVIEW: NINTH SYMPOSIUM ON MRTDs,
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The *MRTD Report* encourages submissions from interested individuals, organizations and States wishing to share updates, perspectives or analysis related to global civil aviation. For further information on submission deadlines and planned issue topics for future editions of the *MRTD Report*, please contact Mauricio Siciliano, Editor-in-Chief, at: msiciliano@icao.int.

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Contents

3

MRTD Report Editor-in-Chief Mauricio Siciliano reports on the ICAO TRIP Strategy and the Ninth MRTD Symposium and highlights the successful implementation of ABC systems in Europe, border control management systems and verification of travel documents in the Caribbean and developments on the passport and issuance and border control processes in Colombia.

6

Ninth MRTD Symposium: Opening Remarks of ICAO Director, Air Transport Bureau

Boubacar Djibo explained the ICAO TRIP Strategy and elaborated on the focus of this year's event: the benefits of Automated Border Control systems.

8

Ninth MRTD Symposium: Future Developments in ABCs

In his speech, Ilkka Laitinen outlined five key conclusions reached at the 2nd Global Conference on future developments of Automated Border Control hosted by Frontex and the European Commission.

12

Ninth MRTD Symposium: UN CTED Fully Supports Efforts Undertaken By ICAO TRIP Programme

Weixiong Chen highlights UN CTED support with ICAO's efforts to promote the issuance of ICAO-compliant MRTDs and the ICAO TRIP Strategy.

14

Ninth MRTD Symposium: Summary

Barry J. Kefauver shares and highlights the main points of this year's Symposium.

20

ABC: Industry Perspective

Jean Salomon outlines the four industry pillars needed to sustain ABC growth and the challenges involved in deploying ABC programmes.

24 MRTD and Border Control News

26

FastPass: European Usage of eMRTDs for ABC

The aim of the European Union's research project FastPass is to harmonise Automated Border Control, explore opportunities and solve the risks and challenges associated with extended use of eMRTDs, describes Markus Clabian.

28

Czech Republic's ABC System EasyGO

The implementation of EasyGO at Václav Havel Prague Airport has been a challenging but rewarding experience for all involved, describes Cpt. Mgr. Petr Malovec.

31

Enhancing Border Security and Traveller Facilitation Using APIS

Jennifer McDonald details the implementation involved on the project that aimed to improve passenger facilitation in Jamaica.

34

Trinidad and Tobago Immigration Forensic Document Examination Laboratory

The Trinidad and Tobago Immigration Forensic DEL has become the driving force for fortifying border security, gaining the respect of the Caribbean Community, reports Hazel Spooner-Williams.

38

Colombia's Achievements in Travel Document Issuance and Migration Services

Sergio Bueno-Aguirre and Lennin Hernández-Alarcón describe the achievements of the Ministry of Foreign Affairs in processing and issuing passports and the migration matters handled by Migración Colombia.

45

UNHCR/ICAO Guide on MRCTDs

Alexander Beck introduces the recently released Guide for Issuing Machine Readable Convention Travel Documents (MRCTDs) jointly developed by UNHCR and ICAO.



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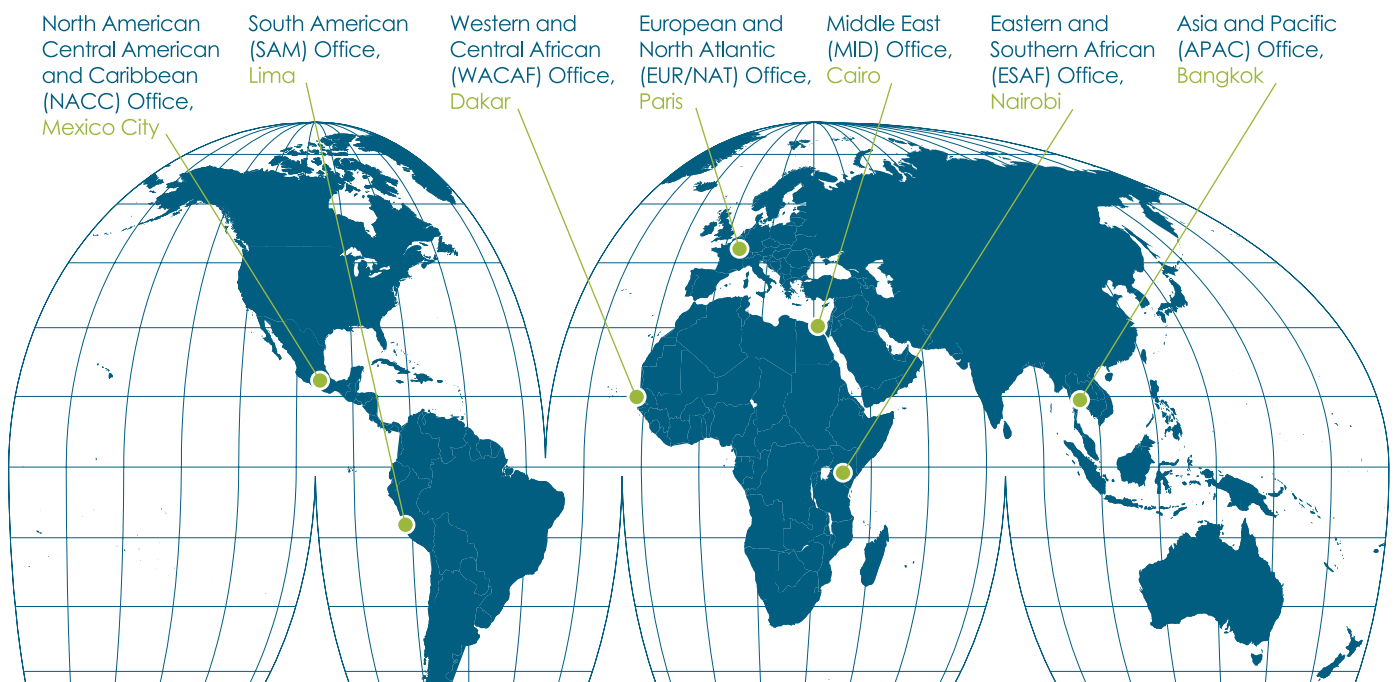
The TAG/MRTD is appointed by the Secretariat, which reports on its progress to the Air Transport Committee.

The TAG/MRTD develops specifications for machine readable passports, visas and official travel documents, electronic machine readable travel documents and guidance material to assist States in implementing these specifications and exploiting modern techniques in inspection systems.

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 International Organization for Migration (IOM)
 United Nations (UN)
 Organization of American States (OAS) - Inter-American Committee on Terrorism (CICTE)

ICAO's Global Presence





WELCOME TO SPRING ISSUE MRTD REPORT

✈ The contents of this issue reflect the diversity of topics and challenges in holistic traveller identification management. The ICAO Traveller Identification Programme (ICAO TRIP) Strategy, adopted by the Council and endorsed by the Assembly in 2013, has expanded the scope and relevance of the original MRTD Programme. The Strategy, responding to the global driving forces and needs of Member States, provides a framework for achieving the maximum facilitation and security benefits in the future by bringing together all the elements of traveller identification management.

This means new challenges, new areas of work and new responsibilities in developing relevant SARPs and guidance materials and in searching for innovative and more effective ways of providing technical assistance to ICAO Member States.

In line with promoting advocacy and technical dialogue with Member States, two recent major capacity-building events took place, the annual MRTD Symposium and Exhibition in Montreal and the MRTD Regional Seminar in Burkina Faso.

The Ninth Symposium drew 609 participants from 90 Member States and seven international organisations. It focused on the benefits of Automated Border Controls (ABCs), using ICAO Standards and specifications, and effective inspections tools such as the ICAO Public Key Directory (PKD). Keynote speakers from Frontex and the UN Counter-Terrorism Committee Executive Directorate (CTED) affirmed the relevance of the ICAO TRIP to enhancing border security and combating terrorism.

The Regional Seminar in Burkina Faso addressed the ICAO MRTD Standards and specifications, identification management best practices and related border security issues. It also had a strong regional focus and looked into capacity building and technical assistance challenges in Africa. Full Symposium and Seminar materials are available for reference on the MRTD website.

This issue looks into diverse areas of the ICAO TRIP, exploring challenges and responses in regions and Member States. ABCs

are well covered, drawing upon Symposium presentations and discussions, including the broad conceptual issues of automating border controls, the FastPass Project in Europe and lessons learned in implementing an ABC system in the Czech Republic.

In addition, success stories and good practices in border controls are shared by two Caribbean countries: the implementation of an Advance Passenger Information (API) system in Jamaica and developing solid forensic travel document examination capabilities in Trinidad and Tobago. Colombia also shares its experiences in new passport issuance and managing border controls.

Finally, UNHCR highlights the recently released Guide for Issuing Machine Readable Convention Travel Documents, jointly published by UNHCR and ICAO. The article sheds light on newly adopted technical specifications for CTDs, a fine example of ongoing UNHCR and ICAO cooperation developed by the MRTD Implementation and Capacity Building Working Group (ICBWG).

Meanwhile, preparations are well underway for the next MRTD/TRIP Regional Seminars in Uzbekistan on 8-10 April 2014 and Spain on 25-27 June 2014 and the Tenth MRTD/TRIP Symposium, which will take place in Montreal on 7-9 October 2014. As always, the Symposium will address the latest developments in ICAO MRTD Standards and specifications, identification management best practices and related border security issues. In particular, this year's Symposium will focus on a need for robust identification management infrastructure, exploring key concepts and components such as Evidence of Identification (Eol), civil registries, inter-agency cooperation and data sharing and the integrity of the passport issuance process. Further information about those events and online registration are available on the ICAO MRTD website.

We look forward to seeing you at the Symposium, Regional Seminars and other diverse ICAO TRIP events that will provide an opportunity to explore current developments, challenges and emerging solutions in traveller identification management. ■



UP CLOSE AT NINTH MRTD SYMPOSIUM

✈ The Ninth Symposium and Exhibition on MRTDs, Biometrics and Border Security took place from 22- 24 October 2013 at ICAO Headquarters in Montreal, attracting 609 participants from 90 Members States and seven international organisations.

The Symposium addressed ICAO MRTD Standards and specifications, identification management best practices and related border security issues. It focused on the benefits of Automated Border Controls (ABCs) using ICAO Standards and specifications and effective inspections tools, such as the ICAO Public Key Directory (PKD). In addition, the Symposium provided an update on the results of the 2013 ICAO Assembly and the ICAO Traveller Identification Programme (ICAO TRIP).

This issue of the *MRTD Report* shares some key messages and strategic insights with our readers. ■



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OPENING REMARKS OF ICAO DIRECTOR AIR TRANSPORT BUREAU

 The Symposium's opening speech was provided by Boubacar Djibo, ICAO Director of the Air Transport Bureau. He explained the ICAO TRIP Strategy and the focus of this year's event: the benefits of Automated Border Control (ABC) systems.

This is a defining year for the global traveller identification community. MRTDs are a key means by which international air transport is facilitated. The ICAO Traveller Identification Programme Strategy—known in short as the ICAO TRIP Strategy—was endorsed by the ICAO Assembly here, in this hall.

The Strategy responds to the needs and expectations of Member States and provides a framework for achieving the maximum benefits of travel documents and traveller identification in the future. It brings together all elements of identification management and builds on ICAO leadership in matters related to Machine Readable Travel Documents. The Assembly endorsed global civil aviation security and facilitation enhancement as a Strategic Objective of the Organisation. For the first time, security and facilitation, two complementary fields, occupy the same profile in ICAO's Strategic Objectives.

The ICAO TRIP Strategy addresses a recognised need for a holistic and integrated approach to traveller identification management. An approach that links the five elements of traveller identification and border controls into a coherent framework:

- (i) Evidence of Identification
- (ii) Document issuance and control
- (iii) MRTDs
- (iv) Inspection systems and tools
- (v) Interoperable applications.

This year's Symposium
focuses on the benefits
of Automated Border
Control (ABC) systems.

ICAO recognises the benefits of traveller identification management to aviation security and facilitation. ICAO's mission is to contribute to the capacity of Member States to uniquely identify individuals by providing tools and knowledge to establish and confirm the identity of travellers.

The ICAO MRTD Programme began with the aim of producing global specifications for interoperable travel documents. This aim has been achieved. Now we are moving to greater challenges. We explore how the ICAO TRIP Strategy—building on all the trust and credibility the MRTD Programme has generated—can contribute to further the global efforts of enhancing security and aviation growth through effective identification management.

More than 50% of today's international tourists are travelling by air. The travel and tourism sector, which falls under the UN World Tourism Organization (UNWTO), are appreciative of ICAO's efforts toward facilitating traveller identification and border control, which ultimately benefit the end user.

ON THE AGENDA

Let's have a closer look at the Symposium. As every year, this global event addresses state-of-the-art developments in MRTD Standards and specifications, identification management and border control issues. It highlights ICAO's global leadership in aviation security, facilitation and related areas.

This year's Symposium focuses on the benefits of Automated Border Control (ABC) systems. It explores a broad range of considerations that shape ABC developments:

- Newly-emerging technologies
- Trust
- Reliability
- Non-intrusiveness
- Biometrics
- ICAO Public Key Directory
- Effective inspections tools
- Trusted traveller programmes
- Challenges to border integrity and ways to address them.

ABCs provide a good example of how facilitation and border control issues are essential to the sustainable development of the global aviation industry. They also remind us that border control technologies are a means to an end and not ends themselves. They are the means to creating the environment of freedom, security, justice, prosperity and economic growth. The environment that ensures privacy and human rights. The environment that helps societies and individuals to realise their dignity and human potential, in line with United Nations' values and objectives.

The Global Counter-Terrorism Strategy, adopted in September 2006, states, in particular, that we 'continue to work with the United Nations system to support the reform and modernisation



Boubacar Djibo, ICAO Director, Air Transport Bureau

of border management systems, facilities and institutions at the national, regional and international levels'. ICAO through the endorsement of the ICAO TRIP Strategy continues to strive toward more efficient and secure control of States' borders.

The Symposium also looks into challenges and good practices of providing implementation and capacity building assistance to States in the ABC and other traveller identification areas. Implementation assistance to States has gained considerable momentum and is a major area of ICAO's ongoing work. There remains considerable technical assistance needs related to MRTDs and border controls. Our speakers will explore current capacity and ICAO compliance challenges, look into the present and future of ICAO's technical assistance related to MRTDs and border controls and reflect on the prospects and priorities of enhancing capacity building assistance to Member States.

I am pleased to acknowledge that the Symposium speakers and facilitators—drawn from ICAO working groups and partner international organisations—are top experts in their field. Special thanks are due to government and industry experts that make up the Technical Advisory Group on Machine Readable Travel Documents (TAG/MRTD). I invite you all to make the most of your MRTD Symposium and the expertise available here. Ask questions, share your challenges and experiences, question established views and contribute with your knowledge to our ongoing professional dialogue. ■



FUTURE DEVELOPMENTS IN ABCs

✈ At the MRTD Symposium and Exhibition, Ilkka Laitinen, Executive Director, the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (Frontex), shared the five main conclusions reached at the 2nd Global Conference on future developments of Automated Border Control held last year in Warsaw.

I would like to start by thanking ICAO for inviting me to open this Symposium in representation of Frontex, the European Union Agency responsible for coordinating the management of the EU external borders.

One of Frontex' key tasks is to follow and, also to contribute to research and developments relevant to border security. It is within this context that for a number of years Frontex has been cooperating with ICAO under the scope of the ICAO-led Machine Readable Travel Documents Programme, a cooperation which we value very highly.



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...social acceptance and trust are key factors for the successful deployment of biometric solutions...

Frontex has also been particularly active in promoting greater harmonisation and interoperability in the field of Automated Border Control (ABC). Our Best Practice Guidelines on ABC have become a 'soft standard' in this area and are widely used by national authorities in the EU Member States and beyond, as well as by industry, standardisation bodies and other stakeholders.

It is thus truly a pleasure for me to open this event that will explore the latest developments concerning these important areas of border management: identification management, travel document security and ABC systems.

Let's have a look first to the security of travel documents. This is undoubtedly one of the cornerstones of effective border management, irrespective of whether border checks are carried out manually or by automated means. However, by attenuating the human element central to manual border checks, ABC systems depend even more heavily on the reliability of the automated document inspection process. The soundness of the electronic travel document, the inspection of the machine readable zone, the reading of the chip, the availability of the requisite up-to-date certificates: if one of the elements in this constellation does not perform appropriately, the security of the whole process will be undermined.



Ilkka Laitinen, Executive Director, Frontex

In 2011, Frontex published a study on the 'Operational and Technical Security of Electronic Passports'. The study establishes an inventory of security relevant issues in the context of the application for, production and use of electronic passports in Europe and proposes a set of recommendations to redress existing security gaps.

These and other important subjects were also discussed during the 2nd Global Conference on future developments of Automated Border Control solutions, which Frontex organised in cooperation with the European Commission, on 10-11 October 2013, in Warsaw.

When Frontex first decided to organise a global event on ABC in 2012, the objective was to go beyond the existing sectorial and regional approach in order to provide a platform to launch an international dialogue on ABC related issues among all relevant stakeholders and to foster a discussion on a comprehensive way forward.

We need a global approach because ABC deployments are multi-stakeholder projects and, as such, they call for close cooperation between different actors in order to succeed: the border management authority who is responsible for operating the systems; the airport operator who provides the space where the solution is installed; the industry, which supplies ABC solutions and, together with the research community, drives innovation forward; and, of course, let's not forget the passenger, who should be at the heart of the process.

In addition, ABC is gaining ground worldwide. Currently there are ABC systems in 38 countries and 100 airports. In the EU, 13 Member States have already implemented ABC systems at their borders and there are a number of countries which are planning to install these solutions in the near future.

I am very pleased to say that, for the second consecutive year, the Conference has proved a success. More than 200 representatives of EU Member States and agencies, non-EU countries, international organisations, industry and academia gathered to discuss topical issues in the fast changing world of ABC.

KEY CONCLUSIONS

Allow me to give you a quick overview of some of the key conclusions that were reached. Firstly, there is a common understanding that growing travel flows and changing travel

patterns are placing the traditional model of border control under pressure. International traveller flows are on the rise. For instance, a recent IATA forecast estimates that passenger numbers worldwide will grow more than 5% annually in the period 2012–2016.

We are thus confronted with a dilemma. Clearly, we all share an interest in ensuring that the vast majority of travellers, who are bona fide, are able to cross the border in a smooth manner, while we also expect our borders to prevent unauthorised entry. However, hiring additional staff is not a realistic option in the current context of financial constraint.

State-of-the-art technologies, such as ABC, can help us achieve more effective border management in this challenging environment. However, technology is not and, should not be, an end in itself but a means at the service of policy objectives, including security, of course, but also greater openness.

Secondly, social acceptance and trust are key factors for the successful deployment of biometric solutions, including ABC technologies. Trust is very hard to build and very easy to break. In this very sensitive area, citizens need to be confident that their biometric data is being handled properly and that their rights to data protection and privacy are fully respected.

Thirdly, harmonisation and standardisation are still a challenge. As I said, the deployment of ABC systems worldwide has expanded in recent times, but so far this expansion has taken place in a disconnected manner. This poses difficulties for travellers—how can they familiarise with ABC systems when national implementations differ so widely? Greater harmonisation should help achieve a better traveller experience and encourage more people to use ABC.

Fourthly and I am very keen in stressing this, well-trained border management staff continues to be as important as ever. ABC is not about replacing border guards with a computer, it is about giving a computer to border guards to help them do their work better.

Finally, clearly ABC is not enough—it is only one step of the travel process. The future lies with integrated solutions, including ABC, but also other risk-based facilitation initiatives within a broader border management concept.

All these trends present opportunities, but also challenges for national border management authorities, for Frontex and for our international partners. Clearly, tackling these challenges call for dynamic leadership and effective cooperation. I sincerely believe that in the future Frontex and ICAO will continue to have an important role to play in providing this leadership and fostering such cooperation. ■

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UN CTED: FULLY SUPPORTS EFFORTS UNDERTAKEN BY ICAO TRIP PROGRAMME

 Weixiong Chen, UN CTED, Deputy Director, described that UN CTED fully supports ICAO's efforts to promote States' issuance of ICAO-compliant MRTDs and is aligned with the ICAO TRIP Strategy.

I have the honour and pleasure to represent the United Nations Security Council Counter-Terrorism Committee Executive Directorate (CTED), in particular its Executive Chief Jean-Paul Laborde, at this important Symposium on an important issue.

CTED was established to assist States in implementation of resolutions 1373 (2001) and 1624 (2005). We have a clear mandate to work on counter-terrorism issues. One of the crucial elements in those resolutions is border control.

Security Council resolution 1373 (2001) obligates all Member States to prevent the movement of terrorists or terrorist groups through effective border controls and controls on issuance of identity papers and travel documents and, through measures to prevent counterfeiting, forgery or fraudulent use of identity papers and travel documents.

Meanwhile, resolution 1624 (2005) calls upon all States to 'cooperate, *inter alia*, to strengthen the security of their international borders, including by combating fraudulent travel documents and, to the extent available, by enhancing terrorist

screening and passenger security procedures with a view to preventing those guilty of (incitement to commit a terrorist act) from entering their territory’.

The Security Council acts on behalf of the entire membership of the United Nations. In this regard, we believe that effective border control is the first line of defence against the movement of terrorists across borders and should also be part of any comprehensive and integrated national counter-terrorism strategy.

Border control is easier said than done and remains one of the biggest challenges faced by States in implementing resolutions 1373 (2001) and 1624 (2005) in effectively managing borders to prevent the movement of terrorists. Lack of secure and robust identification management is a major vulnerability, which has been exploited by terrorists and other fugitives of criminality.

In this regard, ICAO has established international Standards and specifications for Machine Readable Travel Documents (MRTDs) to ensure their security against counterfeiting and forgery.

CTED, a monitor of compliance of States’ performance of relevant Security Council resolutions, fully supports the efforts undertaken by ICAO to promote States’ issuance of ICAO-compliant MRTDs. We are also fully aware of the efforts of ICAO to take into account the balance between the prevention of terrorism and ensuring the steady flow of passengers and cargo.



Weixiong Chen, CTED, Deputy Director

...effective border control is the first line of defence against the movement of terrorists across borders...

CTED shares ICAO’s assessment that a holistic, coherent and coordinated approach to the identification management process, leading up to the issuance of travel documents, is a crucial aspect of efforts to ensure the legitimacy of secure travel documents.

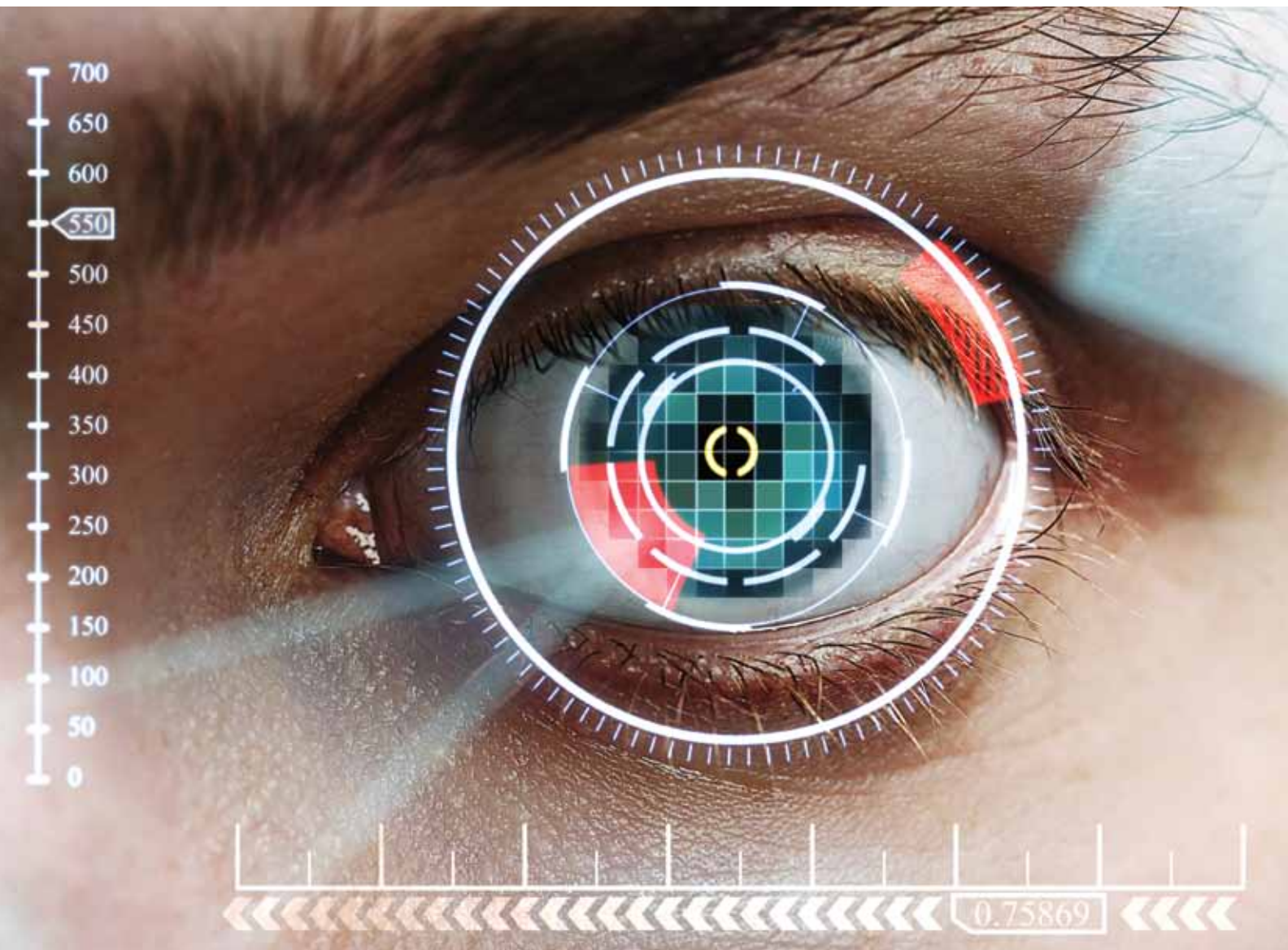
CTED also regards the ICAO TRIP Strategy as the best approach to helping States meet their international obligations under resolution 1373 (2001) and fully supports the Strategy’s aims to develop a holistic and systematic model for traveller identification management and to ensure that all States have the capacity to uniquely identify individuals.

CTED, a facilitator of technical assistance for States’ capacity building, works closely with ICAO in assisting States in their fulfilment of obligations of the relevant Security Council resolutions. CTED and ICAO work together in some of the country assessment visits, we work together in identifying, facilitating and delivering technical assistance, we work together in promoting States’ ratification of international legal instruments on aviation security and we work together in developing the Counter-Terrorism Committee assessment tool and promoting good practices around the world. Such partnership will surely be continued and further intensified in the years to come.

Recent terrorist events, from Boston to Nairobi, from Southeast Asia to the Sahel region, have taught us that terrorism knows no boundary. Terrorist cells, their organisations and affiliates still roam around. The world is far from safety and security. While we condemn in our strongest terms terrorism in all its forms and manifestations, regardless of its motivation, whenever and by whomsoever committed, there are measures and practices that we could immediately turn to and resort to in order to prevent and to protect.

Terrorists might be smart, but we are smarter. When we have a robust identification management system developed and when we have an effective passport issuance process implemented, there would be no place that terrorists and other fugitives could hide or run away from us.

Let us join hands and work together towards achieving that goal. ■



HIGHLIGHTS OF NINTH SYMPOSIUM

- ✈ ABC programmes were the focus of this year's Ninth Symposium and Exhibition on MRTDs, Biometrics and Border Security, reports Barry J. Kefauver, ISO and NTWG expert, in his summary of the event. The speakers' five threads of emphasis that characterised the Symposium, he concluded, were the ICAO Traveller Identification Programme (ICAO TRIP) Strategy, the use of ABCs, biometrics and electronic verification and tools and the need for careful conceptualisation and planning.

I am very pleased that I have been asked to summarise this Symposium and to express my views with respect to the past as well as the future. To prepare today's summary, I looked back over the content and conclusions of the past several years. The summary of the Seventh Symposium two years ago observed that the focus and content were different from the then preceding six Symposia. For the most part, the essential thrust of those Symposia was basically how-to-do-it, that is, the fundamentals of making a passport programme and, eventually, an ePassport programme.

Conversely, the Eighth Symposium last year had a much different shape, form and meaning. Its format, in what was a total of four days of presentations and discussions, went toward conceptual anticipation and introspection, seeking a clearer sense of vision in a global frame. Those important foundation building deliberations were well leavened with presentations of a technical, operational and how-to-do-it nature.

Last year, the Symposium forged a new direction that provided insight into an admittedly smaller, but highly vulnerable segment of the world's travelling public, one representing compelling needs and urgent requirements: the human dimension of international development and humanitarian assistance.

With the adoption of the ICAO TRIP Strategy, ICAO has taken a giant leap forward...

Again quite different, but consistent in that same quest for clarity of purpose and meaning, this year's Symposium has evolved into an intent to bring all of the pieces of the travel continuum into harmony, a holistic strategy that will chart the next decade and beyond. Quite presciently, the summary of last year's Symposium concluded: 'Hopefully we will have a presentation at the Ninth Symposium that summarises the work of the 38th Assembly as having laid the groundwork for an even more successful coming decade'. Focusing on and around ABC programmes as the wave of both the present as well of the future is precisely the heart of this year's Symposium.

With that as an introductory perspective, I will comment on and pull together some of these component pieces of this Symposium and draw them into a cohesive whole. That whole in its entirety looks out over all of the elements associated

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In this Symposium, every speaker and every presentation, in varying degrees, presumed the use of biometrics as a given.

with travel document reasons for being, the developing and expanding nature of the functionalities of Machine Readable Travel Documents and, of especial focus in this Symposium, the inspection of those documents in the broadest sense of border control and management.

FIVE THREADS

These past three days have been filled with many issues, concerns, successes, failures, needs and realities. Previous Symposia have tended to coalesce around a core group of identifiable thematic variables that within tolerances allowed themselves to be discretely identifiable and definable. This year's Symposium does not neatly allow for such compartmentalisation. While some accomplishments have been dissected in the presentations, for the most part, the discussions over these past days has been future oriented, posing what I would characterise as challenges to meet the multidimensional demands of the future of travel.

In summarising past Symposia, I have preferred to identify the specific threads of emphasis woven by the speakers. While the information shared has many complexions, I will suggest five such threads that characterise this Symposium. Please note that these threads, other than the first one that I am considering first among equals, are in random order that in no way signifies importance.

First, I will single out the presentation by Jim Marriott on **the ICAO Traveller Identification Programme (ICAO TRIP) Strategy** that in its entirety encompasses an umbrella compendium within which all other themes and focal areas fit. As I noted earlier, last year's conclusion 'hoped' that we would have a presentation at the Ninth Symposium that summarises the work of the 38th Assembly as having laid the groundwork for an even more successful coming decade. That is precisely the ICAO TRIP Strategy. The Symposium of two years ago viewed ICAO at a crossroads of institutional and programmatic intersection in the MRTD Programme.

Last year's observation was that positive movement forward had taken place, but the programme was still in that crossroads. With the adoption of the ICAO TRIP Strategy, ICAO has taken a giant leap forward and has chosen direction and purpose that no longer evoke head scratching. The crossroads have been crossed and ICAO is on a more clearly defined and broadened course. As Jim reported, the 38th Session of the Assembly has adopted the ICAO

TRIP Strategy, which aims to establish the goals and objectives of traveller identification management, to lead and reinforce a global approach and to provide direction for action to ICAO, States and the many international, regional and industry partners in identification management.

ICAO TRIP presents a framework for multidimensional integrated efforts and synergies, under ICAO's leadership, to support ICAO's Strategic Objectives. This is a signal event from which all other travel document and border management activities will more effectively flow to bring together the five elements of identification management and to acknowledge the singular importance of partnerships. This framework provides a tangible roadmap to direct and lead a new approach to global issues. This initiative, also for the first time, brings an institutional focus to facilitation, not a competitor to security, but as a colleague.

Second, titularly the primary focus of the entire Symposium, **the use of ABC**, was properly a thread of continuity linking many of the presentations. This topic has been often addressed in other ICAO gatherings, however, this time the discussions were not only conceptual in nature, but were leavened with strength of examples in the real world, citing both successes as well as mistakes with lessons learned. With the anticipated doubling from three billion to six billion air travellers by 2030, there must be ways employed to identify and separate travellers who require more or less scrutiny, using risk management concepts such as frequent visitor and trusted traveller programmes of several different types, as well as ABC, on a broad, coordinated and interoperable basis.

While not yet to the point of being able to package what could be called standards, a number of best practices are evolving to guide the deployment of ABCs. It is crystal clear that the human border guard is essential to effective and secure border management. Recall that 9303 is defined as 'machine assisted' document security verification. The Symposium made clear over and over again that ABC should never seek human free deployment. Equally forceful were the data presented that quantified the need for proper training in facial recognition and differentiation. The ABC should be designed with a user centric focus directed to the customer, the traveller who has to make the concept work, for both security as well as facilitation.

Third, as it was at last year's Symposium, this year the very clear and now even more urgent need to **use properly the electronic verification and integrity tools** that we have expended so much energy and time and money incorporating into the ePassports. Unless and until they are, the full return on the ePassport investments will not be realised and, of perhaps greater concern, the use of the inadequately inspected document will yield a dangerous and false sense of credibility and security. Presenters likened the ePassport without the use of proper inspection as an expensive toy.

In realising border control as definitionally facilitating the genuine and deterring the fraudulent, we again have heard indelibly that the use of the Public Key Directory (PKD), as one of the tools, is an important tool, but only one aspect of a properly managed border control system that will provide the means to accomplish that simple, yet far-reaching definition. This Symposium, even more strongly than any other of the past, underscored the importance of PKD membership.

Indeed, a comment from the audience during the Q&A asked that consideration be given to making PKD membership a requirement for an issuing entity. There are nearly half a billion of these eDocuments in circulation and growing each day. The Symposium through several speakers, using precisely this term, strongly

emphasised that the 'e' of ePassport become an upper case letter in our border management vocabulary.

Fourth, while not a 'theme' as such, **the use of biometrics** has become a linch pin assumption in all of the presentations and serves as the foundation for building the future and seeking the paths to lead to the ICAO TRIP objectives. Biometric content has been a component in one form or another for all of the past Symposia. However, much of the presentations and discussions in the past characterised biometrics as something of an oddity, an experiment still partially in the laboratory or, in some presentations, pie in the sky that would never fulfill its promise.

In fact, in an earlier Symposium, a recognised biometric expert proclaimed that the use of biometrics would simply not work in the traveller context. In this Symposium, every speaker and every presentation, in varying degrees, presumed the use of biometrics as a given. Don't forget that the use of the chip was solely adopted as a measure to incorporate additional data to allow for biometrics. While we certainly have been heading in this direction since first adopting facial recognition as THE globally interoperable biometric and taking measures to accommodate as well, optionally, iris and finger, the role of biometrics in this Symposium has now in my view come of age.



INNOVATIONS IN SECURITY
IDENTITY SOLUTIONS, SWISS MADE

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Passport datapage
Identity card
Residence permit
Crew member certificate
Driving licence
Tachograph cards



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A new dimension in
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Barry J. Kefauver, ISO and NTWG expert

Nevertheless, we need to heed the kinds of issues surfaced by the research carried out in Australia that biometrics is still a learning experience and likely will be for quite some time. There are no laurels on which to rest. Based on the presentations this week, I think the use of biometrics is now as ubiquitous in document issuance and border management as any other security feature.

Fifth, swirling about definitively in several presentations and implicit in a number of others is **the need for careful conceptualisation and planning** whether to deploy an ABC, a document examination laboratory, a passport programme or a civil registry. Exemplified in its entirety by the presentation from Canada regarding the deployment of its new ePassport, which included elements on procurement, book design/security, deployment strategies and communication, with a very strong emphasis on the latter. The presentation outlined the strategies that were successful in the project and also focused on the lessons learned.

Articulated directly in this presentation, but embedded in others were several 'pointers' to consider:

- A timeline is needed for and at every step;
- The exercise of constant due diligence must be done;
- Recognition at the outset that adequate specialised expertise will likely not be available in-house;
- The reality that changes, such as implementation of an ePassport programme, will have ripple effects throughout the organisational entity and will demand conscious change management; and
- Critical are the partnerships that must be forged with employees, the public and all stakeholders in the project.

(With respect to planning, one point that arose during the presentations involved the 24 November 2015 deadline as an expiry date for all passports that are not machine readable.

Issuers were advised long ago that any passports that were not machine readable must be issued with an expiry date no later than 24 November 2015. However, there appears to be a significant number of passports that have been issued beyond this deadline. States have been notified to develop a communication programme to advise holders of such passports that they will need to apply for a new machine readable passport. This deadline in no way requires that an ePassport be issued, merely that the passport must be machine readable.)

CONCLUSIONS

When we left the Symposium last year, the crossroads that ICAO MRTD faced were laden with uncertainties and daunting pitfalls. The work of the MRTD Programme was respectfully applauded and its human impact was acknowledged as relevant to the overall work of ICAO as an institution. However, still lingering was the lack of clarity and organisational respect in how this programme 'really' fit into the civil aviation safety and security fabric around which the organisation is woven. Now that murky crossroads no longer beckons. With the 38th Assembly adoption of the ICAO TRIP Strategy, the groundwork has been laid, the 'holistics' to allow ICAO to bring together the multidimensional efforts of States and the many international, regional and industry partners associated with identification management, document entitlement judgments and issuance, border management and travel facilitation.

We now have that framework, which has been so elusive for so long, in which ambitious global solution initiatives, such as ABC, can confidently rely on the solid worldwide foundation on which to flourish. I don't think we have ever left a Symposium where the future looked as bright and as exciting as it does today. ■

ARGENTINA IS FIRST LATIN AMERICA COUNTRY TO JOIN ICAO PKD

✈ On 9 December 2013, Argentina imported its Country Signing Certificate Authority (CSCA) in the Public Key Directory (PKD). The Import Ceremony was held in the ICAO PKD Operations Room in the presence of (from left to right) Dr. Norberto Luongo, Alternate Representative of Argentina on the Council of ICAO, Christiane DerMarkar, ICAO PKD Officer, and Gaston Martin, IT Security Director of the CIO of the Ministry of Home Affairs and Transportation of Argentina, in order to testify that due diligence is followed and to safeguard the integrity of the certificate delivered to ICAO. Argentina is the first State in the South American (SAM) Region to submit a CSCA root certificate to ICAO and, by doing so, will enable the validation of its ePassports and facilitate the border crossing of its citizens. ■



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ABC: INDUSTRY PERSPECTIVE



ABOUT JEAN SALOMON

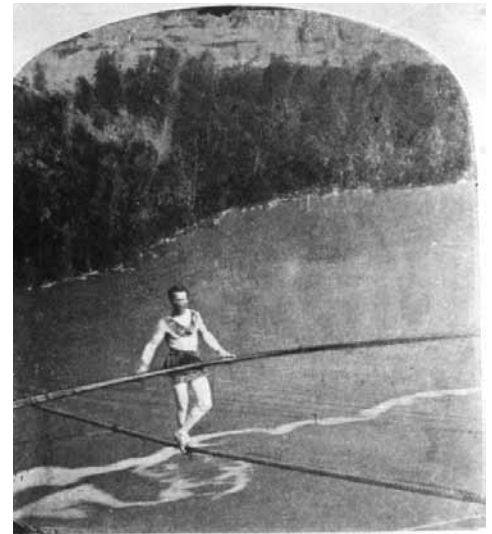
He is a principal with JSCP, a private consulting firm that specialises in streamlining and securing border crossing processes at ports and airports. An active expert working group member of ECAC, IATA, Frontex, ISO and ICAO (NTWG and ICBWG), he worked at IBM and was a Senior Lecturer in Medical Biophysics. He has over 30 years of academic and cross-industrial experience in Chemical Engineering, Medical Imaging, Auto-ID and in equipment, markets and technologies for the transportation and security industries.



Based on his presentation given at ICAO's Ninth Symposium and Exhibition on MRTDs, Biometrics and Border Security held in Montreal, 22-24 October 2013, Jean Salomon, a principal with JSCP, outlines the four industry pillars needed to sustain ABC growth and the challenges involved in deploying ABC programmes.

An industry perspective on Automated Border Clearance or Automated Border Crossing (ABC) should first pay respect to one of its legendary pioneers, Jean-François Gravelet.

Exactly 155 years ago, this French-born acrobat challenged many best practices of the modern ABC. On a 1,100-foot tightrope, he was the first to cross the Canada-US border by literally 'flying' 190 feet above Niagara Falls—perhaps deceiving US Immigration by repeatedly using the alias Charles Blondin.



He undertook 17 additional crossings, including one where he would have caused a facial recognition false acceptance since he was blindfolded. Oblivious to any LAG (Liquids And Gels) regulations, he once carried a stove, food and bottled drinks. He cooked while underway in one feat, delivering a complete meal to spectators in a boat below and, another time, successfully 'piggybacked' his coach on his shoulders.

Finally, this French citizen was apparently never asked about any visa waiver form or ESTA (Electronic System for Travel Authorization) by Immigration and never referred to Customs upon arrival. He was a distinguished ABC (Acrobatic Border Crossing!) pioneer and also the first member of a special RTP or Registered Tightrope Programme.

IN PRACTICE, STANDARDS ARE ALREADY SET HIGH

On a more serious note, let's see what we can learn from such a 'high risk traveller' by focusing on present challenges and upcoming goals of current ABC programme deployments.

ABC programmes are comprised of two types that can share the same airport equipment:

- eMRTD based (without prior enrolment). These programmes, which focus on document ubiquity, facilitation and efficiency, have an administrative, legislative or political connotation;
- Registered Traveller Programme or RTP-based (prior vetting and enrolment and subject to risk-based delisting). These programmes focus on passenger recognition, convenience and differentiation and have a strong business orientation.

Both kinds of programmes, which use the three main ICAO biometrics, are installed today at more than 120 airports on four continents. Facial recognition is predominant in Europe, fingerprinting in the Far East and iris recognition in the UAE/Middle East. A majority of RTPs charge a fee and are restricted to frequent travellers. RTPs for travellers requiring visas are still rare.

Schiphol Airport's first RTP-based programme, PRIVIUM, uses iris recognition. It owes its success to strong cooperation between the airport, its legacy carrier KLM and the Dutch Royal Marechaussee, the country's police force. PRIVIUM has now been combined with Global Entry, the US RTP, into the FLUX (Fast Low Risk Universal Crossing) Alliance, which coordinates the two programmes. A member from one programme becomes a de facto member of the other—pending biometric capture and successful vetting.

ICAO'S TRIP IS PART OF THE FIRST PILLAR

Our industry needs four base pillars to sustain ABC growth, as outlined in Figure 1. Starting from the base of the platform, it is worth noting that the first industry pillar is fully in line with the ICAO-driven TRIP (Traveller Identification Programme) Strategy. The basis of any ABC programme's success has shifted away from the nature of the travel document itself (ePassports nowadays are rugged and tamperproof) to its content and connectivity extent, that is, secure and verified data exchanges from trusted procedures in a holistic chain.

ICAO's TRIP Strategy underlines the necessity to improve the logging of vital events (for example, birth and death registrations) by increasing the quality and security around the chain of processes involved in the various registrations. Today large discrepancies between all legitimate birth certificate documents—there are thousands of different paper types, for example, in the US—make it possible to submit a fake birth certificate when applying for a new ePassport. In such a case, the new travel document, although based on a forged identity, would be genuine—yet, unfortunately, unlikely to be detected even by a good ABC system!

RISK-BASED MANAGEMENT IS THE SECOND PILLAR

ABC attains its value from concerted stakeholder management of three essential dimensions: risk, space and time. Such a '3D' environment cannot be managed without extensive cooperation on- and off-airport premises—work silos being the ultimate archenemy of efficient border management.

Thus, a key success factor of ABC is the second industry pillar: the team development of pre-emptive risk analysis, which is best performed ahead of the border crossing, both remotely and before the actual crossing.

Several countries are already operating Joint Border Operation Centres (JBOCs) based on teams being physically present on

airport premises and regrouping police, customs, carriers, airport AVSEC and other operational investigators and analysts. They share, discuss and assess passenger profiles prior to flight arrival based on shared multi-source information.

As a general principle, travel decisions are made in the country of origin long before the actual border crossing takes place and are subject to changes, resulting in successive updates to the traveller's computer reservation or PNR (Passenger Name Record). The PNR is closely linked, ahead of the actual travel time, to the traveller's identity or API (Advanced Passenger Information), the latter containing essentially the biodata on the traveller's passport. The risk assessment linked to a particular traveller can (and should!), therefore, be initiated ahead of departure using both API and PNR.

In particular, subsequent cross-links between the API-PNR and public information layers, such as credit records or other overt databases, can be performed, such as reviewing the current status of frequent flyers and repeatedly inspecting 'no-fly' or watch list databases.



FIGURE 1: SOUND BASIS FOR DEPLOYMENT OF AN ABC PROGRAMME

	PILLAR TO RELY ON	OBJECTIVE & OPPORTUNITY	
Benefits from Border Control industry standards to national ID management	4 – Process scalability and interoperability	Potential to grow the size of national ABC biometric programmes and interlink them	Contribution from individual Evidence of Identity to national services
	3 – Harmonised procedures	Consensus and standards aimed at seamless cross-border integration of inspection systems and equipment	
	2 – Development of preemptive risk-based approach	Border control to start before the travel does, resulting in adding 'facilitation' at the service of 'security'	
	1 – (ICAO TRIP) – Raising the bar of national ID management with new, improved, holistic and secure Evidence of Identity standards	Reestablishing our industry's confidence in birth certificates and other vital events registration	

JBOCs can, therefore, dynamically pre-sort passengers by risk and help separate passenger flows for further downstream controls before making the final document and biometric verification during the actual border crossing.

TOWARDS BEST PRACTICES: THE THIRD PILLAR

While industry standards are being raised for better, more secure flow management during ABC and procedures are being harmonised (the third pillar) the often congested security checkpoint should not be forgotten.

Operational procedures centred around AVSEC security at checkpoint are largely aligned globally. Unfortunately, all metal detectors ubiquitously installed worldwide cannot detect ceramic-made weapons hidden on humans—with the exception of non-ionizing, millimetre wave imaging devices, which are few and far between.

Similarly, fully automated procedures for liquid and gel inspection, which now require opening one's carry-on at the security checkpoint, necessitate using a 3D CT X-ray scanner. Over 10 times pricier than current X-ray systems, this kind of equipment is out of the budgetary range of most airports. The only way out of this quagmire is to reorganise the terminal's checkpoints into a 'central checkpoint'—one single centralised inspection site would be used for many boarding gates downstream instead of separate sites at each gate.

EQUIPMENT AND TECHNOLOGIES: SEEK BEST PRACTICES FROM REAL PRACTITIONERS

ABC is still facing problems—first, in image quality at enrolment and, second, the lack of consistent equipment standards for acquiring and storing reference data. Nevertheless, the three main biometric technologies endorsed by ICAO have advanced over the last eight to 10 years:

- Iris enrolment has become easier and capture can now be performed at a distance, allowing identity verification when a traveller walks through the eGate;
- Fingerprint detection has further improved in its resistance to spoofing, a very useful feature tool to prevent fake fingerprint usage during an eGate crossing;
- Face recognition is finally coming close to fulfilling its long overdue promises, although illumination consistency or the use of old ePassport images remains challenging parameters.

As far as equipment is concerned, large national private and public programmes, after long trial phases, have finally been adopted with proprietary vision as to which biometrics to favour for their respective RTPs.

At the same time, important stakeholders, such as ACI, IATA and Frontex, have come out with best practices or white papers on security checkpoints and ABCs for both operational and technical aspects, including site descriptions.

NEW FACTORS COULD PLAY AN UNEXPECTED ROLE IN ABC AND INTEGRATED BORDER MANAGEMENT

On top of the essential role played by current stakeholder operations, two additional game changing factors could be influential on future ABC operations.

The first factor is the developing use of data mining. Once mostly used to assess customer loyalty in banks' or telcos' CRM (Customer Relationship Management) programmes, mining software could rapidly become pervasively used as the ultimate data correlation tool that could help link the hidden risks in a proactive way (that is, long before actual travel time).

Quantified risk assessment would result from dynamic extraction between previously unconnected overt (payment, health, social networks) and covert (security) databases. The challenge posed to travellers' privacy is blatant, yet within the limits of what control authorities were already doing earlier in a forensic way to elucidate a terrorist act.

The second factor could be Google itself, which recently gobbled up ITA Software, the designer of Orbitz, an online travel company that has one of the industry's best CRS (Customer Reservation System) engines. Google's former acquisitions have included face recognition (Picasa), mobile handsets (Motorola) and GPS positioning (Waze). Google also co-leads Cloud management worldwide, controls its own social network (Google+) and is the world's undisputed prime search engine: all of which positions Google to control the most crucial elements of the world travel services supply chain!

Such a move could disrupt the present equilibrium between current airline data aggregators, on the one hand, and the various electronic travel reservation schemes—airline-, travel agency- or CRS-based—on the other hand. The potentially rippling effects on the evolution of ABC programmes should not be underestimated! Fortunately, control authorities strongly regulate travel legislation and would be best positioned to mitigate such a drastic shift, should Google antagonise its own best interests.

LAST, BUT NOT LEAST: SCALABILITY AND INTEROPERABILITY

Before addressing the fourth industry pillar, a question should be asked: Are hub-centric airport ABC infrastructures scalable for deployment nationwide, including expansion to other modalities, even pedestrian border crossings?

An example to cite is the 14 border crossing points between Hong Kong and mainland China. More than 120 million crossings are registered each year mostly by pedestrians and car and truck drivers commuting daily for work, recreation or school. The majority is expedited using 'e-Channel' Fast Tracks, with over 100 eGates deployed at each of the largest crossing points—some of which are bi-directional.

Based on that example where high standard ABC services are consistently delivered at high volumes on a daily basis, general ABC programme scalability has proven to be achievable, even for very large traveller populations—provided the environment processes are precisely defined, adjusted over time and run with stringent contractual SLAs (Service Level Agreements) with the vendors of choice.

ROI schemes for such deployments remain proprietary to the project owners. Cost savings generated by public ABC programmes usually stem from automation-based reductions in border control manpower. Private or mixed public-private projects have their own profitability considerations.

There is a risk, however, that global interoperability between the various token rich (eMRTDs) or tokenless (RTP) programmes across nations will remain laggard, unless Public Key Directory driven inspection system infrastructures become more effective amongst participating ICAO members.



Picture courtesy of J.P. Arnaud, IST

Hong Kong border crossing

Fail proof circulation, regular updating, adequate revoking and careful usage of certificates linking ePassports and inspection systems are indispensable for well managed border inspection systems to thrive and promote the success of future harmonised ABC programmes. Without a substantial and rapid world improvement in this area, the tremendous ICAO success in ePassport document deployment over the last 10 years could prove to be of little use.

As we overcome this short-term obstacle via concerted stakeholders' efforts and appropriate national legislations, we also hope to witness a quiet revolution in the way Evidence of Identity fundamentals will be further developed by the ICAO TRIP Strategy—which will directly benefit the deployment of improved integrated border management systems and further drive the anticipated growth of ABC usage worldwide. ■

MRTD AND BORDER CONTROL NEWS

Ireland

The new Irish ePassport rolled out in October 2013. It uses the latest security technologies, including polycarbonate electronic data page with contactless chip inlays, to protect citizens' identities while providing the country with a flexible, efficient and highly secure passport.

Belgium

Belgium became an ICAO PKD member in October 2013.

USA

Miami Airport rolled out self-service kiosks that process passengers in less than two minutes compared to longer waits for a US Customs and Border Protection agent. US and Canadian passport holders are eligible to use the new kiosks. The airport installed 36 kiosks, which are located in the North Terminal, and plans to deploy additional kiosks in 2014.

Liechtenstein

Liechtenstein launched the full roll-out of its new ePassport project in early 2014.

Morocco

Government officials from 19 Sahel, Sahara and Maghreb countries announced construction of a joint security training centre in Rabat, Morocco, to increase the capacity of the region's security forces to deal with growing terrorist threats. The ministers said one of the first steps toward improving security in West and North Africa would be to increase border security. They will also increase information sharing to fight security threats.

Belize

The new Personal Identification and Registration System (PIRS) became operational in Belize. It will operate at all its 11 air, land and sea border crossing points and at six immigration offices. The new system replaces manual records and links the Belize Immigration Passport System with INTERPOL to improve border security. The project was funded by the US State Department and implemented by the IOM.

Nigeria

The National Identity Management Commission of Nigeria unveiled the multipurpose eID card, which combines identity with 12 other applications including MasterCard prepaid functionality. Cards were issued in the first quarter of 2014. The government announced a pilot programme to issue 13 million eID Cards to residents.

Estonia

Automated eGates and self-service kiosks were installed at Lennart Meri Tallinn Airport. Checks start with passport validation at one of the six available self-service kiosks, together with facial recognition and fingerprint enrolment, followed by ABC eGates for fingerprint validation.

Republic of Moldova

Moldova became an ICAO PKD member in June 2013.

Azerbaijan

The country implemented a new eVisa system streamlining visa applications into an electronic format to attract more international tourists. The electronic visa system, operational since March 2013, facilitates travel and reduces visa costs and processing times.

Republic of Korea

The next generation of Korean passports will use high-tech, plastic materials and the latest security features. The Korea Minting and Security Printing Corporation says the anti-forgery technology for electronic passports will soon be available to the public. These ePassports also can be easily authenticated by smartphones.

Iraq

The new eID card is being implemented, following recent plans to produce electronic passports. The identification management project will provide smart cards, a personalisation system, IT and data acquisition infrastructure and associated services, including technical support and maintenance.

Kuwait

Airline passengers to Kuwait are to face routine fingerprinting following installation of scanners at the airport.

Qatar

Hamad International Airport deployed 64 multimodal eGates using face, iris and fingerprint biometric readers.

Philippines

Philippines' ePassports hit the 8 million mark.

Tanzania

Tanzania has rolled out a biometric enrolment system for residence permits at the Immigration Department HQ in Dar es Salaam. The new system, which was built on the IOM Border Management Information System and customised to Tanzanian needs, allows the immigration department to capture biometric samples from applicants and register applicants' data in an electronic database.

FASTPASS: EUROPEAN USAGE OF eMRTDS FOR ABC



ABOUT MARKUS CLABIAN

He is Senior Engineer, Safety and Security Department, High-Performance Image Processing, with AIT Austrian Institute of Technology. He has worked in the fields of software engineering and image processing for more than 15 years and led several national and international research programmes in computer vision, security applications and ABC.

✈ eMRTDs are well suited for automation in border control solutions though not designed for that particular purpose. The aim of the European Union's research project FastPass is to harmonise Automated Border Control (ABC), explore the opportunities and solve the risks and challenges associated with extended use of eMRTDs, says Markus Clabian of AIT Austrian Institute of Technology. AIT is coordinating the project, which started in 2013 and is scheduled for completion in 2016.

ABC systems address the issue of dramatically increasing passenger flows, however, below are some examples that illustrate the dimension of the challenge:

- The number of air travellers will increase by 800 million in five years;
- The number of people crossing the Russian-Estonian border annually just at the major border crossing point is twice the number of inhabitants in Estonia. According to Statistics Estonia, the estimated population as at 1 January 2014 was over 1.3 million;
- A cruise ship can unload more than 6,000 passengers within an hour.

In addition, the duties of border guards are increasingly difficult. They have to check the document, verify the person's identity and determine whether he/she has the right to enter the country or poses a potential threat—and decide all this within seconds.

Automation seems to be one way out of these contradictory demands: the increasing number of travellers and increasing duties of border guards on the one hand and decreasing government budgets on the other hand. But regarding automation, several questions need to be raised. What is the risk associated with automation? How can we make those systems really work around the globe? Should they be harmonised? How can we ensure the systems can be implemented for as many travellers as possible?

THE FASTPASS PROJECT

To answer these questions, the EU funded research project FastPass, www.fastpass-project.eu, will establish and create a harmonised modular approach for next generation ABC gates that will contribute to security and mobility within the EU. Travellers want a speedy border crossing with minimum delays, while border guards must fulfil their obligations of securing EU borders against illegal immigration and other threats. The FastPass project aims to support the smart border package—the European Commission's legislative proposal for implementing a Registered Traveller Programme and Entry/Exit system in Europe.

FastPass will develop a harmonised ABC solution with continuous end user involvement, establish a reference architecture for ABC gates and pursue an European initiative for a global standard in ABC technology. FastPass will bring together key players of the entire ABC supply chain, such as system and component producers, research institutions, government and data protection authorities and end users.



The objectives of the project are (i) the development of a user-centric, innovative approach using advances in document checking technology, identification systems, secure IT infrastructure and processes, gate technology, anti-spoofing measures and (ii) an implementation that is geared for three types of borders, that is, air, land and sea. Some of the preliminary results with respect to the user experience have shown dependability, document security in the age of ABC and examples of added value due to video surveillance.

The entire innovation process, from the development of components to the final design of the user interface, will continuously be evaluated by two end user groups, travellers and border guards.

DOCUMENT CHECKING IN THE AGE OF ABC

The first step in improving ABC systems is to analyse the differences between manual and automated processes in document checking. There is clearly a distinction to be made between document inspection in automated border control and document inspection as a supporting system in manual border control. In manual border control, the border guard handles the document with the document inspection system only indicating the validity of the document. In fully automated border control like ABC systems, the border guard never touches the actual document. On a case by case basis, he might look at the document through a management interface but the overall process is fully automated.

The document checking process of an ABC is different from manual border control in that the document never leaves the owner's hands. The only way to decide if it is valid or invalid is by analysing the data produced by the document scanner. However, the document itself is still the same as the document used in manual border control. It possesses the same security features, but these features were not specifically designed for automated checking.

Currently available eMRTDs are secured by several different security features and methods. Common features protecting data printed on the document and the document itself are microstructures (like micro text), special printing methods (like intaglio printing) or optical variable devices (OVDs like holograms).

...FastPass will establish and create a harmonised modular approach for next generation ABC gates...

On the electronic side, protection is given by basic authentication (to prevent unauthorised readings), passive authentication (to verify data integrity), active authentication (to prevent cloning of documents) and extended access control (to limit who can read the passport).

While the electronic part of the passport is checked similarly to manual control, the optical checks are limited to those provided by current passport scanners and many checks are not applied to the full extent a certain feature might have. As an example, OVDs are checked for their principle presence, but not for their quality in reproducing the specific optical pattern. This strongly reduces the quality of the inspection of the document itself. Also, a simple test has indicated that an invalid document with specific imprints—like 'not valid'—are undetected by current passport scanners. Neither invalidation processes nor scanning devices have been developed for automated systems, therefore, document checking in the age of ABC poses formidable new challenges.

VIDEO SURVEILLANCE ADDS VALUE TO ABC SYSTEMS

Another step for the increased performance of ABC systems is the multiple use of cameras within the gate for single person detection, left object detection or queue length measurement. Previous systems were based on light barriers or weight sensors. Video sensors offer a new range of quality. With stereo or time-of-flight sensors, even 3D data can be captured. Using sophisticated algorithms on 2D and 3D camera images, the false alarm rate of current systems can be further decreased by factors of three and more. Queue length detection offers additional value for staff management of border guard teams.

FUTURE STEPS

Current optical security checks are insufficient to authenticate secure identity documents and thus might pose a problem for fully automated border control. In addition, the obvious solution of relying solely on the electronic security of current ePassports should be handled with care, unless one can guarantee with absolute certainty no part of the entire issuing-verification chain can be compromised—either through technical attacks or through social engineering. As a result of these challenges, the research in automated checking of optical security documents will be increased and based on academically researched and publicly verified methods rather than on commercial black box systems.

The good news is that FastPass has already developed methods to detect some of the obvious attacks and will integrate them into next generation document scanners. Video surveillance will further enhance image quality, application areas and detection quality and the added value of video surveillance will benefit the security and efficiency of ABC systems.

Further research is necessary to make document checking in the age of ABC efficient and secure. On the forefront of these developments, FastPass will contribute further to these efforts and will regularly inform the public about its results and achievements. ■



CZECH REPUBLIC'S ABC SYSTEM EasyGO



ABOUT PETR MALOVEC

He is Chief Commissioner at the Directorate of Alien Police of the Czech Republic. With 13 years of experience, he is responsible for border check methodology. He was also project manager for implementation of biometrics into the border control process and Advance Passenger Information (API) data. He lectures on the course, Border Police, at the Police University in Prague and is a member of the Sub-Group on Immigration of the European Civil Aviation Conference.

✈ The implementation of the ABC system, EasyGO, at Terminal 1 in Václav Havel Airport Prague in the Czech Republic has been a challenging but rewarding experience for all involved parties, describes Cpt. Mgr. Petr Malovec, Chief Commissioner, Directorate of Alien Police of the Czech Republic. The project started in 2008 with a feasibility study and the first eGate was deployed in December 2011. Only a year later, in December 2012, EasyGO was extended by another two eGates and more than 330,000 passengers successfully processed. The ABC system will be further extended in the near future as the system helps to optimise border control processes while maintaining the required security levels.

The Czech Republic, as a member of the European Union, implemented biometric features into travel documents in 2006. This implementation was done in full compliance with ICAO Standards, the first biometric feature being the face. Fingerprints were added in 2009. Since the beginning, the Alien Police considered deployment of the ABC system would provide reliable usage of biometrics travel documents within the border crossing procedure—in addition to being a stationary border control solution.

The Czech Republic as a member of the Schengen Area—26 European countries that have abolished passport and immigration controls at internal borders—is surrounded by and has land borders with Schengen Area member states only. Thus border control procedures are provided only at international airports. This allows the Alien Police to concentrate its activities into specific and concrete targets, of which deployment of the ABC is one.

Currently air space in the Czech Republic can be crossed by five international airports, the most important of which is Václav Havel Airport Prague with an annual capacity of 12 million processed passengers—nearly half of whom cross the borders of the Schengen Area. Considering this data, the Directorate of Alien Police Service of the Czech Republic decided to choose Prague Airport as the most suitable for first deployment of the ABC system.

SUCCESSFUL DEPLOYMENT

Deployment of the ABC system has been a really successful story that began in 2008 with a complex feasibility study including a laboratory evaluation project with real ABC installations in December 2011.

During the three-year period, we were faced with several challenges and aspects that had to be solved. In general, proper implementation into the currently used border control processes was one of the main tasks. In 2008, there were several ABCs in progress around the world which helped us to get a better understanding. The proactive involvement in Frontex activities has also been helpful and allowed us to design a final solution which fits into the security procedures and fulfils requirements defined by Frontex and the Schengen Area.

The ABC project in the Czech Republic is operated under the name EasyGO, which explains its main purpose and target. From the Alien Police point of view, the most efficient part of the border control procedure allows for full usage of the biometric passport features and provides guarantees that all border crossings are realised in a safe way. For passengers, EasyGO is simple, intuitive and fast.

EasyGO is operated at Arrivals, Terminal 1 of Václav Havel Airport Prague and can be used by all citizens from the EU/European

Economic Area/Switzerland who are biometric passport holders and older than 15 years. At all times, the system is supervised by a police operator who is fully responsible for its operation and is able to solve all unexpected events with the ABC system. At this time, one police operator supervises three eGates. Our experience indicates that this volume of supervised ABCs is close to full utilisation.

Since beginning the system, we have registered more than 330,000 border crossings from passengers coming from all EU states including citizens from Norway and Switzerland. The average processing time is 16 seconds, starting when the passenger places the travel document on the passport reader and ending when the ABC is ready for the next user. The fastest time measured has been 11 seconds. The entire inspection process starts with a complete travel document check (the electronic and optical parts) followed by a police back end check and a facial recognition process. As the system provides reliable and trusted results, the Alien Police is assured that the travel document is genuine and belongs to its holder.

Besides the number of realised border crossings, one of the most important parameters is the ABC's reliability, which is usually represented by two values, FRR (False Rejection Rate), which in the EasyGO system is measured at 3.7% and FAR (False Accept Rate), which is calculated to achieve 0.1%. This approach provides the appropriate balance between usability and the required security level.

The system concept provides an easy-to-use approach for passengers and is as intuitive as possible. Although the Alien Police provides operational support, sometimes they are subject to rude behaviour from some passengers due to misunderstandings. For example, we have some cases where people cover their faces (long hair, hats, joking with a hand in front of the face),



- Express Document Verification
- Advanced Document Verification
- Machine Assisted Document Verification
- Information Reference Systems and Software
- Special Equipment and Customized Solutions





many attempts to use a non-biometric passport and unclear directions given to passengers. Also many travellers are unaware whether they have a biometric passport or not. In addition, the biometric travel document logo is unclear as to its meaning. From this point of view, we see many tasks for all ABC operators regarding the need for public relations.

The success of the project is based on the intensive and fruitful partnership of all the involved parties including the management of Prague Airport and its suppliers, VÍTKOVICE IT SOLUTIONS a.s., the system integrator, and secunet Security Networks AG, which delivered the eGate turnkey solution.

In the next stage,
there are plans
to install another
10 eGates.

EXPANSION PLANS

Within the last two years when EasyGO was in official operation, the Alien Police identified it as a reliable and efficient solution for automated border crossings and plans further expansion. One of the first steps is in preparation, the ABC installation for third country travellers coming from countries with a low risk level for non-legal migration. Based on the EU legal framework for those users, it will be necessary to affix the cross-border stamp into their travel documents. This plan will certainly consider the specific workflow of the police operators, which will be slightly different from the current solution. In the next stage, there are plans to install another 10 eGates.

Despite the successful and positive implementation experiences, the Alien Police is faced with another list of tasks and challenges. One of which is the deployment of the Public Key Infrastructure (PKI), which is mandatory for the proper handling of fingerprints stored inside the travel document chip. This PKI will be considered with a dedicated DVCA (Document Verifier Certification Authority) and a corresponding ISY management server (Inspection Server). The continuous training of police staff is another challenge, together with preparation activities relating to the implementation of the Entry/Exit system and registered traveller system.

In conclusion, one of the key findings was that to have a successful ABC system doesn't mean just proper implementation but also enough sources and skills for proper and efficient operation. ■

ENHANCING BORDER SECURITY AND TRAVELLER FACILITATION USING APIS



ABOUT JENNIFER MCDONALD

She was appointed CEO of the Passport, Immigration and Citizenship Agency (PICA) in 2007 with responsibility for human resources and financial operations to guide the entity towards self-sufficiency and efficiency. PICA was awarded the Cabinet Secretary's Trophy for 'The Most Improved Customer Service Entity' in the 2010/2011 Jamaica Public Sector Customer Service Competition. She is a member of the editorial board of the International Organization for Migration (IOM).

✈️ Jamaica, through its Passport Immigration and Citizenship Agency (PICA), embarked on a project to improve passenger facilitation, commencing with outgoing immigration or embarkation controls. At inception, the project seemed to be relatively simple, however, the actual implementation proved to be quite challenging, describes Jennifer McDonald, Chief Executive Officer, PICA, Jamaica. PICA, with a team of young and talented employees, was able to successfully implement the project. She outlines the intricacies of the implementation project as well as the feedback received from various stakeholders.

Jamaica is an island state in the Caribbean with a population of under three million. There are three international airports with the largest, Sangster International Airport (SIA), located on the northwest coast. This airport is the main entry point for the country's tourists. The second largest, Norman International Airport (NMIA), located on the southeast coast, serves nationals and business travel, while the third airport, Ian Fleming International Airport (IFIA), on the northeast coast, caters to the high end tourist market.

PICA is an executive agency of the Ministry of National Security charged with responsibility for border management/immigration, passport issuance and the



PICA team at stakeholders consultation meeting, November 2011, from left to right, Rohan Williams, Project Manager; Ephieum Allen, Operations Manager, Norman Manley International Airport; Edith Bernard, Immigration Supervisor; Jennifer McDonald, CEO; Ezra Whittock, Deputy Director Immigration, Western Operations; Kurt Baugh, Immigration Officer; Daneisha Colomathi, Operations Manager, Sangster International Airport; Orlando Williams, Director Immigration (assigned); and Garth Williams, Deputy CEO, Operations.



'Go Live' day at Sangster International Airport. Passenger goes past immigration booth to security check. Note easel with names of compliant airlines.



Stakeholder session, November 2011. PICA CEO Jennifer McDonald (standing) and her team at head table addressing airline operators, airport operators and civil aviation personnel.

processing of applications for Jamaican citizenship. Established in 2007 with the aim of improving customer service, the agency has some degree of autonomy in terms of its human resources and financial operations.

The total number of passengers (arriving and departing) processed at all airports in 2012 was 4.7 million with 70% processed at SIA.

THE PROJECT

In August 2010, PICA was mandated by Cabinet to explore the use of technology to improve the efficiency of departure immigration at the two main international airports. A project team was formed and there were numerous consultations with stakeholders that included:

- Airlines operators
- Airport operators
- Tourism interests
- Jamaica Civil Aviation Authority
- IATA
- International partners
- Government procurement regulatory entities

- Police
- Ministry of National Security
- Border management supplier
- APIS supplier

Numerous meetings and conference calls were held and copious emails were exchanged with stakeholders as a group and with sub-groups.

PROJECT SCOPE

The project involved airlines submitting Advance Passenger Information System (APIS) data to PICA at passenger check-in. The data was integrated with PICA's border management system through the use of technology. This new system required changes to the IT infrastructure as well as operations at both airports.

One of the issues faced by PICA was the need to serve competing interests. On the one hand, there are the tourist interests that require passenger facilitation and speedy movement of passengers. On the other hand, there are security considerations with the need for thorough checks to prevent certain Jamaicans who are wanted by law enforcement and non-Jamaicans who may be involved in human trafficking and other undesirable activities. There was considerable dialogue with stakeholders in order to ensure that both needs were met.

ENGAGEMENT OF AN APIS SUPPLIER

Based on government procurement guidelines, it was deemed prudent to seek proposals from a suitable APIS provider. The bid was won by SITA Aero, which has a closed network that is used by airlines. PICA was required to install the necessary network equipment and servers to receive and process APIS data submitted to SITA by the airlines departing Jamaica. The airlines were required to submit APIS data at the agreed time to a SITA Type B address KINGVXH.

This requirement meant that some airlines had to modify their own departure control systems in order to meet the APIS submission requirements. Many readily made the necessary adjustments as they welcomed the change and saw the many benefits to be derived from this initiative. Additionally, PICA had modified its existing border management application in order to receive and process the APIS data being submitted by the airlines departing Jamaica through SITA Aero. Thus the provider of the existing border management system, 3M International, was engaged to perform the necessary modifications in collaboration with SITA Aero.

Airlines are required to submit APIS data in UN/EDIFACT format and two APIS submissions are to be made: one submission 40 minutes before the scheduled departure time and the other at door close or gate release of the aircraft. The timing of the first submission was established in collaboration with the airlines who advised that 40 minutes was the time required to remove a passenger and accompanying luggage. This was done in the



event of a positive hit on Jamaica's 'no-fly' watch list. An alternate means of APIS data submission was made available via an e-portal for airlines without a departure control system (DCS) or in the event of failure of the airline's respective DCS.

The submitted APIS data is electronically checked against Jamaica's watch list with a more efficient algorithm employed to detect persons of interest. The data is compared, analysed and then committed to the Border Management System to create a passenger travel event.

LEGISLATIVE AND OPERATIONAL CHANGES

Immigration officers previously stationed at the Departure booths of the airport were redeployed to Arrivals and also assumed roving functions in the Departure concourse and gates. Smartphones are utilised by the roving officers, which facilitate the quick dissemination of information from the monitoring room in the eventuality of a watch list hit. There was also phased removal of immigration booths at outgoing immigration.

Changes were also required to the legislation and work has already started in this area, as most airlines are compliant. The existing legislation is being revised to increase the fines for non-compliant airlines.

GO LIVE

The system went into production with seven compliant airlines on 28 December 2012 at SIA and 9 January 2013 at NMIA. As at September, 2013, there were 15 compliant airlines, accounting for 96% of departing passengers processed using APIS.

BENEFITS OF THE PROJECT

1. Decrease in waiting time. Time and motion surveys conducted by the airport operator showed an 8-minute reduction in processing time from 14 to 6 minutes for immigration and security screening at Departure immigration.
2. No flight delays due to immigration processing.
3. More time for passengers to explore airport facilities and shop!
4. Potential 150% increase in passenger facilitation capacity at outgoing immigration.
5. Improved travel experience for passengers.

ARRIVALS

- 26% increased processing capacity as officers from Departure deployed to Arrivals at SIA: from 30 to 36 booths;
- 33.33% increased processing capacity at NMIA: from 18 to 24 booths.

As a result of the improvements, PICA received letters of commendation from stakeholders such as the Jamaica Tourist Board, MBI Airports Limited, the operators of the airport at SIA, the Airport Authority of Jamaica and the airline operators at SIA.

PICA is grateful for the assistance of all the stakeholders without whom the project would not have been a reality. The next step is for us to re-engineer immigration at Arrivals from the lessons learned. ■

TRINIDAD AND TOBAGO IMMIGRATION FORENSIC DOCUMENT EXAMINATION LABORATORY

CARIBBEAN LEADER IN BORDER SECURITY AND MANAGEMENT



ABOUT HAZEL SPOONER-WILLIAMS
Immigration Officer IV of the Document Examination Laboratory, she combines 24 years of experience as an immigration officer with her human resource management skills, to oversee the operations of the Document Examination Laboratory at Piarco, Trinidad. She is currently seeking certification as a trained document examiner.

✈ The Trinidad and Tobago Immigration Forensic Document Examination Laboratory (DEL) was established to end lengthy delays in verification of travel documents. The DEL is governed by legislation and policies that maintain high international standards. Hazel Spooner-Williams, Immigration Officer IV of DEL, expresses that, despite its various challenges, the unit is achieving its goals and has become the driving force for fortifying border security. As a result, the DEL has gained the respect of the Caribbean Community (CARICOM).

The DEL, which forms part of the enforcement arm of the Ministry of National Security's Immigration Division, is based at the Piarco International Airport, Trinidad and Tobago. On 19 September 2008, the DEL began as a pilot project of the International Organization for Migration (IOM) that originated out of the Strengthening Technical Capacity (STC) in Trinidad and Tobago project funded by the U.S. Department of State and implemented by the IOM, in cooperation with the Government of the Republic of Trinidad and Tobago.

Anthony Le Gendre, Immigration Officer IV, was the driving force in the establishment of the DEL and became the first local trainer in fraudulent document examination. Following his retirement, Keith Sampson, the current Chief Immigration Officer, also benefitted from training in fraudulent document examination. His training was conducted by the Regional Police Amsterdam/Amstelland in Suriname in March 2009. He continued the provision of training immigration officers in document recognition.

The DEL is the only fully staffed operational facility in the English speaking Caribbean. Its establishment at Piarco brought an end to lengthy delays in authentication of documents. In the past, the Immigration Division relied heavily on the Forensic Science Centre, which is the only other authority in Trinidad and Tobago commissioned to authenticate documents.

Regional trends have shown that Trinidad and Tobago's geographic location between North America and the South American continent has made it a prime transit point for transnational crimes ranging from the smuggling of migrants, human trafficking, terrorist mobility and the smuggling of drugs and weapons. Document fraud plays a vital role in the perpetration of these crimes.



TOOLS FOR STRENGTHENING BORDER SECURITY

The DEL is currently staffed by 10 immigration officers. This staff boasts a wide range of skills from regionally and internationally accredited universities and institutions, such as International Relations, Law, Psychology, Sociology, Criminology, Computer Science, Accounting, Public Administration, Investigative and Research Skills and Human Resource Management. Furthermore, the staff has acquired training in Criminology, Criminal Justice, Document Examination and Cyber Crime Awareness from agencies such as the United States Department of Justice, Immigration and Naturalization Service, the United States Customs and Border Protection, the Caribbean Forensic and Financial Fraud Institute, the IOM, the Canada Border Services Agency, the United Kingdom Border Agency, the American Society for Questioned Document Examiners (ASQDE) and the National Security Training Unit Specialist Crime Academy.

The DEL uses modern equipment highly recommended by the industry's leading proponents. This equipment allows staff to detect alterations, erasures and obliterations, as well as view optically variable devices and inks and examine ultraviolet features on questionable documents. The tools that facilitate this function include Video Spectral Comparators, ePassport readers, electronic microscopes, high-powered digital scanners, digital and film cameras, Scrambled Indicia Readers, the Keesing and Edison databases.

This equipment assists in the detection of fraudulent and counterfeit travel documents, which are seized and removed from circulation to prevent the further use of these documents by mala fide travellers attempting to access other jurisdictions. The DEL strengthens border security not only for Trinidad and Tobago but for other countries as well.

CARICOM DIMENSION

In March 2013, the operations and capabilities of the DEL were showcased to CARICOM Chief Immigration Officers and

representatives from other regional agencies at the IOM's STC workshop held at the Hyatt Regency Hotel in Port of Spain, Trinidad. They were invited to view the capabilities of the DEL, which generated high levels of interest leading to expressions of intent to acquire a similar model. Trinidad and Tobago's Chief Immigration Officer expressed a willingness to share technological knowledge and expertise so as to assist in improving the border security capabilities of these countries.

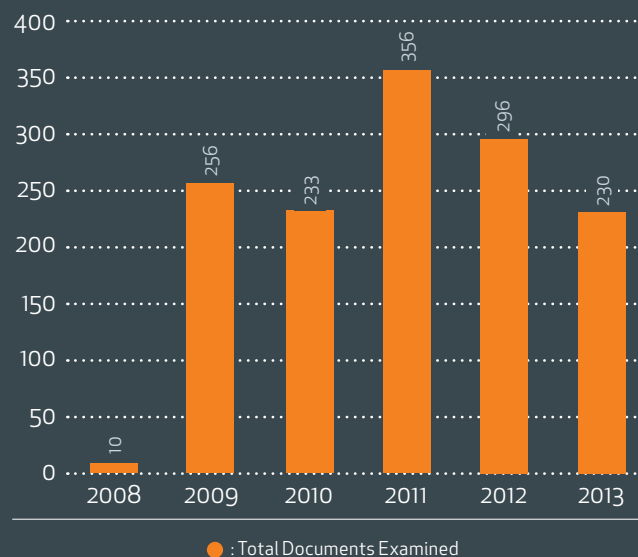
CHALLENGES ENCOUNTERED BY THE DEL

Striving for excellence in its daily operations, the DEL is not exempt from challenges. Among which they are:

- The growth and development of the DEL has created the need for expanded infrastructure.
- The immobility of key equipment in the DEL restricts the examination of documents at other ports in real time.
- The determination whether genuinely issued travel documents were obtained using fraudulent breeder documents.
- The bureaucracy involved in acquiring information has proven to be a major difficulty.

It is envisioned that the establishment of a subsidiary DEL and the acquisition of portable technological equipment, for example, VSC-QC1, to conduct real time examinations at other ports would be a solution to some of the challenges. Strengthening relations with stakeholders and sharing ideas and trends with other immigration authorities within the region has also been considered.

FIGURE 1: BREAKDOWN OF YEARLY TOTALS OF DOCUMENTS EXAMINED BY THE DEL



STATISTICAL DATA

As a result of the growth of global transnational crimes, it became imperative for border security agencies to incorporate a document examination capacity within their operational and technical structures. Since the formation of the DEL, over 1,200 documents have been examined (see Figure 1), over half of which have been of a counterfeit nature (see Figure 2).

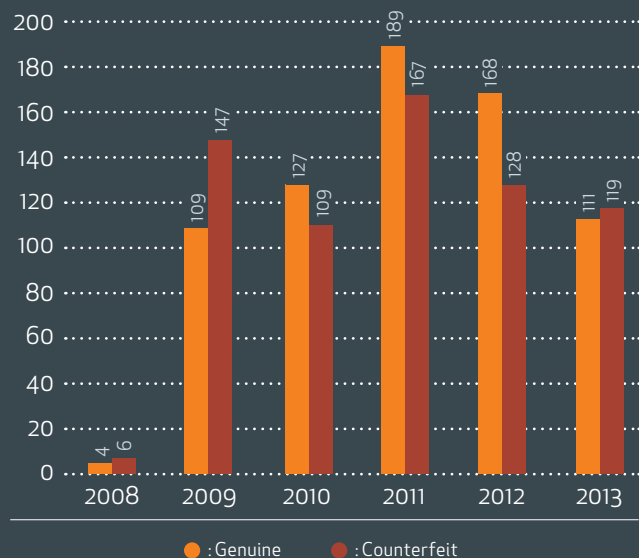
Figure 2 shows a year by year comparative determination of counterfeit and genuine documents. An average of 134 counterfeit documents has been detected by the DEL annually. The figures recorded for 2013 cover the period January to August and, to date, the DEL has detected 119 counterfeit documents—almost equal to the entire tally for 2012—an average of approximately 15 per month. If this trend persists for the remaining four months in the year, the DEL will have detected approximately 180 in 2013, the highest annual incidence since the establishment of the DEL.

The DEL can boast that the reports generated from the examination and determination of counterfeit documents have resulted in 100% success rate in convictions with respect to breaches of immigration legislation.

CONCLUSION

The development of the DEL has contributed to increasing the effectiveness and efficiency of the Immigration Division's role in border management, the determination of trends in the use of fraudulent documents and the role this region plays in transnational routes and movements of persons using these documents. The DEL has cooperated with international agencies such as INTERPOL and Joint Regional Communications Centre (JRCC) to secure convictions and monitor persons of interest.

FIGURE 2: COMPARATIVE RESULTS OF DOCUMENTS EXAMINED BY THE DEL FROM 2008-2013



The immigration officers assigned to the DEL confirmed that the wealth of knowledge and experience they have accumulated by working in a forensic document examination environment has sharpened their examination skills and enabled them to keep abreast of the increasingly dynamic patterns of document fraud. They recognise the importance of operating such a laboratory in the volatile global environment. ■



DEL equipment



COLOMBIA'S ACHIEVEMENTS IN TRAVEL DOCUMENT ISSUANCE AND IMMIGRATION SERVICES



ABOUT SERGIO BUENO-AGUIRRE

He is Director of Migración Colombia. In this position, his priority has been to ensure Colombia is a Latin American leader in migration matters and the country moves forward in Project Frontiers Online, which will provide advanced information about travellers for effective control and expeditious processing. He is a specialist in the design and management of institutional projects, strategic relationships and public opinion.



ABOUT LENNIN HERNÁNDEZ-ALARCÓN

He is Coordinator of Passports, Ministry of Foreign Affairs. In this position, he has taken part in the modernisation of user attention areas and in the implementation of new regulations regarding validation, organisation and delivery of passports. Currently, he is engaged in the changeover from conventional to machine readable passports. He has more than 20 years' experience in the Foreign Ministry.

✈ In the first part of this article, Lennin Hernández-Alarcón of the Ministry of Foreign Affairs describes the achievements of the department in processing, authorising and issuing passports to Colombian citizens. In the second part, Sergio Bueno-Aguirre of Migración Colombia outlines the changes and improvements to the services provided by Migración Colombia.

The process of transforming migration services in Colombia has been constantly improving, in particular since 2010, with the change in platform for issuing travel documents and, subsequently in 2011, with the creation of the special administrative unit, Migración Colombia.

Colombia adopted the entire technological platform recommended by ICAO and centralised the printing process for all its different kinds of passports. In addition, personnel underwent training and the number of issuing offices in Colombia and abroad increased. In Bogotá, Colombia has two central offices, each with the capacity to serve around 1,000 people per day.

Customer service has perhaps been the most important achievement. With the evolution from a paperbound process to fully independent modules for personalised service, privacy is now assured during the data capture process. In addition, public

officials are equipped with all the electronic devices they need to do their jobs quicker and more efficiently. With these devices, they can initiate and complete the application process, such as taking photographs and fingerprints, digitalising supporting documents and obtaining payment—all in one place.

This transformation has brought about a considerable reduction in user wait time throughout the application process and guarantees individual attention during verification of identity. Service has also been extended to family groups, so that the mother, father and children can all be attended to at the same time, thus generating a cultural respect and the sense the State is at their disposal.

Continuing with the service aspects, the government increased the number of service offices to 27 nationwide by signing new agreements with Departmental Governors who set the policies that must be followed in such a crucial field as travel document issuance. These agreements provide for the delivery of certain equipment, together with constant updating of information and training for officials in the validation, authorisation and delivery of passports.

To date, 106 consular offices are located around the world that allow us to assist Colombians globally. We hope that in a short time, with the commissioning of online platforms for visa services, apostilles (certificates provided under the 1961 Hague Convention that authenticate documents for use in foreign countries) and consular assistance, all these processes will be strengthened and continue to guarantee secure processes and quick service to the public wherever they may be.

Another important measure adopted in the central offices in Bogotá is the generation of a take-a-number digital system, based

Customer service has perhaps been the most important achievement (of the Ministry of Foreign Affairs).

on fingerprinting, which must be validated in the module so that electronic applications can accept them and the application process can continue. This service has been extended to our consular offices. In order to receive this service, Colombian citizens must register for web services.

One successful aspect of particular importance is the answering service for questions, suggestions, complaints and claims currently available to the public through the Integrated Citizen Services Center (CIAC). This technological platform, which together with those already mentioned, allows any individual to express his/her concerns via the call centre, web site, Skype, video, e-mail, social networks and receive a reply regarding all matters within the jurisdiction of the Ministry of Foreign Affairs.

This service has been expanded further to help users save time. Staff located at public help desks in the central offices check documents and provide guidance on procedures to other agencies issuing documents related to passport issuance.

In general, we can conclude that today Colombia is providing one of the best levels of customer service to its citizens, with respect for the users and the highest standards of security and efficiency.

MIGRACIÓN COLOMBIA: SERVICE, SECURITY AND RESPECT FOR HUMAN RIGHTS

In its first two years of operation, Migración Colombia has handled the migration flows of more than 18 million Colombian citizens and aliens and become an international reference point for other migration authorities in Latin America. Its 1,300 officials, who are motivated by attention to service and security and respect for human rights, serve some 30,000 individuals daily entering or leaving Colombian territory.

They provide prompt and rapid attention to applications and courteous service, as a result of being well trained and equipped with the latest technologies. All of which are seamlessly combined with effective procedures for checking electronic travel documents, in compliance with the highest international standards, and the latest generation document readers to verify authenticity.



In its first two years of operation, Migración Colombia has handled the migration flows of more than 18 million Colombian citizens and aliens...



Migración Colombia, in its modernisation upgrade, implemented a new Aliens Card (Cédula de Extranjería) that was designed to follow ICAO guidelines and also launched its online migration programme. This programme uses electronic portals for frequent travellers who, after enrolment, can be quickly processed by Migration Control Service without compromising security procedures.

Migración Colombia's robust technological platform called Platinum, which was developed in-house to provide efficient handling of information, enables 35 Migration Control Posts and 27 Migration Service Facilitation Offices across the country



to be interconnected with access to Colombian court orders, INTERPOL circulars and permits for minors to leave the country, amongst others.

Of the more than 18 million people Migración Colombia processed during the first two years of operation and during the development of controls and migration verification, 1,506 people were detained, of whom 331 attempted to enter the country with improper documentation or through supplantation. The remaining arrests were made for some instances of flagrancy or justice system requirements in relation to criminal activities with domestic and international ramifications.

Our task also includes preventing and fighting transnational crime, such as human trafficking. In relation to the trafficking of migrants, 1,220 were attended to by Migración Colombia as at November, 2013 and, in the context of the Inter-institutional Committee Against Trafficking in Persons with other State authorities, we detected 48 cases of possible sexual exploitation.



Ministry of Foreign Affairs' waiting room

Finally, in the course of its functions, approximately 129,000 documents have been processed for foreigners for safe conduct, extensions of stay or certificates of migratory movement, amongst other things, and some 78,000 Aliens Cards have been issued, all in an effort to provide high quality service to the citizens of Colombia and other countries. ■



Regional Seminars on Machine Readable Documents (MRTDs) and Traveller Identification Management

Tashkent, Uzbekistan – 8-10 April 2014

The Seminar, hosted by the Government of Uzbekistan, is organized by ICAO and supported by the Organization for Security and Co-operation in Europe (OSCE). It will address MRTD standards and best practices, assistance and capacity-building needs of States, identification management and related border security issues.

Madrid, Spain – 25-27 June 2014

The Seminar, hosted by the Government of Spain, is organised by ICAO. It will address MRTD standards and best practices, assistance and capacity-building needs of States, identification management and related border security issues.

In December 2014 there will be a new mandatory Supplemental Access Control (SAC) digital protocol. Will you be ready? This new digital access protocol will be mandatory to all new European travel documents issued as of December 2014.

Tenth Symposium and Exhibition on ICAO MRTD Biometrics and Border Security

Montreal, Canada – 7-9 October 2014

ICAO will hold the Tenth Symposium and Exhibition on Machine Readable Travel Documents (MRTDs), Biometrics and Border Security. A select group of Industry Partners will complement the Symposium, showcasing a broad range of products and services related to MRTDs, biometric identification, travel document security applications and border management systems.

For more information you can visit <http://www.icao.int/Meetings/Pages/upcoming.aspx> or contact:

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ICAO

CAPACITY & EFFICIENCY

IN SEARCH FOR ICAO TRIP REGIONAL SEMINARS HOSTING STATES IN 2015 AND BEYOND

 Every year, ICAO organises two Regional Seminars on MRTDs, Biometrics and Border Security Standards. Relying on the generous support of Host State authorities, Regional Seminars have taken place in Brazil, Burkina Faso, Mozambique, Nigeria, Qatar, Singapore, Sint Maarten (Dutch Antilles), Uruguay and Zimbabwe. Upcoming Regional Seminars will be held in Tashkent, Uzbekistan (8–10 April 2014) and Madrid, Spain (25–27 June 2014).

BENEFITS OF HOSTING

The MRTD Regional Seminars promote best practices related to secure passport issuance and border control systems, while emphasising the importance of issuing ICAO-compliant machine readable passports and participation in the ICAO Public Key Directory (PKD). These events also highlight the relevance of the MRTD Programme in reinforcing national and international security and combating trans-border crime and terrorism. These Seminars have a strong regional focus and address challenges that a specific region may face as well as provide an opportunity for States, especially Host State authorities, to learn about ICAO MRTD technical specifications, discuss their technology concerns, requirements and assistance needs with the ICAO Secretariat, MRTD experts and the donor community and explore options for further capacity building activities.

BENEFITS OF AN MRTD EXHIBITION

The MRTD Regional Seminars are each complemented by an exhibition at which companies display a broad range of products and services related to MRTDs, biometric identification, travel document security applications and border management systems. An exhibition of this nature provides an opportunity for Member States to familiarise themselves with the latest available technologies and solutions and discuss any special requirements or challenges they may have directly with on-site company representatives.

CONTACT

For details about **becoming a Host State** of a MRTD Regional Seminar, please contact Garleen Tomney, MRTD Programme Assistant, at gtomney@icao.int.

For information on **vendor opportunities**, please contact Keith Miller at kmiller@icao.int

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ICAO/UNHCR GUIDE ON MRCTDs



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✈ In this article, Alexander Beck, Senior Legal Officer in the Division of International Protection at the United Nations High Commissioner for Refugees (UNHCR), introduces the recently released Guide for Issuing Machine Readable Convention Travel Documents (MRCTDs) jointly published by UNHCR and ICAO. This article is a follow up to his earlier contribution on the historical development of travel documents for refugees and stateless persons published in the *MRTD Report* (Vol.7, No. 3 Fall 2012, 'From the Nansen Passport to eMRCTDs').

The acronym MRCTD is a composition of MRTD and CTD. MRTD needs no explanation for the readers of this article. CTD stands for Convention Travel Document, an acronym commonly used by UNHCR for travel documents for refugees and stateless persons. 'Convention' refers to the 1951 Convention relating to the Status of Refugees (hereafter Refugee Convention) and the 1954 Convention relating to the Status of Stateless Persons (hereafter Stateless Persons Convention). These international treaties oblige States parties to issue travel documents to refugees and stateless persons lawfully staying in their territory.

WHY A GUIDE ON MRCTDs?

The Refugee and Stateless Persons Conventions both contain a specimen travel document in their respective annexes. The format of the specimens corresponds to the passport specifications adopted by governments at the 1920 League of Nations Paris Conference on Passports and is consequently not compatible with ICAO Doc 9303 Part 1.

Governments, ICAO, UNHCR and other stakeholders all agree that these specimens are outdated and that CTDs ought to be issued in machine readable format. What is missing, however, is a clear international legal basis for this transition as well as practical guidance for MRCTDs.

In fact, Annex 9 to the 1944 Chicago Convention does not, in its current form, apply to CTDs, in particular paragraph 3.10 that obliges Contracting States to begin issuing only machine readable passports in accordance with the specifications of Doc 9303 Part 1 no later than 1 April 2010.

Although its specifications are intended for particular application to the passport, Doc 9303 Part 1 Volume 1 at least provides that issuing States are encouraged to apply them as well to other travel documents. As examples, reference is made to the Seafarers' Identity Document (SID) and refugee travel documents.

With regard to the SID, another treaty based travel document, a revision of the 1958 Seafarers' Identity Documents Convention (C108) was adopted by the General Conference of the International Labor Organization in 2003. The revised Convention (C185) explicitly requires the SID to be machine readable. Arguably, here the problem is solved.

With regard to the Refugee and Stateless Persons Conventions, the option of a treaty modification has, however, been ruled out by UNHCR, which has the responsibility to supervise the application of international conventions for the protection of refugees and propose (or not) amendments thereto.

Instead, UNHCR gave priority to practical guidance. In 2010, it joined ICAO's Implementation and Capacity Building Working Group (ICBWG) and, with the approval of the TAG/MRTD, elaborated the MRCTD Guide in a CTD sub-group, a small team of experts. First presented at the 2012 MRTD Symposium as a 'conference edition', the Guide was carefully reviewed and officially adopted by both UN agencies as a joint ICAO/UNHCR publication in October 2013. It is a very good example of fruitful inter-agency cooperation in a technical area with an ultimately humanitarian purpose (See Figure 1).

WHAT DOES THE GUIDE DO?

Based on existing standards and specifications, the MRCTD Guide offers technical guidance for MRCTDs and builds a bridge between the Refugee and Stateless Persons Conventions and ICAO Standards and recommendations. The general approach of the Guide is to ensure that MRCTDs are aligned as closely as possible to ICAO Doc 9303, while maintaining the key features of the traditional refugee and stateless persons travel documents, ensuring compatibility with both frameworks.

The Guide will be most useful for government officials from passport and immigration authorities. Both have a role to play when it comes to MRCTDs: the former will ensure document security, the latter, document entitlement based on refugee or statelessness status recognition. For this reason, the Guide not only deals with document specifications but also with the legal and administrative framework for issuing MRCTDs. Readers familiar with the ICBWG's Guide for Assessing Security of Handling and Issuance of Travel Documents will quickly realise that the MRCTD Guide builds heavily on this very useful ICAO publication. As with Doc 9303 Part 1 Volume 1, the idea is to root CTDs firmly in the ICAO framework.

In the areas specific for MRCTDs, the Guide seeks to define best practices and to make concrete recommendations, for instance, the need for passport issuing authorities and the authority(ies) responsible for refugees and stateless persons to cooperate in order to ensure fair, efficient (including cost efficient) and secure processing of MRCTD applications. The Guide recommends that the passport authorities assume responsibility for applications, production, personalisation and issuance of MRCTDs. Only the eligibility decision should remain with the authority(ies) responsible for determining the status of refugees and/or stateless persons.

FIGURE 1: COVER OF GUIDE FOR ISSUING MRCTDs FOR REFUGEES AND STATELESS PERSONS

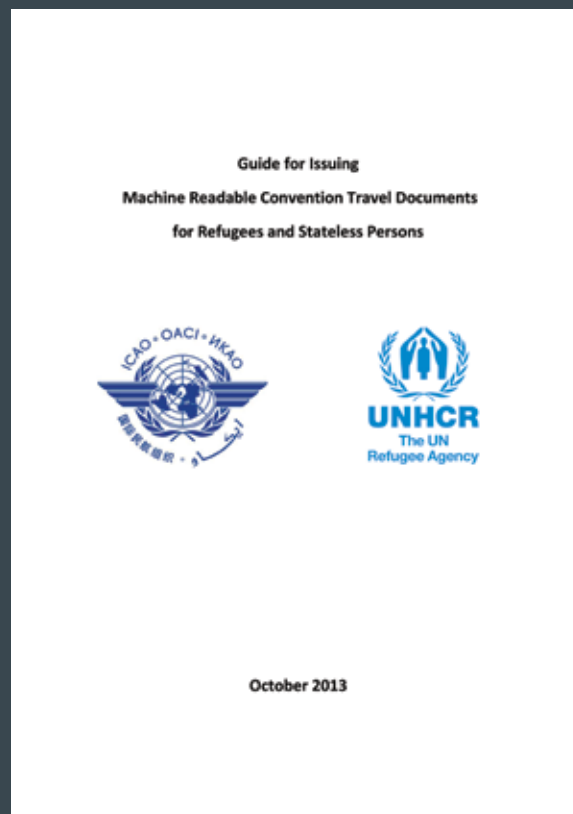


FIGURE 2: EXAMPLE





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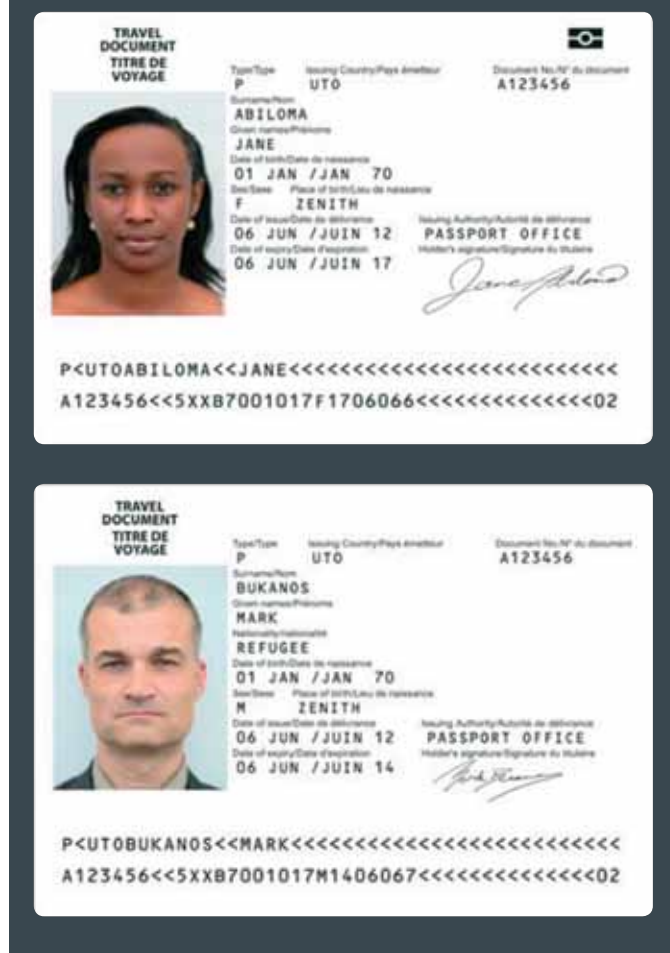
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FIGURE 3: EXAMPLE OF DATA PAGE



The Guide also highlights some specific confidentiality and protection measures when processing MRCTD applications specific to refugees who fear persecution from their own governments, for instance, never to contact the country of origin of a refugee to verify his/her identity.

The Guide also reminds States that the Refugee and Stateless Persons Conventions only allow limited reasons to refuse to issue a MRCTD ('compelling reasons of national security or public order').

WHAT ARE THE TECHNICAL SPECIFICATIONS?

Part II deals with the technical specifications for MRCTDs. While following closely Doc 9303 Part 1 Volume 1, the Guide recommends the general characteristics of an MRCTD, including a blue cover with explicit reference to the respective Convention. The MRCTD for refugees should also display two black diagonal stripes in the upper left corner of the front cover (see Figure 2).

With regard to the elements of the data page, the Guide clarifies a few recurring questions, for instance, whether to mention the nationality of a refugee on the data page and whether to include children. Regarding nationality, the recommendation is not to include it. Regarding children, the line is to follow the principle of one document per person regardless of age in Annex 9. On all these issues, the Guide addresses the topic, makes clear recommendations and sets out the reasons for them.

All of the above is visualised in new specimens for MRCTDs for refugees and stateless persons. States are encouraged to follow their example in order to (re)establish basic uniformity of CTDs globally. For instance, a specific color for the cover is proposed (Pantone 7462) as well as precise language of the Convention text on a separate page (See Figure 3).

It needs to be stressed that with basic uniformity and hence easy recognition of a travel document as a CTD by border guards and other authorities comes an increased level of protection of the document holder. This is important because refugees and stateless persons are persons in need of international protection who lack the protection of their own governments (including generally not being in a position to obtain a national passport).

WHO IS THE GUIDE FOR?

This is a 'how to' Guide for the authorities of States parties to the Refugee and Stateless Persons Conventions. It provides clear and practical guidance to countries that are not yet issuing MRCTDs to refugees and stateless people. Countries that already issue MRCTDs can use it to bring their document more in line with the recommended specimen. Vendor companies should refer to it when designing proposals to governments interested in issuing and/or modernising MRCTDs.

NEXT STEPS

UNHCR's position is that there are very good reasons why States parties to the Refugee and Stateless Persons Conventions ought to issue CTDs in machine readable format in line with ICAO Standards and specifications. The specimens in the Appendix to the MRCTD Guide serve as a new model MRCTD. UNHCR will advocate with all governments of States parties that do not yet issue MRCTDs to start doing so at the earliest opportunity. The MRCTD Guide serves as its main advocacy tool in doing so.

All other stakeholders who have an interest in implementing MRCTDs are strongly encouraged to make use of the Guide. The ultimate purpose: to protect people in need of international protection through the provision of modern travel documents recognisable by all States, indeed, requires efforts from many stakeholders. All such efforts are highly appreciated. UNHCR plans to report periodically in the *MRTD Report* on progress. ■



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