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WCO news

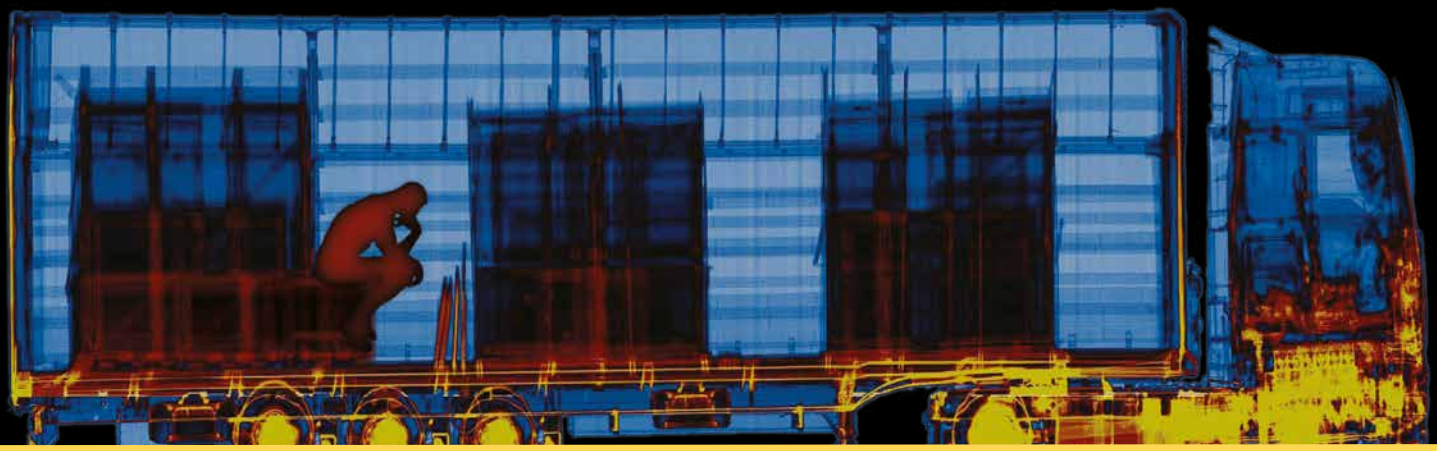
API/PNR

What lays behind these two key words on the global security agenda

World Customs Organization

WORLD CUSTOMS ORGANIZATION

PICARD BAKU 2015



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Bernard Bessis
bernard.bessis@bb-communication.com

Publisher
World Customs Organization
Rue du Marché, 30
B-1210 Brussels
Belgium

Tel.: +32 (0)2 209 94 41
Fax: +32 (0)2 209 92 62
communication@wcoomd.org
www.wcoomd.org

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Operation Cosmo – the first ever global WCO operation on strategic goods

AS PART OF its Strategic Trade Controls Enforcement (STCE) Project, the WCO organized an unprecedented law enforcement operation to detect and prevent illicit trafficking of strategic goods in international supply chains. The operation, which went under the code name of 'Cosmo', brought together 89 WCO Member Customs administrations and their national partners to coalesce around the goals of international security and non-proliferation.

Operation Cosmo benefited from the support of the WCO Regional Intelligence Liaison Office network and of the Organization's international partners in this area – INTERPOL, the United Nations Office on Drugs and Crime (UNODC), the United Nations Office for Disarmament Affairs (UNODA), the International Atomic Energy Agency (IAEA), and the Organisation for the Prohibition of Chemical Weapons (OPCW).

Objectives and operational phases

In addition to detecting and preventing illicit trafficking of strategic goods, Operation Cosmo had several other objectives. One of these was to take stock of the international Customs community's capacity to work together in enforcing strategic trade controls.

Another key goal related to assessing the Customs community's capacity to enforce international strategic goods related resolutions, such as the United Nations Security Council Resolution 1540 in relation to Weapons of Mass Destruction.

To achieve this latter goal, all participants in Operation Cosmo were asked to complete a national self-assessment regarding their national standard operating procedures and work practices in this area.

With the above goals in mind, the execution of Operation Cosmo was divided into four main parts:

- a planning phase, during which a global operational plan was adopted;
- a pre-operational phase which saw participating countries crafting national implementation plans and risk profiles for those strategic goods that were of greatest concern to them;
- an interdiction phase, which took place in October 2014, during which Customs used the predefined risk profiles to target high-risk shipments;
- a follow-up and reporting phase, during which cases of administrative and criminal wrongdoing were investigated at the national and international levels.

Results

To coordinate and provide technical support to the operation, the WCO established an Operational Coordination Unit (OCU) at its Headquarters. The OCU was staffed with national export controls

experts and analysts from several WCO Members; it provided support to participating countries, and facilitated and followed-up on international communication.

With the support of the OCU, the results of Operation Cosmo were encouraging. Over 140 messages on high-risk consignments were generated by participants during the interdiction phase. Another 380 messages exchanged information on cases, and an additional 180 enquiries were made in relation to technical advice on commodity identification and the operation itself.

All cases reported as part of Cosmo were analysed in real-time and those deemed to be low-risk were released, promoting trade facilitation. Those which included elements of administrative negligence or wrongdoing were submitted for correction or further advice through administrative measures at the national level.

To date, there have been approximately 10 cases which are suspected of including trafficking and criminal wrongdoing. These cases have been referred for criminal investigation by the States involved, and many are still under investigation.

In relation to capacity assessments, the WCO has received around 40 national self-assessments. Based on these assessments, it has become clear that the issue of strategic trade controls enforcement is a new and challenging area for many WCO Members.

Various areas requiring capacity enhancements have been identified through these reports. These relate to issues such as legal competence to enforce strategic trade controls, frontline skills to identify and detect dual-use goods, intelligence collection, industry outreach, evidence collection and investigation, lack of training, etc.

The WCO is currently following up with those Members who have not yet submitted their reports. Based on new submissions, a general trends analysis will be finalized. This analysis will help the WCO to build future capacity building and technical assistance activities to better support its Members in addressing those gaps that were identified during Cosmo.

Way forward

As the annual WCO Council Sessions approach, Operation Cosmo is in its post-operational phase during which the operation's final report is being drafted. This report will be presented and discussed, together with the criminal cases uncovered during the operation, at the debriefing event scheduled to take place in the Northern autumn of 2015.

Based on the good practices and needs expressed by the participants, the WCO is exploring the possibility of setting up a medium to long-term technical assistance and capacity building programme in the field of strategic trade controls enforcement – the 'WCO STCE Programme.' It would focus on training, international cooperation, industry outreach, and the facilitation of information and intelligence collection and sharing.

Many Members have also asked the WCO to consider setting up the OCU as a permanent communication and interaction mechanism for export controls and strategic goods experts. The WCO is currently looking into ways of responding to this need. The WCO is also eager to set up a potential 'WCO STCE Programme' and is currently negotiating with several different countries in relation to potential support towards the initiative.

The ongoing STCE Project, of which Operation Cosmo was a part, has produced a very comprehensive policy and training guidance on strategic goods, and will form a solid foundation for all future activities. These useful tools are accessible to Members on the WCO website or the CLiKC! platform.

More information
cosmo.ocu@wcoomd.org

HS 2017 on the horizon

ARE YOU ALREADY busy preparing for the timely implementation of the HS 2017 amendments on 1 January 2017? If not, it is time to start.

The Harmonized System (HS) is reviewed every five years to ensure that it is kept up-to-date in the light of changes in technology or in patterns of international trade, to take account of the needs of its users, and to secure uniform interpretation. The next revision of the HS will enter into force on 1 January 2017 following the adoption of the WCO Council Recommendation of 27 June 2014.

Implementation of the changes involves an immense amount of work by Customs, international organizations and the international trade community. This is evidenced by the fact that not all HS Contracting Parties were able to implement the previous sets of amendments to the HS on time.

To facilitate the timely implementation of the changes, the accepted HS 2017 amendments were published on the WCO website – www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition.aspx – in January 2015.

The dedicated webpage also provides a brief overview of, and background on, the 2017 changes to the HS Nomenclature, as well as Correlation Tables between the current 2012 edition and the amended 2017 edition.

At its 55th Session in March 2015, the HS Committee reached provisional agreement on a large proportion of the consequential amendments to the HS Explanatory Notes. The related Annexes to the Report of the Committee's Session are available to WCO Members on the HS Committee's 55th Session webpage.

The updating of all HS-related publications, such as the Nomenclature, the Explanatory Notes, the Classification Opinions, the Alphabetical Index and the HS Database, is in full swing. The updated versions will be released in early 2016.

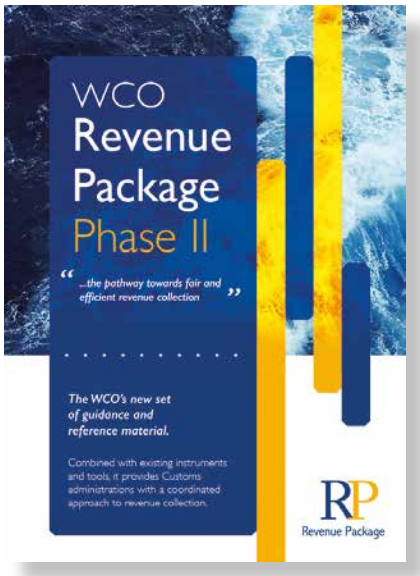
More information
hs@wcoomd.org

Update on the WCO Revenue Package

New tools have recently been developed as part of the WCO's Revenue Package, which collates all material relevant to improving revenue collection and compliance levels.

Diagnostic Tool on Tariff Classification, Valuation and Origin Work and Related Infrastructure; and Guidelines on Customs Infrastructure for Tariff Classification, Valuation and Origin (Members only)

The aim of this new material is to provide a road map and self-assessment mechanism which will help WCO Members to assess their current level, identify weaknesses and plan the necessary steps to strengthen their infrastructure and control programmes. The format for the new tool is based on the diagnostic tool for classification that has already been developed and which was, in turn, built on the structure used in the WCO's Customs Capacity Building Diagnostic Framework.



Diagnostic Tool on Post-Clearance Audit (PCA) and Infrastructure (Members only)

The aim of this tool is to provide a road map and self-assessment mechanism which will help WCO Members to plan the necessary steps to strengthen their infrastructure and control programmes in line with the WCO's PCA Guidelines. The framework for the new tool is based on the diagnostic tool for classification that has already been developed.

Technical Guidelines on Advance Rulings for Classification, Origin and Valuation (Members only)

This document has been prepared to align and combine the various texts currently available which provide advice in relation to the issuing of advance rulings on classification, origin and valuation. This initiative was taken in the light of Article 3 of the World Trade Organization's (WTO) Trade Facilitation Agreement (TFA) which stipulates the requirement to provide advance rulings in respect of classification and origin and encourages WTO members to provide rulings for Customs valuation.

Study and Guide on Origin Irregularities (excluding fraud) (Members only)

Origin irregularity refers to non-compliant cases involving rules of origin (RoO), with the exception of fraud cases committed with deliberate intention. The study shows that Customs administrations regard the low level of familiarity with origin criteria as the major cause of irregularities related to RoO and as one of the reasons why procedural provisions stipulated in free trade agreements (FTA) are not functioning efficiently. The guide contains best practices and actual cases from several WCO Members, thereby providing Customs authorities with solutions on how to confront origin irregularities in practice.

Study and Guidelines on Origin Certification (Members only)

The objective of this tool is to capture the present state of play regarding certification of origin, both in the areas of non-preferential and preferential origin. The guidelines aim to provide useful guidance and practical explanations for WCO Members to assist them in designing, developing and achieving robust management of origin-related procedures.

Guide on the use of mirror statistics (Members only)

Accurate quantification of potential revenue loss is a great challenge. However, there are certain tools that are useful in this regard and which can lead to more focused risk assessment. One of them is the "mirror analysis". The idea is to compare export and import trade statistics for the same products over the same period of time in order to identify possible undervaluation or misclassification of goods and trade gaps where data does not fit, i.e. discrepancies in Customs import and export data.

Good practices guide with respect to informal trade (Members only)

Informal trade is regularly highlighted as one of several key challenges to effective revenue collection. The guide presents national case studies which illustrate WCO Members' various strategies for dealing with this issue.

Good practices guide on the termination of inspection contracts (Members only)

The WCO has conducted several initiatives over recent years to assist and encourage countries which are planning, or considering, the termination of inspection contracts, particularly in the areas of classification and valuation. Additionally, Article 10.5 of the TFA states that members shall not require the use of pre-shipment inspections in relation to tariff classification and Customs valuation. The guide presents national case studies which provide valuable guidance to other Customs administrations that still maintain such contracts.

Guide to Customs Valuation and Transfer Pricing; and updated e-learning module (available to all)

This guide offers information on the technical background of Customs valuation and transfer pricing principles and methodologies, a summary of the work conducted to date, and references to best practices developed by WCO Members. The e-learning module on Customs valuation and transfer pricing has been updated and is available on the WCO CLiKC! platform.

More information

www.wcoomd.org/en/topics/key-issues/revenue-package.aspx
WCORevenuePackage@wcoomd.org

Global Trade and Customs Journal – the premier journal for international trade practitioners

By Jeffrey L. Snyder,
GENERAL EDITOR, GTCJ, AND PARTNER, CROWELL & MORING LLP, WASHINGTON, D.C. AND BRUSSELS

THE GLOBAL TRADE and Customs Journal (GTCJ) is celebrating its 10th year of publication. In its first decade, the Journal focused its work on the issues facing international business and the day-to-day challenges facing practitioners. It aims to provide its readers with new ideas, fresh insights and expert views on critical practical issues affecting international trade, with a growing focus on international investment regulation.

In 2015, the old clichés still hold true. The world is getting smaller and time flies. Globalization is driving businesses to be better, smarter and faster. To do more with less, and to do it safely, complicates compliance. Yet despite the pace and power of globalization, national borders are not fading away.

In fact, national borders have strengthened and national measures are multiplying. International business faces an array of obstacles to compliance which are exacerbated by preferential trading arrangements (PTAs), trade defence measures, trade remedies and international sanctions, and which it must address before it can even begin to think about saving money and perhaps leveraging any advantages that may result from mastering all this complexity.

Many colleagues already have it all figured out, or are at least a few steps ahead in this process. They may have had to deal with certain issues before you have, or they may have foreseen problems at an earlier stage. They may also have figured out solutions to them, or at least developed coping mechanisms. The main objective of the Journal is to bring this information to you on a monthly basis.

International trade and Customs compliance is a multi-disciplinary exercise,

requiring a "menu" of essential skills. In fact, the issues facing international trade practitioners today stretch across various categories that include the following, among others:

- Customs – perhaps the most challenging of the disciplines, if only because of the pressure to deliver "just in time," comply, save money and secure all at the same. Inevitably, something must give and it cannot be security. The biggest issues facing business are often in the area of Customs because it is at the heart of many operations. Supply chains are lifelines. Keeping them healthy and moving requires skills and foresight. Knowledge matters, not luck;

- Export controls – a discipline that rarely saves money if carried out correctly, but often costs sales. Nonetheless, many transactions are needlessly cancelled. Understanding the rules not only reduces the amount of improper transactions, it can also free up those that are wrongly impeded. The idea voiced almost 20 years ago upon the fall of the Soviet Union that export controls were a thing of the past, has proven wildly inaccurate. Export controls, like national borders, show no sign of weakening. Their use by governments, and their reach, have only grown;

- Sanctions – often viewed as part and parcel of export controls, sanctions and embargoes - are indeed converging in some ways. This convergence is only partial, however, and is complicated by the "list-based" sanctions programmes now in place, not only in the United States (US), but in many other countries. As the financial measure of choice to battle terrorism and other scourges, compliance and risk management talents are at a premium;

- The World Trade Organization (WTO) – as the Doha Round continues to stall, trade liberalization is taking other paths, including FTAs. The continued vitality of the WTO dispute process is evident from its valuable role as a source of rules for governments. Good business depends on understanding and managing the impact of decisions about how governments regulate international trade;

- Antidumping and trade remedies – trade remedy actions remain unpredictable and are severe obstacles to international trade. The persistence of antidumping measures and the growth in the use of countervailing measures and safeguards reflect a climate of continued national competition that creates additional compliance management challenges;

- Anticorruption – the proliferation of anticorruption laws has begun to multilateralize the restrictions on the bribery of government officials, but has also increased variance in their implementation and interpretation;

- Investment regulation – trade and investment go hand in hand, whether expressed through national restrictions such as the US Exon-Florio law or its Canadian counterpart; the growing network of bilateral investment treaties; or even China's new law. These issues will continue to drive international business decision-making.

The GTCJ is a source for practical treatment of these issues, providing guidance based on experience and knowledge, including a focus on cross-border and multi-jurisdictional compliance issues, interviews with practitioners and others who wrestle with these matters, and other contributions that are designed to deliver a useful and timely package of information.

In this age of what often seems to be excessive information, the GTCJ aims to provide a selection of contributions that is relevant to practitioners around the globe. Written for practitioners by practitioners, the Journal offers practical analysis, reliable guidance and experienced advice to support professionals in protecting their clients' or organization's compliance interests.

The GTCJ publishing team cannot do it without you. They need your guidance and direction, and look forward to hearing from you. Should you be interested in contributing to the Journal, please contact the General Editor, Jeffrey L. Snyder, for further information, including details on the Authors Guide and House Style Guide, or visit the publisher's website.

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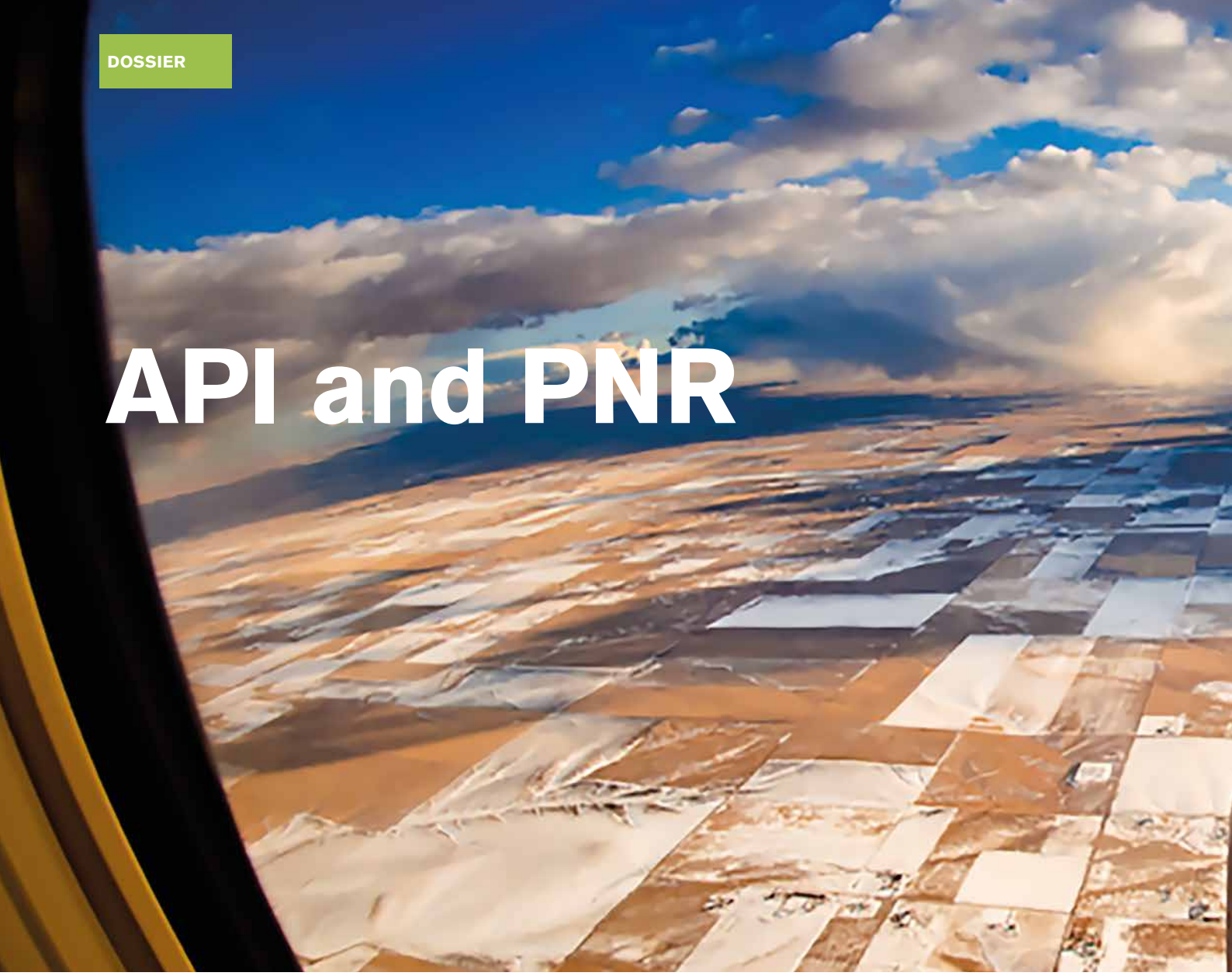


API and PNR

Two key words on the global security agenda

By Kunio Mikuriya,
SECRETARY GENERAL, WORLD CUSTOMS ORGANIZATION

IN THIS ARTICLE, I would like to share my thoughts on Customs' use of Advance Passenger Information (API) and Passenger Name Record (PNR) data, which is a vital tool in deterring the threat of terrorism and organized crime, while facilitating international travel.

Terrorism: an ongoing threat

Recent violence in several regions show that terrorism continues to be a major concern for the international community. Terrorism is increasingly global in nature and frequently has cross-border implications. Customs, which has the prime responsibility for controlling cross-border movements of goods, means of transport and in some instances passengers, plays an important role in deterring these and other border security threats.

Due to differing national mandates and legal competencies, there is no 'one-size-fits-all' model for Customs security functions. There is, however, a common thread underlying the Customs contribution: Customs contributes by deterring the smuggling of dangerous goods that can practically or financially support terrorism and organized crime.

Moreover, a growing number of administrations have a broadened security mandate that also covers the enforcement of travel bans. This is particularly important considering the threats posed by the foreign terrorist fighters (FTFs) phenomenon. With respect to FTFs, even if immigration controls are not necessarily the primary function of most Customs administrations, Customs is a sought-after partner through the various border related information flows it possesses in relation to goods and travellers.

The contribution of API/PNR data

It is widely recognized that modern facilitation tools, such as API systems, help to

improve the overall security of international air transport. Globally, a number of API systems have been implemented successfully with proven benefits for security, facilitation and enforcement.

In recent years, some countries have gone beyond API and have legislated in order to require from carriers, additional data relating to passengers in the form of PNR data, which is a wider data set used for the purposes of risk assessment. Many governments now require the submission by airlines of API/PNR data, allowing responsible authorities, such as Customs, immigration or police, to assess the risk posed by travellers as part of efforts to combat transnational crime.

In 2012, the WCO adopted the Recommendation Concerning the Use of Advanced Passenger Information (API) and Passenger Name Records (PNR) for Efficient and Effective Customs Control. The emphasis of the WCO Recommendation is on effective border control against serious transnational crime covering, among other things, the illicit trafficking in drugs and other contraband.

The WCO sees API/PNR, which is a core component of the WCO's Security Programme, as a very useful technique to enhance border security while maintaining facilitation for low-risk passengers; thus, this benefits Customs and other border agencies, as well as carriers, airport authorities, other passenger facility operators, and passengers themselves.

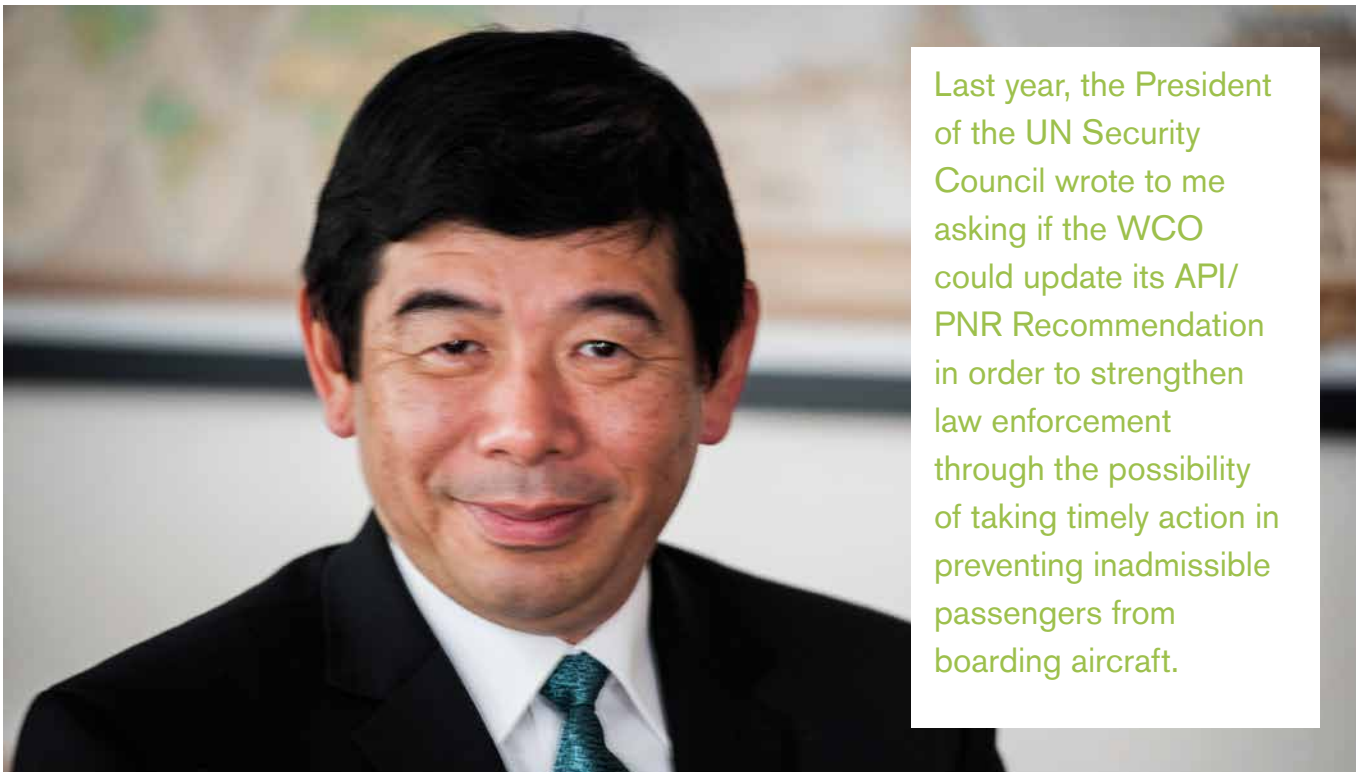
The WCO Revised Kyoto Convention on the simplification and harmonization of Customs procedures took this into account, and API is now included in Specific Annex J1 (Travellers) of the Convention as a 'Recommended Practice.' The technique has already been used with great success and is likely to expand in the future.

I, therefore, strongly encourage Customs administrations to use API/PNR data actively, and to implement and use relevant WCO instruments and tools. Closer cooperation between Customs and other law enforcement agencies too enables effective border controls, better security, and the facilitation of legitimate trade.

Guidelines

The API Guidelines were initially developed in 1993 by the WCO in cooperation with the International Air Transport Association (IATA). Subsequently, the International Civil Aviation Organization (ICAO) joined the process and a 'Contact Committee' comprising the three organizations was formed. In order to help their respective members implement the API system, the three organizations jointly published the WCO/IATA/ICAO Guidelines on Advance Passenger Information in 2003, 2010 and in 2013.

The Guidelines comprise an explanatory section on the use of API. They consist also of a maximum list of API data and an Annex with the internationally recognized



Last year, the President of the UN Security Council wrote to me asking if the WCO could update its API/PNR Recommendation in order to strengthen law enforcement through the possibility of taking timely action in preventing inadmissible passengers from boarding aircraft.

electronic UN/EDIFACT message – known as PAXLST, as well as an implementation guide for the PAXLST message. The most recent update included new provisions to address issues such as security, data protection, mutual administrative assistance and 'Interactive API', which is a more advanced method of passenger processing at airports.

Guidelines regarding PNR were developed by ICAO in close cooperation with IATA and the WCO. They include an explanatory text for the use of PNR information and an Annex with a maximum list of PNR data. These Guidelines also include a standardized message for the exchange of PNR information. First published in 2006, the latest edition was published in 2010 as ICAO Document 9944. Cooperation between the three organizations will result in the official association of IATA and the WCO in the joint future development of the PNR Guidelines.

Partnerships are also vital and the API-PNR Contact Committee has been very successful as the final 'clearing house' for any changes to the reporting standards for both API and PNR. Countries having developed, or thinking of developing, a passenger data transmission process are invited to join the Contact Committee.

United Nations and the G7

The United Nations (UN) is, of course, also active in the field of API/PNR. UN Security Council (UNSC) Resolution 2178, adopted in September 2014, which creates a new policy framework for international action in response to the FTF threat, is a key driver. The Resolution, among other things, "calls upon Member States to require that airlines operating in their territories provide advance passenger information to the appropriate national authorities in order to detect the departure from their territories, or attempted entry into or transit through their territories, by means of civil aircraft," of terrorists.

The G7, in its G7 Foreign Ministers' Meeting Communiqué, issued in Lübeck, Germany on 15 April 2015, called "on the international community to collaborate closely and exchange relevant information, particularly information under UNSC Resolution 2178 related to the provision by airlines operating on their territory of advance passenger information in order to detect travel of individuals designated by the Committee established pursuant to Resolutions 1267 (1999) and 1989 (2011)" that oversees the implementation by UN Member States of the three sanction measures – asset freeze, travel ban and arms embargo – imposed against targeted individuals and entities associated with Al-Qaida, as designated by the Committee in its Sanctions List.

WCO/UN partnership on API/PNR

The WCO and the UN are closely collaborating on API/PNR. Last year, the President of the UN Security Council wrote to me asking if the WCO could update its API/PNR Recommendation in order to strengthen law enforcement through the possibility of taking timely action in preventing inadmissible passengers from boarding aircraft as part of the effective implementation of travel bans and other restrictions against individuals, and in taking other preventive measures against terrorism.

I welcomed the suggestion and the proposal was taken up at the last API-PNR Contact Committee and WCO Permanent Technical Committee (PTC) meetings. At the PTC, Members supported the insertion, in the list of actions that Members of the WCO, Customs and Economic Unions should take, of phrasing that reads "effectively support the implementation of UN travel bans against sanctioned individuals." The WCO is currently circulating the proposed text to its Members who have accepted the API/PNR Recommendation for their acceptance.

Conclusion

The WCO will continue to closely follow all security developments and keep its Members updated on the progress in relation to API/PNR including the WCO/UN initiative as part of the Organization's efforts to ensure global security while facilitating the movement of legitimate trade and travellers.

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Challenges and opportunities of passenger data systems

PHYSICAL INSPECTION OF a traveller and a travel document is nowadays only part of the border controls on passengers arriving by air, or any other means of transport. In an increasing number of countries, the rest of the border control process relies on secure electronic data sent before the arrival of the passenger in the country of destination.

It all began in July 1988, when the United States (US) government invited, for the very first time, representavtives from the airline industry to come together to discuss a new idea – that providing them with information about passengers while the flight was en route would not only enable relevant border agencies to perform risk-based targeted controls on passengers and the goods being carried, but also enable the flight to be processed effectively.

This resulted in the first voluntary transmission of advanced passenger information (API) on flights from Tokyo to San Francisco, Honolulu and Los Angeles in the summer of 1990. API consists of the traveller's full name, gender, date of birth, nationality, country of residence, type of travel document, and the travel document number.

Following the 11 September 2001 terrorist attacks on US territory, the US and other countries deemed it necessary, in order to combat terrorism and serious crime, to go beyond the API requirements and require airlines to also transmit what is known as Passenger Name Record (PNR) data – the generic name given to records created by aircraft operators or their authorized agents for each journey booked by or on behalf of any passenger. PNR data can contain significant amounts of personal data, including full names, addresses, phone numbers and email addresses, travel itineraries, and more.

After the uptake of API implementation around the world in the 1990s and PNR in the 2000s, governments and industry working together developed standards on data requirements and data transmission procedures to respond to the danger of non-uniform implementation of passenger information systems.

Among other things, a patchwork of various approaches to passenger data exchange requirements and data transmission procedures was seen as creating delays, threatening the ability of transport operators to comply with national legislation, and leading to the unnecessary expenditure of hundreds of millions of US dollars as these operators sought to modify their systems to respond to non-harmonized programme requirements.

Despite the efforts to achieve harmonization, with the rapid proliferation of the use of advance data transmission around the world came a multiplication of systems and requirements; some were standardized and others merely a unilateral implementation of ideas that did not work in a global environment.

Just a few countries were pioneering the use of passenger data exchange as part of their border strategies at the beginning of

the 21st century. Today, about 60 countries have data exchange provisions in effect, and experts anticipate that the number of countries requiring API or PNR or both will continue to increase rapidly over the next few years.

In 2014, most countries in the Asia/Pacific region and six countries in South America had announced plans to move to API or PNR or both. By 2020, it is not inconceivable that over 100 countries could be implementing data exchange requirements for flights to and from their territories. Before long, the entire world will join in.

To create greater awareness of what airlines are allowed to transmit or are capable of transmitting, and to ensure harmonization in the process that government and industry participants follow in implementing passenger data exchange regimes, the WCO, the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO) have stepped up their communication and education efforts, which now include organizing events and information days.

This article is published in the context of these increased outreach efforts, with the aim of providing an overview of the issue.

API versus PNR

Passenger data is any information that has been collected and stored by an airline on a passenger's identity or travel plans which is used by public authorities for the purposes of law enforcement or border control. This information can be divided into two main streams: API and PNR.

API is information about a person's identity. Generated during check-in, it consists basically of the data provided routinely by travellers when they cross an international border – some controls require data provision where flights overfly international territory, but this is not the norm. API is normally obtained from an official travel document and is considered to be 'verified' information.

API is also extremely useful for checking databases of travellers who present a 'known' risk – those who have broken the law in the past, over-stayed their visas, or appear on a watchlist because border authorities wish to deny them entry – and for checking on people on whom information is already recorded – for example, a person who has registered for a 'known traveller programme.'

PNR is information about a person's travel reservation. It is created in airline reservation systems when a traveller makes a booking, and describes where and when the passenger intends to fly, how a reservation was made, and whether any additional services will be required during the journey. PNR is primarily collected by the airline for its own business purposes. Therefore, the amount and the nature of the information in individual PNR records can vary tremendously from airline to airline and from passenger to passenger.

In some cases, PNR contains as little information as a name, an itinerary, some generic contact information and a ticket indicator. In other cases, PNR will contain vast amounts of information, covering a wide range of issues relating to special services, such as meal requests, contact details and credit card information. This information is not considered to be 'verified'. The name may not even correspond to the person's actual name as stated in the passport because accuracy is not always necessary to complete a booking.

Once PNR is collected for business purposes it can be of interest to authorities as a risk assessment tool because the data contained in a passenger reservation may help in flagging certain people, including their relationships and travel patterns – information not previously known. PNR can also be useful in criminal investigations. Like API, PNR data is usually requested for international flights – requesting it for domestic flights is not the norm.

The WCO, IATA and ICAO fully support API and PNR data-exchange processes, when adopted in accordance with their agreed guidelines. The use of internationally standardized advance passenger information is contained in two WCO instruments:

- as a Recommended Practice in Specific Annex J1 (Travellers) of the Revised Kyoto Convention;
- as an objective of the Recommendation on the use of API and/or PNR for the risk assessment of travellers, published in June 2012.

WCO/ICAO/IATA standards

When API was first introduced by the US in 1990, it was a new concept in international civil aviation, and therefore no standards, recommended practices or technical frameworks existed to guide the initiative's development. All elements of the experimental programme, from data element requirements to communication protocols, were developed as the US programme explored and ultimately defined them. This was not a significant issue at the time, since participation was voluntary and the process was still new to everybody.

However, with the development of other national passenger data exchange programmes in the 1990s, the need to focus on a single, globally-agreed methodology became apparent. As a consequence, IATA and the WCO began work to develop a standard methodology to support advance submission of passenger data – including the creation of a new message format in accordance with the UN/EDIFACT construction rules – that was intended to establish a common approach to API systems, worldwide.

The results of this work – the WCO/IATA Guidelines for Advance Passenger Information, and the associated UN/EDIFACT Passenger Manifest (PAXLST) Message Implementation Guide – were published in 1993 following adoption by the WCO Council in June 1993. Recognizing the value that global harmonization of API systems would bring to international civil aviation, ICAO, in Standard 3.47.1, Chapter 3 of Annex 9 to the Convention on International Civil Aviation, referred to data being required in conformity with specifications for UN/EDIFACT PAXLST messages.

ICAO joined the WCO and IATA, and a 'Contact Committee' comprising the three organizations was formed. In order to help their respective members implement the API system, the three organizations jointly published the WCO/IATA/ICAO Guidelines on Advance Passenger Information in 2003, amending them in 2010 and 2013 respectively. The Guidelines

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include new provisions to address issues relating to security, data protection, mutual administrative assistance and 'Interactive API' – a more advanced method of passenger processing at airports.

Regarding PNR data requirements, ICAO's Document 9944 Guidelines on PNR Data, adopted in 2005 and recently revised, contains a list of 19 categories of data that might be contained within an individual PNR. The guidelines contain a composite list of data elements that may be transferred between the operator and the receiving country, and establish uniform measures for PNR data transfer and the subsequent handling of that data.

For example, ICAO's guidelines specify that since airlines only collect the data that is required to meet their obligations to their customers, individual PNR will not always have the data elements that countries might be interested in seeing and that, since this is not in the airlines' control, penalties should not be imposed for inaccurate or incomplete data. The guidelines also advise countries to require airlines to transmit the information as late as possible prior to the flight departure to ensure complete data and to minimize the number of times PNR data is sent for the same flight.

Regarding the standard for PNR transmission, a PNRGOV message was created to enable data extracted from the reservations system and/or the departure control system of airlines to be provided to government in a standard form. PNRGOV standards are complementary to ICAO's guidelines on PNR, and reflect the consensus achieved between the WCO, IATA and ICAO on matters concerning the reporting of passenger information to governments. The industry standard, namely the UN/EDIFACT Customs Response (CUSRES) message, has been adopted as the standard message to support government-to-airlines replies.

The WCO/IATA/ICAO API-PNR Contact Committee acts as the final clearing house for any changes to the reporting standards for both API and PNR. Once a change request is received, it is distributed to all members of the Contact Committee for their comments. If there are technical issues, the request is also sent to technical groups, such as the WCO Data Model Project Team and the WCO Information Management Sub-Committee, for their comments. However, the ultimate decision rests with the WCO/IATA/ICAO API-PNR Contact Committee which receives inputs from ICAO, the industry and WCO Members.

Before a new request is accepted, the Contact Committee will look at whether another country besides the requesting country supports the request, whether there is a business justification for it, whether it is technically possible to include the information in the standard message itself, and whether the information can be obtained in any other way.

Benefits of standard data requirements and transmission messages

Faster implementation

When a government system is aligned with the standards then it is aligned with the processes airlines have already developed. Less time in particular will be required for both airlines and governments when testing message validation.

Better compliance

Airline staff easily understand the requirements as they already know the data elements and format to be used. Developing standard compliant systems will require fewer modifications that may impact on compliance abilities.

Cost control

The costs for airlines and governments are lower. Requirements outside of the standards result in additional reprogramming with significant associated costs. Reinventing the wheel is an expensive proposition.

Reliable data

Harmonized systems involve predictable and common data elements. In the case of API, it is recommended to limit the data to that shown in the machine-readable part of the passport, as this information can be verified. Data requiring interrogation and manual capture is subject to errors.

Passenger Data Toolkit

Introductory presentations and videos, dynamic checklists and reference material to help design passenger data programmes that are harmonized, efficient and valuable.

www.iata.org/iata/passenger-data-toolkit/presentation.html

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PNR transmission-related challenges

PNRGOV is the agreed method for transmitting PNR data from airline systems to government systems. Countries that do not adopt PNRGOV and ask airlines to transmit what they have in their systems will receive a stream of data which their computer systems will not be able to use, unless they have developed a receiving filtering system that is more advanced than that any other country in the world has been able to achieve.

PNRGOV allows the data in a reservation to be identified by the receiving system, far more easily than a non-PNRGOV message would. However, PNRGOV is a standard message, not standard content, and therefore managing data variance and complexity is one of the challenges of implementing the message. Despite endorsed international standards for those messages:

- PNR information is commercial in nature and will vary depending on an airline's internal processes;
- PNR data may be represented in many different formats, but still be compliant;
- PNR data may be in free text and may be duplicated;
- to create meaningful information, the mapping process must apply rules to the data intelligently – for example: Do not translate duplicates if field 1 = X then do A, if field 1 = Y then do B. If field 1 = X and field 2 = Z, then do C, etc.;
- without intelligent mapping, the simple transformation of data may generate confusing data and create problems for subsequent analysis.

Some countries that have implemented PNR highlight the significant time spent in testing the message with airlines. Therefore, countries wishing to implement such a system should seek assistance from those countries that have gained experience in implementing passenger data systems.

Besides technical issues, the transmission of passenger data raises privacy and data protection issues. Although the sharing of API between airlines and governments may not raise many privacy concerns (the nature of API data and the use to which it is put should conform to the national law of most countries), carriers are often limited in what PNR data may be shared with requesting authorities. Certain data is considered particularly sensitive and may be shared only in accordance with a country's data privacy legislation.

For the most part, the debate over data privacy for PNR is being driven by the EU, but many countries also have restrictive provisions in place that airlines are often required to work through. Of particular interest to this issue is the 'Joint Review Report on the implementation of the Agreement between the European Union and Australia on the processing and transfer of Passenger Name Record (PNR) data by air carriers to the Australian Customs and Border Protection Service' published in July 2014 by the European Commission (EC) and available online.

Among other things, the report describes how Australian Customs minimizes access to personal data, removes and deletes sensitive data and any PNR data elements that it receives which are outside the 19 data elements listed in the Annex to the Agreement, ensures data security, as well as retains and deletes PNR data to comply with the Agreement's provisions.

Benefits of API/PNR

The justification for the use of advance passenger information is rather simple in theory: the balance between the needs of Customs enforcement and the facilitation of legitimate travel can best be achieved if Customs enforcement is intelligence-based, and the use of API and/or PNR for risk assessment would greatly assist Customs administrations in developing and exploiting the best possible intelligence for controlling travellers.

Passenger Risk Indicators and Manual

- A section of the WCO Customs Risk Management Compendium (Volume 2)
- Restricted to WCO Members
- Content in two parts:
  - Annex I: List of risk indicators for passengers
  - Annex II: A manual which provides general information, specifies the meaning of each risk indicator, and includes examples, pictures and case studies

The guidelines on API list benefits according to four categories of actors:

- passengers (shorter clearance times);
- carriers (enhanced security and reduced exposure to penalties for transporting passengers who are not properly documented);
- border control agencies (thorough and rigorous screening of inbound passengers, data capture saving, more effective allocation of resources and greater interagency cooperation);
- airport authorities (reduced need to expand or upgrade current facilities in response to increased traffic, greater passenger satisfaction with facilities and fewer complaints).

When it comes to PNR, most countries argue that PNR serves the purpose of supporting the fight against terrorism and other serious crimes that are transnational in nature. One of the parameters of the review undertaken by the EC to assess the implementation of agreements signed with foreign countries for sharing PNR data is to verify that the agreements actually serve these purposes. On all the reviews done so far – with Australia and the US – the EC assessment team have been positive.

It is also interesting to consult these reports to gain a general idea of how PNR data is processed in these two countries and of the methodology used. Indeed, none of the data retained in PNR records would reveal a specific threat or even a suspicious indicator of a threat on its own. Contrary to API data, which may produce a direct hit on a watchlist, PNR has no such straightforward content.

Conclusion

Recently, the debate on foreign fighters has brought the issue of passenger data submission to the fore. Countries wishing to implement a passenger data programme should have a clear idea of what their border risks are and what they want to use the data for. They should also familiarize themselves with existing international standards, include stakeholders early in the process, approach other countries about any data protection issues, check that appropriate legislation is in place, and seek assistance from experts.

More information

www.wcoomd.org
www.iata.org/iata/passenger-data-toolkit/presentation.html

Indonesia's experience Exchange System

By Mr. Agung Krisdiyanto,
DIRECTORATE OF ENFORCEMENT AND INVESTIGATION, INDONESIAN CUSTOMS

INDONESIAN CUSTOMS BEGAN working on the electronic exchange of passenger data between airlines and Customs in early 2008, as part of their implementation of an Advance Passenger Information (API) transmission system. At that time, passenger processing techniques consisted of screening API data transmitted from airlines' departure control systems via the existing Société Internationale de Télécommunication Aéronautiques (SITA) communication network, and requesting Passenger Name Record (PNR) data for specific flights to be provided by email or on paper.

The new API system, which took almost two years to complete, was formally launched in December 2009. It was a non-interactive batch-style system built according to the API guidelines developed by the WCO, the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO). As most airlines were not ready to transmit data on baggage and seat numbers, only 12 of the 14 data elements were requested at the beginning to give them time to comply.

The new passenger screening system allowed for more efficient checks of all inbound and outbound passengers and crew. However, the rapid growth in the number of air passengers entering or leaving Indonesian territory, and the need to facilitate travel and protect the border from emerging risks, led to the Customs authority's decision to begin considering a more systematic use of PNR data stored within airlines' Computer Reservation Systems (CRS) in order to enhance Customs' capacity to deliver on its security mandate.

Implementing API and PNR transmission and processing systems will prove to be very different:

- First, in terms of the volume of data to be processed – up to 76 data elements for PNR compared to only 14 basic data elements for API;

in building its Customs Passenger Data

- Second, as regards the degree of data standardization – the API data standard is almost the same across airlines whereas PNR data differs widely;
- Third, vis-à-vis the frequency and timing of data transfer – data is provided only once for API, but five times for PNR;
- Last but not least, in terms of the communication solutions used to exchange data – most airlines in Indonesia use the SITA Network for API while different global distribution services (GDS) are used for PNR.

Premises

At a series of meetings of the Asia-Pacific Economic Cooperation (APEC) forum held in Indonesia in 2013, Indonesian Customs took the opportunity to raise the PNR issue at a higher level and in the context of encouraging international collaboration. Indonesia had already begun looking into ways in which to introduce the PNR issue in APEC in June 2012. After long discussions with the APEC Secretariat and within meetings of the APEC Sub-Committee on Customs Procedures, an initiative called "Support for Standardization of PNR Data among Airlines in the Asia-Pacific Region" was approved and fully supported by APEC member economies.

To maintain the momentum, Indonesia held an APEC workshop on Passenger and Airline Data Interchange Standards and PNRGOV Message Standards under the theme: "Securing Travel Facilitation through PNRGOV" in Bali, in October 2013. Through this workshop, Indonesian Customs obtained the support of airlines, information technology (IT) providers, GDS providers which host travel records, and are also known as CRS companies, national transportation, immigration and law enforcement agencies, as well as international organizations such as the WCO, IATA and ICAO.

Indonesia then moved into a preparation phase – establishing the legal provision governing its PNR transfer and processing system, as recommended in ICAO Guidelines on Passenger Name Records Data [Doc. 9944] – which it completed in September 2014. In parallel, Indonesia developed PNRGOV data requirements for airlines, and started working on the business process, the analytical application, and network connectivity between airlines' GDS and the Customs Data Centre, the most crucial issues identified.

Challenges

Creating an analysis system based on PNR data is complicated. Faced with this task, and realizing that it lacked sufficient knowledge in this area, Indonesian Customs turned to the Australian Customs and Border Protection Service (ACBPS) for assistance and support in the early stage of the project.

The next challenge came from the fact that each airline uses different data standards in their systems. Indonesian Customs tackled this challenge by introducing the standard PNR message recommended by the WCO, IATA and ICAO – called PNRGOV – at the above APEC PNRGOV workshop, in order to make the airlines and relevant stakeholders aware of the message standard, thereby gaining their support for the use of a uniform, internationally recognized standard for PNR data transmission to the government.

Another issue which came to light in implementing a PNR system in Indonesia was the lack of financial resources. IT was at the heart of the system, and acquiring the necessary tools was extremely costly – in fact, so costly that funds allocated to the project were insufficient to meet the technology requirements. Establishing network connectivity and a communication protocol – i.e. a defined set of rules and regulations that determine how data is transmitted – was another key phase in the project.


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Steps

The project team did not allow itself to be beaten. Instead, it sought assistance from the ACBPS. In April 2013, members of the team travelled to Australia to meet the ACBPS expert team which was organized by Michael Odgers, Director of Passenger and Industry Engagement at the time, and Nathan Chamberlain, Manager of Passenger Information. Empowered by the knowledge gained during the visit, the PNR development team decided to create the system in-house, without hiring an external provider.

Two methods of PNR data transfer are currently available: the "pull" method, whereby authorities access the aircraft operator's system and extract, or "pull", the required data from its database; and the "push" method, whereby aircraft operators transmit, or "push", the required PNR data elements to the database of the requesting authority.

Bearing in mind the lessons learnt by ACBPS in this domain, the team decided that the best way of developing a PNR transmission system which would best respond to Indonesian conditions was by using the "push" rather than the "pull" method, requiring the use of a single PNRGOV standard message rather than accepting different standards, thereby optimizing development, maintenance and troubleshooting.

ICAO Doc. 9944 states that "States, when requiring PNR data transfer, should take into account the issues affecting other States and aircraft operators in their territories, especially with respect to the cost and the potential impact on existing infrastructure." States that require passenger data from an airline should therefore ensure connectivity with the systems which airlines are using to store PNR data.

The system's IT setup requirements are described in the PNRGOV Data Requirement Document. These include the types of computer networking protocols that manage the security of message transmission via the Internet. The system allows for three different protocols: Internet Protocol Virtual Private Networks (IP VPN); Internet Protocol Security (IP Sec); and Secure Sockets Layer (SSL).

During a communication session, both the source and destination devices use what are called "Application Layer Protocols". For the communications to be successful, the Application Layer Protocols used by the source and destination hosts must match. Applications provide people with a way of creating messages, application layer services establish an interface to a network, and protocols lay down the rules and formats that govern how data is handled.

When it comes to Application Layer Protocols, the PNR system allows the use of many types of protocols, including IBM WebSphere MQ, Hypertext Transport Protocol Secure (HTTPS), and the Simple Mail Transfer Protocol (SMPT).

Another step was finalizing the regulation to cover aspects including:

- the meaning of API and PNR;
- the data elements required for API, PNR, and data processing;
- the filtering and storage of PNR data;
- the methods for API/PNR data transfer;
- the frequency and timing of data transfer;
- transparency and passenger redress;
- conflicts between national legislation;
- the obligation of airlines to provide data;
- the protection, security and integrity of data;
- privacy protection;
- compliance and penalties;
- force majeure;
- transition.

The regulation governing these different aspects follows ICAO guidelines and is attached to the PNRGOV Data Requirement Document. It also addresses some sensitive issues such as privacy protection, data protection, security, and integrity of data.

In this regard, Indonesian Customs has to comply with the Indonesian Law on Information and Electronic Transactions, which protects against unlawful use of private data. PNR data will be stored within the Customs Data Centre, part of the Ministry of Finance's Data Centre which complies with the ISO 27001-Information Security Management Standard.

Data transfer will be required 48 hours, 24 hours, 2 hours and 1 hour in advance, and at time of departure. Airline operators that do not comply with the mandatory timeframes will be notified by Indonesian Customs in the 48 hours that follow the last data submission. Upon receiving such notification, airline operators will have to respond and submit the data within 48 hours.

Penalties will be imposed by Indonesian Customs if the airline fails to respond to the notification, following a step-by step approach:

1. The Director General of Customs and Excise or an official will issue a sanction in the form of a written warning to the operator with a copy to the Director General of Air Transportation. This will affect the airline's reputation and credibility with the government.

2. If, after receiving the written warning, the operator continues to be non-compliant, an examination will be conducted and, based on the results

thereof, the operator may receive a sanction in the form of:

- a deferment of unloading operations for 30 minutes beginning from the time the aircraft is ready for unloading;
- a deferment of unloading operations for an additional 30 minutes if the operator has a history of non-compliance;
- a deferment of loading operations for 30 minutes beginning from the time the aircraft is ready for loading;
- a deferment of loading operations for an additional 30 minutes if the operator has a history of non-compliance.

3. In the event that the operator still does not comply with its data submission obligations upon receiving a sanction in the form of a deferment of unloading and loading operations as regulated in point (2), Customs shall undertake a further examination. If it is found that the violation is deliberate, the operator will receive a sanction in the form of a suspension of import or export clearance services by Customs;
4. In addition, a fine of five million Indonesian rupiah (around 500 US dollars) may be imposed for each case of non-compliance.

However, the penalties and/or sanctions will be withdrawn if the airline operator is able to put forward reasonable arguments. Customs will review the airline's arguments taking into account any relevant considerations, such as the significance of the case, the airline's effort/attempt to comply, the compliance history of the airline, a reliance of the airline on Customs' recommendation or advice, and reasons beyond the airline's control.

Conclusion

The PNR project is scheduled to become operational at the end of September 2015. So far, network connectivity has been set up with two major GDS providers, and a pilot project involving two airlines is currently underway. The PNR system has also been connected to the Indonesian Immigration Authority's Border Management Control System.

Indonesian Customs believes that easier access to, and processing of, PNR data is indispensable to efficient passenger risk assessment, and will allow better targeting of high-risk passengers while facilitating travel. Indeed, the analysis of API and of PNR data has already been instrumental in unveiling some criminal and fraud cases. The implementation of the PNR data electronic transmission system will make Indonesia's border protection system stronger and travel facilitation smoother.

Creating an analysis system based on PNR data is complicated. Faced with this task, and realizing that it lacked sufficient knowledge in this area, Indonesian Customs turned to the Australian Customs and Border Protection Service (ACBPS) for assistance and support in the early stage of the project.

More information

pnrgov@customs.go.id

API	PNR
Collected from airlines departure control systems	Collected from airlines' Computer Reservation Systems (CRS)
1. Name 2. Gender 3. Date of birth 4. Nationality 5. Passport No 6. Passport date of issue 7. Passport place of issue 8. Origin 9. Inbound 10. Outbound 11. Booking code 12. Baggage information (amount, claim, tag and weight) 13. Seat No 14. Flight No	1. PNR record locator code 2. Date of reservation/issue of ticket 3. Date(s) of intended travel 4. Name(s) 5. Available frequent flier and benefit information 6. Other names on PNR (including number of travellers on the PNR) 7. All available contact information (including the originator of the reservation) 8. All available payment and billing information 9. Travel itinerary for a specific PNR 10. Travel agency/travel agent 11. Code share information 12. Split/divided information 13. Travel status of passenger (including confirmations and check-in status) 14. Ticketing information (including ticket number, one way tickets and Automated Ticket Fare Quote (ATFQ) fields) 15. Baggage information 16. Seat information (including seat No) 17. General remarks (including Other Service Indicated (OSI), Special Service Indicated (SSI) and Supplemental Service Request (SSR) information) 18. Any collected API information 19. All historical changes to the PNR listed in numbers 1 to 18

The French API-PNR programme

By Christophe Hypolite,
PNR MISSION, GENERAL DIRECTORATE OF CUSTOMS AND EXCISE, FRANCE

The French Advance Passenger Information (API) and Passenger Name Record (PNR) programme generated considerable media coverage in the wake of the tragic events in France in early 2015. The plan to implement an automated passenger information processing system in France, however, dates back much further.

THE PROGRAMME BEGAN with publication of the Anti-terrorism Law – Law No.2006-64 of 23 January 2006 on combating terrorism and laying down miscellaneous provisions on security and border controls. This law transposed European Council Directive 2004/82/EC of 29 April 2004, which requires air carriers to communicate data concerning passengers travelling to a European Union (EU) border crossing point.

The European Directive focuses only on passenger data with regard to the API mechanism. The French law extends its scope and makes provision for booking system data – PNR data – to be collected and processed in order to improve border controls and combat illegal immigration and terrorism.

Though the French legislative basis governing these aims has been in place since 2006, the Government nevertheless decided to defer the setting up of the French mechanism following the European Commission (EC) proposal to establish a PNR system regulating the use of such data at European level.

A first draft of the European Council Directive was submitted on 17 November 2007. Since the proposal had not been adopted, it became obsolete on 1 December 2009 – the date the Treaty of Lisbon and a new EU institutional framework came into force. In 2010, the French Government decided that France should have an API and PNR data operating system even though a European PNR Directive had not been adopted.

A truly interministerial project

An interministerial mission formed by the Ministers for the Interior, Defence, Transport and the Budget was set up in 2011. This mission was tasked with assessing the feasibility of the project to create a Passenger Information Unit (PIU) responsible for collecting and processing passenger data on the one hand, and with preparing the corresponding invitations to tender and monitoring the public procurement process on the other. The PNR team was also to take part in the development of the national regulation and set out its reflections within a European framework characterized by the draft European PNR Directive that was still under discussion.

On 3 February 2011, the EC submitted a new Proposal for a Directive of the European Parliament and of the Council on the use of PNR data for the prevention, detection, investigation and prosecution of terrorist offences and serious crime. In so doing, it took note of the procedural changes brought about by the Treaty of Lisbon and the reticence raised by this proposal, particularly with respect to data protection – the period of data retention and the processing of sensitive data in particular.

This PNR proposal fell within the framework of the 'co-decision procedure,' according to which the European Parliament and the Council of Ministers of the EU passed legislation as equals. In April 2012, the Justice and Home Affairs (JHA) Council, formed by representatives of EU Member States, reached political consensus on the proposal, which had been widely discussed by the European Parliament's Committee on Civil Liberties, Justice and Home Affairs (LIBE).

It was subsequently rejected by the LIBE Committee in spring 2013 and was not re-examined until the renewal of the European Parliament in June 2014. Following the terrorist attacks in Paris in January and under pressure from Member States, the Parliament nevertheless signalled its wish to adopt a text before the end of 2015, though subject to a number of conditions.

Overview of the API/PNR mechanism

In order to allow Member States to establish their PNR programme without waiting for the proposal to be adopted, the EC launched a call for projects in late 2012, supported by a financial package of 50 million euro from the EC's Prevention of and Fight against Crime (ISEC) fund. Fourteen Member States were awarded funding in September 2013, with 17.8 million euro being allotted to France, i.e. just over half the budget required to develop the mechanism.

This appropriation enabled public procurement procedures that had been launched in May 2013 to be confirmed. Two contracts were thus granted for a period of four years, up to January 2017 – one with a provider of project contracting assistance to ensure administrative support, and the other with a prime contractor to develop the data transmission information technology (IT) system per se.

In the absence of a European regulatory framework, a national legislative mechanism largely based on the draft European Directive was adopted to authorize the creation of this new system: Article 17 of the Military Planning Law for the period 2014-2019, enshrined in Article L232-7 of the Internal Security Code, thus provided for an automated API and PNR data processing system to be set up on an experimental basis until 31 December 2017.

Data is collected for all flights to and from national territory, with the exception of those connecting two points of metropolitan France. Air carriers have an obligation to communicate the data demanded on two occasions – firstly, 48 hours prior to the flight (PNR), and secondly, after flight closure (API and PNR), failing which they will be liable to a maximum fine of 50,000 euro per flight.

Sensitive data will not be processed or kept. Personal data revealing a person's racial or ethnic origin, religious or philosophical beliefs, political opinion, trade union membership, health or sex life is therefore excluded from this automated processing.

The purposes of the processing of data are the prevention and detection of acts of terrorism, the offences referred to in Article 695-23 of the Code of Criminal Procedure – participation in a criminal organization, trafficking in human beings, illicit trafficking in arms or drugs, etc. – and acts detrimental to the essential interests of the nation.

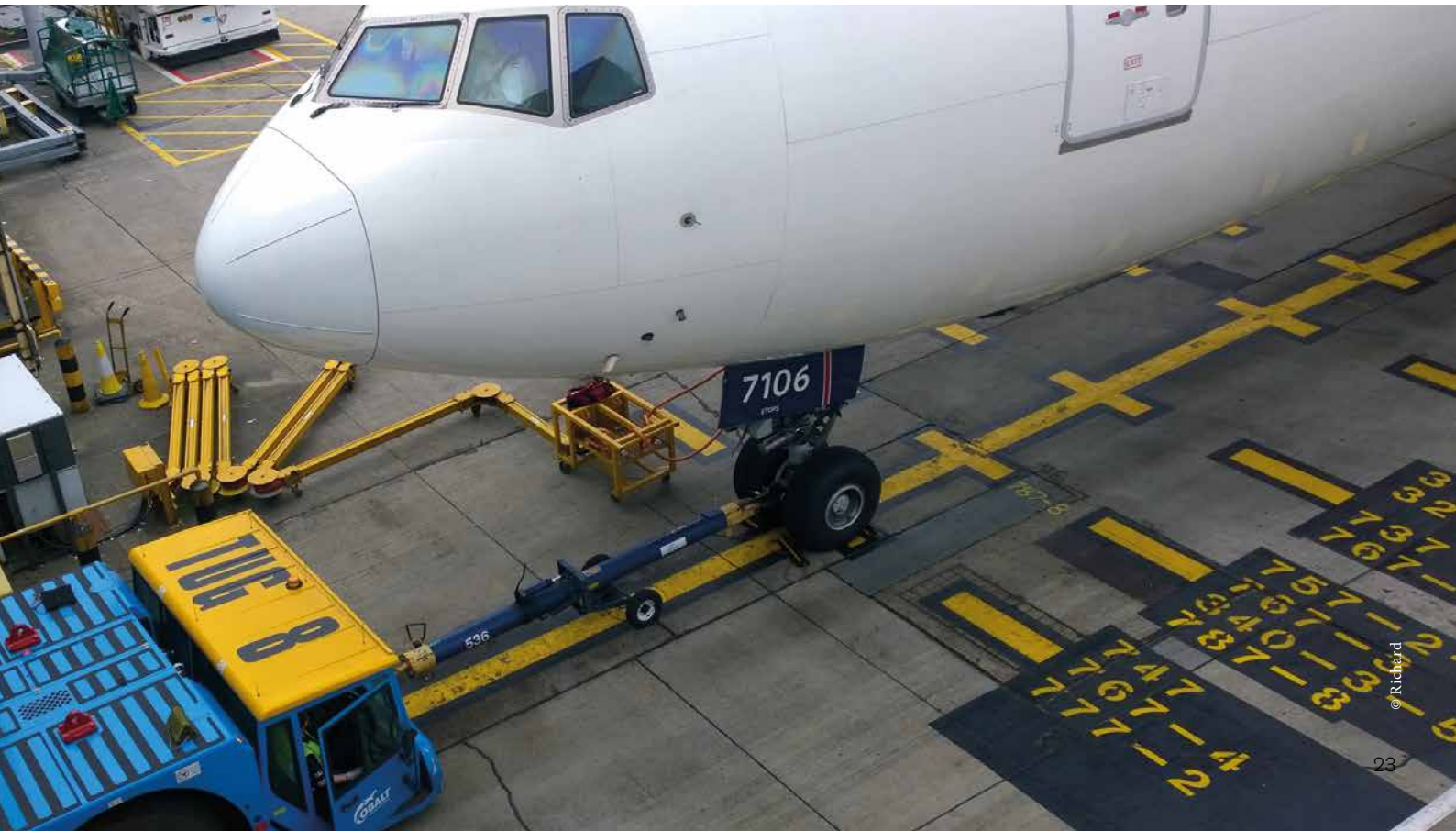
A French Council of State Decree, adopted subsequent to the opinion issued by the 'Commission Nationale Informatique et Liberté' (National Commission for Information Technology and Freedoms – the French data protection authority), was published on 26 September 2014. The Decree lists the government departments authorized to query the PIU responsible for collecting, retaining and analysing data from air carriers.

The departments of the Ministries of Home Affairs, Defence and Customs will not have direct access to the data. They must go through a dedicated platform, the PIU. The latter will validate their requests before initiating the corresponding processing, and must also validate the results before they are transmitted to the requesting departments. API and PNR data will be retained for a maximum of five years, as provided for in the proposal for a European Directive.

The Decree of 26 September 2014 authorizes data to be collected from 1 January 2015. This will be done gradually: four companies – Air France, Delta Airlines, Etihad and Europe Airpost – are helping to prepare the French API-PNR programme. Twenty-six additional air carriers will be connected in 2015. Initially, only non-EU flights will be processed – around 40 million passengers per year out of a total of 100 million.

Harmonized data collection

Throughout the feasibility study, the PNR mission had extensive exchanges of views with countries that had already put national programmes in place: Canada, Australia, the United Kingdom and the United States. This exchange of knowledge was essential to allow France to cope more easily with data collection and air transport issues as a whole, without 'reinventing the wheel.' France also naturally took into



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account the standards and good practices defined by governments and industry under the auspices of the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO) and the WCO.

For data produced by departure control systems (API), the standard can be regarded as mature: a standard computer message, the PAXLST, was developed to transmit the passenger manifest. The message, which has been used in the airline industry for many years, is quite short and can be sent easily via the carriers' traditional communication networks.

France complies with the framework defined by this standard message, but has suggested that luggage weight should be included in the list of API data – under the 'baggage information' category, the WCO/IATA/ICAO API guidelines currently refer only to the number of checked bags and, where applicable, the tag numbers attached to each bag. This proposal was very broadly approved by the States represented at the last meeting of the API-PNR Contact Committee established by the WCO, IATA and ICAO.

A variety of work has meanwhile guided the implementation of the system for collecting and processing booking data (PNR). This includes a checklist drawn up by the PNRGOV working group, which brings together representatives of States and airline leaders, such as air carriers, suppliers and major booking/departure control systems companies, in order to make best use of a national PNR plan. The following are some of the significant ideas set out in the checklist:

- determination of the project sponsor or interministerial body as quickly as possible (as occurred in France);
- precise determination of volumes, costs and budget, and whether developments will be carried out internally or externally;
- implementation of national legislation and analysis of relations with third-party states that might restrict access to data;
- familiarization with documentation available (on the WCO website, for example);
- identification of data to be collected (under the standard) and the means of collecting it by proposing either a direct Internet connection, or an indirect connection using third-party infrastructure (Sita, Rockwell Collins/Arinc);
- identification of the flights and air transport stakeholders concerned;
- definition of a test strategy based on a personalized relationship with each company involved;
- publication of specific documentation, and initiation of the information process with bodies representing air carriers;
- introduction of the analysis of the quality of data received, including its monitoring and key indicators.

The API/PNR mechanism uses the PNRGOV message resulting from the work done by the PNRGOV joint industry-government working group, the purpose of which is to facilitate exchanges of information between airline booking systems and government mechanisms.

More recent, longer and therefore requiring more substantial network capacities, the PNRGOV standard has raised extra difficulties in its implementation than the PAXLST message, its API equivalent. Despite being widely promoted, industry and governments are still on a learning curve since the standard may be subject to interpretation. There are many advantages in using it, however: quicker implementation, cost control, shorter tests, and ultimately an improvement in data quality.

> The automating of existing techniques offers real potential. Some 70% of French Customs drug seizures in the air transport sector are made thanks to passenger targeting techniques which are currently almost completely manual. The effectiveness of the controls will also be greatly enhanced, ensuring smoother passenger flows in airports.

It should also be noted that PNR data is commercial data which is collected primarily by the industry for the industry. Consequently, only data collected for commercial purposes will be transmitted as stipulated in ICAO document 9944. In terms of connectivity, the French mechanism will offer air carriers and their providers as many options as possible for connecting to it at less cost.

Since early 2014, it has become evident among European States that have benefited from ISEC funding that there was a real risk if they worked without a common approach on the basis of regulatory documents alone. The risk also concerns the time periods and implementation costs involved for carriers and their providers if they are presented with 28 systems, which although admittedly similar, are sufficiently different to require adaptation work.

This is why France took the initiative to join several other EU Member States – Estonia, Hungary, the Netherlands, Spain, Sweden and the United Kingdom – in seeking to harmonize the collection of data. The objective was to develop a document that would supplement those referred to above and thus establish a consensual basis to be presented to the industry. The PNRGOV working group that met in April 2015 warmly welcomed the initiative and hoped the document would be included in current documentation.

France, which has taken part in the PNRGOV working group since 2013, has advised States that wish to launch their own PNR programme to join in the twice-yearly European spring and autumn discussions and the autumn discussions at the WCO as part of the work of the API-PNR Contact Committee.

Abandoning 'traditional' data processing

The French project will be operational in early 2016 and represents a new tool at the service of government departments. It will gradually become more powerful in accordance with the functionalities available and the carriers connected to the system.

Though initially restricted to fewer than 20 people, the French PIU will be extended to over 70 people to ensure 24-hour operation by late 2016/early 2017. It will be based close to Paris' Charles de Gaulle Airport, and staff will be recruited from four partner administrations – Internal Affairs, Defence, Transport and Customs.

The automating of existing techniques offers real potential. Some 70% of French Customs drug seizures in the air transport sector are made thanks to passenger targeting techniques which are currently almost completely manual. The effectiveness of the controls will also be greatly enhanced, ensuring smoother passenger flows in airports.

The API-PNR system will have a number of search, targeting and sorting functionalities designed to:

obtain information from the passenger database on the basis of combined criteria (e.g. investigate the possibility of flights common to several members of a network known to government departments);

identify suspects from pre-tested standard profiles to increase effectiveness (e.g. identify people carrying drugs);

compare passenger data collected with data from national, European or international processing systems concerning people who are known or wanted and stolen or lost documents, and forward the results to the departments responsible for controls around airports after they have been validated by the PIU;

put one or more people or targets under surveillance for a given period (to ensure that a suspect does not travel abroad by air, for example).

The system will also allow each control carried out by government departments to be assessed so that a 'white list' of false hits can be updated, thereby ensuring that a person is not subject to a check when they take their next journey, and so that the effectiveness of the target profiles can be improved.

With respect to the Customs service, the API-PNR system will enhance performance in combating the trafficking in drugs, weapons, counterfeits and cultural goods, for example. The analysis of information will be available prior to a flight. It will be possible to ensure large-scale and very rapid identification of sensitive or illogical routes, return flights at unduly close intervals in light of the weight of a passenger's luggage, unusual forms of payment, suspect travel agencies, etc., or a combination of these different criteria.

More information

christophe.hypolite@douane.finances.gouv.fr

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Japan's new approach to Passenger Name Records

By Hideharu Tanaka,
COUNSELLOR (INTERNATIONAL COOPERATION), CUSTOMS AND TARIFF BUREAU, MINISTRY OF FINANCE, JAPAN

A RECORD HIGH of 13.4 million foreign passengers visited Japan during the last year, according to statistics compiled by the Japan Tourism Agency. This number has doubled in the last three years; a trend which is expected to continue and may reach more than 20 million in 2020 when the Olympic and Paralympic Games are held in Tokyo.

Moreover, Japan Customs has seized a number of illicit goods carried by air travellers, and effective control is required to cope with this challenge. In addition, there is an urgent need to further enhance border controls, especially in the light of recent terrorist incidents, such as the murder of Japanese citizens in Syria last January.

Considering the growth in passenger numbers and the continued threats from terrorism and other Customs offences, Japan is intensifying approaches that facilitate the movement of low-risk travellers at borders while concentrating Customs' resources on high-risk travellers.

Steps and action taken

In terms of air passengers, Japan has taken several steps, including an increase in the number of Customs officers working at airports, effective and efficient use of state-of-the-art enforcement equipment, cooperation with stakeholders, and risk management using advance information. Following an amendment in 2011, Japan's Customs Law gives Customs the legal right to ask airlines to submit Passenger Name Record (PNR) data on inbound travellers.

Accordingly, Japan Customs has retained and analysed PNR data, prior to arrival, on a limited number of travellers, suspected of being at a high-risk of committing Customs offences. This action has already been successful as risk assessment using PNR data has led to a number of illegal drug seizures.

New approach

To build on this success, Japan considers it indispensable to electronically retain and analyse the PNR data of all inbound air travellers. A number of measures have therefore been taken over the last few months. With the amendment of PNR-related regulations in March 2015, airlines are now able to submit PNR data to Japan Customs electronically. In addition, airlines have been systematically assisted to equip themselves with the necessary information technology (IT) solutions to enable PNR push-reporting.

These reforms will take some time. Airlines need a couple of months to implement electronic PNR reporting using sound IT solutions, for instance. It is expected that, when ready, by the beginning of the coming summer, airlines will submit electronic PNR data to Japan Customs twice, i.e. 72 hours prior to departure and after take-off. It is expected that, within one year, PNR data on all air travellers carried by nearly 100% of flights arriving at Japanese airports will be submitted electronically.

Data protection

Once retained by Japan Customs, PNR data is strictly protected under domestic laws and regulations. It must be used exclusively for specific purposes as prescribed by the Customs Law. Only a limited number of Customs officers can review PNR data, and it may not be copied or taken outside Customs' safekeeping. Multi-layered IT security systems have been introduced also to prevent unauthorized persons inside and outside Customs from accessing PNR data retained by Customs.

Japan successfully proposed the establishment of a virtual Working Group on PNR data at the WCO Enforcement Committee in March 2015. This Group has already started working, and many WCO Members are expected to participate actively in it, thus producing meaningful outcomes in a timely manner.

International and regional cooperation

Japan strongly supports the 2012 WCO recommendation concerning the use of PNR data. It believes that if more Customs administrations around the world use PNR data to effectively assess the risk of travellers and strengthen Customs-to-Customs cooperation on PNR data, Customs border controls would be enhanced worldwide.

With this in mind, Japan hosted a WCO Asia Pacific Regional Workshop on the use of PNR data in May 2015, and plans to support capacity building activities in this field. In addition, Japan successfully proposed the establishment of a virtual Working Group on PNR data at the WCO Enforcement Committee in March 2015. This Group has already started working, and many WCO Members are expected to participate actively in it, thus producing meaningful outcomes in a timely manner.

Multiple benefits

Japan Customs has made the collection and use of PNR data one of its top policy priorities, in order to enhance border enforcement against terrorism and illicit goods, while facilitating the flow of legitimate air travellers. Japan believes that its new approach to PNR data is beneficial, not only to Customs, but also to travellers and airlines.

Inbound travellers will benefit as Japan's new approach facilitates the entry of low-risk air travellers into the country. Airlines arriving at Japanese airports also benefit as they will be able to attract more customers, confident that Japan is safe due to its robust and systematic border controls.

Recognizing that tourism is a key driver of economic growth, Japan Customs plays an active role in promoting tourism while ensuring the safety and security of Japanese citizens as well as inbound overseas travellers.

More information

www.customs.go.jp/english/index.htm

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Focus on Customs laboratories

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Available resources, assistance and networking possibilities

WHILE MANY TRADED goods can be correctly identified and classified by simple visual inspection or documentation review, some require chemical or scientific testing to ascertain their identity and enable their correct classification. Products as diverse as acetaminophen (a pharmaceutical product), saccharin (an artificial sweetener), ascorbic acid (a vitamin), piperonal (a drug precursor) or potassium cyanide (a potent poison), for example, cannot be differentiated without being analysed.

This applies not only to classic chemical products. Without chemical testing, it is impossible to distinguish powdered baby formula from a milk protein concentrate, natural honey from a substitute made with glucose syrup and colourants, or wheat flour from a modified starch for industrial use. Equally, the classification of a ceramic mug depends on whether it is made of stoneware or earthenware, and the classification of a textile product made of a mixture of cotton and synthetic fibres depends on the predominance of one of the fibres.

Processing chemical and scientific analyses is not essential only for the correct classification of products in the Harmonized System (HS), it is also critical to the fight against dangerous substances, for instance, chemical weapons, ozone depleting substances, pesticides, persistent organic products, and drug precursors, etc.

These analyses are performed by laboratories. They can be Customs laboratories, which may be public or private but are specifically under the direction of a Customs administration, national laboratories which fall under the jurisdiction of another government agency, or private laboratories which undertake work on behalf of Customs.

Customs laboratories differ from other laboratories in that they have to analyse all types of products mainly for the purposes of Customs classification, with staff skilled in two disciplines: chemical analysis and Customs regulation. As well as solid training in analytical methods, industrial processes of manufacturing, and chemistry in general, the staff must have an

in-depth knowledge of Customs procedures and regulations pertaining to, for example, the classification of goods, the application of excise duties and the processing of export refunds among others.

Most Customs administrations have their own Customs laboratories. The use of private laboratories and State-owned laboratories is exceptional. In such cases, ensuring good communication and coordination between Customs and the laboratories is crucial in terms of the relevance of test results.

Indeed, although basic analysis would not pose issues to the staff of private laboratories, some complex analyses may require a specific knowledge of Customs matters. The same problem may arise when working with a national laboratory falling under the control of another public agency. Some private laboratories include units specialized in carrying out analyses for Customs purposes – Danish Customs, for example, has used the services of such a laboratory since 1908 (see article on page 38).

Another benefit for Customs administrations in establishing their own laboratories is that, as they fall directly under the administration's authority, Customs has a direct say on issues relating to staff management, training and equipment, and can ensure optimal use of the laboratory. The drawback is that the costs associated with the running and maintenance of a Customs laboratory may be high, as it is important that they are well-resourced and fully equipped for optimum results.

Role of Customs laboratories

Customs laboratories are an essential instrument for Customs authorities, which rely on their expertise when faced with the classification of certain products for the purposes of their national tariff nomenclature. The WCO Secretariat also uses the expertise of laboratories when tasked with the classification of certain goods for purposes of the HS nomenclature. The work of laboratories, however, goes on behind the scenes on a daily basis, as one of the unseen faces of Customs and border management.

The WCO has drawn up practical recommendations, as well as a comprehensive technical assistance and training programme, to assist its Members in improving the efficiency of their Customs laboratories and in implementing such a facility or assessing its implementation feasibility and practicality.

Traditionally, Customs laboratories perform chemical analyses to determine the tariff classification of goods referenced in the Customs nomenclature, which is crucial for applying the correct duties, particularly in agricultural and industrial trade, as well as for matters relating to anti-dumping procedures and export refunds. Customs laboratories may also provide advice on Binding Tariff Information (BTI) requests.

Customs laboratories are also becoming more and more involved in export control, in environmental protection (e.g., controlling the trade in ozone depleting substances and hazardous waste), in endangered species protection, and in controlling dangerous goods (e.g., pesticides, persistent organic pollutants and chemical weapons, and narcotics and drug precursors).

Some laboratories, such as the one in Japan, also provide advice on the performance assessment of various inspection equipment, along with methods for their practical use, and are collaborating with private firms to tap into new fields of research, including the development of contraband detection equipment.

For example, the Japan Customs Central Laboratory is currently conducting research on a "metal detector" that responds only to iron (the material used in firearms) and a "detection radar" that detects drugs hidden inside the hollowed-out cavities in stone or wooden objects.

There is no such thing as a typical Customs laboratory. Some have a long history, such as the Austrian Customs Laboratory in Vienna established in 1848, while others have only recently been set up. No laboratory is exactly the same as the next. They may differ in terms of staff numbers, remit, tasks, range of available equipment, accredited analytical methods, and particular specialities offered.

Guidance and resources

Taking the above factors into account, the WCO has drawn up practical recommendations, as well as a comprehensive technical assistance and training programme, to assist its Members in improving the efficiency of their Customs laboratories and in implementing such a facility or assessing its implementation feasibility and practicality.

The Organization notably developed a Customs Laboratory Guide as a practical handbook for the establishment or improvement of Customs laboratories in developing countries. It includes "best practices" covering a variety of issues and operations: from the organizational structure, staff categories, design, space utilization, equipment and information systems, to safety and pollution measures, sample preparation methods, recommended analytical methods, and operation and results reporting procedures.

Several databases, some managed by the WCO and some managed by other institutions, are specifically designed for the purpose of facilitating the classification of products. These databases may also be helpful in the day-to-day routine of a Customs laboratory:

- The WCO's HS database and the database of classification advice offer the possibility of searching by keyword or by using an HS code to retrieve information.

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- The INN Table, an Excel spreadsheet that contains the HS classification of international non-proprietary names agreed by the WCO HS Committee (HSC).

- The European Union (EU) Inter Laboratory Inventory of Analytical Determination (ILIADe) is a shared directory of analytical methods that laboratories are required to use for Customs purposes, as well as for authenticity and quality controls, consumer health protection and environmental controls.

- The European Chemical Inventory of Chemical Substances (ECICS) which lists chemical names along with their tariff classification in the European Community's Combined Nomenclature (CN). As the CN codes are based on the WCO HS, ECICS tariff classifications are helpful throughout the world.

- The Binding Tariff Information database (EBTI-database) which contains classification decisions issued by EU Member States. It also provides details of the composition of goods (excluding any confidential information), and justifications for classifications.

Another interesting resource for Customs and tax authorities is the sampling manual developed by the Sampling Working Group of the European Commission (EC) to ensure the quality of samples received for analysis at laboratories.

Also, the WCO launched the WCO/Japan Regional Customs Laboratories Programme (RCLP) in 2013, under the sponsorship of Japan Customs. It provides an opportunity for chemists or analysts working, or planning to work, at a Customs laboratory in a developing country to update their skills in chemical analysis for HS classification purposes and to improve their knowledge of the HS.

Under the RCLP, participants spend the first week of the programme at WCO Headquarters and then about seven weeks at the WCO Regional Customs Laboratory (RCL) in Japan where they are exposed to the latest technologies and techniques.

WCO technical assistance

Based on the WCO Customs Laboratory Guide, the WCO Secretariat provides technical assistance for the implementation or modernization of Customs laboratories, as well as specific training for laboratory staff. Assistance generally takes the form of expert assessment missions and workshops.

To deliver assistance, the WCO has so far benefitted from the experience of Customs chemists from Germany, Japan, Mexico, the Netherlands and Spain, who have kindly been made available by their respective Customs administrations. Funding has been provided by German Customs, Japan Customs, the EC's Taxation and Customs Union Directorate-General (DG TAXUD), the Swedish International Development Cooperation Agency (SIDA), and the Norwegian Agency for Development Cooperation (NORAD).

Prior to the implementation of any assistance activity, the WCO Secretariat invites the future beneficiaries to express precisely the nature of the assistance requested and the objective sought, including a description of the status quo and plans for the Customs laboratory, its possible use, the volume of trade of target commodities, and the training required. This enables the content of the assistance to be customized accordingly.

Most WCO training starts with presentations aimed at broadening laboratory workers' knowledge of the HS Convention

Most WCO training starts with presentations aimed at broadening laboratory workers' knowledge of the HS Convention and its related tools, as well as the classification of chemicals in Sections V to VII of the HS. Moreover, analytic methodology, methods validation, quality assurance and modernization potential are usually discussed extensively with participants.

and its related tools, as well as the classification of chemicals in Sections V to VII of the HS. Moreover, analytic methodology, methods validation, quality assurance and modernization potential are usually discussed extensively with participants.

The content of the WCO Customs Laboratory Guide and existing useful resources, such as the databases and websites mentioned above, are presented and discussed too. Last but not least, some analytical determinations of special interest for the country concerned are conducted in the laboratory under the supervision of WCO experts.

The Serbian Customs administration, for example, requested the assistance of the WCO in modernizing its laboratory, which included the construction of a new laboratory and the purchase of new equipment, as well as taking on new employees and training employees on the use of the new equipment and on testing methods. Training was also conducted on specific issues identified by Serbia relating to alcohol, textured/non-textured vegetable fat/oil and mineral products.

WCO experts assisted Albanian Customs laboratory staff in analysing certain types of goods with which the administration was facing difficulties, such as energy drinks, solvents, additives, textiles and shoes. In addition, at Albania's request, information and examples of the classification of mineral oil were provided, as well as basic knowledge on the taxation of mineral oils in the EU and common variants of mineral oil tax evasion.

In Ecuador, a National Workshop on the Modernization of the Customs Laboratory was organized, enabling laboratory staff and WCO experts to discuss particular problems in the day-to-day routine of laboratory staff activities, as well as future plans for the enhancement of the laboratory. Staff were also trained on the

amendments introduced in the 2012 edition of the HS, and more particularly on specific areas concerning chemical products, pharmaceutical products, "hi-tech" products and vehicles.

The WCO undertook a feasibility study for the implementation of a new Customs laboratory in Bogota, Colombia. WCO experts provided information on the equipment, infrastructure, staff and training necessary for the modernization process.

In Ethiopia, different possibilities were examined in detail regarding the use of laboratories. Two alternative scenarios were proposed to the Ethiopian Revenues and Customs Authority (ERCA): cooperation with the Ethiopian Conformity Assessment Enterprise (ECAE), or the creation of a new ERCA-owned Customs laboratory, even though this could result in a duplication of equipment. It was also suggested that a small laboratory be set up in the Customs warehouse at Kaliti, where about 90% of all imports are cleared, to speed up the clearance process.

Customs officers in Montenegro received expert training on the use and possibilities of a Customs laboratory for goods classification and tariff management, as well as training in the management of a Customs laboratory. Information about the equipment, infrastructure, staff and training necessary for the modernization of the country's Customs laboratory was also provided.

In Tanzania, a comprehensive feasibility study on the implementation of a Customs laboratory in the Tanzania Revenue Authority was undertaken. It included recommendations on the characteristics of Customs laboratories (i.e. their main field of work and how to develop this activity) and the number of laboratories to be set up, as well as their location, distribution, design, organizational structure and necessary equipment.

Cooperation and networking

Despite their particularities, Customs laboratories face common problems and challenges. During WCO workshops, participants are informed about relevant examples of cooperation and networking between Customs laboratories in the world. Among the initiatives taken in this domain are the WCO Regional Customs Laboratory (RCL) and the Customs Laboratories European Network (CLEN).

There is, for the time being, only one WCO RCL. Launched in November 2014 within the Central Customs Laboratory of Japan Customs in Kashiwa City, it will be used to provide regional training and technical assistance to Asia/Pacific administrations in the field of chemical analysis, as well as to promote information-sharing between the region's Customs chemists, classification specialists and enforcement officers.

Dating back to 1999, the CLEN aims to rationalize, coordinate and optimize the use of human and technical resources among European Customs laboratories. One of its most important missions is to anticipate changes in the Customs environment and to ensure that the Customs laboratories are sufficiently prepared to meet both current and future challenges.

Through networking and face-to-face contacts between the Customs laboratories, the WCO RCL in Japan and the CLEN aim to make it easier to exchange experiences and best practices. In addition, there are other platforms, such as the one developed by the European Monitoring Centre for Drugs and Drug Addiction for Customs chemists, which allow Customs scientists to share their results.

Informal presentations and encounters make it easier to establish collaboration initiatives as the case arises, and in this regard the WCO encourages its Members' Customs laboratories to develop cooperative links between one another, especially at the regional level.

Adaptation

From the moment a new fraud is detected, laboratories have to implement a new type of test within days. New techniques need to be developed in order to be operational as fast as possible. Today, with the arrival of new substances branded as drugs, more precise guidelines on the composition of food products in particular, and ever increasing security requirements, laboratories need to be ready and organize themselves to meet any challenges.

Concerning food products in particular, Customs administrations have to find ever more innovative solutions to identify transformed products. A French laboratory has developed a technique identifying fish species by DNA sequencing, for example. This technique is the only way to trace the species of fish when they are delivered in pieces.

To keep abreast of the latest techniques, as well as maintain cooperation among one another, there are many other bodies with which Customs laboratories should liaise, including universities, private companies and standardization bodies.

In the field of new psychoactive and medicinal substances, Customs administrations and universities often collaborate on one-off special cases. For instance, successful collaboration with the University of Toulouse in France helped French Customs to identify a medicinal substance distributed on the parallel market that was still at the experimental stage.

There have also been some interesting developments in the use of information technology (IT) to expedite procedures – a key issue for Customs administrations. The Austrian Customs Laboratory, for example, has a computer system allowing a Customs officer to fill in an electronic form to request clarification about a Customs classification and add images of the product concerned. The same system is visible to the laboratory, saving time and informing staff what samples are on the way before they have physically arrived on the premises. The Customs officer can later see the outcome of the analysis on his or her screen.

More information

www.wcoomd.org/en/topics/key-issues/customs-laboratories.aspx

Customs laboratories, chemistry and excise: an historical introduction

By Ignacio Suay-Matallana,
POSTDOCTORAL FELLOW, CHEMICAL HERITAGE FOUNDATION, PHILADELPHIA, UNITED STATES

AT THE END of July 1882, a strange package arrived at the Madrid Customs laboratory which was under the direction of Gabriel de la Puerta-Ródenas, a Spanish chemist who lived from 1839-1908. Destined for Spain's Prime Minister, the Spanish authorities, fearing for the Prime Minister's life, decided to have the package examined.

They first turned to the Army laboratory, and then to the School of Mines' laboratory in Madrid, but both refused to open it. Fortunately, De la Puerta, a renowned chemist, pharmacist, botanist and doctor, was willing to take on sensitive assignments, including dealing with packages that could contain chemical substances. He opened the package, deactivated the bomb and started analysing its content.

This historical anecdote is just one example of the important role played by Customs laboratories, and their special consideration and significance for national governments. Science historians have extensively studied the contributions and work of many relevant scientists from different ages, and more recently, they have also considered scientific spaces such as hospitals, including academic and municipal laboratories, but Customs laboratories have scarcely been studied.

It is true that the total number of chemists – and other experts – working in Customs laboratories is smaller than in other chemistry sites, and that such laboratories are less known by society than other laboratories open to students or the general public. Moreover, undertaking a study on Customs laboratories could be rather problematic as historians have to deal with dispersed original sources and archival material, and very often, these laboratories are located in different cities and within different government departments, such as Customs houses, port authorities or treasury offices.

Genesis

Governments have been employing science to prevent fraud and to improve their revenue collections over the centuries, but important changes in the pattern and volume of trade in the mid-19th century required a new approach in this domain. As new products and merchandise were being exchanged between countries, mainly due to the reduction in transportations costs, new spaces and experts were needed to enforce tariff regulations.

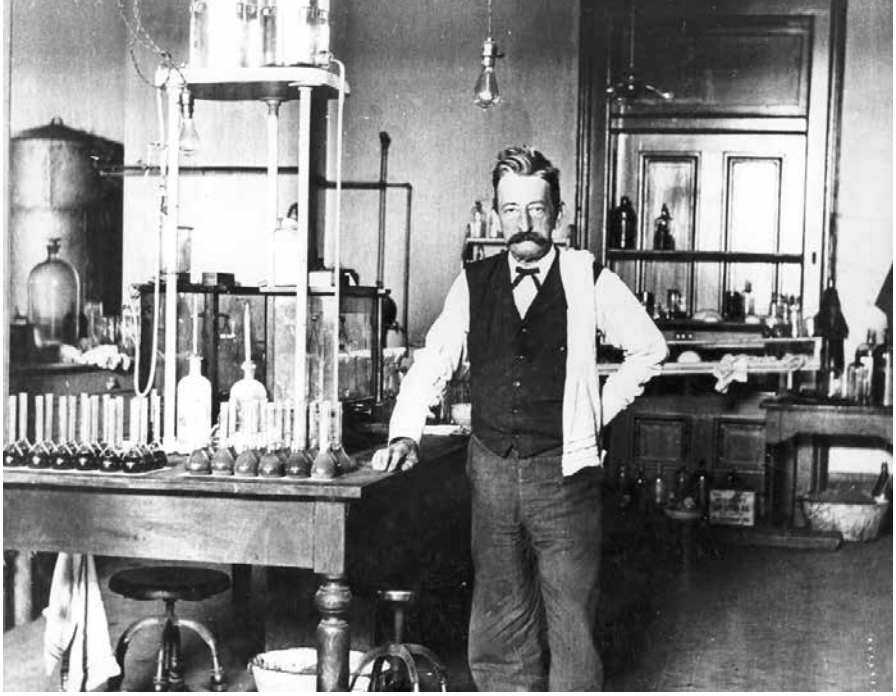
Authorities developed particular strategies to examine the merchandise and to collect Customs taxes. In Spain, preliminary inspections were carried out by appraisers, port officials and other Customs house officials, but their work was limited to visual examinations. When chemical analyses were required, local chemists or pharmacists were contracted as external experts or consultants.

Although they now only account for a small amount of the national revenue in many countries, during the 19th century, Customs duties were an important source of income for governments. For instance, they represented about 15% of the Spanish government's revenue in the mid-19th century, and they were almost the exclusive source of income for the United States (US) government before the civil war.

James Madison, the fourth US president, recognized the importance of Customs duties, declaring that "the power of taxing people and their property is essential to the very existence of government." Customs regulations were, therefore, of enormous political and economic importance for the industrial development and growth of modern nations in Europe and the Americas after what is commonly called 'the age of revolution.'

Authorities developed particular strategies to examine the merchandise and to collect Customs taxes. In Spain, preliminary inspections were carried out by appraisers, port officials and other Customs house officials, but their work was limited to visual examinations. When chemical analyses were required, local chemists or pharmacists were contracted as external experts or consultants. Some were appointed as drug inspectors to control the most relevant ports and national borders, focusing mainly on the study of drug and medicine purity, but dealing also with other types of goods for tax purposes when required. As this system proved to be inefficient, some countries decided to set up state-owned laboratories:

- The British government created the British Laboratory of the Board of Excise, and the Laboratory of the Board of Customs in 1842 and 1860 respectively;
- The French Customs laboratory (Laboratoire des Douanes et Droits Indirects) was founded in 1875;
- The Customs laboratory of New York was established in 1878, and later reorganized by US Customs and Border Protection into a network of Laboratories and Scientific Services;
- The Analytical Laboratory of Singapore was created in 1885, one of the first in Asia;



U.S. Customs and Border Protection historical collections

Chief Chemist Walter L. Howell analysing sugar at the New Orleans laboratory, 1906.

- The Italian Customs laboratory (Laboratorio Chimico delle Gabelle) was set up in 1886 from a previous tobacco laboratory;
- The Spanish Customs laboratory (Laboratorio central de análisis químico) was established in 1888;
- The Government Analytical Laboratory was established in Cape Town, South Africa in 1891 followed by the creation of a branch laboratory in Grahamstown, South Africa in 1910;
- Customs laboratories were in operation in Alexandria, Egypt and Tripoli, Libya by 1906;
- The Analytical Laboratory of the Straits Settlements in Penang, Malaysia was set up in 1909.

Although the academic, scientific, economic and socio-political contexts differed from country to country, the creation of a Customs laboratory was a great step forward in improving the efficiency of Customs services everywhere. These laboratories were a new scientific platform to provide general technical support for law enforcement activities.

In Spain, before the creation of a central Customs laboratory, a Customs chemical office had been in existence since 1850. Although also managed by the Ministry of Finance, it had only one chemist and a clerk in attendance with limited resources.

One of the factors which triggered the creation of the laboratory was the sudden growth in the volume of alcohol, including cheap alcohol produced for industrial proposes and not for human consumption, imported into Spain after the adoption by other European countries of new taxes on alcohol in the 1880s. The government felt that it needed more and better chemical analyses to deal with these imports as well as with other products such as petrol, oil, asphalt, sugar and other goods not produced domestically.

Development and expansion

Most countries having established a single Customs laboratory started expanding their numbers between the late 19th century and the first part of the 20th century. The US created one of the most decentralized Customs laboratory networks. Its first and biggest laboratory was located in New York, as the city port received about 70% of all US imports. New laboratories were also established in cities such as Chicago, Philadelphia and San Francisco.

In the United Kingdom (UK), the network spread even faster, from one laboratory in London in 1842 to 28 'chemical stations' in the 1870s. France also started creating a large network of Customs laboratories, starting with five laboratories in 1875, and expanding to 16 by 1897, although some were closed shortly thereafter.

The expansion in Italy and Spain was slower. In Italy, a central Customs laboratory was created in Rome in 1886, with a regional branch in Genoa. Later – between the 1890s and the 1930s – nine new laboratories were established. Meanwhile, Spain maintained a very centralized system with just one laboratory located in Madrid, until the 1920s, when the director of the Madrid laboratory convinced the government of the need to develop a network of regional laboratories as the country, emerging from World War I, began enjoying strong growth and rising trade exchanges. Ten new laboratories were set up in cities such as Barcelona, Seville and Valencia during the 1920s and the 1930s.

The decentralization of the laboratories implied the organization and expansion of the service. In Spain, 20 chemists and pharmacists passed a public examination to be appointed as Customs chemists in 1925. After a short practical training period, under the supervision of the director of the Customs central laboratory in Madrid, they were moved to the newly-created regional Customs laboratories. The new structure of the service included one director, four chemists and one clerk in Madrid, as well as a director and a chemist in each regional laboratory.

Experts, controversies and cooperation

Customs laboratories are exceptional spaces, where scientific, economic, regulatory and administrative knowledge is combined. In many countries, they have been headed by some of the most recognized and influential scientists of their time.

Stanislao Cannizzaro (1826-1910), who built a modern and well-equipped chemical laboratory in Rome, Italy, was one of greatest Italian chemists and is considered as having contributed to laying the foundation of modern chemistry. Ulysse Gayon (1845-1929), one of the favourite pupils of the French scientist Louis Pasteur, was in charge of the Customs laboratory in Bordeaux, France.

In the UK, British chemist Edward Thorpe (1845-1925), who served as President of the Society of Chemical Industry, took over the direction of the Somerset House Laboratory, also known as the Government Laboratory, which was originally established in 1842 for the prevention of the adulteration of tobacco products and then expanded by the 1875 Sale of Food and Drugs Law.

Thorpe moved the laboratory in 1897 to a new building of his own design and helped to further the effectiveness and reputation of this government laboratory. With his

staff, he worked on matters of public health, including the detection of arsenic in beer and the elimination of lead from pottery.

In the case of Spain, there was Gabriel de la Puerta-Ródenas, mentioned in the opening paragraph of this article, and José Casares-Gil (1866-1961) who had notable academic and political authority. Both were chairs at the University of Madrid, fellows of different national and international scientific academies, and also members of the Senate.

Because of their location between the scientific world and the economic world, Customs chemists were experts at circulating between different spaces – universities, academies, industries, administrative offices, and even courts – and frequently participated in controversies or disputes with economic and social implications.

For instance, in the 1930s many chemists, agriculture engineers, diplomats and grape producers from different countries participated in international conferences to agree on a "wine quality" standard that included common gauge practices and chemical operations to test this alcoholic beverage which was highly taxed at that time.

When importers or traders were not satisfied with the results of the chemical analysis, usually because they had to pay more taxes than expected, they were allowed to request a second analysis of the merchandise. Afterwards, it was even possible to appeal the chemical test to a Customs court, where chemists had to explain their scientific procedures and the report.

In other cases, there were problems related to the use of different standards to determine quality or purity of substances, so the value of the merchandise was different depending on the country. Finally, there were also economic disputes among different countries that imposed Customs taxes to protect their domestic goods and their national economy.

Although these issues are still current and valid today, the establishment, after World War II, of new international regulatory organizations, such as the WCO, was a crucial step forward in reducing economic disputes, achieving standardization and improving the administration of Customs, thereby facilitating international commerce.

References pertaining to this article may be obtained directly from the author, Ignacio Suay-Matallana.

More information
Igsuayma@alumni.uv.es

Dominican Republic

Photos © Dominican Republic General Directorate of Customs

opens top-notch Customs laboratory

By the General Directorate of Customs of the Dominican Republic

ON 18 FEBRUARY 2015, the General Directorate of Customs (DGA) of the Dominican Republic officially opened a modern scientific laboratory occupying a site measuring 1,217 square metres in the city of Santo Domingo. The facility has an uninterruptible power supply (UPS), an emergency generator, kitchen facilities, vehicle parking and an area for unloading and receiving samples, and complies with the highest health and safety standards. Designed to improve the managerial efficiency, predictability and availability, within its remit, of the DGA vis-à-vis all external trade users and operators, the new laboratory is at the forefront of 21st century cutting-edge technology and science.

The laboratory embodies the political will on the part of the current management of the DGA to implement the institutional reforms and modernization currently under way as part of the Customs 2013-2016 strategic plan. The role of the laboratory is not only to satisfy the analytical and inspection requirements for goods that are difficult to identify in order to determine the correct duties and taxes payable under the prevailing tariff structure, but also to provide high standards of protection for the public against the potential entry into the country of products that may adversely affect any aspect of human or animal health, the environment and natural resources. It is one of the most significant assets available to the country's Customs administration.

Prior to its establishment, the analysis of samples was conducted at laboratories in Mexico and Spain, as well as at national laboratories belonging to local universities, depending on the complexity of the case. The WCO was also consulted. The principal reason behind the DGA's decision to construct the new laboratory was the pressing need to be able to analyse metallic and non-metallic mineral products, such as gold, silver, copper, zinc, iron, aluminum, palladium, platinum and europium, exported from the country's mining concessions, that were complex to identify, both in terms of quantity and quality.

Exhaustive controls of these substances are required upon export to determine component volumes which are of fiscal importance to the national budget. According to data published by the Dominican Geology Society (SODOGEO), the country is sitting on nearly 58 billion US dollars' worth of unexplored reserves of minerals and metals.

The Customs laboratory will also be an indispensable tool for the Dominican Republic to monitor compliance with environmental protection regulations relating to, for example, ozone-depleting substances, chemical weapons, heavy metals, persistent organic compounds and pesticides, and for the purposes of protecting endangered and protected animals, combating drugs trafficking, controlling chemical precursors, etc. Hence the importance to Customs of a laboratory of this status built to high specifications and incorporating state-of-the-art equipment.

By being able to identify products through analysis, it will be possible to determine precisely the applicable fiscal regime and to improve the effectiveness of Customs controls on restricted or prohibited products, thereby preventing uncertainty, arbitrariness and, worst of all, fiscal evasion through Customs fraud – a very frequent occurrence in countries where imported goods are often not subjected to tests and sampling, especially in industries dealing with chemicals, food products, pharmaceuticals, cosmetics, textiles and metal products, among others.

In addition, the Dominican Republic's Customs laboratory will be an effective ally to the national agricultural, agrichemical, pharmaceutical and petrochemical industries, as well as to public and private institutions, as they will have a centre to which they can refer materials or substances for analysis when they have questions about the biological origin or composition of such goods.

The laboratory was constructed using the DGA's own funds at a cost of 3,573,024 US dollars – equivalent to 155,283,638 Dominican pesos, inclusive of construction works and adjustments to the physical facilities, technological equipment, fittings, etc. The DGA also drew upon advice from the Spanish Customs and Excise Central Laboratory of Madrid, which has been in operation for about 125 years and has a remarkable ability to keep pace with scientific progress necessary to tackle the increasingly complex challenges related to physical inspection of goods.

The expert chemists selected to join the laboratory staff had to pass a series of tests to demonstrate not only their analytical expertise but also their specialist knowledge and skills in taxation and Customs legislation. They also received special training abroad in team management. All this was done with the aim of ensuring that this modern facility runs smoothly and delivers high-level results for the country.

The establishment of the laboratory represents a significant step forward for the DGA in its process of institutional reform and modernization. It will also benefit the entire region, as the laboratory will be open to neighbouring Customs administrations and to regional and international bodies that require an analysis to be conducted of any product that is the subject either of a trade or classification dispute relating to its composition or specific properties.

More information
www.aduanas.gob.do

Is it possible to use a private laboratory as a Customs laboratory?

By Laila Jensen,
CUSTOMS OFFICER, AND
Preben Buchholtz Hansen,
DIRECTOR GENERAL, DANISH CUSTOMS AND TAX ADMINISTRATION

IN ONE WORD: Yes! At least, that is the experience of the Danish Customs and Tax Administration (SKAT). There are, of course, issues to be considered and addressed before taking the decision to use a private laboratory as a Customs laboratory, but once the issues have been addressed, it is entirely possible.

The first question that arises is why even consider using a private laboratory? Being a small country with an equally small number of Customs officers, it would be difficult for Denmark to finance a Customs laboratory with the necessary equipment and staff it with qualified personnel. Even if was possible, SKAT would not have a sufficient number of samples to analyse, thereby finding it hard to justify the cost of having its own Customs laboratory.

Advantages for Customs

The most important advantage is that instead of just having access to the expertise of one or two Customs chemists and a few laboratory technicians, SKAT now has access to the expertise of the approximately 1,300 employees of FORCE Technology – the company that it uses as a Customs laboratory – who cover a wide range of specialities.

Not only can the company handle usual SKAT requests to analyse the content of sugar, cocoa, alcohol, proteins, etc., but also questions about materials like polymers, ceramics and metals, including how a set-top box works and whether a screw has been turned from a bar or not, as well as liquid scintillation analysis to determine biogenic alcohol or fuel, etc. Seen from the point of view of a Customs officer, it makes life easier when all technical questions can be directed to the same place and not to a wide range of advisory bodies.

Using a laboratory which is ISO 17025 accredited for some of the analytical methods important for Customs purposes, which participates regularly in proficiency tests and which has a quality management system is generally a good idea. Besides its accreditation, another advantage of having an external laboratory is that the analysis is done by a body independent of SKAT, thereby adding credibility to the results of the laboratory. As SKAT bases its final decision on these results, it also adds extra credibility to Customs' decision.

Issues that need to be addressed

There are, of course, some issues that need to be addressed before deciding on the use of a private laboratory as a Customs laboratory. The same factor that lends extra creditability to the analytical result – the fact that the laboratory is not part of the Customs authority – is also cause for the main issue that needs to be addressed, namely the matter of confidentiality.

It goes without saying that the contract between SKAT and FORCE Technology stipulates absolute confidentiality. However, even in everyday work, confidentiality remains a focus issue – for example, emails are used internally between Customs officers without having to worry about the confidentiality of the content. But as the laboratory does not use SKAT's internal secure mail system, extra precaution is needed when communicating with them.

Therefore, proper routines and secure emails, including a system to handle requests for analysis, receipts of samples and the exchange of analytical results, may all be helpful in ensuring safe and easy communication between Customs and the laboratory.

Another issue is that as the laboratory is private, it is often not recognized as an official Customs laboratory, making access to forums reserved for official Customs laboratories, on occasion, slightly more problematic than would otherwise be the case.

Finding the right laboratory is another major issue. Many laboratories can provide you with sound and valid results, when it comes to the content of alcohol, sugars, proteins, etc., but not many of them have knowledge of the Harmonized System – its definition of stainless steel, or that theobromine is decisive when determining cocoa content, or what is meant with composition leather, or how to differentiate between ceramics and porcelain, etc.

There is also the issue of the contract between the laboratory and the Customs administration to consider. Due to the rules on public procurement, every four years a call for tender for the contract has to be published. This requires quite a significant amount of work, both from the Customs authority and the tenderers wishing to submit a bid for the contract.

Special care must be taken to ensure that the contract covers all the needs of the Customs administration at a reasonable price level. Even the best laboratory will occasionally need help from experts outside the laboratory, so procedures concerning such subcontractors should also be in place.

Collaboration between Customs and the laboratory

For the Customs officer, collaborating with the laboratory follows the normal practice. A sample is taken or provided together with a request for an advance ruling. The officer-in-charge then decides if an analysis is required – if so, the sample together with any additional information is forwarded to the laboratory for analysis. After performing the analysis, the laboratory forwards its report and a suggested classification to the Customs officer-in-charge.

It is then up to the Customs officer to make the final decision based on the available information. The officer is not obliged to follow the laboratory's suggested classification but will mostly do so. Any doubts or uncertainties will usually be discussed between the Customs officer-in-charge and the laboratory before a suggested classification is overturned.

The importer may request access to the communication between Customs and the laboratory – the laboratory's analytical results would generally be provided to the requesting importer but any other communication would only be provided upon special request under the rules for 'access to own files.'

Besides everyday discussions between individual Customs officers and the laboratory, quarterly meetings are also held between representatives of FORCE Technology and SKAT to discuss general issues, problematic cases, and so on.

The use of a private laboratory as a Customs laboratory is not a new thing in Denmark. The first contract between Customs and a private laboratory was signed on 1 April 1908! Over the years the name of the laboratory has changed a number of times, it has been a private laboratory then one under governmental control and later privatized again, it has merged with other laboratories, etc., however collaboration between Customs and the laboratory has continued throughout.

The right laboratory is a must

So yes, it is possible to use a private laboratory as a Customs laboratory. Although it does require some considerations beforehand, what is most important is that it should be the right laboratory which can handle all the needs of a Customs administration.

More information
www.skat.dk

SKAT (Tax)

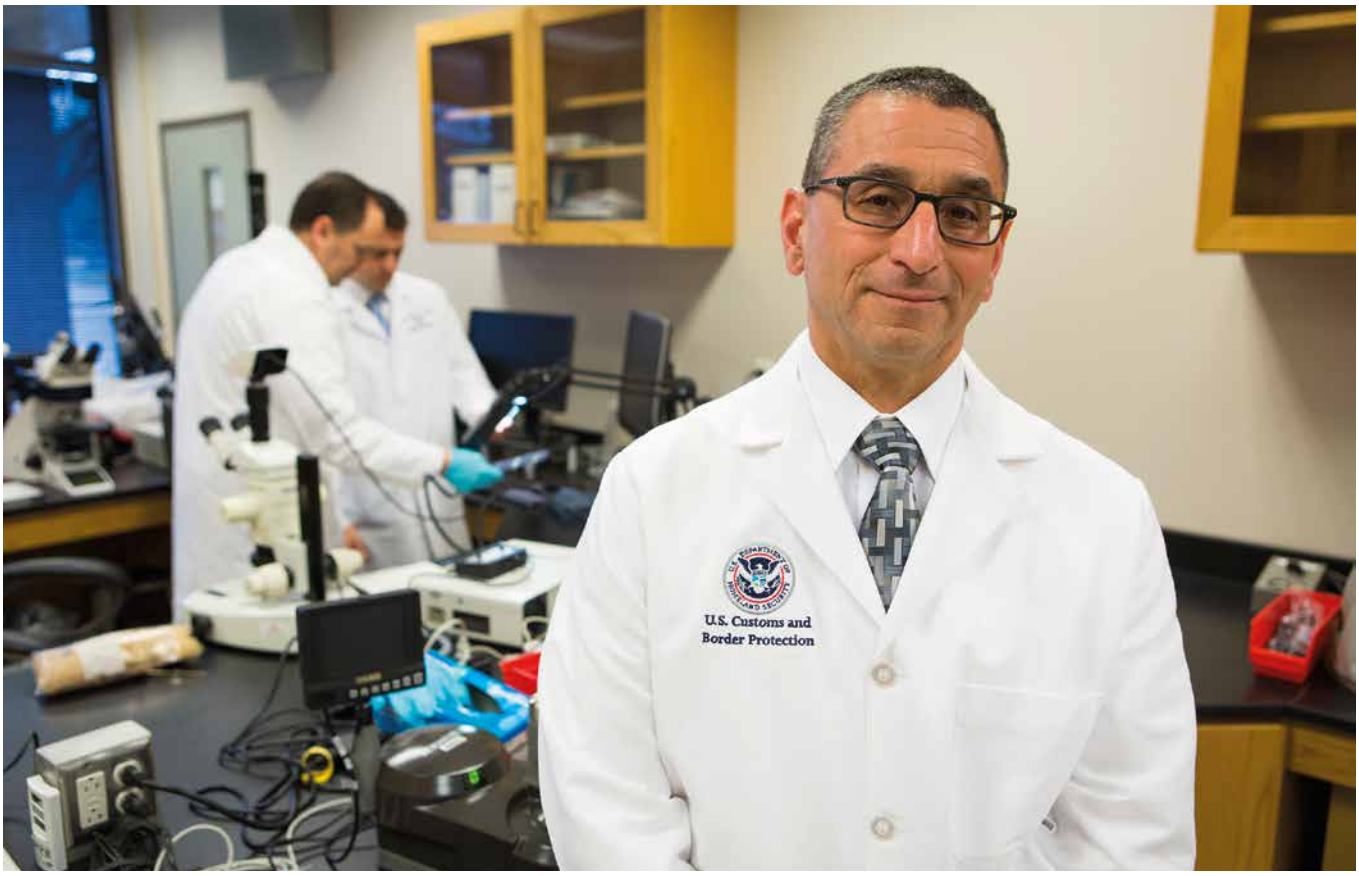
The Danish Customs and Tax Administration, or SKAT, is an independent national agency responsible for administering and enforcing tax laws. SKAT handles the administration of all tasks relating to direct and indirect taxes, Customs, debt collection, and the tax assessment of real estate and vehicles.

The contract between SKAT and FORCE Technology covers a wide array of topics. Besides the analysis of samples for Customs, it also covers analysis for excise duty purposes, technical advice concerning legal texts and the translation thereof, and participation in different meetings at the national and international level.

FORCE Technology

FORCE Technology is one of the leading technological consulting and service companies in Denmark and internationally. The company makes a targeted effort to sell highly specialized engineering knowledge, offering practical and cost-effective solutions to a wide range of industries. It has more than 1,300 employees working at its headquarters in Brøndby and in offices all over Denmark, as well as at subsidiaries in China, Norway, Singapore and Sweden.

The Customs laboratory is part of FORCE Technology's department of chemical analysis. It is equipped with modern analytical instruments for inorganic, organic, material and surface analysis, as well as equipment for physical testing. The Customs chemists consult regularly with experts from other departments, when additional specialized knowledge is needed to answer questions relating to Customs matters.



Ira Reese, Executive Director of CBP's Laboratories and Scientific Services and current Chairperson of the WCO Scientific Sub-Committee, at a CBP laboratory where scientists Stephen Cassata and Michael McCormick examine seized digital evidence. Photo: James Tourtellotte

Customs laboratories in the United States: at the frontline of fighting fraud

By Marcy Mason,
A WRITER WHO COVERS TRADE FOR US CUSTOMS AND BORDER PROTECTION

IN LATE DECEMBER 2010, the news broke about a Seattle court case involving counterfeit honey. A 70-year old Bellevue, Washington man, Chung Po Liu, had been sentenced to a year and a day in prison and was ordered to pay 400,000 US dollars (USD) in restitution for importing falsely declared Chinese honey.

Liu was trying to avoid paying USD 2.9 million in tariffs on the honey, which had been shipped through the Philippines and Thailand where it was re-labelled to make it appear as if it were a product of those countries. But aside from attempting to avoid paying millions of dollars in anti-dumping duties that had been added to the price of the honey to protect United States (US) industry, Liu's deception had endangered the American public.

Some of the honey was contaminated. When the shipments arrived at the port of Seattle, samples of the honey were sent to the US Customs and Border Protection (CBP) laboratories for testing. There, the true origin of the honey was discovered and the CBP scientists found that it was tainted with Ciprofloxacin, an antibiotic that is banned in the US as an unsafe food additive.

While few outside the trade community are aware of the vital role that the CBP labs play in protecting Americans and the US economy, the labs' work is critically important to keeping the public safe from counterfeit, substandard, or any other type of fraudulent goods.

"In order to determine whether goods are fraudulent, you need technical analysis. You need to be able to physically analyse the shipment," said Ira Reese, the Executive Director of CBP's Laboratories and Scientific Services division. "It's not something you can do from a cursory glance or examination. It requires an in-depth look by scientists."

And as Reese pointed out, "products don't stop being imported incorrectly until you take some action to stop them. Legally, it is very difficult to develop a case without the presentation of physical evidence," he said. "Our labs present the physical evidence that can be further investigated or brought into court for prosecution. It gives legal reasoning or probable cause for seizure of the material so it doesn't enter the commerce of the US and end up on store shelves."

Over the years, the CBP labs have tested a multitude of suspect goods. Starting in the 1950s, the labs began testing for counterfeits as part of the US Customs Service, one of CBP's legacy agencies. "Customs did most of the investigations on imported alcohol," said Reese. "There were big investigations regarding the importation

of fake brandy, which was alcohol mixed with flavourings and caramel colouring," he said.

As time passed, the labs expanded their testing of counterfeit and substandard products. All kinds of goods were analysed including designer clothing, handbags, shoes, jewellery, perfumes, toys, computers, pharmaceuticals and the list goes on. "Anytime there's the potential to make money, there's a counterfeit," said Reese.

Dangerous goods

Although the economic losses to American companies are staggering, estimated conservatively at hundreds of millions of dollars per year, that's not all that's troubling. Many knockoffs are dangerous.

"Counterfeiters will use whatever materials they have to make a copy of a legitimate product. They don't care if it's dangerous. They're just out to make money," said Stephen Cassata, a senior science officer who works at CBP's Laboratories and Scientific Services headquarters in Washington, D.C. "They don't pay any licensing fees to a legitimate rights holder and there's no real inspection of these products for quality assurance. So wearing apparel, for example, may still have chemical solvents in the fabric that could irritate your skin."

But the dangers can be worse. In 2007, the CBP labs were on high alert when cats and dogs were dying from melamine-tainted pet food. "It went on for about six months," said Reese. "Instead of putting expensive protein into the products, they used melamine, a cheap chemical used to make plastics. It resulted in killing a lot of dogs and cats, causing them to die of kidney failure," he said.

That same year, the CBP labs also found toothpaste containing diethylene glycol, a poisonous chemical used in antifreeze. "It was suspected out in the field and they sent it to us," said Reese. "We confirmed their suspicion."

The CBP labs also have uncovered other highly dangerous counterfeit products that could harm unsuspecting consumers. With the advent of the Internet, counterfeit and unapproved drugs from fake online pharmacies have become readily available.

"I did a chemical analysis on a pharmaceutical shipment that was sent by one of our officers to the Chicago lab," said Mike McCormick, a CBP science officer who is now based at the agency's headquarters. "There were two active ingredients to treat erectile dysfunction in the same tablet – sildenafil citrate and tadalafil, the active ingredients for Viagra and Cialis respectively," he said. "This combination hasn't been clinically tested or been approved, so you wouldn't know what kind of an effect it would have."

Likewise, the CBP labs are at the forefront of nearly every economic or safety-related issue that involves potentially fraudulent imports or exports. For example, since 2003, when the US Department of Commerce issued an antidumping order to protect the domestic catfish industry, CBP's New York lab has been testing seafood to identify mislabelled fish.

> "Our labs present the physical evidence that can be further investigated or brought into court for prosecution. It gives legal reasoning or probable cause for seizure of the material so it doesn't enter the commerce of the US and end up on store shelves."

The problem arose because pangasius, a Vietnamese fish that has a striking resemblance to catfish, was being sold below fair market value and was negatively impacting the sale of US catfish. As a result of the antidumping order, importers of the Vietnamese fish were required to pay higher duties to compensate for the unfair pricing. This, in turn, led to mislabelling of the fish to pass it off as everything from catfish to sole to flounder to grouper to avoid paying the extra tariff.

CBP's New York lab initially used protein testing to identify the fish. "We were looking at the proteins in the fish to identify catfish and the three species that were named in the dumping order," said Laura Goldstein, the Director of CBP's New York lab. The technique required authentic references of each type of fish so that Goldstein's team could do side-by-side comparisons with the test samples to see if the proteins matched.

DNA testing

Eventually, the protein testing became outdated and the New York lab discovered a more advanced technique of identifying species using DNA bar coding. The bar coding analysis identifies species by using a section of DNA from the organism's genetic material. A key component of the DNA bar coding process is a database that contains a library of species identifiers.

"We're comparing samples that are submitted to the lab for analysis with the known species in the database," said Goldstein. "What we're doing is called nonhuman DNA testing. We're looking to identify a species rather than an individual. Human DNA testing looks to identify an individual," she said.

The database contains DNA bar codes for more than 2 million specimens of plants and animals, including approximately 14,000 species of fish, not including shellfish. "Using our old technique, we needed authenticated samples that were very difficult to obtain. So we were limited in what we could identify previously," said Goldstein.

"Now we can just take our unknown and search it against the database and look at the results. We can identify a much larger range of products." The DNA testing is also more accurate. "It's a much more specific and accurate technique because of the coding matches. You get a match or you don't get a match. It's really as simple as that," said Goldstein. "And the matches are a 98% probability or better."

But how does all of this protect the American public? "We're looking at the species and identifying if it's what it's being claimed as, what it's being imported as, and what it's being sold as," said Goldstein. "We're also testing the fish

Sharon Stricklin, a CBP scientist, discusses the microscopic analysis of an adulterated honey sample with Carson Watts, Director of CBP's Savannah laboratory. Photo: Christopher Kana

Jenny Tsang, Assistant Director of CBP's San Francisco laboratory, applies a chemical solvent to a computer chip to see if its coating or manufacturer's markings can be removed, one of the many signs of a counterfeit chip. Photo: Rand Careaga

for contaminants such as antibiotics and antifungals that we don't want in our foods," she said. "In some cases, we're working with other agencies that look at products that are sold here in the US. We're trying our best to keep unsafe products out of the marketplace so that people aren't exposed to them."

In recent months, high profile studies on seafood fraud have drawn considerable attention to the problems of mislabelled fish. "It's an age-old problem. Mislabelling of seafood is not a new concept," said Matt Fass, the President of Maritime Products International, a Newport News, Virginia-based company that imports, exports, and distributes seafood products from all over the world.

"We've done a lot as an industry to police ourselves, but it helps to partner with the government agencies that also can be out there with effective enforcement tools such as the DNA testing that the CBP labs are using," he said. "As consumers, people should know what they're buying. They should know what they're eating. We all want to know what's going into our bodies."

Contaminated honey

During the early 2000s, honey became another concern of the CBP labs. "The Chinese were importing honey into the US at a very low price and it was endangering our domestic industry," said Carson Watts, the Director of CBP's Savannah lab in Georgia.

In 2001, after the US Department of Commerce imposed stiff antidumping duties on Chinese honey, some of the major US honey companies visited the Savannah lab. Chinese exporters were circumventing the antidumping duties and the US companies wanted the CBP scientists to find a way to protect the domestic industry.

"At the time, we weren't able to tell where the imported honey came from," said Watts. "One of the things we stumbled onto was the fact that the Chinese were using the antibiotic chloramphenicol to keep the beehives healthy, and it was showing up in the honey. So the very first thing we did was test the honey for this antibiotic," he said. "If it contained chloramphenicol, it was pretty much a dead giveaway that the product came from China."

Furthermore, chloramphenicol is prohibited in food products and as such the adulterated honey would not have been allowed into the US for safety reasons. "For a small segment of the population,

exposure to chloramphenicol will induce a condition called aplastic anemia," said Watts.

"Aplastic anemia is a blood disorder that can be fatal. While chloramphenicol is used in the US to treat some very serious infections, if someone develops aplastic anemia, he or she could die," said Watts. "It's imperative to keep a food product that contains chloramphenicol off the store shelves."

It didn't take long for the Chinese exporters to catch on. "For a short period of time, the chloramphenicol disappeared," said Watts. "They knew we were using that as a marker to identify honey coming from China." But by that point, the Savannah lab had created a database to determine the honey's geographic origin.

When the US honey companies had visited the lab a couple of years earlier, the CBP scientists had asked them for help. "We told them that one of the specialties of the Savannah lab was identifying country of origin based on trace metal analysis," said Watts. In other words, the honey could be identified by its trace metal elements such as chromium, iron or copper. "If the companies could help us obtain honey from various countries, we might be able to develop a profile to tell us where the honey came from," he said.

The honey companies complied and the Savannah lab developed the ability to determine the honey's geographic origin. Then, the Chinese exporters started transshipping the honey to different countries. "The honey was going to Thailand, Malaysia, India and various other places so it wouldn't enter into the US as Chinese honey," said Watts. As the Chinese exporters changed their transshipment routes, the Savannah lab needed to obtain samples of honey from each of the countries. "We were literally chasing them around the globe," said Watts.

Changing strategies

Then the Chinese exporters changed their strategy. This time the shipments were sent from China, but they weren't declared as honey. The shipping documents labelled the cargo as sugar syrup. "They began to adulterate the honey with sugar syrups in an effort to find another way to get around the antidumping duties," explained Watts.

With the addition of sugar syrups, the product no longer tested as pure Chinese honey, and if the percentage of syrup was high enough, the shipment wouldn't be subject to the duties. "The cheapest ingredient to adulterate honey with is high fructose corn syrup," said Watts.

As the cat-and-mouse game continued, the Savannah lab discovered it could detect the high fructose corn syrup by identifying differences in the syrup's carbon atoms. "Almost a year went by and again the Chinese exporters wised up," said Watts. "They realized that the CBP labs could tell if the honey had been adulterated with high fructose corn syrup, so they switched to high fructose rice syrup instead."

The percentage of high fructose rice syrup was undetectable because the differences between the syrup's and the honey's carbon atoms were indistinguishable. At that point the US Department

Interagency cooperation

CBP's labs have helped other agencies protect the American public. For example, in 2010, the labs tested shipments of honey from Mongolia to confirm the country of origin. The CBP scientists discovered the honey was actually from China and that some of the product was contaminated with antibiotics. The shipments were seized and the US Food and Drug Administration (FDA), the regulatory agency responsible for assuring that food coming into the US is safe, was notified.

The FDA attempted to contact the importer, but the shipment was abandoned and no importer could be found. This, in turn, sparked an FDA investigation. "We found thousands of pages of fraudulent documents from various importers. We call them 'shell companies,'" said Nicholas Lahey, an investigator for the FDA's Los Angeles District Import Operations.

"Our investigators found that a lot of these shell companies are really just post office boxes. There aren't any actual company locations. They file articles of incorporation, but there's no one present in the US. They're in China," he said. "The only people here are paid freight forwarders and brokers."

The investigation also revealed that the company fronts involved a couple of freight forwarders who were importing restricted and prohibited products that could harm the public. The FDA kept a close watch on the freight forwarders and in 2012 targeted a shipment of apple juice that one of the freight forwarders was handling for a client. Both the CBP and FDA labs tested the apple juice and found fraud.

"Lo and behold, it was not Chinese apple juice. It was Chinese honey contaminated with trace levels of arsenic, lead and antibiotics," said Lahey. "We never would have looked at the apple juice if we hadn't done the investigation, which was initiated because of the country of origin testing done by the CBP labs."

This prompted the FDA to look further. "We found a slew of other companies that were bringing in different commodities, not just honey. There were dietary supplements and other FDA-regulated products," said Lahey. "It triggered a whole chain, which again, was based on the CBP lab results from two years earlier."

of Commerce changed the antidumping order to say that imported Chinese honey containing any amount of rice syrup would be subject to the additional antidumping duties, which currently run as high as USD 2.63 per kilogram.

Most recently, Chinese exporters have adopted a new strategy. The shipments are no longer honey. They are now 100% rice syrup and the shipping documentation is accurate. "We analysed a sample in the lab last week," said Watts, "and sure enough, there wasn't any honey in it, but the packaging on the product for retail sale says it's pure honey. They're trying to pull the wool over the public's eyes."

Substandard bolts

The CBP labs also protect the public by testing goods to make sure they aren't substandard. For more than 25 years, the labs have been testing graded fasteners and bolts to ensure they meet specification.

The dangers of substandard and counterfeit fasteners were highly publicized during the mid- to late-1980s when they were linked to serious construction and engineering failures, which, in some cases, resulted in death. In 1990, the Fastener Quality Act was signed into US law requiring that fasteners and bolts meet certain standards for strength, grade and manufacturer's marks.

At the CBP Chicago lab, fasteners and bolts are tested for tensile strength using a 400,000-pound universal testing machine. "It's a big hydraulic lifter that's holding the top of the bolt. It can lift 200 tons," said Ernie MacMillan, the Assistant Director of CBP's Savannah lab, who for several years led the Chicago lab's team that tests metal, ceramic and mineral goods.

"When we test the bolts, we pull them until they break. When we're done, the bolt looks like a piece of stretched taffy [similar to a toffee]," he said. One of the strongest fasteners is a 1 1/2-inch, grade 8 bolt. "It's strong enough to lift 17 large African elephants without breaking," said MacMillan.

The CBP labs also test the bolts for hardness, especially at the surface. "We test the surface hardness of the bolts because the steel is heat treated," said MacMillan. "When it's heated, the surface of the steel can either lose carbon or gain carbon. If it loses carbon, it gets too soft. If it gains carbon, it gets too brittle. Somewhere in the middle is where it should be."

The bolts also undergo other tests to check the chemical composition and the manufacturer's mark. "A fastener or a bolt is suspect right away if it doesn't have a manufacturer's mark," said MacMillan. "It's already not in compliance with the Fastener Quality Act, which says it must be marked. As soon as you see one of those, you know you've got a problem."

Counterfeit electronics

Electronics are among the most highly counterfeited goods that the CBP labs test. "We first noticed a counterfeiting problem in the early 1990s, when we began looking at electronic components," said Jenny Tsang, the Assistant Director of CBP's San Francisco lab. "Then we didn't see anything for awhile, but in the last several years, we're seeing a lot of counterfeit computer chips, routers, switches and other electronic products."

> "Their ability to find fake products is a major part of the war on counterfeits. An alert officer may see something is not quite right, but he or she isn't in a position to act upon it until the lab is able to confirm the contents of the product."

According to Tsang, reused chips are especially prevalent. "Chips are counterfeit more and more because nowadays we salvage our computer parts and send the waste to China or India for recycling," she said. "Instead of throwing these parts out, counterfeiters remove the chips, scrape off the original manufacturer's markings and then remark them with forged dates, brand names and product codes to resell them as brand new," said Tsang.

"We've also seen a lot of components that were originally a genuine product, but then have been remade to look like a much higher-value product from the same manufacturer, so that counterfeiters can sell it for a much higher amount," said Tsang. "With counterfeiters, it all comes down to money. They use whatever means is necessary to sell goods at a higher price. For consumers, it's almost impossible to identify counterfeit electronic products by looking at them," she said.

The dangers of bogus computers, routers and chips have been well documented. Fake electronic and computer components have cost the electronics and information technology industries an estimated USD 100 billion per year, according to the Electronic Components Industry Association. But the seriousness of the problem extends way beyond economic damage to US companies.

"Counterfeit products not only put Cisco's brand name at risk, but also potentially places at risk all of the networks that use those products and the individuals that come in contact with them," said Paul Ortiz, then-Head of Worldwide Brand Protection for Cisco Systems Inc., one of the world's leading networking technology firms based in San Jose, California.

"If a chip is not meeting specification – if it gets too hot or it's not functioning properly – that's potentially a big safety concern," said Tsang. "Counterfeit chips in a computer can ruin infrastructure, which could potentially paralyze the flow of trade or our nation's security systems."

Malware concerns

There are also growing concerns that chips could be embedded with malware, malicious software designed specifically to damage or disrupt a system. "It could shut down a power grid or a hospital operating room. The possibilities are endless," said Tsang. Likewise, it could allow a third party to gain access to sensitive personal or government information.

CBP's San Francisco lab uses a variety of testing techniques to weed out the counterfeits. Last year, the lab purchased new X-ray equipment to examine as many as a thousand chips at a time. "We look to see if there are inconsistencies in the way the chips are configured," said Tsang. The lab also does a surface examination of the chips. "We use several different solvents," she said. "We're testing to see if the coating comes off. It's one of the indications that a chip could be counterfeit."

If a chip, component or networking system is suspected of being counterfeit, the lab contacts the rights holder. For example, said Tsang, "If it's a Cisco product, we confer with them. Cisco has a database and each of the products has its own serial number, model number and date code. If they all don't match, that means the product is counterfeit."

The value of the CBP labs has not gone unnoticed. "The CBP lab scientists are on the frontlines with the officers and they're crucial," said Brian Donnelly, the Global Security Director for the Americas Region for Pfizer, one of the world's largest pharmaceutical companies.

"Their ability to find fake products is a major part of the war on counterfeits. An alert officer may see something is not quite right, but he or she isn't in a position to act upon it until the lab is able to confirm the contents of the product," said Donnelly. The CBP labs, which are located throughout the US and in Puerto Rico, have other advantages too.

"Our labs will test goods as fast as we can," said Donnelly, a registered pharmacist and retired Federal Bureau of Investigation (FBI) special agent, "but if CBP has labs in the same city as the ports, the scientists are able to turn around a quick and effective result potentially within minutes or hours of interacting with the product, which can greatly facilitate a criminal investigation."

But it's an ongoing battle and an evolving process. "We're continuing to refine our techniques. The CBP labs are not in a position of stasis," said Watts, the Director of CBP's Savannah lab. "We have our ear to the ground, and as smuggling techniques and technology change, we're addressing them early on."

More information
www.cbp.gov

Mexico launches new strategy to combat informality

By the Mexican Tax Administration Service

With a view to achieving its maximum potential, Mexico recently launched a historic set of structural reforms aimed primarily at increasing productivity. To support these necessary programmes, actions and investments, the Government outlined a strategy to strengthen public expenditure, including amongst its strategic objectives the consolidation of a tax system that is simple, progressive and enhances revenue and formality.

INFORMALITY IS A threat to economic and social development. It is a major factor contributing to poverty, affecting nearly two-thirds (1.8 billion workers) of the global working population according to the Organization for Economic Co-operation and Development (OECD). Furthermore, the world is witnessing a rise in inequality, even in the industrialized countries where the gap between the leading (formal) and lagging (usually informal) sectors of the economy is increasing. Researchers have found that productivity in the former is growing at a respectable pace, whereas in the latter it is declining at an even faster rate [see, for example: Rodrik Dani, "The Growing Divide Within Developing Economies" Project Syndicate, 2014].

Mexico is no exception. It has nearly 51 million workers, 28.6 million of whom work in the informal economy. However, the informal workers' output accounts for a mere 26% of Mexico's gross domestic product (GDP). This means that formal sector workers are at least twice as productive as informal sector workers due to greater and easier access to distribution and sales channels, credit, and enhanced social security, among other things. Besides the problem of lower tax collection, there is also an opportunity cost in terms of the country's competitiveness.

Previous attempts to reduce informality in Mexico did not succeed in building societal awareness that acquiring goods and services in the informal sector encourages informality to the detriment of the economy and the creation of formal jobs, not to mention other risks such as those associated with health and safety, notably goods and services that have not been subject to control.

Let´s grow together

With this in mind, the current administration of President Peña Nieto acknowledged that a truly modern Mexico cannot emerge while the problem of informality is still pending. Mexico had to dare to change. To tackle informality, a new, forward-looking, holistic approach was adopted with the launch of the "Crezcamos Juntos" ("Let´s grow together") strategy, which is based on three fundamental premises:

1. The effective combating of informality requires an integrated approach. The State has to make optimal use of its various public policy instruments;

2. An innovative approach is required to create the necessary incentives to encourage transition from the informal to the formal economy. This includes the development of new tools;

3. Better communication is the key to a successful strategy and results. This must be assured at all levels, throughout the whole country. All people participating in the informal economy must be made aware of the negative impact of informality, but most importantly also of the benefits that joining the formal sector would bring. They should all be informed about the mechanisms needed to

become formal, and should be provided with the necessary assistance to take this step.

Inspired by the second premise, the Fiscal Incorporation Regime (RIF) launched in January 2014 constitutes the main pillar of the strategy from a revenue perspective. It is a temporary mechanism designed to promote the transition towards formality, and it focuses on administrative simplification (e.g. simplified taxation rules and declarations), provision of fiscal and social incentives, and enhanced use of technology (e.g. free web applications to keep accountability records, issue fiscal invoices and submit tax declarations).

New system

The RIF replaced both the "Regimen Intermedio" (Intermediate Regime) and the "Regimen de Pequeños Contribuyentes" (Regime for Small Taxpayers, or REPECOS), and is aimed at small- and medium-sized enterprises (SMEs). Former regimes were not very successful in creating incentives to become formal since, among other things, they imposed onerous administrative burdens, including complex tax calculation systems and declarations; they did not allow the issuance of fiscal invoices, thus hindering potential businesses; and they did not offer social or fiscal incentives nor access to financing.

SMEs with annual revenues of less than 2,000,000 Mexican pesos (approximately 130,000 US dollars) will be able to receive tax breaks and discounts in social security payments in exchange for sharing transaction information with the tax authorities. The government will also offer training programmes and credit lines as a further incentive.

The benefits are designed to promote modernization and efficiency, allowing companies operating outside the system to exchange informality for the possibility of upgrading their businesses. This will translate into more efficient and profitable businesses in the long run, coupled with an enlarged tax base for the fiscal system.

Challenges

Significant challenges remain. Chief among these are overcoming resistance to change, combating a paternalistic culture, educating new generations to become responsible taxpayers and, more generally, putting measures into place that prevent people from becoming part of the informal sector (as opposed to the formal economy), to begin with.

Nevertheless, the results so far are promising. In the first 13 months since the strategy was launched, 3,361,638 taxpayers migrated from REPECOS (the former, less controlled regime) to RIF, and by the end of February 2015, 978,145 completely new taxpayers were registered.

By 22 March 2015, a total of 10,726,203 fiscal declarations had been processed, and 19,224,009 operations, including income and expenses declarations as well as simplified invoicing, had been conducted by this sector's contributors through the new application "Mis Cuentas" ("My Accounts") which is accessible through the Mexican Tax Administration's (SAT) website and through mobile devices. To ensure the programme's inclusiveness, specific mechanisms such as exemptions to submit electronic tax declarations are provided for people living in rural areas without Internet access.

With a view to contributing to this debate, and in its eagerness to assume its role as a globally responsible actor, Mexico has developed a WCO case study that interested parties are invited to read and discuss. It provides a more detailed description of the strategy followed to combat informality through the RIF mechanism. It is available on the WCO website.

Together we are better equipped to face challenges; together we can improve lives and build a more prosperous society. Let's grow together!

More information
www.sat.gob.mx

Overview of the RIF

Eligible persons

- Physical persons with business activities that sell goods or provide services for which no professional degree is required.
- Annual income not exceeding 2,000,000 Mexican pesos (approximately 130,000 US dollars).

Benefits

- A 100% discount on income tax (ISR), value-added tax (IVA) and excise taxes (IEPS) during the first year, that will decrease by 10% each year, for 10 years.
- Simplified mechanisms to calculate and pay taxes, and to file tax returns.
- Social security coverage: medical and maternity attention; invalidity, life, retirement and elderly security; and labour-risk insurance; infant care services and other social services.
- Access to special development bank financing for the acquisition of, or modernization of, equipment.
- Access to training offered by SAT.
- Access to housing and consumption credits from the Federal Agency for Workers Consumption and the Federal Agency for Workers' Housing.

Main obligations

- Register with the Federal Tax Payer Registry.
- Keep electronic accounting records.
- Issue digital invoices through "Mis Cuentas" and deliver sales notes when customers do not require invoices.
- Keep receipts that meet fiscal requirements for expenses and investments.
- Pay expenses, or expenditure above 2,000 Mexican pesos, by cheque or electronic means.
- Record revenue and expenses in the Fiscal System Registry "Mis Cuentas" every two months.
- Assess, deduct and pay over the taxes of all workers.
- File informative returns via the Internet with regard to the payment of taxes deducted from workers.

Strengthening export control capacity in the EU through a simulation exercise

By Renaud Chatelus,
SENIOR VISITING SCIENTIST, EUROPEAN COMMISSION JOINT RESEARCH CENTRE, INSTITUTE FOR TRANSURANIUM ELEMENTS, NUCLEAR SECURITY UNIT, ISPRA, ITALY

SEVERAL EUROPEAN UNION (EU) Member States recently participated in a simulation exercise aimed at analysing practices related to the implementation of the EU Dual-Use Export Control Regulation and identifying related challenges. The simulation gathered both Customs and licensing officers – all export control specialists – and reproduced real processes as far as possible, with Customs services controlling exports and licensing officers processing export licences. This article presents the rationale behind the exercise and the organizational set-up required, as well as the results obtained.

Dual-use items are goods, software and technology normally used for civilian purposes, but which may have military applications, or contribute to the proliferation of weapons of mass destruction (WMD). Export control is essentially about putting State authorities in control of transfers of listed strategic items and related technologies through a licensing process.

The EU has a unified Regulation for the control of dual-use items – the regulation in force being the EU Dual-Use Regulation 428/2009, as amended by Regulation 1382/2014 – which sets out the licence requirements for the export, transfer, brokering and transit of listed dual-use items. It combines, in an organized manner, the different international control lists relating to WMDs. The Regulation aims at mitigating the risk of WMD proliferation, facilitating legitimate trade and preventing unfair competition between EU Member States.

The Regulation is common to all Member States. However, the licensing process – often handled by ministries of trade or economics – and the enforcement of the Regulation – mainly by Customs services – is the responsibility of each individual Member State.

With some exceptions, regulation 428/2009 applies to the EU's external border, while guaranteeing the principle of freedom of movement within the EU for most listed items. These two key principles are described in the following terms by the Regulation: "The existence of a common control system and harmonized policies for enforcement and monitoring in all Member States is a prerequisite for establishing the free movement of dual-use items inside the Community."

In this configuration, excellence, cooperation and harmonization of national export control systems across the EU are essential. Close understanding and cooperation between Customs and licensing officers are also required, although not a given in dealing with this challenging topic. Training and exercises are seen as being instrumental in reaching these objectives and building export control capacity in the EU, but there is still a need for more to be done in this area.

To address this need, the Nuclear Security Unit of the Joint Research Centre (JRC) – the European Commission's in-house science service tasked with carrying out research in order to provide independent scientific advice and support to EU policy – together with the European Commission's Directorates-General for Taxation and Customs Union (DG TAXUD) and for Trade (DG TRADE), decided to design a tailor-made export control simulation exercise, known as SimEX, involving the relevant authorities of EU Member States.

Objectives and set-up

SimEX 2015 was conducted from 17-19 March at the JRC's premises in Ispra, Italy. It had the following five objectives:

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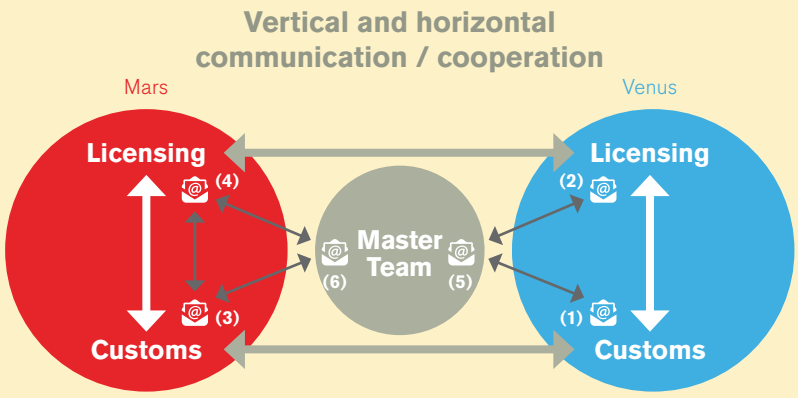

Fig.1 SimEX 2015 communication architecture

1. Share information and experience on export control national frameworks and best practices;

2. Enhance the network of EU export control practitioners;

3. Identify areas where cooperation and communication between Member States, and between Customs and licensing, is necessary, and where it may be enhanced;

4. Discuss areas of improvement in terms of implementation, such as procedures, the legal framework, training needs, cooperation and communication needs;

5. Draw lessons learned for future SimEX exercises, and what could be a more ambitious EU export control capacity building plan.

As part of the exercise, two 'fictitious states' were created, each having two playing teams: one representing Customs and the other a licensing agency. In addition to the four playing teams, a master team was set up, charged with monitoring and driving the exercise while constantly adapting to the choices and requests made by the 'fictitious agencies.' The master team played 13 roles that included different stakeholders in the system, other than Customs and licensing, such as an intelligence service, the private sector and advanced technical reach-back, and certain internal functions, such as archive clerks and web search clerks of the licensing and Customs services.

Seventeen participants from 13 Member States took part in the experiment: 11 Customs officers from Austria, Croatia, Denmark, Finland, Hungary, Italy, Lithuania, the Netherlands, Portugal and Slovenia; and six licensing officers from Belgium, Denmark, Hungary, Latvia, Malta and Portugal. These officers – all export control specialists – were placed within one of the four country teams or within the master team.

Fig.2 Summary of fraud/risk scenarios

Nine fraud/risk scenarios had to be uncovered through Customs and licensing processes as, in reality, the level of criminal intent and the gravity of violations varied between scenarios. Four scenarios were duplicated – i.e. eight cases in total – and run in parallel in both fictitious states, in order to explore the different ways of tackling similar situations.

A fifth scenario involved intezraction between the two fictitious states' authorities. All cases combined Customs and licensing aspects, if completed. This SimEX could not address all the challenges to be tackled. The five scenarios were a compromise between realism, feasibility and usefulness. They were built around the implementation of a catch-all clause, the export declaration of a listed item with a no-licence code, the abuse of a valid licence, a Customs misdeclaration, and licensing 'shopping' between states.

All scenarios also involved secondary processes and challenges. Ultimately, two cases were not started, three of the six remaining parallel cases were completed within the given timeframe, ending up with the export being prevented or seized. The states' cooperation case was completed by the licensing teams and by one of the two national Customs teams.

The simulation reproduced real processes as far as possible: Customs services controlling exports; and licensing officers processing export licences. The focus was the risk of diversion rather than specific destinations.

The exercise required significant effort from the organizations involved in the preparation, and in particular from the five experts provided by Member States (Hungary, Italy, Malta, Portugal and Slovenia), the two JRC experts, as well as Customs policy experts from DG TAXUD. The preparation workload for Member States' experts was minimized by outsourcing some of the time-consuming work, such as the creation of simulation documents and fictitious entities, based on guidance and instructions provided by the preparation team.

250 documents, 11 export licence applications and a listing containing 200 Customs declarations were created with the technical support of Kings College London in the United Kingdom. Nine elaborate fraud/risk scenarios were created, including a background story, an expected export control scenario, and a mapping of the complex export control process. Moreover, during the exercise itself, over 280 emails were sent by the different teams, and a significant number of documents were modified or created 'on the fly' by the master team (see Fig.1 for the general communication architecture).

Execution and results

The exercise was much more elaborate and complex than practical exercises which are usually run at export control capacity building events. Preparing and running it was

not without its challenges. Amongst them were the need to maintain the quality of simulated documents, despite their quantity; the amount of background to build for each scenario, including the legitimate trade 'noise' produced; managing the complexity of interactions between the teams; preparing contingency plans to refocus activities if they excessively drifted from the backbone scenarios, and maintaining the right rhythm of work across the teams, despite partially unpredictable team decisions.

In an initial 'warm up' phase, the Customs teams were requested to build initial risk profiles to target risky shipments, and the licensing teams were requested to decide on their export licensing policy – for example, a catch-all clause. The teams then started the simulation, triggered by various types of realistic initial inputs – selection of export declarations, intelligence reports, licence applications, discoveries in the field, etc. – and driven by interaction with other teams and the master team.

Throughout the exercise, the participants discussed possible ways of proceeding, compared national practices, and used cooperation mechanisms to prevent illicit trade while preserving legitimate trade. The debriefing of the different cases showed that different teams took different paths to handle similar situations.

Throughout the exercise, the participants discussed possible ways of proceeding, compared national practices, and used cooperation mechanisms to prevent illicit trade while preserving legitimate trade. The debriefing of the different cases showed that different teams took different paths to handle similar situations.

In particular, questions of whom to inform, about what, when, and how to do it, were the subject of extensive discussion within teams and between teams. Some challenges specific to the EU context were highlighted and possible solutions discussed. Not all cases could be concluded as envisaged (see Fig. 2), but all triggered the expected discussions and exchanges.

Outcomes and recommendations

The purpose of SimEX 2015 was not to teach that a particular way of implementing export control would be better than another. All participants in the preparation/master team and in the playing teams were experienced export control experts. The aim was to collectively reach the five objectives stated earlier. An anonymous electronic poll on the perceived level of achievement showed that all of the five objectives were seen as partially or completely achieved, with 'completely achieved' reaching scores between 53% and 89%.

SimEX 2015 produced a wealth of lessons learned and suggestions for future exercises, export control capacity building and actual tools and processes used for strategic trade controls. The opportunity for professionals of different national and professional communities to work together on tackling export control issues was seen as rare and very useful. Many lessons learned relate to the design and organization of SimEX, including more time for discussions on the topics encountered during the simulation.

The participants outlined the continuous need for capacity building and training on both the licensing and Customs side. Such efforts should include basic training for non-specialized Customs officers and advanced training on specific topics – technical or process-related – for specialized Customs and licensing officers.

Interestingly, Customs officers were more interested in the technical aspects, such as controlled commodities specifications, than the licensing participants. Indeed, in a number of participating Member States, processes allow licensing officers to systematically reach-back to specialized technical experts, whereas Customs officers, under time pressure, often needed to make first level technical determinations themselves. Debriefing discussions also touched on how to improve tools, communication systems and cooperation practices.

A general consensus was found on the need to renew and improve the SimEX experience. The JRC, DG TAXUD and DG TRADE have agreed to explore ways to repeat the SimEX experience, expand EU in-reach capacity building activities and build on lessons learned about export control implementation. Several participants have already indicated that they will encourage their national authorities to support the initiative.

The SimEX experience also raised the interest of external organizations, including the WCO and the United States Department of Energy, and was recognized as an innovative exercise, complementing other international cooperation and training initiatives. It proved to be a powerful means to foster necessary mutual understanding, enhance cooperation, identify challenges, and exchange best practices between export control stakeholders around export control processes.

It complements commodity identification trainings and other training curricula, such as the ones foreseen by the WCO, as well as coordinated operations like the WCO's Operation Cosmo to detect and prevent the illicit trafficking of strategic goods in international supply chains.

With the experience gained, the SimEX concept could be usefully adapted to other situations where control processes must accommodate trade facilitation, and different work communities must learn to cooperate. Such cases include dual-use trade controls between countries granting each other licence exemptions and global licences, and chemical, biological, radiological and nuclear (CBRN) border detection and response by frontline officers.

More information

renaud.chatelus@jrc.ec.europa.eu
Filippo.sevini@jrc.ec.europa.eu

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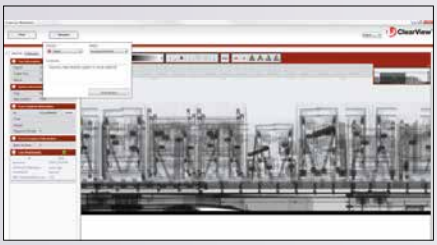

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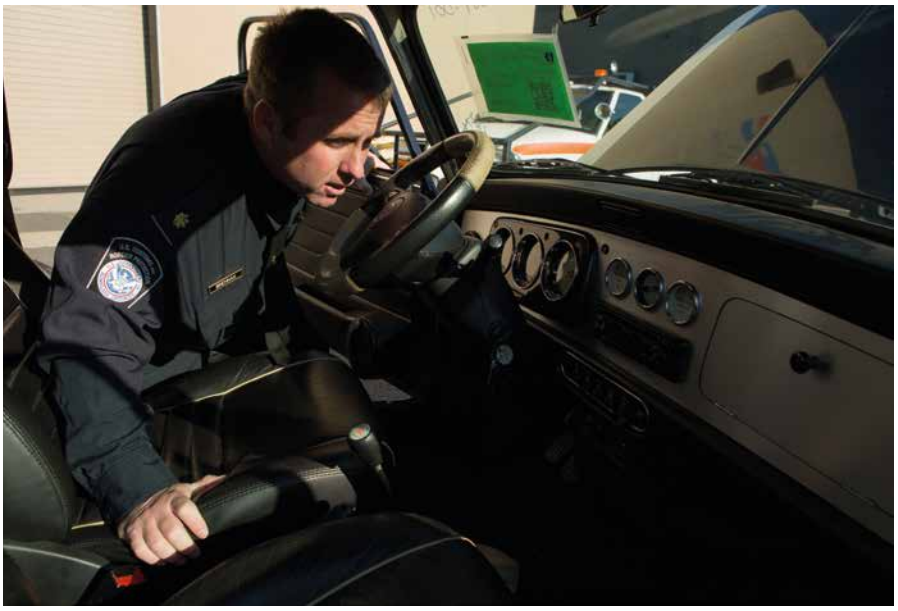
Collaboration between the United Kingdom and the United States crushes trade fraud



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Inspection in progress, CBP official Terry Brennan checks a British Mini Cooper for signs of tampering.

AFTER ROUTINELY TARGETING a car import for inspection, a US Customs and Border Protection (CBP) international trade specialist noticed an unusual cat-and-mouse move: The importer did not process the targeted vehicle for United States (US) entry and instead shipped the car, a Land Rover Defender, right back to England where it had originated.

The CBP international trade specialist countered the importer's move by contacting CBP's attaché in London, who in turn gave a heads-up to his United Kingdom (UK) law enforcement colleagues to look at the vehicle when it arrived in port. The CBP specialist's instincts were spot-on. Upon inspection, the British authorities found that the vehicle identification number (VIN) had been manipulated and that the vehicle was assembled with stolen parts – a clear indication of fraud.

The British were intrigued. Recent thefts had been high for Defenders, a model of Land Rover not made for the US market because Defenders don't meet US safety or emission standards. If talking to the Americans about illegal vehicle shipments would cut down on UK crime, they were all for it.

Operation Atlantic kicks off

This one seizure in June 2013 kicked off discussions between the US and the UK on how to establish a formal information-sharing relationship. After the two countries officially signed a letter of intent, Operation Atlantic began in April 2014. Collaboration to prevent illegal international commerce is nothing new to CBP and other US federal agencies working side by side at the Commercial Targeting and Analysis Center (CTAC).

Since 2009 the 11 CTAC agency partners have learned that by sharing information on manufacturers and shippers of suspect goods – ranging from toys to food to electronics and more – they have a better chance of shutting down the pipeline of unsafe or illegal goods. The rest of the world has noticed too: in 2014, the WCO named CTAC a 'best practice' for governments.

When it came to working with the British to clamp down on the import of fraudulently manipulated vehicles, several CTAC member agencies were raring to go. The National Highway Traffic Safety Administration (NHTSA), the Environmental Protection Agency (EPA) and Immigration and Customs Enforcement (ICE) were immediately onboard with CBP.

In fact, NHTSA first requested that CTAC target Land Rover Defenders because of the potential safety problems with vehicle imports that don't meet US certification requirements, among them standards for seatbelts, crash endurance, airbags and lighting.

The reason that people go to elaborate efforts to manipulate imported vehicles comes down to legal requirements. Vehicles less than 25 years old "need to conform to US federal motor vehicle safety standards and meet EPA standards for emission controls and the US Clean Air Act," said Chris Polashock, CBP's Supervisory Import Specialist for the port of Newark in New Jersey.

Vehicles that are more than 25 years old are exempt from the safety standards, while those more than 21 years old are exempt from EPA requirements. But vehicles at least 21 years old with replacement engines aren't exempted by the EPA unless they contain equivalent or newer EPA-certified engines. Importers try to take advantage of these rules. Hence a Mini Cooper with a 2003 chassis and a 1999 engine may have a 1988 VIN plate under the bonnet. The older VIN gives the appearance that the vehicle is more than 25 years old and legal for import.

"There could be parts that are stolen, there could be parts that are not legal," said Gordon Roberts, Detective Chief Inspector with the UK Association of Chief Police Officers' (ACPO) Vehicle Crime Intelligence Service. Such seized vehicles of unknown origin, full of parts cannibalized from other cars, are "a blight to road users" in the US and the UK, said Roberts. With such a suspect provenance, the cars and their parts can't be resold domestically or overseas. The only lawful destiny remaining for them is their destruction and use as scrap.

Seeing the crushing of such highly desirable cars via media reports can enflame car enthusiasts who don't understand how hazardous such cars can be on the road. "We're looking particularly at the Austin Mini and the Land Rover Defender," said Brenda B. Smith, an Assistant Commissioner for the Office of International Trade at CBP. "They're very attractive and valuable cars to be brought into the US, but we're seeing a lot of problems with them."

The US and the UK agencies are educating the car buff communities about the dangers of these vehicles. "We've worked closely with our colleagues at the Department of Transportation as well as our colleagues in the UK," said Smith, "who are ensuring that vehicles leaving their country and coming to the US are safe for American citizens."

Taking the partnership forward

Over take-out cups of coffee around a Washington, D.C., conference table in early December 2014, UK and US representatives of Operation Atlantic swapped information in person for the first time. They talked about the status of current information-sharing and looked at new targeting tactics for 2015 to further crack down on illegal vehicle imports.

In its 10 months in action, Operation Atlantic's binational working relationships have stopped criminal activity in both countries. CBP's Container Security Initiative (CSI) staff stationed at the UK ports of Felixstowe and Southampton regularly work with their British counterparts.

Using CBP targeting protocols, CSI personnel identify containers that pose a potential terrorism risk. They then alert British authorities, who inspect the vehicles and vet the VIN's against UK and European stolen-vehicle databases before they are placed on US-bound vessels. This can net vehicles that have been manipulated, stolen or otherwise illegally exported.

Alternatively, UK officials will alert their US Operation Atlantic colleagues to inspect, upon arrival, a questionable vehicle already en route to the US. Both teams share information about suspect companies or individuals in frequent conference calls and emails.

This formalized data sharing is different from the collaboration among US federal agencies. The UK doesn't have access to US databases. This reinforces the importance of cooperation and routine conversations between the US and its UK partners on the people and businesses that deal in illegal goods.

Collaboration between CTAC and the UK Border Force (UKBF) makes perfect sense to Tim Coward, National Container Targeting Manager for UKBF's Intelligence Directorate. The Border Force is responsible for Customs and immigration controls on people and goods entering the UK. He said that his unit prevents and detects crime, including vehicle crime. "We need your suspect importer information," said Coward, "and you need our suspect exporter data."

"Take your data and our data, put the two together and our targeters can really drill down on how they're getting the cars out," agreed Acting Detective Sergeant Nick Shrubshall of the UK ACPO' Vehicle Crime Intelligence Service.

The American and British partners also sat around the table to discuss ways to thwart another recent trend among law-breaking exporters: dismantling vehicles and shipping them as parts. "It's a growth area of business," said UK ACPO' Detective Chief Inspector Gordon Roberts, "chopping up the vehicles and putting them in various crates for export to the US."

Being crushed, the 'end of the road' for a seized British Mini Cooper

Importing a vehicle in parts – then manifesting the shipment as 'parts' or even 'scrap' – and reassembling it upon its arrival in the US is illegal. Shippers try to avoid detection by sending disassembled vehicles in multiple shipments, from different ports or from different companies. By sharing what they learn about the criminals' operations, the Operation Atlantic team better targets and counters the illegal activity on both sides of the ocean.

The operation has "led to interventions amounting to over one million US dollars' worth of vehicles," said Roberts, "but arrests have been made in the UK and people have been dealt with in the criminal justice process for altering the identity of these vehicles."

Roberts said that the criminal profits from international vehicle crime "will be funding drug abuse and other aspects of criminality within our society." He added that "our working partnership with the US could only be a good thing for international law enforcement, tackling motor vehicle crime together."

Expanding international engagement

CBP is exploring similar trade enforcement partnerships with other countries. The key to expanding such cooperation internationally lies in disrupting trade in products that harm other countries economically and risk their public's health and safety.

"We're actively pursuing engagement with foreign Customs services and regulatory agencies to leverage the collective expertise of the CTAC, as well as to launch specific operations that combat a shared import safety risk," said Ed Ryan, CBP's Supervisory International Trade Specialist in the Office of International Trade. "The more we're able to jointly target with other nations, the greater success we'll have at shutting down manufacturers that ship products that violate our laws."

The author, Susan Holliday, is the Branch Chief in the Office of Public Affairs at US Customs and Border Protection.

More information
www.cbp.gov

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Ecuador undertakes a mirror analysis

By the National Customs Service of Ecuador

How do we discover new fraud? On what basis and on which data do we rely in deciding when to investigate certain commodities or trade flows rather than others? Chance, intuition, experience and intelligence are useful, but can we complement them using a more objective approach to detect new fraud trends? Ecuador Customs is one of several administrations that has given consideration to these questions by using 'mirror analysis' as a means of adapting and enhancing its risk analysis practices. In this article, Ecuador shares its experience in the use of this method.

MIRROR ANALYSIS IS one of the most heavily used tools in analysing foreign trade gaps with respect to both exports and imports. Its approach and construction are widely known and well publicized, and the mechanism has consequently been further developed over time in the light of its strengths and weaknesses (see Table 1).

The method has been developed and used by economists for different purposes, including the re-building of the import data of a country when it is not fully available, showing that trade data provided by a country is not reliable, and looking for trade gaps in order to analyse the impact of trade policies.

From a practical perspective, the accuracy of economists is not crucial to a Customs administration. What is important for Customs purposes, however, is to find major gaps, where data "does not fit", in order to unearth undetected fraud and prioritize in-depth risk analysis.

The core principle is simple:

- Comparing Country A's imports to the exports of countries that trade with Country A.
- Finding gaps between Country A's exports and imports.
- Making fraud hypotheses that can explain the gaps.
- Testing the hypotheses in the field through the application of Customs controls.
- Improving Customs' risk assessment methods.

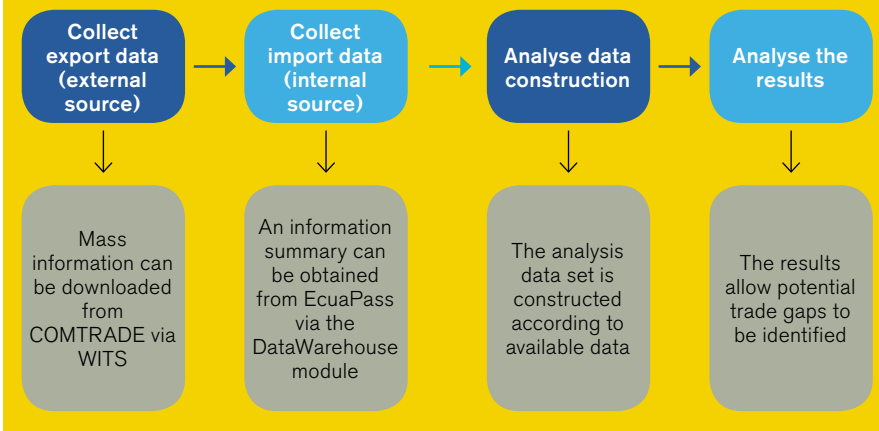
Ecuador's experience

In order to use mirror analysis techniques as a means of enhancing its capacity to identify possible irregularities, such as undervaluation and misclassification, the National Customs Service of Ecuador (SENAE) requested the assistance of the WCO. In response to Ecuador's request, the WCO undertook a study visit in December 2014.

The aim of the study visit was to support the Ecuador Customs' Risk Management Unit by providing assistance in reviewing preliminary data on trade gaps in Ecuador using mirror statistics, making adjustments to them in line with detailed information from the electronic Customs clearance system (EcuaPass) database, and using the preliminary results to draft possible control strategies.

The following diagram summarizes the taxonomy established jointly by the WCO technical team and SENAE:

Mirror Analysis
Taxonomy of analysis in trade gaps



1. Collection of export information: the World Integrated Trade Solution (WITS) software – http://wits.worldbank.org – was used to extract export data provided by countries to the United Nations Commodity Trade Statistics Database (COMTRADE database). Export data is presented in terms of value (thousands of US dollars on a FOB basis), weight (in kilograms) and supplementary quantities.

2. Collection of import information: the EcuaPass DataWarehouse module provided import data at a much disaggregated level (10-digits). Since export data cannot be disaggregated beyond the 6-digit level, import data has been aggregated on a 6-digit basis. As the Customs database also provides more information, from more countries and in greater detail, additional adjustment is effected so that the data is comparable between both sources.

3. Construction of a data set for analysis: the data set to be analysed is defined. Certain points must be borne in mind when ensuring data consolidation prior to calculating the gaps. For example:

a. Identification of transactions associated with tax suspension procedures: vehicles are one of the most important goods in tax terms, and their inclusion in Customs tax suspension procedures means that they do not become statistically 'visible' until they move to importation for home use. This time lag may give rise to significant distortions in some cases.

b. Identification of transactions associated with processing procedures: as in the previous case, in this component it is important to point out that, in terms of comparative statistics, there will be no corresponding record of importation for home use for such imports intended for processing procedures. By way of example, in the case of Ecuador, an important component associated with import statistics for rolls of paper was identified and resolved at this stage of the analysis.

c. Transactions originating in storage/transhipment centres: in some records, transactions originating in Panama tend to reflect the origin of the export incorrectly. Thus, in some cases, trade flows from China can be aggregated with flows from Panama. A similar case related to Andean Community transit declarations was detected and examined.

4. Analysis of the results: the initial analyses have already given rise to interesting results. One of the first gaps relates to goods which are sensitive to Customs fraud. Different categories of gaps were calculated: the gap in value (import vs export value); the gap in weight (import vs export weight); and the difference in density value (ratio of FOB value over weight). Value, weight and density value gaps unveil potential misclassification, undervaluation and smuggling. A gap in density value in the case of textiles was, for example, discovered, leading to an initial analysis of the variation and the potential for fraud.

Validation and outcomes

SENAE is currently validating the results obtained and will be sharing the outcomes of initial controls in the future. As a result of the methodology applied during the exercise, two facilitation and Customs control mechanisms are envisaged:

- Facilitation: check consistency in facilitation mechanisms used in cases in which the gaps are smaller.
- Control: gear controls towards the identified priority segments.

The use of mirror analysis is therefore not restricted solely to control objectives, but also seeks to strike the right balance between facilitation and fair trade.

More information

mrojas@aduana.gob.ec
engarcia@aduana.gob.ec

Table 1: Mirror Analysis - Strengths and Weaknesses

Strengths	Weaknesses
• Statistics can be freely accessed and published via web services. • Coverage of product and country information in primary sources reaches around 95% of the international trade flow (COMTRADE). • It can be made available to researchers at minimal cost. • The analysis is intuitive and can be directly quantified.	• Statistical records can reflect special Customs regimes which are not necessarily related to the import/export of goods for immediate use. • Transhipments can disguise the origin of the goods analysed. • There is no direct comparison between the export and import value due to possible 'terms of trade' differences. • In some cases, the lack of timeliness or absence of administrative records prevents comprehensive analysis. • Information which is not recorded either at origin or destination is not reflected. • The level of aggregation and disaggregation of records at product level (HS-Code digits) could restrict or allow a more detailed analysis.

US Trade and Transparency Unit targets global trade-based money laundering schemes

By Bernadette Smith,
WRITER, US IMMIGRATION AND CUSTOMS ENFORCEMENT

COMBATING MONEY LAUNDERING in all its forms is a top priority for US Immigration and Customs Enforcement's (ICE) Homeland Security Investigations (HSI) arm. ICE, an agency under the Department of Homeland Security (DHS) in the United States (US), is tasked with a broad law enforcement mission, including combating international terrorism and transnational crime.

"One significant method HSI uses to target transnational criminal organizations is to separate criminals from their cash flow," said HSI Executive Associate Director Peter T. Edge. "Criminals are clever when it comes to concealing their profits. HSI's aim is to decipher their schemes, arrest the perpetrators and effectively turn their criminal activity into a zero-sum game."

HSI combats the methods criminal organizations use to launder money, move bulk cash, exploit global trade networks, conduct illicit insurance schemes and use online financial systems and Internet technologies to hide their ill-gotten gains. HSI made 6,805 separate seizures which included more than 720 million US dollars in currency seizures. "Believe it or not, but up to the late 1980s, it was perfectly legal for drug dealers to deposit suitcases full of money directly into banks with no questions asked," said Edge.

US law enforcement lobbied for change, and the outcome was the enactment of the 1986 Money Laundering Control Act. This legislation, along with anti-money laundering (AML) standards, the Bank Secrecy Act and partnerships between law enforcement agencies, regulators and private industry, has presented a more formidable climate for money launderers. Yet, money laundering remains a serious global threat and has serious repercussions.

Money laundering begets corruption, crime and poverty, and erodes state sovereignty

Illicit currency moving through financial institutions as if it is legitimate contributes to the breakdown of the rule of law, corruption of public officials and the destabilization of economies. The International Monetary Fund (IMF) estimated in 1998 that somewhere between two and five percent of the world's gross domestic product is laundered. That comes to between 590 billion and 1.5 trillion US dollars.

As criminal organizations accumulate wealth, they become more powerful. They pose a threat not only to public safety and national security, but also jeopardize state sovereignty and governance. Transnational criminal organizations (TCOs) may challenge state authority by direct confrontation or corruption, impose violence, violate human rights, undermine the regulation of products, threaten non-proliferation and arms embargoes, and undermine trade and commerce.

TCOs threaten governmental authority by the very nature of their crimes, which include trafficking in human beings, hazardous waste, endangered species, and nuclear material and conventional weapons, as well as stealing intellectual property and counterfeiting.

HSI partners with local, state and international law enforcement agencies and works with a number of other stakeholders, including the Financial Action Task Force (FATF), which is an inter-governmental body that leads efforts to counter criminal abuse of the international financial system.

The FATF stated in their July 2011 report titled, 'Laundering the Proceeds of Corruption,' that politically exposed persons (PEPs) are one of the largest categories of high-risk customers for money laundering purposes. "Corrupt PEPs have a greater need than others to ensure that specific criminal assets cannot be identified with, or traced back, to them."

The same report stated that, "Countries with high levels of corruption achieve lower literacy rates, have higher mortality rates, and overall, have worse human development outcomes. Corruption deepens poverty..."

The complex nature of trade-based money laundering

In their efforts to minimize the risks of detection, TCOs are increasingly laundering money by exploiting the international trade system, using highly complex and sometimes confusing documentation that is associated with legitimate trade transactions.

Given the increase in global trade and the complexity of trade transactions, those with criminal intent have found the international trade environment rich in opportunity, not only to conceal illicit profits, but to move value to more regions whilst avoiding the payment of taxes, tariffs and Customs duties.

HSI's Trade and Transparency Unit

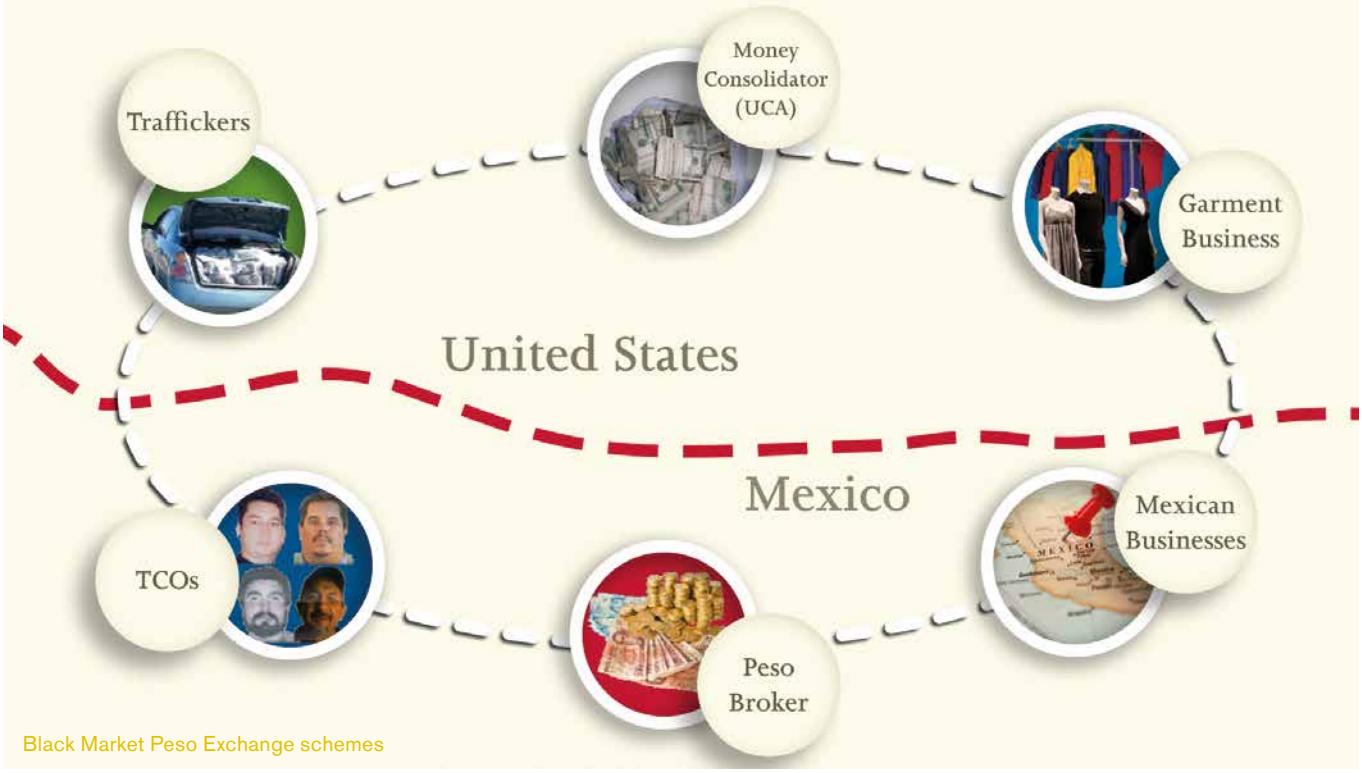
HSI established the Trade and Transparency Unit (TTU) in 2004 to aggressively target trade-based money laundering and commercial fraud. The guiding premise of the TTU is that governments on both sides of trade transactions must be able to compare and analyse trade data to identify anomalies in a trade transaction.

In close collaboration with US Customs and Border Protection (CBP), the HSI TTU provides expertise and investigative support to HSI domestic and international offices, as well as to its US and international law enforcement partners. The TTU collaborates with financial intelligence units, identifies and examines anomalies indicative of Customs violations, and helps countries increase their investigative capabilities in combating trade-based money laundering.

"Over the years, TCOs have adapted, globalized and crafted sophisticated schemes to maximize their profits," said Hector X. Colon, Unit Chief of HSI's TTU. "In doing so, they have increasingly resorted to trade as a means to integrate ill-gained funds into global finance systems. In fact, trade-based money laundering is now the preferred method criminals and terrorist financiers use to move money, disguise its origins and integrate it into the legitimate economy."

How exactly does trade-based money laundering work? Trade-based money laundering involves a variety of schemes used to disguise criminal proceeds. Tactics involve moving illicit goods, falsifying trade documents and misrepresenting trade-related financial transactions to integrate criminal proceeds.

Trade-based money laundering crimes are international trade transactions involving some type of fraudulence that could include collusion between an importer and an exporter. For instance, both companies might agree to manipulate prices by over- or under-invoicing goods and services or by issuing more than one invoice for the same international trade transaction. The scammers may also falsely describe goods and services; misrepresenting the type or quality.



Black Market Peso Exchange schemes

"In fact, trade-based money laundering is now the preferred method criminals and terrorist financiers use to move money, disguise its origins and integrate it into the legitimate economy."

Black Market Peso Exchange schemes

Another trade-based money laundering scheme that continues to thrive is the Black Market Peso Exchange (BMPE). This type of illegal transaction is a monetary exchange that gained fame in Colombia when Colombian drug traffickers used third party or professional money launderers to move, store or launder their illicit funds through trade.

Here is how it works. Colombian drug traffickers hold large quantities of US dollars derived from retail drug sales in the US. They need to exchange the US dollars for local currency that they can then use in Colombia. Meanwhile, Colombian smugglers and 'importers' need US currency to pay for 'imported' goods. However, they want to avoid government scrutiny, import duties, sales and income taxes, as well as the often less favourable exchange rates associated with the formal Colombian currency exchange mechanisms. Plus, reporting requirements would expose their smuggling operations.

The smugglers, therefore, exchange their Colombian pesos for the drug traffickers' US currency. This illicit quid pro quo arrangement satisfies the monetary needs of both organizations, while their criminal activities remain covert. BMPE schemes are not limited to Colombia. Billions of drug dollars are laundered through BMPE schemes in the Western hemisphere and throughout the world. Commercial goods used in these value transfer schemes are predominantly manufactured in China.

Operation Fashion Police

In an HSI-led case called Operation Fashion Police, high-level third party money launderers in Mexico brokered a BMPE deal between the drug cartels and US garment stores operating in the Los Angeles fashion district. The drug cartels smuggled and sold methamphetamine and cocaine in the US and used the BMPE methods to move their illicit proceeds through a trade-based money laundering scheme involving what appeared to be the legitimate trade of the garment stores.

In September 2014, HSI Los Angeles executed more than 51 search warrants at businesses and residences in the Los Angeles metro area. Nine individuals were arrested and more than 90 million US dollars in bulk currency was seized. HSI Los Angeles also executed 34 seizure warrants on domestic bank accounts as well as on a Taiwanese-based account containing more than 37 million US dollars. In addition, two high-end vehicles valued at just over 142,000 US dollars, jewellery valued at an estimated 170,000 US dollars and double-invoiced 'wearing apparel' worth approximately 1.4 million US dollars were seized.

FALCON DARTTS and international data exchange

The backbone of the TTU is two-fold. One critical component is the high-technology computer system – known as the FALCON Data Analysis and Research for Trade Transparency System (DARTTS), an investigative tool that allows users to identify trade anomalies and quickly analyse huge amounts of data.

The exchange of trade data by TTUs with their international counterparts, formalized through Customs Mutual Assistance Agreements, is equally necessary in identifying trade transaction anomalies. Once anomalies are identified that indicate that trade-based money laundering may be taking place, investigations are launched.

Information-sharing partnerships are the other critical TTU component. HSI has established TTU partnerships with Argentina, Australia, Brazil, Colombia, the Dominican Republic, Ecuador, Guatemala, Mexico, Paraguay and the Philippines. It is worth noting that HSI is the only US investigative agency that exchanges trade data with foreign countries.

In addition, in December 2013, the TTU was integrated into a division of the HSI-established National Targeting Center Investigations (NTC-I) Unit. The NTC-I is a collaborative partnership with CBP and plays a critical role in promoting border security, public safety and national security through the identification and investigation of TCOs and their attempts to undermine DHS' border security efforts. This unity of effort has increased HSI and CBP's ability to share information that helps identify, disrupt and dismantle TCOs and their associated networks.

The NTC-I TTU initiates and supports international criminal investigations related to Customs fraud, tax evasion, money laundering and other financial crimes. In the 2014 fiscal year, the NTC-I/TTU initiative led to the criminal arrest of 173 subjects and the seizure of more than 168 million US dollars in total assets. Three of these cases are cited as follows:

- ***Counterfeit cellular phones fail to pass muster with Paraguayan Customs***
  In April 2014, Paraguayan Customs notified HSI Buenos Aires that they had seized counterfeit cellular phones and accessories worth an estimated manufacturing sales retail price (MSRP) of more than 5 million in US dollars. The case involved trade fraud violations, including under-valuation and inclusion of undeclared and misdeclared items. Especially relevant to this case is that the HSI TTU programme had trained Paraguayan Customs in how to

How a trade-based money laundering scheme might operate

Company A (a foreign exporter) ships 1 million widgets worth 2 US dollars each, but invoices Company B (a colluding domestic importer) for 1 million widgets at a price of only 1 US dollar each.

Company B pays Company A for the goods by sending a wire transfer for 1 million US dollars.

Company B then sells the widgets on the open market for 2 million US dollars and deposits the extra 1 million US dollars (the difference between the invoiced price and the 'fair market' value) into a bank account to be disbursed according to Company A's instructions.

target and identify illicit trends, such as the methods smugglers use to import large quantities of counterfeit, illicit and over- and under-valued merchandise into Paraguay.

- ***Counterfeit nutritional supplements seized***
  In another case involving Paraguay Customs, the administration notified HSI Buenos Aires that they had seized 58,044 units of counterfeit nutritional supplements and personal care products with an MSRP value of more than 329,000 US dollars.

- ***Counterfeit documents hide the true value of vehicles shipped to Spain***
  In Spain, HSI Madrid, the HSI TTU and Spanish law enforcement authorities investigated a case that resulted in the arrest of five persons on fraud and money laundering charges. The perpetrators had used counterfeit documents to fraudulently import more than 200 vehicles into Spain from different destinations, including the US. In order to avoid paying high value-added taxes and other pertinent duties, hundreds of shippers and consignees systematically undervalued and/or overvalued vehicles that were imported into Spain.

The benefits of the TTU method

HSI's TTU programme has been recognized by the FATF as a best practice in combating trade-based money laundering. TTUs have helped partner countries in building awareness, strengthening measures to identify trade-based money laundering and improving international cooperation.

The advantages of TTU methods are many. They protect law-abiding companies from unfair trade involving intellectual property rights violations and other Customs fraud, they help countries to recoup lost revenue and, in fact, have helped identify millions of dollars in lost taxes and duties, resulting from fraudulent Customs documentation. TTUs also help enhance the quality and depth of money laundering investigations, as well as increase border security.

Another significant aspect of the work of the TTU is that it helps prevent, detect and combat corporate and government corruption, which helps to stabilize countries' borders, international commerce and financial systems. Working with their partners, HSI's TTU programme will continue to actively and aggressively pursue trade-based money laundering crimes.

Visit www.ice.gov/trade-transparency to learn more about HSI's TTU programme.

More information
www.ice.gov

CBSA and RCMP officials work with a US Customs and Border Protection counterpart. Photo: RCMP

What 'coordinated border management' means for Canada

By Luc Portelance,
PRESIDENT, CANADA BORDER SERVICES AGENCY

THIS YEAR'S WCO theme is 'coordinated border management' (CBM), which signals our collective aspiration to strengthen our working relationships with other government agencies responsible for Customs-related responsibilities, trade partners, and border agencies. For some time now, the WCO has taken the view that CBM leads to a number of benefits, including improved delivery of services and cost efficiencies. For Canada, CBM is a strategy upon which the Canada Border Services Agency (CBSA) was established and actively pursues day-to-day across government departments, with the private sector, and internationally. Our experience is that CBM is essential to advancing our mandate.

Putting our people first

Foundationally, CBM rests on the efficacy of a well-trained and forward-leaning workforce first and foremost. To this end, the Agency recently developed a 'People's Strategy,' which aims to energize our people management programme to better support our training, development and leadership needs. The hard work of many people in the CBSA has culminated in a clear vision for our employees, which includes the following three components: the first of which is how we develop our workforce. Our aim is to have the right people in the right jobs with the right skills and training; the second is supporting leadership. We need to give our present and future leaders the support they need to push for change, and to take our organization to new levels of performance excellence; and finally, we have to create an enabling environment.

We want to foster an environment in which employees feel proud to serve, challenged and engaged. The 'People's Strategy' is an investment in our workforce, which ensures that our people have what they need to meet the challenges of the dynamic border management environment.

An integrated border management agency

The CBSA was created in 2003, when the Government of Canada integrated the border-related functions that were previously dispersed across a number of government agencies – Customs and revenue collection, immigration, and food plant and animal safety – into a single organization. The rationale for this integration was based on the recognition that strengthened coordination across government departments that have a focus on the border was essential to achieving our security and economic objectives. The Agency serves other Canadian government departments by enforcing over 90 acts of legislation on their behalf.

This integration has enabled us to better streamline border processes for industry, strengthen our ability to assess risks and secure the border strategically. This approach allocates resources more effectively, and facilitates inter-governmental cooperation at all levels. We are providing

In the NTC's tactical area, CBSA officers use numerous monitors on which targeting bulletins, shift briefs, world news outlets and learning tools are displayed; to minimize the noise, they use earphones plugged into media boxes. Photo: CBSA

a sharper focus on security at the border, as part of a greater national strategy on crime prevention, public safety and health. The CBSA's structure also provides a legal framework which allows for a coordinated approach to information-sharing in order to respond to global threats, such as 'foreign fighters' and the Ebola virus.

Coordination and collaboration within Canada

The CBSA reports to the Minister of Public Safety and Emergency Preparedness. This provides the Agency with an excellent opportunity to work in concert with other organizations under the Public Safety Canada umbrella, as they all report to the same Minister, such as intelligence, national police, and corrections and parole. For example, CBM in this context includes assessing inbound risks through a centralized national targeting centre, and collaboration across the pertinent government departments, administrations and the private sector.

1. The CBSA's National Targeting Centre

The CBSA's National Targeting Centre (NTC) is a centralized targeting model that benefits the travelling public and the trade community by enabling the Agency to focus its examination and interdiction activities on high-risk people and goods. The CBSA uses a variety of threat and risk assessment methodologies – including scenario-based targeting, intelligence and other technologies to identify potential risks to the security and safety of people and goods. The NTC is the single authority that receives and processes data from airlines. The sharing of data with other Canadian authorities and third countries is done only under strict conditions, on a case by case basis. Coordinated efforts with other government departments helps inform the NTC`s targeting procedures.

In the passenger mode, initiatives utilizing Advanced Passenger Information (API) and Passenger Name Record (PNR) data are designed to protect Canadians by enabling the CBSA to perform a risk assessment of travellers prior to their arrival in Canada. API/PNR data is used by the CBSA to identify persons, and their goods, who may require closer questioning or examination on arrival in Canada because they may pose a potential threat to Canada's safety or security. The analysis of PNR data can assist us in identifying known and unknown individuals who could pose a risk to our National Security upon their return.

2. Single Window initiative

The 'Single Window' provides a single entry point for the advance electronic reporting of information required to satisfy CBSA and other governmental departments' importing criteria, which allows the Agency to focus its efforts on the highest and unknown risks. This results in a streamlined approach to gathering information needed from industry by different government departments. By December 2016, nine Canadian government departments will participate, including Health Canada, the Canadian Food Inspection Agency, Transport Canada, and the Department of Foreign Affairs, Trade and Development, among others.

Canada Border Services Agency-United States Customs and Border Protection Senior Executives Meeting in 2014. Photo: CBSA

3. Joint Border Strategy

On the law enforcement front, the CBSA and Canada's federal policing agency, the Royal Canadian Mounted Police (RCMP), announced the first-ever Joint Border Strategy (JBS). The JBS captures our collective understanding of the dynamic and global threat environment by identifying objectives for greater collaboration, and improving coordination and cooperation at the strategic and tactical levels through:

- collective priority setting and planning;
- information and intelligence sharing;
- co-locating employees;
- leveraging each organization's existing infrastructure;
- training and secondment processes.

The sharing of information in a coordinated fashion through the JBS facilitates the CBSA's targeting and interdiction of illicit goods.

4. Authorized Economic Operator

Canada also partners with the private sector, through Trusted Traders programmes, such as CBSA's 'Partners in Protection.' Companies that invest in security processes and compliance systems which meet CBSA standards encounter fewer secondary inspections and reduced paperwork requirements. This partnership allows the

CBSA to have greater confidence in trusted companies' compliance with Canadian Customs, security, duty, and tax requirements, so that we may focus our resources on targeting commercial shipments involving companies of higher or unknown risk. The CBSA continues to explore ways to enhance these programmes to make them more effective, for example, by increasing membership benefits – such as simplified accounting procedures, dedicated lanes at border crossings and expedited clearance – in Trusted Traders programmes to encourage greater participation.

5. Shared cooperation agenda with Industry

The CBSA invests in partnerships with industry at a broader level through regular consultations with the private sector, both through an established formal committee structure on wide-ranging trade issues, and through bilateral meetings. We have also strengthened our partnership with the private sector by recently developing a 'Shared Cooperation Agenda'. This produced a set of mutually-beneficial priorities to promote compliance and private industry's interest in more efficient and predictable border processes, and also assists in the Agency's modernization efforts.

Partnerships beyond our borders

The CBSA partners internationally to better achieve our dual mandate of economic prosperity and public safety. For day-to-day cooperation, the Agency counts on Liaison Officers posted in 47 locations around the world to work directly with foreign Customs administrations to address common issues, exchange information and best practices, and enhance bilateral relations. The role of these officers is essential to the Agency's border management approach of pushing the borders out, and facilitating low-risk travellers and goods. It notably embraces advanced risk assessment, and the Customs-to-Customs and Customs-to-business partnership pillars of the WCO SAFE Framework of Standards to Secure and Facilitate Global trade.

Supporting both CBSA's operations and international relations, the Liaison Officers play a pivotal role in CBM, as they work collaboratively with both foreign border management and domestic law enforcement agencies based in the host country. The Agency also engages in focused cooperation agendas through bilateral agreements with its international counterparts that range in scope based on alignment of interests, trade volumes, and mandates.

1. United States

The Canada-Unites States (US) border – Canada's only shared land border – is a celebrated success story in the world of border management due to a commitment on both sides of the border to keep legitimate trade and travel flowing smoothly, without compromising security. In December 2011, Canada and the US embarked on an ambitious shared agenda, called the 'Beyond the Border (BtB) Action Plan,' to strengthen both countries' security while facilitating cross-border trade. The BtB Action Plan includes thirty different projects and initiatives under four key principles:

- Addressing threats early;
- Trade facilitation, economic growth and jobs;
- Integrated cross-border law enforcement;
- Critical infrastructure and cyber security.

One recent and high-profile example of Canada-US Customs and border cooperation is the recent preclearance agreement signed in Washington D.C. in March 2015 by the Canadian Minister of Public Safety and Emergency Preparedness and the US Secretary of Homeland Security. This agreement will provide the legal framework for Canadian and US border officials to pre-clear goods and people on the other's territory in all modes, including land, marine and rail.

2. Other countries

In addition to trilateral cooperation initiatives with Mexico and the US, Canada has entered into agreements to recognize international Trusted Trader programmes after validating their standards as being equivalent to our own. These Mutual Recognition Agreements (MRAs) create efficiencies for both countries involved, as well as for the private sector. Canada's first MRA was signed with the US in 2008, followed by several of our Asian partners in 2012. We are currently negotiating another three with the European Union, Israel and Mexico.

CBSA President Luc Portelance signs a CMAA with the National Director of the Customs Service of Chile, Gonzalo Pereira Puchy

The CBSA has also signed Customs Mutual Assistance Agreements (CMAAs) with several international partners, which allow for the exchange of Customs information to help prevent and investigate Customs offences. Performance success stories from CMAAs abound from uncovering drug trafficking based on information shared with Australia, France and Japan, to discovering the intentional undervaluation of goods to avoid appropriate taxation via information shared with countries such as Turkey.

Multilaterally, the CBSA participates actively in the WCO and the Regional Conference of Customs Directors General for the WCO Americas and Caribbean region, amongst others. Through each of these organizations, Canada shares best practices, and advances international Customs cooperation initiatives.

Moving forward

In establishing the CBSA and adopting CBM as a strategy, many obstacles based on differing organizational cultures/interests, legislative barriers, technological complexities, and funding, have been encountered. However, the Canadian experience clearly shows that these challenges can be overcome, and the return on investment is significant, which better positions the Agency to achieve its dual mandate of increasing economic prosperity and ensuring the health, safety and security of Canadian citizens.

More information

www.cbsa-asfc.gc.ca

The killing of elephants continues: what can be done to stop the accelerating risk of extinction?

"Intelligence-based seizures have been the primary means of intervention by Customs administrations and these activities should be enhanced as much as possible. But we also need to figure out novel solutions for the mass screening of cargo and identifying suspect shipments based on registered information for targeted screening. In addition, it is important to deter corruption of and collusion by Customs officials, and to root out such problems where they occur."

Dr. George Wittemyer

THE CONTINUED SLAUGHTER of elephants by humans and the cross-border smuggling of their ivory are endangering the existence of this magnificent species. Without concerted action and innovative techniques to stop the massacre fuelled by the greed of individuals who trade in illegal ivory, the elephant faces extinction. There is still an opportunity, however, to protect elephants from sharing the fate of animals such as mammoths and mastodons.

While combating elephant poaching is generally under the purview of wildlife services, Customs administrations are the lead agency for deterring the international trade in ivory, which is banned under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Although deterring wildlife smuggling is on the agendas of some Customs administrations, it is not yet a high priority according to a WCO survey of Customs administrations [Han, Chang-Ryung (2014), "A Survey of Customs Administrations' Perceptions on Illegal Wildlife Trade," WCO Research Paper No. 34, Brussels]. The survey data also indicated that efforts to combat wildlife smuggling by Customs administrations generally rely on ordinary checks at borders rather than investigations, which may have less of an impact.

An additional challenge for Customs administrations is reducing the entanglement of corruption with the illegal trade in wildlife. As in other types of smuggling, wildlife smuggling is in some instances facilitated by corrupt government officials. The WCO has embedded anti-corruption approaches in its counter-wildlife smuggling development assistance programmes.

An important necessity in mitigating the killing of elephants is to publish and communicate objective data that empirically shows the extent of the catastrophe. An example of such research was written by Dr. George Wittemyer from Colorado State University and several colleagues, and edited by Peter M. Kareiva from The Nature Conservancy [Wittemyer, G., J. M. Northrup, J. Blanc, I. Douglas-Hamilton, P. Omondi, and K. P. Burnham (2014), "Illegal killing for ivory drives global decline in African elephants," PNAS, 111: 13117-13121].

Dr. Wittemyer was recently interviewed by the Robert Ireland, the WCO Head of Research and Communications.

What is the current situation for wild African elephants?

The situation is grim, as stated in our 2014 paper, "illegal wildlife trade has reached alarming levels globally, extirpating populations of valuable species." While the global picture is bleak, we do have examples

© George Wittemyer

where poaching has been turned around or reduced. These models of success need to be replicated in order to end the carnage elephants are currently experiencing across much of their range.

One of the challenges faced by Customs administrations is quantifying the level of wildlife smuggling and evaluating the impact of deterrence programmes. Your research has taken an empirical approach to measuring the illegal killing of African elephants. How did you accomplish this?

As stated in our paper, quantifying illegal harvest is essential for conservation and socio-political affairs, but notoriously difficult. We combined field-based carcass monitoring with fine-scale demographic data from an intensively studied wild African elephant population in Samburu, Kenya, to partition mortality into natural and illegal causes. We then expanded our analytical framework to model illegal killing rates and population trends of elephants at regional and continental scales using carcass data collected by a CITES programme – 'Monitoring the Illegal Killing of Elephants,' or MIKE.

This monitoring system provides powerful data regarding the site-specific relative causes of mortality – i.e. the proportion of illegally killed elephants that has served to indicate regional levels of illegal harvest – that can serve as a multiplier of the natural mortality rates experienced by elephants in order to derive the overall rate of population change.

While this work gives us an idea of the status of elephants on the ground, it does not ultimately provide us with an insight into the trafficking or consumption of illegal ivory, both of which are critical to address this problem. Innovative modelling by TRAFFIC (a non-governmental organization, or NGO) and academics used seizures of ivory by port authorities and Customs administrations to provide us with an insight into trafficking routes and destinations.

This work has proven incredibly important in identifying the primary exit ports of ivory off the continent of Africa as well as the primary destination ports. This can greatly help us in targeting trafficking interventions.

Can you comment on the extent of the killing levels?

Our research indicated that illegal killing levels were unsustainable for the species between 2010 and 2012, peaking at about 8% in 2011, which we estimate extrapolates to about 40,000 elephants illegally killed and a probable species reduction of about 3% that year. While 2011 appeared to be the peak, data from 2013 indicates unsustainably high rates of illegal killing continue.

However, this illegal killing is not happening equally across all sites. Rather, certain populations are being rapidly extirpated while others are demonstrating robust growth. This variation makes it difficult to give specific numbers. But our results indicate that around 70% of elephant populations were in decline over the study period, and it is likely that populations have been exterminated in the past few years.

What are the main purposes of elephant poaching and the subsequent illegal exportation of their ivory?

It is clear from seizure data that the main destinations are China and Thailand. However, determining the main use of

this illegal ivory is difficult. Past research has suggested significant use in carvings and trinkets, and more recent studies suggest ivory is used in high-end art carvings and as a recession-robust investment commodity.

In line with the latter, a recent survey conducted by researchers Esmond Martin and Lucy Vigne found increasing trade in raw, rather than carved, ivory tusks. The same study found the price of ivory has tripled in China over the last four years, which is a very chilling statistic given the level of pressure we have been experiencing across Africa over the last decade.

Beyond the loss of these beautiful creatures, are there other reasons why their destruction is detrimental for nature and society?

Ecologically, elephants are a keystone species, meaning their presence has a disproportionate effect on other species. They perform this role by being a critical seed dispersal agent, influencing tree density across landscapes, and maintaining grasslands where bush and forest encroachment would otherwise occur. Because of these diverse roles, we call species like elephants 'ecosystem engineers.'

Their loss changes the ecology of landscapes and species. The fact that we are seeing massive range loss is altering the ecological dynamics, changing species composition and impacting livestock practices in huge areas. The loss of elephants can necessitate increased burning by pastoralists to hold back bush encroachment which changes carbon cycles.

But there are also enormous socio-economic repercussions as elephants are a major drawcard and component of the highly lucrative African tourism market. In multiple African nations, tourism is among the top sectors contributing to gross domestic product (GDP). Elephants, in particular, have been a critical component of community conservation initiatives which bring development and opportunities to otherwise marginalized, rural communities.

What strategies do you support for reducing poaching?

The global conservation community is in broad consensus that we need to take a three-tiered approach: field-based anti-poaching; anti-trafficking; and demand reduction. Each of these components requires innovative solutions to be addressed effectively, but we have examples of successes that can be replicated and built upon.

What strategies would you suggest for Customs administrations in deterring the smuggling of ivory?

Certainly, intelligence-based seizures have been the primary means of intervention by Customs administrations and these activities should be enhanced as much as possible. But we also need to figure out novel solutions for the mass screening of cargo and identifying suspect shipments based on registered information – type of goods, origination and destination – for targeted screening. In addition, it is important to deter corruption of and collusion by Customs officials, and to root out such problems where they occur.

Once a Customs officer seizes elephant ivory tusks, there are different views on what action governments should take. Increasingly, many governments are opting for destruction of stockpiles through incineration or crushing rather than storage. Part of the rationale is that since the damage has already been done, it is best to reduce the supply. In addition, it negates the potential for the 'disappearance' of confiscated ivory stockpiles, which happens from time to time. Do you have a view on what governments should do with ivory seizures, and would you suggest that Customs administrations adopt a policy of destroying seized illegal ivory?

As with any illegal goods seized in transit, the seized property should be destroyed. Without such measures, perverse incentives can emerge for the policing of illegally trafficked materials. Destruction eliminates the fear that rather than being part of the solution, Customs administrations could be embroiled in the problem. As you point out, there have been situations where seized ivory disappeared, presumably re-entering the illegal market. Accordingly, I would suggest that Customs administrations destroy seized illegal ivory as they do with illegal drugs.

I understand you were recently in Kenya. I vividly remember my bittersweet visit in 2006 to a reserve in Kenya for orphaned elephants. Can you share a little about your mission in Kenya?

I am part of the Kenya-based non-profit board Save the Elephants. We are running a number of projects across Africa and globally focused on anti-poaching, anti-trafficking and demand reduction. My most recent trip to Kenya was focused on maintaining the integrity of our long-term, individual-based monitoring project of the Samburu elephants. This project has served as a catalyst for numerous actions, scientific as well as policy-based, related to ending this elephant crisis.

While I got the opportunity to check up on the elephants we have been following closely over the past 18 years, I also was meeting with colleagues to advance our efforts on addressing the many conservation issues facing elephants today. Among other initiatives, we also kicked off an ecosystem-level radio-tracking project with the deployment of collars. I am hopeful that this project will contribute to the knowledge base on elephant populations.

More information

www.pnas.org/content/111/36/13117

Dr George Wittemyer is a Professor of Conservation Biology at Colorado State University, Chairman of the Scientific Board Save the Elephants, and an advisor to the Kenyan Wildlife Service. He obtained his PhD from the University of California (Berkeley).

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Tobacco taxes, illicit trade and plain packaging

THE TAXATION OF tobacco is a core policy mechanism for reducing cigarette smoking. Evidence shows that the greater the tobacco tax increase, the lower the cigarette consumption. National revenue agencies, such as Customs, collect enormous amounts of cigarette taxes every year through import duties, value-added tax (VAT) and excise taxes. These taxes fund vital government services.

Estimates of the quantity of revenue collected from tobacco taxes for the five members of the United Nations Security Council alone in 2011 was over 60 billion US dollars according to data from the World Health Organization (WHO): United States (US) – 33.28 billion; France – 14.87 billion; United Kingdom (UK) – 14.07 billion; Russian Federation – 2.41 billion; and China – 0.54 billion (based on currency conversions carried out in April 2015).

The illicit trade in tobacco can negatively impact efforts to reduce smoking because it can lower the price of cigarettes. Accordingly, the causes of illicit trade and the available policy options are of great interest to policymakers. Obtaining data and scientifically measuring illicit trade is challenging as there can be various contributing factors. Moreover, smugglers and counterfeiters do not supply researchers with data.

Extensive peer-reviewed research has shown that taxation is not the primary contributor to the illicit trade in tobacco. Indeed, many countries with high cigarette taxes have low illicit trade rates – for example, Sweden and the UK – while many countries with low cigarette taxes have high illicit trade rates.

Luk Joossens from the Belgian Foundation against Cancer and the Association of European Cancer Leagues, based in Brussels, Belgium, is an international expert on tobacco control who has advised, among others, the World Bank, the European Commission and the WHO. Robert Ireland, the WCO Head of Research and Communications, conducted the following written interview with Mr. Joossens.

What is your analysis of the main causes of the illicit tobacco trade?

Illicit trade is the outcome of classic demand and supply: demand by smokers for cheaper or specific tobacco products, which are perceived as better quality and not available on the domestic market, and supply by legal and illegal tobacco manufacturers looking for more profit, more sales, and increased market shares, or to penetrate new markets, facilitated by corruption, the presence of criminal networks, and weak government enforcement capacity.

Smokers' use of illicit tobacco is related to price and availability. The demand for illicit tobacco products is strongly influenced by reduced prices, often 30% to 50% cheaper than legal products. In addition, supplying the illicit market is attractive to companies and traders because of the low cost of manufacturing – as low as five US cents a pack in Paraguay – and the potential gains to be made when selling products without paying any tax.

It is crucial to note, however, that the solution to this problem is not to lower tax levels. Although a high tax margin may provide the initial incentive to smuggle, data shows that it is not the only factor. Other important factors include the ease and cost of operating in a country, industry participation, how well crime networks are organized, the likelihood of being caught, the punishment if caught, corruption levels and so on.

Estimates of the illicit trade from 84 countries in 2007 have shown that the proportion of illicit trade in the cigarette market is lower overall in high-income countries than in low-income countries. Corruption has been shown to be a strong predictor of levels of tobacco smuggling, with inadequate laws and law enforcement as well as geography also playing a role. Price levels do not predict levels of illicit trade.

What policy options for reducing the illicit tobacco trade do you recommend?

Combating smuggling is creating obstacles for illicit traders. The incentive for traders is the financial gain; the disincentive is the range of obstacles to making these gains. A mix of policies should be recommended to achieve this goal. In the UK, the gains are high, but so too is the number of obstacles. Cigarette prices in the UK are among the highest in the world, but the illicit cigarette market was reduced from 21% in 2000 to 9% in 2012.

The UK strategy included a wide range of measures designed to curb illicit trade such as the deployment of additional Customs officers, specialist investigators and intelligence staff, more X-ray scanners, tougher sanctions and penalties, a public awareness campaign, supply chain legislation, confiscation of proceeds and international cooperation using overseas intelligence officers.

The global scope and multifaceted nature of the illicit tobacco trade requires a coordinated international response and improved global regulation of the legal tobacco trade. Countries should be encouraged to ratify the Protocol to Eliminate the Illicit Trade in Tobacco Products (ITP).

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The ITP has been negotiated as a supplementary treaty to the WHO Framework Convention for Tobacco Control (FCTC).

The ITP has three parts: measures to control the supply chain, to improve law enforcement and to enhance international cooperation. Adopted in November 2012, it will enter into force on the 90th day following the 40th ratification of the Protocol. So far, 54 Parties to the WHO FCTC have signed the Protocol, and seven countries have ratified it.

Counterfeit cigarettes are one component of the illicit trade in tobacco. Are these cigarettes more dangerous to smoke than genuine cigarettes?

Counterfeit cigarettes are not a standard and uniform product. They do not respect specific rules or obey regulations. Some counterfeits are made of 'good quality tobacco' and some may include musty raw tobacco processed with sulphur and carbamide to look better. Focusing on the hazardous chemicals in counterfeit cigarettes may result in 'regular' cigarettes being seen as safe, even though they kill half of all regular users, contain 70 carcinogenic chemicals, and are responsible for 6 million premature deaths each year.

Both genuine and counterfeit cigarettes are extremely toxic products. There are no safe cigarettes and there is no safe level of smoking. For instance, in 1989, the US Surgeon General's report listed just a few of the elements people typically consume when smoking genuine cigarettes: carbon monoxide, tar, argon, nicotine, methane, acetaldehyde, acetic acid, hydrogen cyanide, formic acid, isoprene, nitrogen oxides, phenols, ethylene, acrylonitrile, glycerol, acrolein, ammonia, formaldehyde, benzene, acetylene, styrene, tobacco-specific nitrosamines, anthracene, arsenic, cadmium, chrysene, benzopyrene, vinyl chloride, and radioactive polonium.

Ireland and the UK have joined Australia in adopting laws on plain (standardized) packaging of cigarettes, and France is in the process of doing so. The WHO has stated that "the implementation of standardized tobacco product packaging represents a legitimate and effective tobacco control measure" and "is in accordance with international legal obligations under the WHO FCTC." As other countries consider similar legislation, it is an important subject for Customs' cognizance, especially any impact on revenue collection and illicit trade. What are your thoughts?

Tobacco companies have argued that standardized packaging will result in falling prices that in turn will increase the consumption of tobacco. However, evidence from Australia does not show falling prices; rather, price rises have continued over and above tax increases. There is some evidence of trading down towards cheaper brands, but this appears to be a continuation of an ongoing market trend.

Plain packaging was introduced in Australia in December 2012. In 2012, the market share for premium cigarette brands in Australia was 16.9% and in March 2014, after a major tax hike in 2013, 15.1%. This is not a dramatic shift. In many high-tax cigarette countries, value packs become more popular and premium brands lose market share.

Tobacco companies have claimed that plain packaging would result in more illicit trade, because copying and counterfeiting

would be easier. Again, the evidence so far shows that the percentage of smokers using unbranded 'chop-chop' tobacco remains at very low levels – only 0.2% regular use by smokers in 2014 – and that an increase in the counterfeit trade never happened.

In November 2013 the UK Government commissioned an independent review led by Sir Cyril Chantler into the public health effects of standardized packaging of tobacco. The review stated that they had "seen no convincing evidence to suggest that standardized packaging would increase the illicit market." Chantler noted that in Australia "hardly any counterfeit standardized packages have been found to date." Furthermore, a representative of one of the Australian tobacco manufacturers informed Sir Cyril's team that his company had seen a reduction in counterfeit products following the introduction of standardized packaging in that country.

In addition, in its 2013-2014 annual report, Australian Customs and Border Protection reported decreases from 2012-13 to 2013-14 in several illicit cigarette trade indicators: level of tobacco seized – down from 183 to 178 tonnes; number of cigarettes seized – down from 200 to 147 million sticks; and duty evaded – down from 151 to 139 million Australian dollars.

What does your analysis reflect about the impact of plain packaging of cigarettes?

So far, the Australian experience is a success story. The main objective was to make tobacco products less attractive and it worked. For instance, school-based surveys of students aged 12-17 in 2011 and 2013 in Australia show that the removal of branding and the uniformity of the pack appearance have increased negative pack ratings and decreased positive ones. As result of a comprehensive tobacco control policy, daily smoking decreased from 15.1% in 2010 to 12.8% in 2013. There was no price war, and no collapse of prices, no loss of market share for small shops, no increase in unbranded illicit tobacco, and even a decrease in cigarette counterfeiting.

The possibility exists that plain packaging might increase price competition between tobacco sellers, leading to lower prices. What should governments do in such situations, if anything?

A price war cannot be ruled out, because it is the responsibility of tobacco companies to set prices. If tobacco companies want to launch a price war, nobody can prevent them. In many countries, the government cannot regulate prices, but can increase taxes to annul the effect of the price reduction. This will not lead to an increase in smuggling if tax enforcement and tax administration is strengthened.

From a technical perspective, are plain packages easier to counterfeit than regular packs?

All visible features and all packs are easy to counterfeit. The quality of counterfeit cigarette packs has substantially improved from the 1990s, making it, in some cases, very difficult to distinguish counterfeit from genuine cigarette packs.

In their 2015 report on plain packaging, HM Revenue and Customs in the UK summarized their findings on counterfeiting as follows: "Currently the quality of counterfeit packaging varies from poorly produced packets to those that are virtually indistinguishable from their genuine counterparts. However, while the introduction of standardized packaging would seem to simplify the counterfeiters' task, current proposals suggest that future packets would remain complex, with a range of security measures that would present challenges to organized criminal groups, at least in the short term."

Cigarette plain packaging milestones

November 2011	Australia passes plain packaging law.
August 2012	The High Court of Australia finds by a 6-1 majority that the plain packaging law is constitutional and not an "acquisition of property," following a lawsuit filed by JT International and British American Tobacco Australasia Limited.
December 2012	Australia's plain packaging law takes effect.
April 2014	The report of the independent review undertaken by Sir Cyril Chantler, "Standardized Packaging of Tobacco," is published in the UK.
March 2015	Ireland passes plain packaging law.
March 2015	The UK passes a plain packaging law covering England.
March 2015	Tobacco Control, which belongs to the British Medical Journal Publishing Group, publishes 14 peer-reviewed papers on plain packaging.
April 2015	The French National Assembly approves plain packaging.
May 2016	Plain packaging laws scheduled to take effect in England, France and Ireland.

Luk Joossens, an international expert on tobacco control employed by the Belgian Foundation against Cancer and the Association of European Cancer Leagues, has a Bachelor's degree (Licence) in sociology from the University of Leuven (1972) and a Master's degree (Maîtrise) in sociology from the Sorbonne in Paris (1972). He has authored and co-authored many published peer-reviewed papers, including Joossens, L., and M. Raw (2012), "From cigarette smuggling to illicit tobacco trade," Tobacco Control 21: 230-4; Joossens, L., and M. Raw (2008), "Progress in combating cigarette smuggling: Controlling the supply chain," Tobacco Control 17: 399-404; and Joossens, L., and M. Raw (1998), "Cigarette Smuggling in Europe, Who Really Benefits?", Tobacco Control 7: 66-71. Mr. Joossens also wrote a 2012 Cancer Research UK report entitled "Smuggling, the tobacco industry and plain packs."

The introduction of plain packaging will not make a difference for counterfeiters: it will remain business as usual.

More information

joossens@gmail.com

International Customs Day in pictures

A pictorial celebration of WCO Members' activities around the world commemorating this special day on the Customs calendar is available on the WCO website. Visit the online picture gallery for a taste of just some of the events that were organized to mark International Customs Day 2015.

More information
www.wcoomd.org/en/about-us/international-customs-day/icd-2015.aspx

Calendar of Events

June

15 - 16 Regional Integration Conference
17 - 26 Knowledge Academy for Customs and Trade

September

8 - 10 PICARD Conference, Baku (Azerbaijan)
14 - 15 Harmonized System Committee, Working Party
16 - 25 Harmonized System Committee, 56th Session
14 - 18 Data Model Project Team

October

6 - 7 WCO/IATA/ICAO API/PNR Contact Committee, 9th Meeting
8 - 9 Revised Kyoto Convention Management Committee, 14th Meeting
12 - 13 Agreement on Trade Facilitation Working Group, 4th Meeting
14 - 16 Permanent Technical Committee, 209th/210th Sessions
15 ATA/Istanbul Administrative Committee
19 - 23 Technical Committee on Customs Valuation, 41st Session
20 - 23 Global Shield Seminar
26 - 27 Finance Committee, 98th Session
27 - 29 Technology and Innovation Forum, Rotterdam (Netherlands)
28 - 30 WCO Counterfeiting and Piracy (CAP) Group, 12th Meeting

November

16 - 20 Harmonized System Review Sub-Committee, 49th Meeting
29 - 30 WCO/UPU Contact Committee, 35th Meeting, Bern (Switzerland)
30 Nov. - 2 Dec. Working Group on Revenue Compliance and Fraud

December

7 - 9 Policy Commission, 74th Session

It should be noted that WCO meetings are mentioned for information purposes and are not all open to the public. Unless otherwise indicated, all meetings are held in Brussels. Please note that these dates are indicative only and may be subject to change. The WCO meetings schedule is regularly updated on the WCO website.

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