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Security Printers

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It has been 40 years



40 years ago, Intergraf organized the first Security Printers International Conference. As a statement of fact, that is not quit correct, as Intergraf at that time was not called Intergraf, but IMPA, the International Master Printers Association and it was based not in Brussels as now, but in London. As an industry association, IMPA, as does Intergraf now, represented and was driven by the interests of its members and national member federations

and while e.g. the bookbinders or the continuous stationery printers had their own specialist sections within IMPA, one of the members to the governing IMPA council, Pericle Staderini felt that the interests of security printers should also be represented in a specialist section. The idea resonated with security printers in a number of member countries and a planning committee was formed and a first conference was organized in Milan in 1976, attracting around 50 security printers and representatives of central banks and identity document issuing authorities.

To thrive, a new venture needs active and imaginative leaders and the IMPA Security Printers Section was lucky in having good chairmen. One of the longest serving chairmen of the committee was Count Ferdinand von Waldburg-Wolfegg of Oldenbourg Security Printers in Munich, Germany. He was succeeded by Johan Wotte, of Joh. Enschede en Zonen in Haarlem, who brought vast technical knowledge to the job. He was followed by the current chairman, Efthimios Matsoukis of Veridos Matsoukis S.A. Security Printing. in Athens.

Initially the great names in banknote printing, such as De La Rue, Giesecke & Devrient and Oberthur Fiduciaire stayed away, as they were organized in AlIF, the Association Internationale des Imprimeurs Fiduciaires, a very selective club that had the aim to facilitate contacts between competing banknote printers. After the demise of AlIF and after recognizing the need for greater engagement in the whole industry, the great names of the industry participated regularly in the organisation of the events and as participants, exhibitors and speakers.

From its very beginning the Security Printers Conferences featured lectures and presentations by the customers and suppliers of security printers, covering equally the banknote and the identity document sectors. Very early on, the planning committee also recognized that in order to make it possible for printers and customers to talk about really confidential developments and issues, a special meeting for "high security printers" was needed, which excluded suppliers as delegates - but obviously not as speakers - and at which participation was, and still is, by invitation only.

For the first 12 to 14 years attendance figures remained relatively modest, although there were no competing events to speak of and many of the early conferences were held in pretty, smaller towns such as Salzburg, Cannes, Montreux, Stresa, Cascais and Rapallo. In 1984, IMPA was transformed into Intergraf and moved from London to Brussels. Attendance numbers at the conferences rose sharply after, at the conference in Vougliameni in Greece in 1991, suppliers were admitted not only as delegates and speakers, but as exhibitors as well. Numbers reached over a 1000 at the Security Printers, International Conference and Exhibition in Barcelona in 2010. Since this new era of conferences and exhibitions, Intergraf events have given the most universal and precise picture of the security printing industry as a whole - reflecting market and regulatory developments and the latest advances in banknote printing and ID document manufacturing, both in the conference hall and the exhibition floor, with printers, suppliers and customers being equally important parts of the whole.

Editor Mappel Salay -

THE COUNTER COUNTERFEIT FORCE



Superintendent Laurent Sartorius, the head of the Central Anti-Counterfeit Office - the 'Office central pour la répression des faux' of the Belgian Federal Police.

The coming Security Printers, International **Conference and Exhibition in Seville in** October will hear about the fight against counterfeiting of banknotes and forgeries of ID documents from a wide variety of involved actors, from printers and suppliers to central banks and police forces. Of special interest are reports from the front line, such as from national or international law enforcement agencies. To give a little of the background, Infosecura talked to Superintendent Laurent Sartorius, the head of the Central Anti-Counterfeiting Office - the 'Office central pour la répression des faux' - of the Belgian Federal Police. Superintendent Laurent Sartorius, will also give a presentation in Seville.

Superintendent Sartorius explained that the Central Anti-Counterfeiting Office of the Belgian Federal police unites two sub-divisions, the Central Document Fraud Office and the National Central Office for the supression of counterfeit currency (NCO) with a total of about 20 officers. While just about every EU national police force has a NCO, Belgium is a little unusual by having the Document Fraud Office attached to the federal police, rather than to the border protection agencies, as in most EU countries.

BANKNOTE COUNTERFEITING - A PERSISTENT HEADACHE

Historically, in most countries, counterfeiting of banknotes was met by very severe punishments, because the crime of counterfeiting had the potential to severely disrupt or even destroy a national economy. Due to the emergence of electronic bank transfers, credit cards, etc. this threat has been greatly diminished. Consequently, although punishments for counterfeiting are still officially severe, culprits are often given minimum rather than maximum sentences. But banknote counterfeiting is only in relatively few cases a crime of opportunity. More often it is a complex and organized criminal activity.

Belgium, as Superintendent Sartorius points out, has a rather high incident of counterfeit banknotes recovered, relative to the number of inhabitants. This does not mean that there are more counterfeits in circulation than in other EU countries, but that the Belgian cash cycle is very efficient in detecting these notes. It is estimated that about 80 per cent of counterfeit notes detected are printed in offset and 20 per cent are opportunistic counterfeits in laser or inkjet printing.

There is very close co-operation between the National Bank of Belgium (NBB) and the Federal Police Central Anti-Counterfeiting Office, with a part of the unit physically working in the NBB premises. This enables every counterfeit note to be examined and classified as to origin, technique and material used etc., giving the police in the field valuable information of what to look for. If the unit finds that counterfeit notes originated e.g. in the Naples area of Italy or in Bulgaria, the field operational unit will not have to look for a manufacturing site in Belgium but can concentrate instead on finding the middleman or distributor of the counterfeits. About 85 per cent of counterfeits are detected within the banking operation and only 15 per cent outside of it. This means that a large majority of counterfeits do what the counterfeiters aim for; they circulate before ending their - probably only a few weeks long - life cycle at the bank's sorting machines. Those that are detected outside the banking system have a shorter life still, perhaps only a few hours or days. This points to the need to educate cash handlers as well as the public to detect counterfeits. The machine readable features checked by the banking system are of course the final end of any counterfeit, but they come into force only after the counterfeit has done the maximum damage.

Although most counterfeits detected in Belgium are Euro notes - the €20 and €50 are the most common - their different origins make this business totally international. Close co-ordination between national police units is therefore highly important. For Euro counterfeits and within the EU. this co-ordination role is played by Europol, while for non-Euro counterfeits and operations outside the EU, it is often Interpol that acts as the co-ordinator. Fighting counterfeit banknotes before they reach the public has become more difficult - and more international since the advent of the Internet. Criminals can now order material, such as security foils, online or they can buy whole consignments of fake notes through the Dark Net, cutting out whole risk segments. In consequence, it has become as important for law enforcement to attack the supply and distribution chain of counterfeits, as it is for Central Banks to make the notes difficult to counterfeit.

PASSPORT AND ID FRAUD - URGENT AND COMPLEX

The relentless flood of refugees fleeing war and terrorism and the almost equally relentless fear of terrorism in our midst have moved the question of passport and ID fraud into the public conscience, especially in Belgium. Passport and ID fraud is even more complex than banknote counterfeiting, explains Superintendent Sartorius. A banknote is either genuine or counterfeit and, in the case of the Euro, there are seven notes that can be counterfeited. The number of different passports and ID documents that can be falsified is almost beyond counting. A false passport or ID card is very rarely a complete counterfeit, more likely it is a genuine document that has been altered, or a stolen blank document fraudulently personalized, a genuine document used by a look-alike or a fraudulently obtained genuine document on the base of false breeder documents or false declarations.

For travel within the Schengen area, ID cards and passports are equally useful but ID cards are perhaps a little less difficult to forge. Criminals attack for examole, the standard polycarbonate ID card, which has the security features in the front, from the back, by shaving the polycarbonate card body down to a thin layer, which includes all the security features that protect the personal information. The chip that is embedded in the card is destroyed in the process, but the chip is not read at normal police checks and a genuine ID card with a non-functioning chip is not automatically invalid. Having arrived at a thin plastic front laver, criminals insert a sheet with the new personal information, photo, secondary photo and machine-readable information on the back and seal it with a new clear polycarbonate layer. The process is not perfect but it will fool most casual observers.

The extraordinarily high level of technical security of modern passports and ID cards means that instead of physically altering a document, criminals increasingly try to attack the 'issuing chain', by providing easier to forge source documents to obtain genuine ID cards or passports. Superintendent Sartorius said that Belgium is fortunate in having a very complete national register that includes all relevant information about a citizen or resident and that can be searched by the police, e.g. name, date and place of birth and present and past addresses. This makes introducing false source documents much more difficult. Such civil registers are not universal, not even within the EU or the Schengen area. Even when such registers exist, they may be local or regional, making verification of an ID document more difficult, as they may not be centrally searchable. There are of course concerns about privacy, but very strict and definitive regulation about who can search what can alleviate some of these concerns.

Superintendent Sartorius thinks that the number and the kind of security features on most modern EU passports is sufficient to deter forgers, although as there is a learning process even among criminals, regular update of features makes sense. Excellent design and brilliant security features in passports or ID cards are no longer the full answer to ID fraud. However, it makes sense for countries that still have passports that do not reach the high present level of security to update these but it seems just as important, if not more so, to close all weak points in the issuing chain before adding new technological marvels to passports and ID cards.

THOSE THAT HAVE NOTHING

This leaves the question of what to do with refugees that arrive without any ID document at all or that have thrown away their ID documents to disguise where they came from, in order to be accepted more easily as genuinely deserving cases. Here the identification data given, whether genuine or false, has to be taken at face value and needs to be combined with a fingerprint or other biometric feature to link the person to a document, which is in turn entered into a EU or international database. While giving no certainty about the true identity of the person involved, it shows at least if the same person tries to claim asylum in several places, even under a different name.

DATES TO REMEMBER

09/05/2016 Start of registration 05/08/2016 Last day of early registration fee 12/09/2016 Registration closes 05-07/10/2016 Security Printers International Conference and Exhibition in Seville, Spain



Tradition with a sharp edge y TIMB

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Fábrica National de Moneda y Timbre – Real Casa de la Moneda can look back on a long and illustrious history, but the company prefers to look to the future, developing new technologies and products.

The fact that Spain will be the host country for Intergraf's Security Printers 2016, merits a look at the role the country and its security-printing sector play within the whole of our industry. Recent economic data indicated that Spain has left the difficult patch it found itself in and that, with an annual growth rate of 3.5 per cent in 2015, it even outperformed many of its EU peers. It is, in a word, again a serious player.

As can be expected in a country that played an important role in world history for centuries, Spain has a long tradition of producing security documents and currency. All official Spanish security documents, which accompany the life of every citizen, are produced by the Fábrica National de Moneda v Timbre - Real Casa de la Moneda, which also prints the Spanish allocation of Euro notes. For the latter, however, it would be more correct to say that FNMT did so until November last year, as, in order to comply with ECB rules, the Euro production was transferred to a newly formed company, Imprenta de Billetes, S.A. (IMBISA), 80 per cent of which is owned by the Banco de España and 20 per cent by FNMT. FNMT itself is a company owned by the Spanish Ministry of Finance, with a staff of about 1500 people and an annual turnover of approximately €250 million.



The rather long name of the company - Fábrica National de Moneda y Timbre - Real Casa de la Moneda – is already an indication of its long history and denotes the merger in 1893 of two units, the Real Casa de Moneda, the Royal Mint, which was founded in 1614 and the Fábrica del Sello, the postage stamp factory. Although the company is clearly proud of its long history, its heart is in the present and the future. Talking to FNMT's commercial director José Miguel Fernández de Liencres and their head of R&D and Innovation, Paloma Varela García de Oteyza, who is also a member of Intergraf's Committee of Experts, it guickly becomes apparent that what drives the company are its versatility, its commitment to technical innovation and its spirit of public service, all of which bode well for its future, at a time when several European countries have closed or sold their banknote printing operations or are planning to do so.

BANKNOTES

The Spanish peseta was introduced in 1868 and since 1940 it has been printed by FNMT, since 1952 on paper produced at the company's own security paper mill in Burgos. At that time, the company also printed banknotes for other national banks, but when the Euro was introduced, due to capacity restraints, printing of other currencies was discontinued. Mr. Fernández de Liencres said that in the medium term, FNMT plans to enter the international market for currency printing again.

As a printer of Euros, FNMT (or rather IMBISA) is of course fully certified by Intergraf and the ECB as is the Burgos paper mill as provider of Euro banknote paper. The latest Euro banknote that is printed in Madrid is the new €20 note. For the production of this note, which requires a die-cut window, the company employs a laser cutter system developed by the paper mill together with a Spanish company, rather than a conventional die-cutting tool.

Independent of the Euro project, the Burgos paper mill also developed an overt security device that is essentially a paper feature. It is called Tactocel and it consists of a 19 mm wide paper stripe, which can be printed with a wide variety of pigments prior to insertion into the paper web in the paper machine. Among the possible pigments are those that swell up after heat is applied to the wet paper in the drying part of the paper machine, leaving a distinct tactile feature, almost the opposite of a watermark. There are, however, numerous other pigments that can be used to print shapes, letters or figures that are visible without tactility and under different lighting conditions. Both FNMT and the Burgos paper mill offer of course the full range of other security features on banknotes: watermarks,

FNMT's commercial director José Miguel Fernández de Liencres and its head of R&D and Innovation, Paloma Varela García de Oteyza. Spain's new eID card with a new version of the operating system for the DNIe 3.0 on a dual interface chip.



intaglio printing, security threads, holographic patches or bands, see-through registers, iridescent bands, optically variable inks, invisible luminescent fibres, transparent windows, etc. FNMT's Burgos paper mill currently exports security paper to other Eurozone countries as well as to Latin America, Africa and Asia.

FNMT has been closely involved with the Euro project from the beginning by helping the Banco de España and the ECB with developing specifications, as well as new technologies, testing new features and being part of the pilot production. As the Euro project is on-going, FNMT has even seconded key technical personnel to the ECB.

ID DOCUMENTS

As it is responsible for the manufacture of all basic documents, that accompany a Spanish citizen throughout his/her life and safeguard identity and certify qualifications and rights, FNMT is just as deeply involved in all aspects of ID documents as it is in banknotes. In 1964, the year the company's new building in Madrid was inaugurated, it also began to produce passports and national identity cards. The introduction of new gaming laws led to the manufacture of bingo cards, state-run Lottery tickets and football pools. Over the years, producing ID documents evolved from print only to fully electronic systems and data management, an area in

which FNMT has developed considerable expertise.

Spain's ePassport, produced at FNMT, is fully ICAO compliant and carries a contactless RFID chip in the back cover, which contains the biometric data given in the machine readable zone as well as the holders face recognition data. Apart from all the other high security features expected in a modern ePassport, it also contains the mentioned Tactocel feature, but not as a tactile device on the visa pages. Tactocel is a very effective carrier for a number of ink-based security features and, because the security can be concentrated in a relatively small area, it is very cost-effective.

On the eID side, the company last year unveiled the country's new e-Identity card, which includes



a new version of the operating system for the DNIe 3.0 on a dual interface chip which permits both the functionality of the national identity document (authentication + digital signature) and the passport or electronic travel document. Other national identity documents incorporate NFC technology but with two smart chips. This is the first national identity document to be developed on a dual chip, meaning that the signature may be taken either via a contact-based chip or a contactless chip. In other cases, the electronic signature is taken solely via a contact-based chip, while the contactless chip is used in applications relating to travel documents. This is because the electronic signature cannot be stored in two different containers at the same time.

Thanks to NFC technology, documents may be signed on mobile devices (tablets and smartphones). The purpose of the development is to improve the relationship between citizen and administration and in order to do this, several mobile apps have been developed, making it possible to connect directly from the terminal to manage procedures with the e-Administration or do e-business transactions.

As the basis of FNMT activity is the security of the product as well as the security of the associated data, it is equally well placed to carry out work that exceeds the requirements of the state and includes those of private industry. As one small example, FNMT has developed the "Fashion from Spain" identification label in cooperation with the "Fashion from Spain Business Confederation" that will show if a fashion product comes from a Spanish company - "Designed in Spain" - or is fully "Made in Spain".

FNMT is becoming increasingly active in services and will be focusing on this. It developed, for example, the first digital Certification Authority in Spain (CERES), and the provision of electronic administration services will become more important. Digital services, such as those relating to tax stamps, where e-custody and security will go hand in hand, will become an increasingly larger part of the company's activities.

The "Made in Spain" and "Designed in Spain" fashion labels, that FNMT developed in cooperation with private industry.





Electronic ID project in Iraq up and running

Iraq's ambitious ID project, three years in the making, is being rolled out and the first ID documents are beeing issued. As important as the Identity card is the creation of a digita database of citizens.

raq had already considered introducing a national ID card system as far back as the 1980s. However, due to the political changes that subsequently took place in the republic, it was not possible to re-start the tender process until 28 years later, in 2012. In 2013, German company Giesecke & Devrient was awarded the contract as the general contractor. Since January 2015, the company's international business in secure identification and identity management solutions has been incorporated in a joint venture, Veridos GmbH, in conjunction with the German Bundesdruckerei (the Federal Printing Office). Veridos has been tasked with supporting the implementation of the Iraq project.

The electronic ID (eID) project for Iraq is extensive, challenging, and multifaceted. As well as developing and supplying the electronic ID cards and the associated systems and IT infrastructure, Giesecke & Devrient will be setting up laser personalization centres, several hundred citizen centres spread across the country, and data centres for storing data. Employees will be trained and equipped to transfer their new knowledge, old analogue documents will be digitized, and technical support will be provided. Every aspect of the system is stateof-the-art and designed in accordance with current international standards. To give one example, the operating system designed by Giesecke & Devrient for the chips within the ID cards resembles the ultramodern technology platform of the German electronic personal ID card.

PROJECT IN FULL FLOW

Veridos project manager Tobias Nüssle explains that the project is already progressing rapidly. The Republic of Iraq began issuing the first new eID cards to its citizens in autumn of 2015. This process is proceeding according to a roll-out schedule that was closely coordinated with the Iraqi Ministry of the Interior. Citizens are given appointments to submit their initial applications for a card. Appointments were first offered in the Iraqi capital Baghdad, with this service subsequently being extended to key regional capitals.

In order to have a permanent presence in the country, Veridos has since even opened a branch in Iraq. Several Veridos employees work there continuously, alongside a few dozen colleagues from local sub-contractors. "Proximity to the client has proven to be of great benefit to the project. The cooperation is going well and there is a high level of trust between ourselves and our sub-contractors," explains Hans Wolfgang Kunz, member of the Management Board of Giesecke & Devrient and CEO of Veridos.

DIGITAL DATA STORAGE

One unique aspect of the project is the creation of a digital database of citizens. As many as 40,000 handwritten family records, totalling around 10 million pages, have already been digitized for the purpose of this national population register. The high-resolution colour scanners supplied from Germany are taken from one city to another, where the handwritten family chronicles hitherto used by the Iraqi government are successively scanned. This means that these important analogue data are not truncated but are instead stored in the new National Registry and secured for the future. In future, all details such as birth, marriage, or change of address will be registered in this data base.

It will ultimately be possible for Iragi citizens to enter their personal details and submit applications for identity documents in more than 350 citizen centres, which are currently being set up in towns and districts all across the expansive country. For this purpose, all citizens must take part in a data capture process lasting around ten minutes per person, in which they will need to provide fingerprints for all ten fingers and undergo iris scanning. The Iraqi government is implementing this measure with the aim of preventing any future misuse of data. The data is then administered centrally within the National Registry. The registration offices are being provided with state-of-the-art technical equipment to carry out these data capture processes. This includes several hundred mobile enrolment cases. which can be used to travel directly to citizens with disabilities to capture their data. These cases have been produced to comply with specific specifications – for example, they undergo a special welding process to ensure that no desert sand or dust can penetrate.

HIGH LEVEL OF ACCEPTANCE NATIONWIDE

The ID card itself also benefits from a high level of protection. The principal material component of the card is a very robust polycarbonate (PC). It also has cutting-edge optical and electronic security features on every level that will obstruct any attempts at manipulation or identity theft. "It is particularly important to the client that high security requirements are fulfilled in line with global standards," says Kunz.

There has been a high level of acceptance of the eID cards among citizens and media representatives across the country. They recognize the benefits of the new solution, which replaces three old identification documents for public administration processes: the Residency Card, the old ID card, and the Nationality Certificate. What is more, individual processes that once differed across regions are now being standardized.



As is normally the case with such projects, and in line with international security requirements, the project also involves the creation of two fully redundant data centres. Both data centres use cuttingedge data base servers and network technology.

KNOWLEDGE TRANSFER

An additional aspect of the project is the transfer of knowledge to local employees and the train-thetrainer initiative, which was launched during the implementation phase. Since then, 250 employees have been trained at professionally equipped training centres in Baghdad and Munich. It is planned that at the end of the project they will go on to train around 6,000 local employees from the Iraqi Ministry of the Interior who are tasked with operating the technology on the ground. To do this they require prior technical knowledge alongside specialist knowledge to be imparted. Veridos helps in specifying the requirements, setting up training sessions, and providing a portion of the training.

It will be some time before all 30 million Iraqis have received their new eID cards. However, work is already being carried out in parallel on extensions to the system. "Our eID system offers the Republic of Iraq the foundation on which to digitize and include more countrywide administration processes and thus make them more efficient. The eID system therefore opens the door to the age of eGovernment," explains Kunz. Not only eID cards but also other official documents such as passports and drivers' licenses can be managed with this system. The new National Registry system has already been used for more than 50 different applications.

of the issuance of the new elD cards: Brigadier Nashaat Ibrahim - Mol Project Manager, Tobias Nuessle -Branch Manager, Veridos Amer Rifat - Sales Manager, Veridos

Celebrating the start

National eID Projects: handle with care

Introducing national eID projects linked to central databases can be immensely beneficial for a country, but there can also be pitfalls that must be avoided.

n the last issue, Infosecura presented the case of the introduction of an elD card system in Nigeria. In this issue we follow with a project that was successfully rolled out in Iraq. There are many eID projects all over the world in different stages, not one is identical to any other but there are some, such as the ones in Nigeria and Iraq that are really special. Not in their technical design and execution but in the effect they potentially have on the countries for which they are designed. These are eID projects that are vitally important building blocks of "nation building", a term that became popular after the Iraq war, when it became obvious that the state of Iraq could fall apart if no measures were taken that would bind the disparate parts together. It also applies to Nigeria.

NIGERIA

Although on different continents and with cultures that are totally different, there are similarities between Nigeria and Iraq. Both are countries that did not 'grow naturally', but that came into being as a result of colonialism. Nigeria, a kaleidoscope of different ancient kingdoms and tribes is today a federation of 36 states and one federal territory - the capital Abuja. Becoming independent from British rule in 1960, Nigeria went through a civil war and almost alternating democratically elected and military governments. What makes Nigeria difficult to govern is the fact that the North is predominantly Muslim and the South mainly Christian. Since 2002, the north-east has seen sectarian violence by Boko Haram, an Islamist movement fighting to establish Sharia law. It is estimated that Boko Haram attacks have left over 12,000 people dead.

With about 180 million inhabitants, belonging to over 500 different ethnic groups, speaking over 500 languages, Nigeria needs structures that bind the

country together. As only about 30 per cent of the population has any form of identification, a common ID card is an obvious and important ingredient. Lack of identification also means being excluded from most government and banking services. To remedy the situation, the government started a scheme to assign a 'National Identification Number' (NIM), including biometric data, to every citizen over 16, which then leads to issuing an elD card. The card, launched last year, has several functions apart from proving identity. It can be used as an ICAO compliant MRTD, it provides digital signature functionality and it provides payment functions, as it is at the same time a MasterCard. It even carries the MasterCard logo on its back. The simple fact that the card can link 130 million people to the services government and banking can provide, is an enormous boost for the unity of the country.

There has been criticism, of course. Abuja's Premium Times thought it scandalous that MasterCard could brand the eID card with its logo, claiming not only that this was a national insult, but that it raised questions about the security of payment data, that would now be held outside the country. However, in the end it will not be whether MasterCard or another card company gets a lot of customers in Nigeria, but how good the service will be, the government promises to deliver to its citizens, irrespective of religious or ethnic affiliation.

IRAQ

Like may states in the Middle East, Iraq as a state is of fairly recent origin, although the country is the 'cradle of civilisation'. After the First World War. Iraq was carved out of the Ottoman Empire with territorial limits that ignored the needs and aspirations of the different ethnic and religious groups in the country, in particular those of the Kurds and the Christian Assyrians to the north but also the Shi'ites in the south and east. Even when the country became independent as a Sunni-led Monarchy, ethnic unrest by Shi'ites and Kurds continued and political instability became almost the norm. The more recent history of the country under its last dictator Saddam Hussein is well known and, as is often the case, the dictator's iron fist silenced any voices calling for regional independence. However, as soon as Saddam Hussein was deposed by the US-led invasion, ethnic and religious differences reappeared, often bloodily. By 2015, Iraq was effectively divided, the central and southern part being controlled by the government, the northwest by the Kurdistan Regional Government and the western part by ISIS (Daesh). In an area, where ethnic and religious groups have held their territory for millennia, but where a (relatively new) state has been built around them, creating loyalty is a very slow process, requiring many small steps.

The purpose of modern eID systems is not only to allow individual identification, but to create and give access to a central database, usually linked to government services. eID cards usually include biometric information such as fingerprints, iris scans and a photograph. If the rollout continues as planned, everyone in reach of the central government in Iraq will be affected and hopefully benefit. Cards therefore will have deep implications for wider policy, relationships between citizens and the state and for power relations more generally.

In a state that cannot count automatically on the patriotism and the loyalty of its citizens and where ethnic, tribal and religious loyalties almost invariably trump national ones, being able to deliver proper and needed services can be a very important step in nation building. If the state can prove that it is of genuine use to its citizens by delivering access to education, health care, etc., it will be seen gradually as a positive institution that is worthy of being defended. However, it needs extraordinary sensitivity to carry the process through.

The risks are well known. During the time the US army and its allies were in the country, a massive database of about 750,000 Iragis tied to unique biometric identifiers, was built up, according to the Electronic Privacy Information Center (Epic.org). At that time, in 2007, the US biometrics program manager in Iraq expressed concern that this database could "become a hit list if it gets into the wrong hands." Epic writes that in 2006, according to the then head of the UN human rights office for Iraq, "people are basically killed or taken away simply because of their name, their identity or specific affiliations." Because names are associated with religious and ethnic identity, many Iragis change their names or carry fake IDs to avoid being murdered by rival sects. Numerous reports indicate that Iragis regularly risk death if they are proven to be of a different sect than gunmen at a checkpoint.

Things may have improved a little since Epic voiced its concerns, at least in the areas under control of the central government, but the need for the most delicate handling of a national database and robust privacy protection remains.

As late as September 2015, the "Middle East Monitor' wrote that "Members of the Iraqi Parliament demanded people's given titles (part of names allowing religious or tribal identification) be removed from the planned ID cards, to prevent a repeat of the wave of murders that took place in 2006-2007 and claimed the lives of tens of thousands of Iraqis." It is hoped that the eID scheme can deliver all the hoped for benefits without succumbing to the feared risks.

Passports now and then

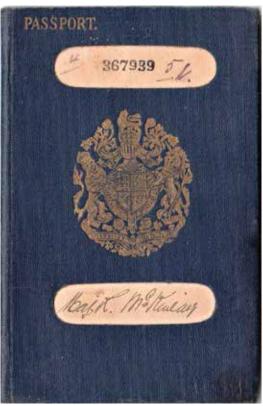
Although a passport from the 1920s is still recognizable as such, the differences between then and now are huge. Here is a look at what has changed.

By Tom Topol, editor of Passport-collector.com



Tom Topol is a member of the Ephemera Society in the UK and USA and a well-recognized expert on passports and their history, with several publications to his name. He does consulting for collectors, foundations, museums and news media agencies on this topic. A reference list is available online. His website (http://www. passport-collector.com) is the leading source on the topic. You can follow Tom also at Twitter and Facebook.

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N owadays passports are high-tech documents, standardized by the International Civil Aviation Organization (ICAO), which recently updated one of their guidelines to make Machine Readable Travel Documents (MRTD) even more





secure. Around the globe and especially just now in Europe, migration is a huge challenge. A minority of migrants try to enter their country of desire with altered or forged travel documents. So standardisation and security features are necessary. The 9/11 tragedy triggered a significant global change in travel and document security.

So how has the passport design and the method of verification of a passport and its bearer changed in the last 100 years?

For me, passports of 100 years ago were art. Why? Well, let's take a look at this British passport from 1921... Firstly, there is this huge passport cover, almost double the size of a travel document today, with its impressive golden Coat of Arms. The passport number was stamped and the bearers name was written by hand. The cover just stated "PASSPORT".

When opening this piece of art, we can see that the document is one huge page folded in such a way that there are 16 "pages" for entries (plus two pages of passport regulations), including "description of

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the bearer" and "photograph of the bearer" plus the same for "the wife of the bearer".

Yes, 94 years ago ONE passport was good to travel with your wife. Today the principle "one person



- one passport" rules and even a new-born would need a passport for travelling. The gentlemen here wasn't married so we see only his passport picture, nicely with a hat. Impossible today! Passport pictures were generally introduced only in 1915.

The bearer's signature was already made on a special field in the passport application, which was then glued below the picture by the passport office and blind sealed (a security feature then). The same applies for the passport picture, which had a rubber and a blind stamp. The passport fee in 1921 was six pence (£2.65 equivalent today), which you can see on the revenue stamps. Today a British e-Passport costs £72.50 for the standard version according HMPO. A pass-

The 1921 passport of Major R. McKinley, including (above) a transit visa from Bulgaria. port in 1921 was valid for only two years, nowadays for 10 years.

The gentlemen here was an army officer with the rank of a Major (according the passport description) and he travelled quite a lot, as we can see huge and colourful visas & stamps e.g. from Bulgaria, Switzerland, Italy, Greece or Constantinople.

Now, if you travel as a European only within Europe you don't get these colourful stamps and visas any more and your travel document with 32 pages will remain most likely empty. The UK passport today is good for visa free travel to 147 countries (Source: http://www.passportindex.org/). Only for the remaining +- 60 countries you would need to apply for a visa where you then might get a more or less colourful visa sticker or stamp with more or less advanced security features as well. In 1921 you needed a visa for almost any country.

A border officer back then had only a very few characteristics available to verify a passport and its bearer, mostly focused on the passport picture, the signature and the watermark in the paper of the document. The personal description of forehead, nose, chin, mouth, hair or face were not really good verification characteristic, but still there was the height, eye colour and special peculiarities. The working conditions at borders back then were also completely different, as the officer was maybe outside at night, during the rain, in poor lightning, etc. Nowadays, border crossing points are usually well equipped to support the duties of an immigration officer.

Today ePassports are high tech documents, not only because of an attractive design that changes in some passports from page to page, but mainly because of complex and multiple security features. Micro printing, holograms, UV features, laminates and watermarks are only a few of the security features. Modern MRTD can include up to 30 such features, some only known by the security printer and the relevant crime labs. Attractive design has become a security feature by itself, with some UV features displaying veritable fireworks.

It was once rumoured that the next issue of the US passport would play the national anthem every time you open its cover. Although this seems more of a wisecrack, the passport designs of some countries are increasingly displaying a very "patriotic" touch.

Old passports are truly pieces of art for me as they are indeed unique documents compared to the standardized MRTD today. My own collection contains over 600 documents, including historically valuable ones, such as an Austrian passport of 1848 for a delegate to the Frankfurt National Assembly (the first freely elected German parliament), a diplomatic passport of 1915 of German Ambassador von Wangenheim, who witnessed the Armenian genocide, the passport of Count Zeppelin or the passport of Arthur Henderson (UK, 1934, Nobel Peace Prize, Secretary of State at the Foreign Office).

Passport collecting is a most interesting, entertaining and at the same time most educating hobby. It's about political and geographical history. You need to have knowledge of the history of a country, its political situation and geographical location at that time a passport was issued. You learn a lot about the bearer's personal history. Why was he travelling to the Far East, India or Europe at that time? How did he travel? Which countries did he pass through, until he arrived at the final destination? Remember - just 100 years ago travelling was not as easy as it is today. So it's also about the history of travelling.

When do YOU start collecting?

Creative light effects

The new UK passport is undoubtably pretty, but behind that pretty fassade lurk some very impressive technical advances.

A s the previous article shows, passports, until quite recently, may have been interesting for what had been added to them after they were issued, such as personal data, visas and the resulting travel history, but they were hardly ever visually interesting by themselves. That has changed in recent years. Many countries now have different background designs on every pair of visa pages, making the bearer almost wish not to get a visa stamp so not to spoil the beautiful image on the page. Or have the visa pages been made so beautiful because there are so few visa stamps to be had, at least in Europe? One of the latest examples of a visually exciting passport is the new one of the United Kingdom. The UK changes passport designs every five years, which means that with a normal validity period of 10 years, border control officers have to be familiar with at least two UK designs. The UK passport office HMPO is doing a good job of informing the British public about the features of the new passports, it is hoped that it is just as efficient in informing the immigration authorities from Afghanistan to Zimbabwe about the new design and the accompanying security features.

At the launch of new passport in early November 2015, Mark Thomson, Passport Office Director General said that he believed that "it is the most secure passport in the world" containing " the most intricate designs and security features that have ever been included in a British passport."



The bio data page of the new UK passport in normal and UV light. The secondary portrait is composed of tiny letters.

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There are indeed a number of security features that are new in the UK Series B passport. One is a new way of constructing the passport book. The paper data page, protected by a laminated foil, is a 'continuous bio data page', as it extends to the rear end page and becomes part of the inside cover, making it very difficult to dismantle the passport book and substitute a new or altered data page. To make the data page even more secure, it contains thinned areas of paper called skylights, which make it impossible to separate paper from laminate.

Another feature on the data page that will make the life of counterfeiters very difficult is De La Rue's Gemini feature, which can be observed in the sextant on the top right of the data page. Under normal light the grey area of the design is one solid colour, under UV light, however, it appears as two different colours, in this case as red and white. There are of course watermarks galore. On the data page one can see the celebrated sailing boat Gipsymoth IV while on every visa pages William Shakespeare looks out as a 3D watermark, accompanied by a writers quill and the page number as electrotype watermark.

The passport number is not only printed on the data page but it is repeated on every visa page as

a perforated number with some differently shaped perforations. The perforation holes become smaller as one leafs towards the end of the book.

There is obviously a lot of creativity in the design and placement of the many security features. Where the visible creativity, which is the theme of the passport, comes into play is in the illustrations on the visa pages, in the merging of visible and UV images, especially in the bio data pages. In the latter both are perfectly aligned and the visible map is completed and extended by the UV map. The illustrations on the various visa pages, all in pale colours so as not to compete with the visa stamps, celebrate various aspects of creativity throughout the ages in Britain. There are architects and their work, artists from Constable to Anish Kapoor and Anthony Gormly, great British 'firsts' such as the steam engine, the London underground, and guintessentially British 'icons' such as the Penny Black stamp, the red telephone box and Shakespeare's Globe Theatre, to mention just a few.

"This is the most secure passport we have ever produced. It is the best we can do at this time and we think it is pretty damn good," Mark Thomson, Director General of the UK Passport Office, is quoted as saying. And he is probably right.

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DE LA RUE CONCLUDES MANUFACTURING FOOTPRINT REVIEW

Group to reduce banknote printing capacity by 25 % and make Malta 'centre of excellence' for ID and security printing

n its 2015 annual report, the then new CEO, Martin Sutherland, announced that a strategic review of the Group's businesses had been conducted to assesse the outlook for the next five years. The Group now had a clear strategic plan, he continued, which confirmed that the current integrated portfolio was beneficial and would be maintained. A differentiated approach would be applied to products based on market growth opportunities. For products in low growth markets the group will 'optimise and flex' capabilities through operational efficiencies, cost reduction and accessing flexible capacity. For products in higher growth and more profitable markets, the group will 'invest and build' in new capabilities, technologies and resources.

REDUCTION IN BANKNOTE PRINT CAPACITY

At the end of last year, DLR announced the results of its review to optimise its manufacturing footprint. The group will reduce banknote print capacity from 8bn banknotes per annum to 6bn but it plans to use part of an investment of less than £30m to replace and modernise existing print equipment over the next two years and to reduce the number of production lines from eight to four. In 2015, De La Rue printed 6.5bn banknotes but the company said that there will be enough flexibility in printing capacity to print up to 7bn banknotes per annum, should the need arise. For volumes of over 7bn notes external partnerships will be used. This move is expected to lead to saving as of FY 2018/19 of over £13m per annum. Banknote printing will be concentrated in Gateshead in the U.K., Kenya and Sri Lanka. The banknote production in Mala will close.

SECURITY AND ID PRINTING GOES TO MALTA

The company, however, also announced that a significant portion of the overall new capital investment will be invested in equipment and skills to create a centre for excellence for Identity and Security Print at De La Rue's current site in Malta. The current Security Print capability in Gateshead, U.K. will be relocated to Malta. The restructuring will impact around 400 jobs, with approximately 300 being at risk of redundancy, mainly in Malta.

CPS PULLING DOWN PROFITS

Just about a week before the announcement of the manufacturing review, De La Rue's published

its interim results 2015/2016, which were slightly ahead of expectations, leaving the full year expectations unchanged. The group's 12 month order book was up by 37% year-on-year at £405m, although market conditions remain volatile, the report stated. Print and Paper volumes were better than expected and benefited from large overspill contracts and De La Rue's polymer substrate Safeguard attracted a significant three-year contract.

The half-year statement also included an item announcing a review of the future of the Cash Processing Solutions division, which the Financial Times accused of "helping to pull down half year profits", through its "mounting losses". These mounted to £4.7m, from £1m a year earlier, after a 37 per cent slump in sales. De La Rue CEO Martin Sutherland said that the company would conduct a "root and branch" review to be completed by the end of the financial year. He said that "we will leave no stone unturned", not even ruling out selling the underperforming division.

NEWS

HOLOGRAM INDUSTRIES BECOMES SURYS

After trading for about three decades under the name of Hologram Industries, the company's range of products had expanded from the production of holographic devices into a broad portfolio of security offers, based on innovative applications of optical, material and computer sciences. A change of name to Surys, that was announced at Cartes 2015 in Paris in November, would reflect the company's wide ranging offerings better, said Hugues Souparis, President of Hologram Industries and now of Surys.

The name Surys is to evoke security, elegance, sureness and confidence, the company said. The company is active in the fields of security devices for banknotes, ID, vehicle security documentation and brand/product authentication and traceability. It is headquartered near Paris and has subsidiaries in Poland and the USA, a research facility in Germany and it owns the Dutch company Keesing Technologies. In 2014 it acquired the passport printing firm Trigenion, which has now been incorporated into Surys.

It will be a good year for Durasafe

With the new Swiss Franc series finally coming into circulation, Durasafe can show that it is a serious contender among the competitors in the field of banknote substrates. The new Tenge note will help as well.

The 20 000 Tenge note issued in December 2015 on Durasafe



Shortly before the Swiss National Bank (SNB) announced the definite issue dates for the first denominations of the ninth series of Swiss Francs, Kazakhstan pulled a rabbit out of the hat by issuing a new 20 000 Tenge note printed just like the new Swiss Frank - on Landqart's paper/

polymer/paper substrate Durasafe. Neither the Tenge nor the Swiss Frank will be the first currency to be printed on Durasafe, that honour goes to Morocco, which issued a 25 Dirham note in January 2013 that commemorated 25 years of banknote printing at the Bank of Morocco's banknote printer Dar as Sikkah.

THE LONG WAY TO CIRCULATION

While the National Bank of Kazakhstan seems to have made up its mind very quickly, in line with its well-deserved reputation for courage and decisiveness in banknote design and manufacture, the birth of the new series of Swiss Francs was a very protracted affair. The SNB began the process of replacing the 8th series and working towards a new Swiss Franc series in 2005 with a design competition, which was won by Manuel Krebs of Zürich, with Manuela Pfrunder coming second. In February 2007, not the



winner, but the runner up was chosen to bring her design to a production level by mid 2008. Two years later, the SNB announced that further development work was necessary, delaying the original issuing date of Autumn 2010. Again two years later, in 2012, the bank said that unexpected problems had occurred in the first stage of banknote production, which would delay the issuing date by a further year and in December of the same year, it was announced that the first notes would not appear before 2015 at the earliest.

However, in May 2014, the SNB finally confirmed that the new series would be produced on Landgart's composite substrate Durasafe. In spite of this late announcement, the SNB had an important role in the overall history of the creation of Durasafe. The Bank had encouraged Landgart, a Swiss company now owned by the Canadian firm Fortress Paper, to develop in cooperation with the Eidgenössische Technische Hochschule, (ETH), the Swiss Technical University, a banknote substrate that would combine the strength and resilience of polymer with the traditional feel of paper. The substrate was successfully developed as a polymer core with paper on both outsides, fully meeting expectations, but it had a somewhat slow start in the banknote industry. The new issue of the Swiss Franc, the first of which, the 50 SFr will be issue on April 16, may be the boost it needs to finally take off. The new 20 000 Tenge note will also help.

A BOOST FROM KAZAKHSTAN

The new Tenge note is, however, not quite as new as it looks. The denomination was printed in 2013, under the then Chairman of the National Bank Grigory Marchenko, who planned to dedicate it to the 20th anniversary of the Tenge in November 2013. He, however, became concerned that the note would spur inflation and decided to delay the introduction. Meanwhile, the Tenge was allowed to float freely in relation to other currencies and inflation in Kazakhstan rose by over 13 per cent p.a. partly due to general economic conditions in central Asia and also because the country's most important trading partners, Russia and China, had devalued their currencies.

The new 20 000 Tenge note, finally issued in December 2015, is described by the Central Bank as one of the most counterfeit resistant banknotes in circulation. The Bank mentions especially a composite thread, visible from both sides in the form of the Samruk mythical bird and its contour lines in the form of a transparent window. Following the other Tenge denominations, the direction of the front is horizontal and that of the back vertical. The new note also has visual features to aid users with impaired eyesight.



COMMEMORATIVE BANKNOTES:

RUSSIA MAKES A POINT

Central Banks often use commemorative banknotes to test new ideas or show off new technical developments. Sometimes, on behalf of governments, they also use them to emphasize political points.



The new Russian Ruble symbol

Russia's Crimea commemorative note. Left the Sevastopol side and right the Crimea side



he Russian Federation uses commemorative banknotes only sparingly. In 2013 it issued a 100 Ruble note to mark the Olympic Winter games in Sochi in 2014 - an event that probably marked the height of Russia's popularity in the West. That popularity plunged with the unfolding events in Ukraine and the transfer of Crimea from Ukraine to Russia. Political opinion over this is still divided, but in December 2015, Russia decided to emphasize this event with the second commemorative 100 Ruble note. It is not unusual that countries use commemorative banknotes to emphasize a political point. A recent example is the 50-peso note issued by Argentina in 2015, showing a map of the Falkland Islands in the South Atlantic, which the country claims as Malvinas, and over which it fought an unsuccessful war with Britain in 1982. Even Russia's Olympic Sochi note had a political dimension, celebrating the country's place among

the world's progressive, peaceful states. Commemorative notes may be effective in making a point, but they are not good making such a point in a timely fashion, as events can quickly make the message of the notes irrelevant.

Following the Olympic commemorative note, the design direction of the Crimea note, of which 20 million were printed, is vertical and as Goznak, the printers of the banknote, point out, there is no defined front or back. Both sides have equal illustrative value and one side puts Sevastopol in its most prominent place, while the other side is dominated by an intaglio engraving of the "Swallow's Nest", a neo-gothic. and somewhat Disneyesque, castle and famous tourist attraction on Crimea's south coast. Bot sides of the note are heavy with references to the peninsular and Russia's history. The dominant intaglio engraving of the "monument to the sunken ships" refers to an episode in the Crimean war, that Russia fought from 1853 to 1856 against Britain, France, the Ottoman Empire and Sardinia, in which the Russian navy scuttled

its ships to block the Sevastopol harbour and to prevent the ships from falling into enemy hands. More recent history is referenced by the "Memorial to the heroic defence of Sevastopol in 1941-1942". There are also references to Russia's Black Sea Fleet, which has used the harbour since Tsarist times, lately under a leasing contract with Ukraine. A line image of the Sevastopol Cathedral is a nod to the orthodox religion to the Crimean majority, while a similar line drawing of the Khan mosque on the reverse side acknowledges the faith of the former owners of the peninsular, the Crimean Tatars, which are now in the minority.

The Crimea note has more and better security features than the general 100 Ruble note in circulation. Goznak claims that the watermark showing a portrait of Empress Catherine the Great, the founder of Sevastopol, uses a new technology that

combines a multi tone watermark, with a "filigree" (probably an electrotype watermark), which provides an image with high contrast. Goznak also writes that there are several covert images of the new Ruble symbol that was adopted by the Bank of Russia in 2013. The banknote is purportedly the second one in the world to use a "Quick Recognition" code (QR code) which. when scanned with a smart phone, links to a website that provides further historical background about Crimea and the banknote. The first banknote to carry a QR code was Nigeria's 100 Naira note.



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India has reintroduced one rupee notes, plans to experiment with 10 rupee polymer notes and upgraded its 100 and 500 rupee notes with further security features

he Indian currency scene is full of announcements by the Reserve Bank of India (RBI) or the Ministry of Finance of changes to the Indian currency that are to be implemented soon. One of these was the announcement by the government to parliament in 2014 that about 1 billion ₹10 (rupee) notes printed on polymer would be introduced in a field trial in the Indian cities, Kochi, Mysore, Jaipur, Shimla and Bhubaneswar, which offered sufficient climatic differences to assess the notes. In July 2015 the Reserve Bank of India said that the procurement process had started but some technical problems had come up and the process had to be repeated. But "in the coming year we should get the process fully on", the Reserve Bank's Deputy Governor R Gandhi said. Considering that in 2013 ₹10 notes accounted for about 34 per cent of the total banknotes in circulation, while in value terms, they made up only about 2 per cent of the total, it is obvious, that the RBI wants to get the substrate choice absolutely right.

BIG MONEY FOR SMALL NOTES

To print ₹10 notes on polymer would indeed make sense, considering India's climate and the habit of many Indians, not to use wallets. It seems to make less sense to reintroduce one and two rupee notes printed on paper. The printing of one rupee notes, today worth about 1.4 (euro) cent, was discontinued in 1994 because of high printing cost as compared to the length of circulation of the notes. The RBI had decided to stop printing notes below ₹10 after it found that small denomination notes commanded 57 per cent of the total volume of notes in the country and their average life was less than a year. One, two and five Rupee notes subsequently only circulated as coins. However, ₹5 notes were reintroduced in 2005 following a shortage of coins.

Without great fanfare, in March 2015 the Indian Finance Ministry reintroduced one rupee notes, which unlike other currency notes that bear the signature of the RBI Governor, have the signature of the Finance Secretary. The reason seems to be that only the government has the authority to issue coins and the one rupee note is considered to be a coin for legal reasons. The new pink-green ₹1 note bears the Ashoka Pillar as watermark. There is a demand for such small denominations in India, which is not always met. It is not unusual, that shoppers receive tokens or a small sweet instead of a missing rupee as return change. The new notes should therefore help, although issuing 160 million notes in fiscal years 2013 to 2015, means that most of India's 1.277 billion inhabitants will have to wait to see their first one rupee note. Printing the notes is not cheap, as it costs the government ₹1.14 to print a one rupee note, a right to information query has revealed.

ADDED SAFETY

Another step soon to be taken, according to the RBI, is that ₹100 and ₹500 notes will be improved with more security features. "The Reserve Bank will shortly issue ₹500 denomination banknotes with three additional/revised features in the Mahatma Gandhi Series-2005", it said in a notification in January. The RBI said these notes will have ascending size of numerals in the number panels, bleed lines, and an enlarged identification mark, on the obverse. Besides, RBI will also issue new ₹100 banknotes with added features including identification marks for visually impaired persons, such as raised lines (bleed lines) on the edge of the notes. The different sizes of Indian Rupee banknotes also aid the visually Impaired. "₹100 banknotes will have a total of four angular bleed lines in two sets of two-two lines on the obverse on both the left and right-hand edge of the bank note," the RBI said.

SWISS NATIONAL BANK ANNOUNCES ISSUE DATE FOR NEW SWISS FRANC

t a press conference in December 2015, Fritz Zurbrügg of the Swiss National Bank announced that the first denomination of the new Swiss Frank series, the Sfr 50 note, will be presented to the public for the first time at a news conference on 6 April 2016, and will first be issued on Tuesday, 12 April 2016.

The new notes will be put into circulation continuously from that date onwards. A large-scale information campaign will inform the general public about the new note and on ways to check its authenticity. The remaining banknotes in the series will be issued subsequently at half-yearly or yearly intervals. The SNB will announce each new issue date well in advance. The current eighth banknote series will continue to be legal tender until further notice. The date on which the current series is to be withdrawn from circulation will also be announced well in advance.
> t is nice to know that banknotes still have the power to excite. The banknotes in question are at present remarkably unexciting, at least visually. We are talking about the US Dollar notes, which only recently acquired a little bit of colour other than black and green and some modern security features. Apart from that, all seven denominations show a dead president or founding father on the front and a building on the back (except the \$1 and \$2 notes, which show the Great Seal of the United States and the signing of the Declaration of Independence respectively).

> If having been a president or founding father and being dead is the only immutable qualification for appearing on a Dollar note, proponents of racial and gender equality would just have to put up with it for the foreseeable future, as all founding fathers and all dead presidents have been white and male. In the long term, racial equality could be restored by President Obama's portrait appearing on a Dollar note, and, who knows, there may be a female US President in the future. But considering that the most recent US President on a current Dollar note is Ulysses S. Grant, who left office in 1877 and made it onto the \$50 bill in 1913, it is unlikely that equality activists would be patient enough. Recognizing that, US Treasury Secretary Jacob J. Lew invited

IHMA APPOINTS NEW GENERAL SECRETARY

The International Hologram Manufacturers Association (IHMA) has outlined its plans for continuing growth with the appointment of Dr Mark Deakes as new General Secretary. Dr Mark Deakes succeeds lan Lancaster who has stepped down after leading IHMA more than 20 years. In his new role Mark will spearhead the IHMA's representation of the world's leading producers and converters of holograms for security, packaging, graphics and other commercial applications.

He has extensive knowledge and career experience of the security printing sector that has combined technical research work with commercial the public in June last year to suggest the name of a woman from American history to appear on a redesigned \$10 note. The result was a flood of responses - several million of them - including a large volume of unexpected complaints, forcing Mr. Lew to miss his self-imposed December deadline for an announcement and leaving unclear when he will decide. "I think it took us all by surprise just how much interest there really was," Rosie Rios, the treasurer of the United States, said in an interview.

The comments received were generally in favour of having a woman on a Dollar note but they were often harshly critical of the choice of note. The \$10 note is due for a redesign and when Secretary Lew made his announcement he clearly spoke of this note. The portrait on this note is that of the first Secretary of the Treasury, Alexander Hamilton, one of the most revered of the early American public figures, while that on the \$20 is that of Andrew Jackson, one of the most hated ones, as the protests showed.

Even before the official announcement, a grassroots movement of (mainly) women had campaigned for a woman on the \$20 note, gathering well over half a million supporters as well as the support of Sen. Jeanne Shaheen (D-N.H.) (see article in Infosecura 64). The treasury obviously ignored the campaign, thinking that the choice of note would not matter and said that despite complaints, they could not switch notes. The idea of the US Government to make a historic statement about women before President Obama leaves office seems in peril. Instead, officials have to counter arguments that for a woman to be put on the \$10 note instead of the \$20, suggests women are of lesser worth. However, the main thrust of complaints is still that replacing Hamilton but keeping Jackson sends the wrong signals.

responsibilities in international business. After gaining a PhD, Mark began his career as a research chemist, before joining De La Rue in the security print industry where he remained for 15 years.

During this period he developed a particular understanding of surface relief holography and security print products and technology, as well as being involved in new holographic product and process development where compliance with international standards and customer requirements are crucial.

Subsequently, after gaining an MBA, Mark became involved in more commercial activities, including technical sales and customer liaison roles in security print markets, focussing on tax stamps and other secure documents. "Banknote printing is my business. And with G&D only perfect banknotes enter the cash cycle."

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