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At the risk of repeating myself, airport safety is Airport Council International (ACI) World’s top priority and one that is shared by all aviation industry stakeholders. It is the foundation that fuels our industry and as such, we have an overlapping duty to cooperate and collaborate on standards and initiatives that ensure the safety of the traveling public. A major area of focus shared by ACI World and the International Civil Air Organization (ICAO) is the modernization and global interoperability of air traffic management systems and the use of available and emerging technologies and concepts of operations.

It is under this umbrella that we will convene at ICAO’s Second Global Air Navigation Industry Symposium (GANIS) and first Safety and Air Navigation Implementation Symposium (SANIS), taking place from 11–15 December 2017 in Montreal, Canada. The event will discuss identified issues and will chart the next steps to achieve a seamless global aviation system and offer a performance-based implementation strategy, the opportunity to discuss the implementation aspects of the next Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

Of particular interest to ACI Members, GANIS will host an Airport Operations Plan section of the programme, which will be divided into two sub-streams. The first will be capacity and efficiency, and will focus on master-planning and design. The rapid growth of passenger
and cargo traffic is outstripping airport capacity in many parts of the world, giving cause for reconsideration of concepts, processing methods and facilities. An airport masterplan is the most effective framework within which the individual facilities can operate their separate functions at the highest possible level of efficiency. Through precise and up-to-date planning in airfield and terminal infrastructure, capacity will be increased, and airport delays reduced.

But, reducing delays and resilience in the wake of disruption, requires coordination among airports, airlines, ground handlers and air traffic controllers to improve decision making. And in this regard, I highlight Airport Collaborative Decision Making (A-CDM) a process in which all airport role players share information, so that each organization has a more complete operational picture, enabling the effective and timely resolution of issues. A-CDM has the potential to improve flow control and optimize the capacity of runways, terminals, gates and airspace so that aviation can continue to grow and thus continue to play a major role in driving sustainable economic and social development.

Indeed, the second sub-stream of the capacity and efficiency will focus on Total Airport Management Systems (TAMS), which involves the whole terminal and glow processes that need to be taken into account to achieve on-time performance and minimize overall delays. This entails implementing collaborative airport operations planning (AOP) and where needed, an airport operations centre (APOC). ACI World has developed the concept of airports as ground coordinators where the airport operator facilitates the operational decision that are needed to keep the airport running smoothly and efficiently in the face of potential bottlenecks.

Another sub-stream will cover aerodrome obstacle management. New obstacles around airports can constrain aircraft operations, even preclude certain types of operations such as approaches and take-off routes. The existing obstacle surfaces in Annex 14 must be adapted to fit new type of operations at an airport and ACI World has co-operated to develop a draft amendment that will increase aerodrome capacity with no impact on safety.

As regards Annex 14 development, airfield dimensions have been under review for some years. On top of the taxiway separation reductions that went into effect last year, a second round of amendments reducing the minimum required runway and taxiway width, and runway-to-taxiway separation is on its way to approval, for applicability in 2018. We must ensure that the views of airport operators and users, and civil aviation authority are taken into account.

There is much to discuss, and the symposia will undoubtedly provide a crucial networking and knowledge-sharing opportunity on the sustainability and enhancement of safety and air navigation system performance. I look forward to welcoming you all in Montreal to address future challenges by synchronizing views and refining concepts for a safer and more efficient industry.

Angela Gittens
Director General
In May 1989, Airports Operators Council International (AOCI) and International Civil Airports Association (ICAA) joined forces to establish the Airport Associations Coordinating Council (AACC), which later became Airports Council International (ACI) World. Oris Dunham was appointed as ACI’s first Director General and took on the immense task of setting up the organization during a challenging time for the aviation industry, which was being impacted by the Gulf War and the break-up of the Soviet Union.

By the time Dunham started his role as Director General, he had gained years of valuable airport experience at Seattle-Tacoma International Airport (SEA), Los Angeles Department of Airports (LAX) and Dallas/Ft. Worth International Airport (DFW). As Executive Director at DFW, Dunham noticed the duplicated efforts as a result of the existence of two very similar associations—the AOCI and
the ICAA. As Chairman of AOCI from September 1988 to October 1990, he was very involved in the merger of the two associations. “I believe the new worldwide organization will significantly enhance the ability of airports to effectively participate in guiding the global growth of aviation,” Dunham declared at the time.

Dunham sat on the panel searching for the first Director General of ACI, carrying out interviews in Europe, Asia and North America. In the end, the panel found that he was the right person for the job and in September 1991, Dunham started his five-year contract in Geneva.

“One of the challenges in the early days of ACI was communication,” Dunham said, noting that it was important at the time to ensure that current members and industry partners were told how the association would operate. He spent a lot of time travelling to communicate this message, as well as to recruit new members. He credits the team at the secretariat in Geneva, who ran things smoothly during his absence.

Dunham also tackled the challenge of setting up the ACI regional offices, particularly Asia, Africa, Pacific and Latin-Caribbean regions. He established ACI very firmly on the global stage with a key role in the development of a strong and efficient aviation industry. His contract was extended until 1997 in order to ensure a suitable successor was found. After his departure, Dunham opened an aviation consulting and development business. In 2011, he was honoured with the William E. Downes Jr. Memorial Award, the highest honor given by ACI North America. Dunham continues to be a strong supporter of ACI and its Developing Nations Airport (DNA) Assistance Programmes.

“One of the challenges in the early days of ACI was communication”
Aruba Airport: Gateway 2030 Project

By James Fazio, CEO, Aruba Airport Authority N.V.
After several years of careful planning, Aruba Airport Authority N.V. (AAA) has entered the design stage of a major redevelopment project: the Gateway 2030 Project. The goal of this design project is to modernize and expand Reina Beatrix International Airport – commonly referred to as Aruba Airport – and to set the airport on a path of continued growth for the decade ahead. The project will include:

- a new baggage handling system with full Transportation Security Administration (TSA) compliant Explosive Detection Screening (EDS) baggage screening;
- an expanded and centralized check-in hall;
- new immigration and security filters;
- three additional aircraft gates;
- a new retail and food and beverage area;
- a modernized and upgraded U.S. Preclearance Facility; and,
- technology and system upgrades, which include the expansion of the award winning Happy Flow biometric project, expected to be rolled out for U.S. airlines and Preclearance operations.

The airport expects to spend close to $275M in the coming three to four years, of which approximately $200M will be committed to the Gateway 2030 project.

**Passenger growth**

At the completion of Beatrix 2000, Aruba Airport handled 1.9 million total annual passengers. Since that time, passenger traffic peaked in 2015 at 2.9 million passengers, representing an increase of almost 52% and a Compound Annual Growth Rate of 2.7% per year - a growth rate that is expected to continue for the years ahead. Project passenger growth is further complicated by the high peak demand periods that are characteristic of a tourist-based destination, which tends to draw airline schedules around hotel and timeshare changeover days and check-in/ check-out times. Currently, nearly 62% of all scheduled airline seats occur within a five-hour window each day. The development of infrastructure and processes to address these peak periods will be critical in improving the customer experience and operational integrity of the airport.

**Terminal challenges and opportunities**

The current terminal facilities present a number of challenges, both operationally and commercially.

The airport authority has made a number of significant capital investments in recent years to optimize the current facilities these include:

- construction of a bus gate in 2012 ($1.0 million);
- completion of the East Apron in 2014 ($7.4 million) and the Phase I West Apron in early 2016 ($8.85 million) which added a total of four remote aircraft parking stands;
- 22 Automated Passport Control (APC) kiosks installed to compliment the U.S. pre-clearance operation; and,
- a total of 14 E-gates implemented for local immigration processing, facilitating both departing and arriving passengers.

The Beatrix 2000 project

Nearly 18 years has passed since the last major renovation of the airport, the Beatrix 2000 project, which included an expansion and renovation to the previous terminal built in 1972. The design capacity of this project was based on a vision for growth through the year 2010 and a total annual passenger volume of 2.6M passengers.
The total investment for both border initiatives was just over $2.35 million.

**Passenger experience**

The airport has also taken a number of initiatives to improve the customer experience such as:

- the reconfiguration of the main passenger screening point;
- free public Wi-Fi, renovated VIP lounges;
- new food units;
- construction of an additional 700 sq. meters of new food and beverage space;
- renovation of all public restroom facilities;
- painting and refreshing of public spaces;
- renovation of the Immigration Arrival Hall; and,
- the re-design of the customs inspection area and baggage claim passenger flow.

In total, tens of millions of dollars have been spent in recent years to improve the capacity, safety, efficiency and passenger experience at Aruba Airport, however, the airport is reaching a point of diminishing returns without a major renovation and modernization program defined by the Gateway 2030 Project.

The overall program is depicted in the following representation:
Arrival lounge in Aruba Airport
Economic development

The Gateway 2030 Project will set Aruba Airport on a path of continued growth and provide the proper infrastructure to support Aruba’s ambitions for economic prosperity and future island development for the decade ahead.

Aruba Airport serves as the primary gateway for the millions of people that visit the island each year. Throughout Aruba’s aviation history, significant and systematic investments in the airport’s infrastructure have been critical in the growth of the country’s economy and development ambitions. It has been nearly 18 years since the last major investment in the airport’s infrastructure was completed, and during this period, air travel has changed dramatically; traffic has grown substantially, technology and innovation in airport systems has developed exponentially, ICAO airport standards have been upgraded, and security requirements have become much more stringent.

The continued economic growth for the island is dependent on an airport that can support future increases in visitors, provide the highest levels of safety, security, operational reliability and serve as an exemplary first and last impression for the country.
Dining area and lounge for travellers in Aruba Airport
What airports need to know about the new Concept for Obstacle Limitation Surfaces being developed by ICAO

By Prisca Nkolo, Assistant Manager, Airport Safety, ACI World

The 38th International Civil Aviation Organization (ICAO) Assembly in 2013 called for a review of the Obstacle Limitation Surfaces (OLS) in Annex 14, consistent with existing or planned aircraft operations at aerodromes. As a result, the OLS Task Force (OLSTF) was created in 2014 to develop updated provisions on OLS.

The OLSTF has been developing a new concept that will ensure consistency among Annex 14, Annex 6 and Procedures for Air Navigation Services- Aircraft Operations (PANS-OPS). The key principles of the new concept are:

- The new surfaces will protect airspace for the intended flight operations at an aerodrome.
- There are two sets of surfaces: the Obstacle Free Surfaces (OFS) and the Obstacle Evaluation Surfaces (OES). The difference between the OFS and OES is that the OFS shall not be penetrated, while penetration of an OES may be accepted after an aeronautical study has determined that the object would not adversely affect the safety or accessibility of intended aircraft operations.
- New criteria will define the OLS dimensions: the ICAO aircraft approach speed categories as defined in PANS-OPS (A,B,C,D,E) will be used instead of the Aerodrome reference code number (Code 1, 2, 3 or 4) to identify applicable dimensions for instrument and non-instrument procedures.

Annex 14 OLS mostly reflect considerations applicable before the 1970s and do not address the capabilities of modern aircraft. The OLS as currently specified in Annex 14 do not properly bound the intended instrument procedures and they may not be relevant to the obstacle environment for those procedures. The degree of freedom from obstacles at and in the proximity of an aerodrome should be balanced in order to ensure a safe and efficient use of the aerodrome environment.
COMPARISON

- Obstacle Limitation Surfaces (OLS) - Annex 14 Code 4
- Obstacle Free Surfaces (OFS) - Code D

Transitional Surfaces

Slope 14.3%

Plan view

Inner horizontal surface

Runway

Cross section A-A

Horizontal surface 45m
Initial height 15m

Cross section B-B

Inner horizontal surface 45m

Asometrical view

Strips OFS 170m
Strip OLS 300m

Initial height 15m
• OFS defines airspace to be maintained free to permit the accessibility of the aerodrome. OFS will be designed based on aircraft tracking data and will be smaller than existing OLS.

• OES will be based on existing criteria (PANS-OPS and Annex 6 requirements, etc.) to ensure that the airspace around an aerodrome is protected in a way that is consistent with operations.

The latest work by the task force has yielded the following guidance:

• Approach surfaces shall consist of an OFS and an OES.

• The transitional surface shall be an OFS: it will replace the existing transitional and inner transitional surfaces to protect overflights under all operational conditions.

• The horizontal surface shall be OES: it will replace the existing inner horizontal and conical surfaces to protect circling, circuits, approaches, departures and terminal instrument flight procedures.

• Take off/climb surfaces shall be an OES and will replace the existing take-off OLS to provide protection during the initial take off and climb phases of flight.

• The balked landing surface shall be an OFS with the aim of protecting balked landings.

• The approach lighting surface shall be an OES and will replace the inner approach Obstacle Free Zone (OFZ), the purpose of which is to enable clear vision of the approach lighting system.

The work of the OLSTF is ongoing, and the last meeting, OLSTF/9, was held in Montreal from 11–15 September 2017 and focused on the design (dimensions and slopes) of the new surfaces.

The new concept should ensure long-term protection against obstacles in compliance with the real needs of aerodromes, taking into account aircraft performance. When the concept is finalised, it will be important for airport operators to be aware of the upcoming changes that may significantly impact obstacle control practices and procedures at their airports.

For further information, visit the website or contact the author at pnkolo@aci.aero.

Implement effective controls both on and off the airport with ACI World’s training course Aerodrome Safeguarding.
APEX in Safety, the most efficient resource to support airports in implementing a Safety Management System

By Ermenando Silva, Manager, APEX in Safety, ACI World

APEX in Safety review team in action
Safety is a balance between production and protection. An airport’s safety management system (SMS) is the most extensive tool to demonstrate to the operator’s executive management team the level of vulnerability of their operation and infrastructures.

Top management’s involvement in the successful implementation of an SMS is crucial for an organization. As CEOs are ultimately accountable, they need to be involved in SMS implementation phases and the system’s promotion. Regardless of the rank of the SMS Operational Manager, the size or the complexity of the operation, it is imperative that the latter has privileged access, or is reporting the dotted line, to the accountable executive.

While on site, the Airport Excellence (APEX) in Safety team assesses the design of the airport’s safety policy, carries out a task analysis, and identifies the training diagnosis, the hazards and how their risks are mitigated. Through assessment of the reactive and proactive processes, the data collected by the team will then be used to recommend the proper objectives to be set from the top down.

The assessment team will perform an analysis of the safety management manual, but they will cross-reference with what is actually being practiced.

If the airport does not have an SMS fully implemented, the APEX team will support from the initial stage of the safety implementation project, identifying the gaps and designing the implementation plan.

Efficient implementation of an SMS takes time, regardless of the methodology adopted. This is why the APEX philosophy consists of ensuring that one phase is completely functional before moving forward and building from it.

The examination of all related documents will be performed throughout the week. This will enable the group to conduct a gap analysis and identify the missing phases and their components, recommend accurate measures to duly close the gaps, launch the design of an implementation plan and develop timelines.

The APEX team will also help with the identification and construction of safety key performance indicators based on a robust and realistic safety database, projecting and defining safety targets and objectives while keeping the risk as low as is reasonable practicable.

The team will develop strategies to engage pertinent key airport stakeholders, building and developing safety action groups like ramp safety committees and runway safety
teams. If the airport operates a mature SMS, the team will test the efficiency of its quality management system and quality assurance programme, ensuring that the airport safety performance is tracked and measured accurately.

Of course, APEX’s contribution does not end after the team leaves the airport. The APEX team remains available to assist the airport with any areas of expertise they may need through the support of the participating assessors or the large pool of experts the APEX in Safety Programme has built throughout the years.
Is your airport future-proof?

Assess, monitor, protect and improve your operations with airport industry benchmarks to ensure the sustainability of your airport.

Customer experience  |  Cybersecurity  |  Safety and compliance
World Business Partners support ACI’s APEX programmes

By Danny Boutin, Senior Manager, APEX Programmes, ACI World

(from left) Danny Boutin, Senior Manager, APEX Programmes, ACI World and Kinn Moursund, Subject Matter Expert, Potters Ballotini SAS
Since its creation, the ACI Airport Excellent (APEX) in Safety programme has been developing great partnerships with many organizations and regulatory bodies. The International Civil Aviation Organization (ICAO) has strongly supported this initiative, providing guidance and expertise which was further solidified with the signing of a Memorandum of Understanding, ensuring lasting collaboration, data sharing and support in all regions.

In 2014, the United States Federal Aviation Administration (FAA) also became a partner, providing expertise in South America, the Caribbean and Africa. This partnership continued this year with joint participation in delivering workshops in ACI’s Latin America-Caribbean (LAC) region.

More recently, the European Aviation Safety Agency (EASA) began providing funding in Africa for the delivery of safety assessments. The World Bank has done the same as part of various projects.

In the same spirit, new contributions have been made to the programme over the last few months from ACI World Business Partners (WBPs). Earlier this year, Mr. Kinn Moursund, representing Potters Ballotini SAS, a provider of glass beads used with airside markings to enhance reflectivity, donated an EasyLux reflectometer to the programme, allowing assessors to demonstrate the necessity of providing stakeholders with highly visible markings.

“I am very pleased to support the ACI APEX programme with this donation by Potters Ballotini SAS,” said Moursund. “Measurements of the visibility of the markings that are supported by objective data provide best practice risk management.”

APEX Programmes is going digital

Over the last two years, APEX in Safety has been collecting valuable data through regional needs assessments with the intention of providing ACI’s Global Training department and the World Safety Standing Committee with information which will inform the development of training courses and guidance materials. The task of compiling that much data is quite substantial given that the programme keeps expanding.

To assist with this important initiative, APEX in Safety is happy to join forces with another WBP, GCR Incorporated. With a strong aviation-based customer list such as the FAA, state aeronautics departments, and over 65 individual airports worldwide, GCR is offering ACI access to their platform, where all observations will be recorded and easily accessible, thereby facilitating the provision of quality data.

The observations will now be entered through a mobile application and the information will be stored on GCR’s servers in all confidence. “GCR is proud to partner with ACI and the APEX in Safety programme by offering our AirportIQ software to facilitate the safety reviews. Our mobile platform will assist in the assessment of operations and infrastructures by providing checklists, logging and reporting capabilities, and allowing observations to be captured in real time. Through our AirportIQ technology, we hope to improve the efficiency of the on-site review team, enhance the quality of feedback to the host airport and facilitate communication and learning across the entire APEX team,” said Tim Walsh, Director, Aviation Services for GCR.

Integrating these industry-leading partners into the programme will allow APEX in Safety to enhance the level of service it provides to ACI’s membership. Most importantly, though,
it will result in a better understanding of the areas in which airports require further assistance and thereby contribute to a safer industry overall.

For any questions regarding the APEX Programmes, contact Mr. Danny Boutin, Senior Manager, APEX Programmes at dboutin@aci.aero.
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APEX Security Reviews 2017

Kenneth Kaunda
International Airport
Operator: Zambia Airports Corporation Limited
Dates: 17–21 July 2017
Asia

Juanda International Airport
Operator: PT (Persero)
Angkasa Pura I
Dates: 21–25 August 2017

Sultan Hasanuddin Airport
Operator: PT (Persero)
Angkasa Pura I
Dates: 28 August 2017 – 1 September 2017
APEX Safety Reviews 2017

Africa

Bangui M’Poko International Airport
Operator: ASECNA
Dates: 3–7 July 2017

Aéroport International Léon-Mba, LBV
Operated by: Société Anonyme Aéroport de Libreville – ADL
Libreville, Gabon
Dates: 30 January–3 February 2017
Aéroport International
Omar Bongo ONDIMBA
Operator: ASECNA
Dates: 18–22 September 2017

Aéroport de N’Djamena
Operator: Administration Déléguée pour la Gestion des Activités Aéronautiques Nationales du TCHAD
Dates: 21–25 August 2017
Airport Excellence (APEX) in Safety

Aéroport de Pointe Noire
Operator: AERCO - Aéroports du Congo
Dates: 20–24 March 2017

Aéroport de Pointe Noire
Operator: AERCO - Aéroports du Congo
Dates: 20–24 March 2017
Juanda International Airport
Operator: PT (Persero) Angkasa Pura I
Dates: 24–28 July 2017
Airport Excellence (APEX) in Safety

Sultan Hasanuddin Airport
Operator: PT (Persero) Angkasa Pura I
Dates: 11 Sep – 15 Sep 2017

Sultan Hasanuddin Airport
Operator: PT (Persero) Angkasa Pura I
Dates: 11 Sep – 15 Sep 2017
Sultan Hasanuddin Airport
Operator: PT (Persero) Angkasa Pura I
Dates: 11 Sep – 15 Sep 2017

Kempegowda International Airport
Operator: Bangalore International Airport Limited
Dates: 13–17 Nov 2017
Airport Excellence (APEX) in Safety

Kempegowda International Airport
Operator: Bangalore International Airport Limited
Dates: 13–17 Nov 2017
Aeropuerto International de Guadalajara
Operator: Grupo Aeroportuario del Pacífico
Dates: 18–22 September 2017

Sangster International Airport
Operator: MBJ Airports Limited
Dates: 27 March–31 March 2017
NEXTT: A vision for the future of air travel and technologies

By Nina Brooks,
Director, Security, Facilitation and IT, ACI World
New Experience Travel Technologies (NEXTT), a joint International Air Transport Association (IATA) and ACI initiative, is all about creating a common vision for the future of air transport.

Air transport is not just about the flight; it’s about the complete journey from home to end destination. IATA and ACI have many projects and initiatives that all have a set of common goals—to improve the travel experience, to become more efficient and to meet the challenges of growth through innovation.

NEXTT brings together all of those projects and ideas to create a joined-up approach for the future transport of passengers, cargo and baggage.

“NEXTT gives us a real opportunity to do some joined-up thinking,” said Antoine Rostworowski, Director, Airport Customer Experience and Technology at ACI World. “Take Smart Security as an example. The programme has made great progress in improving the security checkpoint, but in order for us to really see the benefits of risk-based differentiated screening, we need to consider identity management. By bringing together security, and our biometrics and identity management initiatives, into a common vision, we can make sure that we all head in the same direction and benefit from each other’s work.”

Projects within the NEXTT vision will explore opportunities to move processes off-site to streamline the airport experience and improve security. NEXTT will investigate how advanced processing technology such as tracking and identification, robotics and automation can improve safety, security and the customer experience. It will also consider how data can better be used through predictive modelling and artificial intelligence for real-time decision making and improved efficiency.

NEXTT examines the elements that will likely transform the complete end-to-end journey over the next 20 years. The focus is on three emerging concepts:
Each of these concepts is considered for cargo, baggage and passengers:

- **For baggage**, the aim is for convenient and hassle-free handling and tracking of baggage for passengers, with a greater choice of service and offerings.

- **For passengers**, the goal is a seamless, secure and efficient walking pace journey that is highly personalized throughout.

- **For cargo**, NEXTT aims for efficient operations using modern technologies to support easier, faster and smarter movement of cargo.

Operations haven’t been forgotten either; new processes and technologies for aircraft turnaround will also be included in the vision as it is expanded to other areas.

The NEXTT vision is very detailed, but is not one single project or trial; ACI and IATA have several projects and initiatives that fall within the NEXTT vision, and in which stakeholders can get involved, such as Smart Security, One Id and Seamless Travel. We anticipate that NEXTT will generate new projects and initiatives as the vision matures and we are keen to receive feedback and fresh ideas.

More information can be found by visiting the website [aci.aero/nexxt](http://aci.aero/nexxt), or by emailing [nexxt@aci.aero](mailto:nexxt@aci.aero).

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ACI-ICAO Management of Airport Security Course

By John Webster, Senior Manager, Global Training, ACI World

Validation team: ICAO, ACI, government and industry security experts

The jointly developed course provides guidance to aviation security personnel at a managerial level on planning, coordinating and implementing airport security preventative measures and proactive initiatives that are in accordance with national programmes and airport industry best practices.

The creation of this programme was in direct response to the needs of our airport members. After taking many months to draft the course syllabus and create all the materials, the programme was reviewed by a validation panel comprised of security experts from ACI, ICAO, the UK Department for Transport, Hartsfield–Jackson Atlanta International Airport and Airports Company South Africa (ACSA).

The course was divided into nine modules:

- **Module 1** - The Regulatory Framework for Airport Security
- **Module 2** - General Principles of Aviation Security
- **Module 3** - Principles of Security Management at an Airport
- **Module 4** - Developing a Security Programme
- **Module 5** - Defining Risk and Identifying Vulnerabilities
- **Module 6** - Management Response to Acts of Unlawful Interference
- **Module 7** - Security Culture
- **Module 8** - Recruitment, Selection and Training
- **Module 9** - Quality Management

The ICAO instructor for the validation course was Ms. Katie Schmidt, ICAO Implementation Support and Development - Security (ISD-SEC), Section of Aviation Security and Facilitation (ASF). The ACI instructors were Mr. Chris Barratt and Ms. Sara Gladstone.

(from left) Course faculty members Sara Gladstone, Security Instructor, ACI World; Christopher Barratt, Security Instructor, ICAO; and Katie Schmidt, Assistance Coordination Officer, ICAO
Upon completion of the review, the course development team received valuable feedback from the group so that the course could be further refined and tailored to its target audience ahead of its launch.

This course forms one of three courses required to be successfully completed within a three-year period in order for the participant to earn the Airport Security Diploma. The other courses that comprise the diploma are:

- Airport Security Operations
- Quality Management in Airport Security

Special thanks to all the contributors and individuals from ICAO Global Aviation Training (GAT), the ACI Global Training department, the ACI faculty and the ACI Security team for all their efforts in making this programme available. This joint course marks the third classroom course jointly delivered by both entities.

The other joint courses are:

- ACI-ICAO User Charges (economics)
- ACI-ICAO Aerodrome Certification (safety)

For more information on how to register for these courses, please contact us at training@aci.aero.

ACI-ICAO Management of Airport Security course reviews

Richard L. Duncan, CPP, IAP, Assistant General Manager, Public Safety and Security, Hartsfield-Jackson Atlanta International Airport

“It was my distinct honor and privilege to participate in the validation of the ACI-ICAO Management of Airport Security Course in Montreal, Canada. Based upon my more than two decades of experience in the aviation safety and security management arena at the world’s busiest and most efficient airport, I feel confident in saying this course will benefit aviation security managers worldwide. The in-depth curriculum provides a new perspective to the role airports and individuals will play in the protection of the global aviation transportation network. This course uniquely explains the linkage between international aviation security...
standards, national policies and the local airport security program.

“Additionally, attendees of the course will leave with a clear understanding of the importance of airport security management, including risk management, quality management and the need for an effective security culture. The airport security program is designed, developed and executed to prevent and/or reduce unlawful acts against aviation while supporting the business activities of airlines, tenants and other stakeholders at an airport.

“I am delighted that we have worked together with ICAO to develop a new course on the Management of Airport Security. The course covers all aspects of security management and highlights topics such as risk assessment, quality control and security culture, which are more relevant than ever. I would like to thank all of the parties involved at ICAO and ACI for the enormous amount of work that has gone into developing this course, as well as the airports who helped us validate the content. I look forward to a successful launch.”

“Again, the ACI-ICAO Management Course will enhance the overall safety and security knowledge of individuals charged with the responsibility of protecting the global aviation transportation system at airports.”

Nina Brooks, Director, Security, Facilitation and IT, ACI World
Highlights from the ICAO Traveller Identification Programme (ICAO TRIP) Symposium and Exhibition

By Nina Brooks, Director, Security, Facilitation and IT, ACI World and Jean-Sébastien Pard, Manager Facilitation and IT, ACI World

(from left) Sylvain Lefoyer, Deputy Director, Air Transport Bureau, ICAO; Anna-Maira Seesmaa, Associate Legal Officer, Counter-Terrorism Executive Directorate (CTED), United Nations Security Council; Mike Comber, Director Member and External Relations ICAO, IATA; Nina Brooks, Director, Security, Facilitation and IT, ACI World; and, Rochelle Turner, Research Director, World Travel and Tourism Council.
The 13th Traveller Identification Programme (TRIP) Symposium and Exhibition took place at the International Civil Aviation Organization’s (ICAO) Montréal headquarters from 24 to 26 October 2017. Centered on the theme of “Making Air Travel More Secure and Efficient,” the symposium once again addressed States’ need to enhance the integrity of passport issuance processes, safeguard strong identification management programmes and track the movement of higher risk passengers in order to capitalize on facilitation benefits and enhance the passenger experience.

Over 600 delegates, including 82 States, 14 international organizations and a large number of solution providers, attended the event and the workshops held in addition to the main program. These workshops focused on the use of the ICAO Public Key Directory (PKD) to ensure the authentication of ePassports, and Advance Passenger Information (API) to safeguard security by identifying individuals and checking their identity against watch lists.

Participants also appreciated a wide-ranging exhibition showcasing the latest industry technology and process innovations related to biometric identification, travel document security applications and border inspection systems. Solution providers such as Vision-Box, an ACI World Business Partner, were present to discuss the latest available traveller identification technologies.

“We always look forward to participating in the annual ICAO TRIP Symposium as an opportunity to engage with Member States and industry partners on the key issues pertaining to identity management,” said Aaron Beeson, Business Solutions Director, Vision-Box. “This year’s event exceeded our expectations based on the level of participants’ knowledge, excitement and innovations surrounding the issuance and utilization opportunities for travel documents.”

During the Symposium, there was a recognition that identity is a critical element, not just to immigration, but also for customs and aviation security. More than ever, identity—knowing that someone is who he says he is and having some form of reliable information associated with that identity—is becoming part of the security regime. One of the biggest challenges in the aviation industry these days is how identity can effectively be managed, shared and verified among all industry players in a cost effective and efficient way while maintaining data privacy and improving the passenger experience.
Identity management brings many benefits from a border and aviation security perspective. When you add automation to that mix, including the collection and transmission of data, automated capture and verification of biometrics, this becomes a strong and compelling system. By validating the identity of a traveller, government can check their identity against watch lists, and the screening authority, in many cases the airport, can adjust screening to the level suitable for the assessed risk of that passenger.

People often say that we need to look for bad people; not bad objects. Actually, we must do both, but the task is impossible without solid identity verification.

With regard to biometrics and identity management, technology is seen to be both a challenge and an opportunity. The need for solutions that can reliably perform identity management on the fly in a variety of different environments is key, and there needs to be continued investments in trials in this area. Airports, airlines and border authorities have a lot invested in legacy systems, and there has to be a return on investment. Furthermore, privacy has always been a concern, even when it comes to the amount of data shared with governments or among agencies in the same government. Stakeholders must embrace technology to ensure that only the right amount of data is shared security with only those who need to use it.
“The recognition and power of a high-quality biometric enrolment continues to innovate and enhance how government authorities can securely and efficiently establish a trusted chain between the individual and the document,” added Beeson. “Of particular interest this year at the Symposium was the potential disruption and opportunities that are presented by mobile ID-based solutions.”

ACI’s involvement with security and facilitation matters

As reported during the symposium session entitled “Setting the scene,” ACI strongly supports the work being done at ICAO through the TRIP programme and in the security arena, and is keen to work with all stakeholders to bring all this together towards a truly seamless experience. ACI is also involved in various identity-related initiatives such as Smart Security and One ID; both projects fall within the vision of New Experience Travel Technologies (NEXTT), recently launched in cooperation with IATA. ACI is also working with the World Economic Forum, looking at opportunities to engage with the travel and tourism industry. All of these initiatives envisage a seamless process, removal of duplication, use of biometrics, on-the-fly processing (walking pace), use of automation and, most of all, a strong partnership approach.

In conclusion, the future for identity management is bright. Cooperation and coordinated actions are key to ensuring that industry partners work together across all borders and organizational boundaries, learn from each other and find ways around some of the challenges to keep civil aviation safe, secure and enjoyable for all passengers. ACI is looking forward to the 14th edition of the TRIP Symposium and Exhibition, to be held in October 2018.

1. To find out more about the ICAO Traveller Identification Programme, please refer to the following ICAO website: http://www.icao.int/Security/FAL/TRIP/Pages/default.aspx
2. To find out more on Smart Security, please refer to: http://www.aci.aero/About-ACI/Priorities/Security/Smart-Security
3. To find out more on NEXTT, please refer to: http://nextt.iata.org/
4. To find out more on WEF, please refer to: https://www.weforum.org/projects/shaping-the-future-of-security-in-travel
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Highlights from the 37th ACI World Facilitation and Services Standing Committee (WFSSC) meeting

By Jean-Sébastien Pard, Manager Facilitation and IT, ACI World

Airport Service Quality update during the Facilitation Committee meeting by Dimitri Coll, Associate Director Airport Service Quality (ASQ), ACI World
The 37th ACI World Facilitation and Services Standing Committee (WFSSC) face-to-face meeting was held in Port Louis, Mauritius, from 12–14 October 2017. The gathering took place jointly with the 12th ACI World Airport IT Standing Committee (WAITSC) meeting.

During this three-day event, airport representatives, World Business Partners and observers discussed and exchanged views on the latest developments on a variety of subjects related to passenger facilitation and customer service.

Topics such as biometrics and identity management, business continuity programs, services to passengers with reduced mobility, developments with regard to autonomous vehicles and technology were some of the many subjects discussed.

ACI World office staff also briefed WFSSC members on the latest developments with Airport Service Quality, Key Performance Indicators, Airport Slots Management, and Safety and Technical Standing Committee and Security activities.
Finally, the Environment Standing Committee members joined the group for the afternoon session on the third day to give three very interesting presentations on the subjects of illegal wildlife trafficking, how airports are adapting to climate change and the use of airport boarding bridges with pre-conditioned air units.

The next face-to-face meeting will be held in Punta Cana, Dominican Republic from 23–25 May 2018. The gathering will be held jointly with the newly created ACI Latin America-Caribbean (LAC) Facilitation, Airport IT and Security Committee.

Jean-Sebastien Pard, Manager, Facilitation and IT, ACI World
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Checked baggage and the insider threat  

By Nicholas Valdespino,  
Vice President of Operations, Secure Wrap
The insider threat is mostly discussed in the context of terrorism, but another major issue lies with the insider threat and checked baggage. When illegal items are placed into an unsuspecting traveler’s baggage by an airport employee for transport, this leaves airline passengers vulnerable and with the blame if the item is found.

In 2005, an Australian woman by the name of Schapelle Corby traveled to Bali, Indonesia and was found with over 4 kilograms of marijuana in her checked bag. She is a prime example of the insider threat involving drugs. She claimed the marijuana was not hers but was sentenced to 20 years in prison. She spent over 12 years jailed in Indonesia before being released and returning to Australia earlier this year.

This sort of smuggling usually involves corrupt airport employees at the origin and destination airports—one airport employee to insert the contraband where the baggage is being checked in and another airport employee to remove the contraband when it is being unloaded at its intended destination. This criminal network of airport employees can move large quantities or drugs and cash over a large period of time if undetected.

The issue with this type of smuggling is that it occurs after all baggage screening and security measures have taken place, in areas of the airport where employees such as baggage handlers have access to baggage and can easily insert and remove contraband. The security measures that took place before the baggage reached the
aircraft were circumvented by these insiders with access to the item after it’s clear for travel, leaving the integrity of the inspection (X-ray, k9, etc.) completely useless.

A Washington Post article titled “More needed against ‘insider threat’ at airports,” published in February 2017, cites a congressional report on the terrorist threat posed by airport insiders. It goes on to state that the TSA, airport operators and airlines must do a better job of screening workers such as baggage handlers for possible security threats. The insider threat involving contraband and illegal items is as much of an issue as terrorism, especially for inbound flights to the United States.

An airline that operated flights from a South American Country to New York had an issue with the insider threat and checked baggage, and decided to utilize Secure Wrap to mitigate the threat. After being fined numerous times by the Drug Enforcement Agency this airline needed a solution to put a stop to the insider threat. All checked baggage was required to be wrapped, then re-wrapped after any additional inspection. A security team monitored all items being loaded into the aircraft to ensure they were wrapped and showing no signs of tampering. This baggage wrapping security measure helped solve a major insider threat issue overnight. Baggage wrapping services have become a common passenger amenity in airports globally. Even though these services may differ in plastic film colour or styles of wrapping, they all provide the same benefits which is to protect the check in item and deter theft.
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THE INDUSTRY’S MOST COMPREHENSIVE
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World Business Partner teamwork: Beating the deadline by flying in three panthers

By Tunde Oyekola, CEO, El-Mansur Atelier Group and Chair, World Business Partner Advisory Board
In 2013, the Jigawa State Government in Nigeria appointed El-Mansur Atelier as consultants for its fast-track code 4E greenfield airport. The Governor had given a timeline of one year from ground-breaking to the arrival of the first aircraft and a cumulative period of two years for the arrival of its first Boeing 747 aircraft to commence Hajj operations.

This was a race against the clock from the very beginning, but through great teamwork, the consultants and contractors, in collaboration with the Nigerian Civil Aviation Authority, the Nigerian Meteorological Agency and the Nigerian Airspace Management Agency, all set to work to ensure everything went to plan.

Difficulties relating to the terrain and weather were overcome through various ingenious solutions. Planning such projects with politicians is not the easiest of tasks and getting them to understand the timeline was daunting, with budgetary constraints adding another layer of complexity.

The airfield lighting solutions were sourced from ADB; the air traffic control system was sourced from HARRIS; and the navigational aids were sourced from Thales and others, with all being World Business Partners (WBPs).

The biggest challenge of the entire project was the fire cover. It proved difficult to convince the client of the need to procure fire tenders in good time. As a result, by the time the client made funds available, there was precious little time to source three CAT 9 Fire tenders.
A frantic search eventually led to Rosenbauer, who had three CAT 9 6x6 Panther fire tenders available for delivery within a short time. The biggest problem was that the tenders were in their Minnesota factory, and even on availability it would take close to a month to have them shipped to Nigeria.

That meant that Hajj operations from the new airport, which had by this time been completed and inspected several times and was awaiting final certification from the NCAA, were in jeopardy.

Ultimately, the choice was made to fly the fire tenders into Kano Airport, which is the closest airport to Jigawa State, and drive them to Dutse, the State Capital. How do you fly three CAT 9 6x6 Panthers? Even the Rosenbauer staff found the idea ridiculous.

Fortunately, after a number of phone calls, it was confirmed that an Antanov 124 would do the trick. An operator was contacted and the aircraft flew into Minneapolis Airport. The trucks were loaded on board.

It was a sight to behold as the giant aircraft swallowed the three behemoths and took off effortlessly. The long flight landed without incident at Malam Aminu Kano International Airport.

The trucks were off-loaded and driven to Dutse Airport where they were received by the crew provided by the Federal Airports Authority of Nigeria. Needless to say, certification was granted and Hajj operations were carried out from the New Dutse International Airport. This project is yet another example of WBPs going to great lengths to provide solutions to an airport’s pressing challenges.
Airport size, economies of scale and the development cycle

By Patrick Lucas, Head, Airport Business Analytics, ACI World
A global return on invested capital of 6.4% was calculated for the industry as a whole in 2015. While a single measure of global airport profitability provides a good barometer of industry health, it often masks the important nuances and industry facts crucial for evidence-based policy decisions. The challenge remains that most airports in the world are small, with high traffic volumes concentrated in only a handful of airports. Therefore, the airport industry faces a conundrum. Although the airport industry as a whole is profitable, a significant number of airports are actually in the red on their financial statements. The latest estimates suggest that as many as 66% of airports worldwide operate at a net loss. Most of these airports are small in that they have less than one million passengers per annum. Therefore, industry profitability is concentrated among airports with higher throughput.

Airports that serve smaller markets tend to have higher overall costs on a per-passenger or per-workload unit basis. Average total costs tend to decline with an increase in market size. Fixed costs (or capital costs), which are predominantly made up of depreciation and interest expenses, are spread over an expanding airport’s throughput. This inverse relationship between average total costs and throughput as seen in the data is an indicator of economies of scale.

Chart 1 displays the estimated proportion of airports in each airport size category. The chart shows that an estimated 80% of the world’s

![Chart 1: Distribution of airports by airport size category (2015)](image)

Source: ACI Airport Economics Survey (2016); Simulation based on Official Airline Guide (OAG) scheduled seats (2016).
airports with scheduled traffic have less than one million passengers per annum. The interplay between market size, costs and the presence of economies of scale has important implications for an airport’s bottom line. Generally, due to this cost structure, airports that have low annual throughput operate in a context where total costs exceed total revenue. Thus, while the airport industry as a whole reports a healthy ratio of outstanding debt to operating income (EBITDA) and net profit margins, the earning propensity is concentrated principally among airports achieving a certain critical mass of passenger and cargo traffic.

However, the fact that a significant proportion of the world’s airports serve markets of fewer than one million passengers means a majority of airports actually operate at a loss. Chart 2 shows that of the airports that had net losses in 2015, 92% had fewer than one million passengers. In essence, the true underlying picture of the industry has to do with the fact that the net earnings of high-traffic airports significantly exceed the net losses of the majority of airports.

**The airport development cost cycle beyond the small airport**

The interplay between market size and development costs over time should also be highlighted. For a given fixed asset base of infrastructure, economies of scale could...
be achieved as traffic throughput expands, especially for smaller airports, all other things equal. That said, it should be noted that the airport development cost cycle is much more complex, showing instances of both economies of scale and diseconomies of scale over a time continuum. The ACI Guide to Airport Performance Measures provides an illustrative example of this fact:

In understanding aeronautical revenue, it is also important to recognize that aeronautical charges are often set on some form of cost-recovery, or cost-plus basis. This means that airports that have recently completed major terminal projects are likely to have higher debt service costs and in turn higher aeronautical revenue per passenger. More generally, an airport’s capital cost per passenger, and in turn its aeronautical revenue per passenger is likely to be influenced by where the airport stands on the capital development cycle.

Typically, that cycle works as illustrated in Chart 3. As the number of passengers increases, an airport’s cost per passenger declines until the airport’s facilities approach capacity, at which point, there is a spike in capital costs per passenger as new capacity is added.

Establishing the empirical link between infrastructure utilization and financial performance over time is an area that requires further research. This will deepen the understanding of economies of scale and diseconomies of scale, as well as the impact this has on an airport’s bottom line. Such research helps guide future investment decisions in terms of infrastructure based on forecasted air transport demand.

**Chart 3: Typical airport development cost cycle**

![Chart 3: Typical airport development cost cycle](image)


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ACI releases guidelines on transparency and consultation with airlines

By Philippe Villard, Head Economics & Policy, ACI World
The economic sustainability of the airport industry is dependent on the capacity of airports to recover their aeronautical costs from the users, in line with national legislation and ICAO’s Policies on Charges for Airports and Air Navigation Services in Doc 9082. As such, airport operators are committed to ensuring the right level of transparency when charges are set and to carrying out consultations with aircraft operators in a structured and meaningful way.

In an increasingly competitive environment which drives airports to enhance their services to the airlines and their end users, the passengers, it is indeed essential to build the right trust between airports and airlines.

With the objective of giving airport operators guidance in optimizing their results in effective charges consultation with their airline customers, ACI, working with the World Economics Standing Committee, developed guidelines on transparency and consultation with airlines. The guidelines were subject to consultation with ACI’s entire membership and subsequently adopted in October 2017.

The guidelines are structured around five sections. First, important caveats are detailed, notably with regard to the definition of consultations. “Consultation” is not synonymous with “negotiation.” The aim of a consultation is to reach a consensus with users on airport charges whenever possible. However, there is no legal obligation to enter into agreement with airlines and airport operators should always be entitled to introduce charges, even without agreement. Striking a balance between the multiple and diversified requests of airlines customers and aligning these with the airport’s strategic, commercial and operational objectives to offer adequate service to passengers and airlines is often a challenge. Therefore, the airport should always retain its autonomy to set charges, taking into account, to the maximum extent possible, feedback provided by airlines.

A second section focuses on consultations per se. Clear timelines and sufficient notice to airlines are important to allow for meaningful engagement, noting that the number of meetings should be defined at the local level. In general, one round of consultation should be sufficient. Eligibility to participate in the consultation is an important issue. All airlines operating at the airport have the responsibility to engage actively and constructively in the consultation process, including by providing the airport operator with the information it needs to develop its proposal (traffic forecasts, operational needs, etc.). Airline associations (e.g., airline operator committees [AOCs]; boards of airline representatives [BAR]; regional, national or international airline associations) should be allowed to participate subject to providing a mandate to act on behalf of and on account of the specific airline(s) they represent. Finally, appeals, if allowed by national legislations, should be justified with coherent arguments, substantiated by evidence and lodged within a defined timeframe. Only airlines participating in the consultations should be entitled to appeal, provided that airline delegates lodging an appeal hold an express power of attorney or are duly mandated to act on behalf of and on account of their company. Associations of airlines, whenever appealing,
should be required to provide a mandate specifying exactly which airlines they represent in the appeal.

The third section discusses the right level of transparency when consulting users. The degree of transparency should be proportionate to the market power and the market situation of the airport. It is paramount to note that transparency applies equally to both airport operators and users, who should both be committed to providing relevant information in the consultation. For instance, users’ traffic forecasts and operational requirements are a prerequisite for airports to refine traffic forecasting analysis and analyses on services, facilities and equipment costs. Airport operators, on the other hand, should provide historic and planning information on traffic, operating costs, capital costs, revenue and relevant financial performance indicators, in line with ICAO’s policies in Doc 9082.

Fourth, and specific to airport systems and airport networks, the operator should provide the overall costs and the breakdown of aeronautical revenues for the main airport belonging to the network or to the system, as long as required by relevant legislative frameworks and local circumstances.

Finally, a last section provides guidelines on large capital expenditure, about which airport operators should share information with airlines. When presented with capital projects, airlines should be made aware of the effect they may have on charges. However, the airport master plan cannot be subject to the airport charges consultation process itself.

Consultation with users on the master plan may be relevant only in the stages where the plan is conceived or updated.

These guidelines and recommendations on transparency and consultation are meant to be aspirational and not prescriptive. They are not meant to be exhaustive nor are they intended to replace ICAO provisions or applicable national requirements, but they demonstrate the commitment of the airport industry to engage meaningfully with the airlines and build the right level of trust with all stakeholders.
PASSENGER PERSONAS

Every passenger is different, and airports that know who their passengers are can better cater to their wants and needs. Through extensive study and data analysis of ASQ Survey data, ACI has created an ASQ add-on based around six passenger typologies that will help you to:

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- help you understand the specific attitudes, needs, expectations and concerns of your passengers;
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- help you understand arriving passengers’ moods and impressions of the airport, from walking distances and washroom cleanliness to wayfinding, immigration, baggage claim and much more;
- help differentiate the key drivers of satisfaction among arrivals passengers, which can be distinct from the needs of departures passengers; and,
- give you the actionable intelligence to enhance your service offering to arriving passengers, and gauge the effectiveness of these enhancements.

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Contact ACI’s ASQ team for more information by emailing aciasq@aci.aero.
Airport Service Quality

Interview Feature: Guangzhou Baiyun International Airport

By Sevda Fevzi, Manager, ASQ Strategic Marketing, ACI World
As ACI’s Airport Service Quality (ASQ) programme concludes its 11th successful year, we have focused in this article series on how airports are increasingly putting the passenger first in all that they do. Indeed, passenger service is a shared priority among all aviation stakeholders—in particular all members of the airport community.

Airports are digging deeper than ever through activities aimed at cultivating a culture of customer service excellence across all staffing levels. Aligning all stakeholders in the pursuit of airport customer service excellence can be a powerful tool toward improving the passenger experience, ensuring employee satisfaction and raising non-aeronautical revenues.

In this, the last edition of 2017, I speak with Mr. Bingxin Xie, Chief Economist of Guangzhou Baiyun International Airport Corporation.

**Key facts about Guangzhou Baiyun International Airport**

- **Airport code:** CAN
- **What year the airport opened:** Guangzhou Baiyun Airport was first built in 1932. The name was changed to “Guangzhou Baiyun International Airport” in 1963. In 2004, the airport was relocated.
- **Annual number of passengers in 2016:** 59.78 million
- **Number of employees:** Nearly 13,000 employees

**Did you know?**

1. On 1 February 2018, Terminal 2 of CAN will begin operation with 658,700 square meters of main terminal area. The opening of Terminal 2 will greatly improve the airport’s operational capability. CAN’s long-term plan is to possess three terminals and five runways with annual throughput of 105 million passengers. Work is estimated to be completed by 2025.

2. In the new Terminal 2, there will be 17 cultural service experience stores, themed family entertainment, sports and leisure areas, a tea house, a gallery and a spa.

3. While preparing for the opening of Terminal 2, CAN will upgrade Terminal 1 based on passenger demands so as to provide an enhanced travel experience for passengers.

4. CAN opened its “Time Space Tunnel,” which uses acousto-optic technology, in 2016. The experience mimics traveling the Silk Road. In August of 2017, CAN completed the project with another tunnel, called the “Haitian Corridor.” These two 600-meter tunnels have become tourist attractions in their own right and are a first stop for both domestic and international travelers to Guangzhou.

1) **How and why did CAN join ASQ? How does CAN directly benefit from ASQ?**

CAN joined ASQ in 2006 given that it is a world-class programme for measure passenger satisfaction and airport service levels. Being a
participating airport helped us reach international service levels quickly.

Over our 11 years in the programme, we created a Service Management Improvement Plan which applies 33 specific evaluation metrics to analyze weaknesses and point out areas for improvement. We also began to train staff as a means of continuously improving our service quality. CAN has consistently been in the top ten of the global ASQ quarterly rankings since the fourth quarter of 2010, reaching sixth place on the list of top global airports in the third quarter of 2017.

Our continued improvement is an indication of the consistent enhancement of the service level at the airport. During the 2017 China Airport Service Conference, CAN was awarded as one of the top ten “Excellent Airports in 2016 China Airport Service Quality Assessment,” ranking as second according to passenger throughput.

2) How does CAN align the common vision of improving passenger experience with all stakeholders, partners and service providers in your organisation?

As a means of improving the overall level of service at the airport, and towards the goal of being a first-class Chinese airport, CAN worked with all airport stakeholders to create the Passenger Service Improvement Committee in 2008.

Since its creation, the Committee has undertaken as series of service enhancement activities,
published a service commitment, arranged regular coordinating meetings and carried out annual evaluations. The Committee held a family-themed event this year and next year plans to hold its own service award ceremony.

3) Are there any particular programmes, courses or activities CAN runs with employees that are specifically aimed at improving customer and passenger satisfaction?

Service enhancement is very important to CAN. CAN focuses on the service elements of “Cordial and friendly; active and considerate; efficient and smooth; comfortable and graceful.” In addition to the Time Space Tunnel and the Haitian Corridor, CAN has created a themed boarding gate called “Origin of Silk Road,” as well as a passenger lounge called “Silk Road Station.” The lounge features graffiti art in the form of a fresco, a self-service check-in area, a passenger service area for those who have delayed flights, a leisure area and security checks for each gender.

This year, CAN continued its commitment to improving the experience for passengers, using artificial intelligence in service robots and autonomous cars; creating an online portal at its public Wechat account; using QR codes for security checks and boarding; and hosting a series of cultural events. This month we will also be hosting an exhibition of Lingnan paintings.

4) Does CAN practice measuring customer satisfaction of only departing passengers or both departing and arrivals passengers?
Since 2009, CAN has been measuring departing passengers’ satisfaction quarterly. Guangdong Airport Authority, the parent company of CAN, also measures customer satisfaction at its airports every half. To add another element to CAN’s commitment to continuous improvement, we created a Customer Service Centre earlier this year. It acts as a place to collect, organize and analyze customer feedback.

5) What is some of the more unusual passenger feedback CAN has ever received?

Since 2012, CAN has openly solicited suggestions and ideas from passengers that will help us innovate and further develop. Most of the suggestions have been implemented, with the passenger service area for those with delayed flights being one such example.

CAN also formed a special supervision team that communicates through Wechat and includes civil aviation authority representatives, industry experts, media and citizens. The Chairman of CAN is even involved in the group.

CAN prides itself on acting quickly and decisively to implement any reasonable customer suggestion, and has actually developed three-person teams to activate frontline staff in these types of activities. In 2018, CAN will implement another passenger suggestion: a frequent passenger plan.

6) What are some of the topics you would like to see discussed at future ASQ Forums?

Artificial intelligence technology as it applies to airports would be an interesting topic, as would developing a sense of place and optimal design to improve efficiency.

Mr. Bingxin Xie’s biography

Mr. Bingxin Xie joined Guangzhou Baiyun International Airport in August of 1992. He has a postgraduate degree and is a Senior Engineer.

From 2008 to 2012, he was the General Manager of the Terminal Management Department, and from 2012 to present, Mr. Xie has worked for the airport in the capacity of Chief Economist.
BE CUSTOMER READY WITH ACI’S EMPLOYEE SURVEY FOR CUSTOMER EXPERIENCE (ECE)

- A tool specifically designed to help airports be “customer ready”
- A survey that can be used year after year
- A measure of employee performance and engagement to strive higher
- An ideal complementary tool for existing ASQ airport members

KEY BENEFITS OF USING ACI’S ECE

<table>
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<tr>
<th>FOR YOUR PASSENGERS</th>
<th>FOR YOUR EMPLOYEES</th>
<th>FOR YOUR INDIVIDUAL AIRPORT UNITS</th>
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<td>Improved airport experience through better relationships with airport employees</td>
<td>Feeling of valued contribution and belonging to the airport community</td>
<td>Growth of revenues, improved productivity and employee retention</td>
<td>Unified pursuit of a seamless passenger experience</td>
</tr>
</tbody>
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CONGRATULATIONS
YOUR PASSENGERS HAVE SPOKEN


The annual ASQ Awards recognize and reward the best airports in the world according to ACI’s ASQ passenger satisfaction survey. They represent the highest possible accolade for airport operators and celebrate the commitment of airports worldwide to continuously improving the passenger experience.

Be sure to join us for the prestigious ASQ Awards ceremony on Tuesday, 17 October, to be held at the 27th ACI Africa/World Annual General Assembly, Conference and Exhibition, taking place from 16–18 October 2017, in Port Louis, Mauritius.

For more information regarding the ASQ Awards, visit: www.aci.aero/asq-awards

For more information regarding the 27th ACI Africa/World Annual General Assembly, Conference and Exhibition, visit www.aci-waga2017.com
Schiphol Airport and the passenger experience
Located in Amsterdam, Netherlands, Schiphol Airport (AMS) is known as the international airport of the Netherlands. A major European hub, **AMS airport grew 9.2% in 2016**. The airport is strategically located in a competitive market for connections for continental and intercontinental traffic. Currently AMS provides over 320 flight connections to airports in some 98 countries. With so many passengers passing through, it is no wonder that the airport has dedicated resources in implementing better design and, in turn, an all around better passenger experience.

**Holland Boulevard: Maximizing the passenger experience**

Newly renovated Holland Boulevard, a public area between Departure Lounge 2 and 3 was developed to meet the needs of the travelling public. Whether travellers want to relax or enjoy art and culture, Holland Boulevard reflects true Dutch culture and is open to the public 24 hours a day.

The transparent design provides a clear layout for the traveller. Large areas of glass and low
walls create a fresh, open feel. Passengers can spend time with friends and family; enjoy a spa treatment; work; or shop in comfort. A traveller wanting to read can visit the new Airport Library, with around 500 books by well-known Dutch authors, translated into more than 40 languages as a literary calling card for foreign travellers. In addition to its books, the Airport Library provides touchscreens displaying the best of Dutch culture.

**Departure Lounge 2: More retail space and catering outlets**

Each year, an estimated 15 million people visit Departure Lounge 2. Over half (61%) are transfer passengers; the rest start their journey at Schiphol. The renovations add 20% more space for retail and catering outlets, bringing the total floor area of the first and second levels of Departure Lounge 2 to around 16,000 square metres.

Departure lounge at the heart of the terminal heralds a new age of passenger comfort. With the new lounge, Schiphol seeks to accommodate passengers’ changing needs and wishes. It is adapted to the human scale – not just for adult passengers, but also for children.

Departure Lounge 2 was renovated as part of the Master Plan, a comprehensive project to improve the airport’s quality by increasing capacity and enhancing efficiency and comfort for passengers. Schiphol’s Executive Vice President & Chief Commercial Officer André van den Berg relates, “To mark Schiphol’s 100th anniversary, we are presenting our passengers with a marvellous gift: a departure lounge unlike any other in the world, where passengers can explore not just one, but seven different worlds.”

The opening of the trendsetting Johnnie Walker House at Schiphol is a first in Europe. Other brand shops include Gucci, Bulgari, Hermès and Rolex. Those looking for something to eat or drink will find plenty to tempt their taste buds, with a Café Cocó, a Starbucks offering innovative food concepts and the Heineken Bar. Travellers can also recharge and relax before departure at XpresSpa.

Though many only pass through AMS, these exciting new additions to the airport may convince travellers on their journey to make it a final destination point next time around.
Global Training
photo gallery

Developing a Customer Service Culture at Airports, 15-19 October 2017, Abu Dhabi, UAE
Aeronautical Studies and Risk Analysis, 16-22 October, Honolulu, USA

GSN 2 - Airside Safety and Operations, 1-5 October 2017, Abu Dhabi, UAE
Global Training

Formation sur la Sécurité Aéroportuaire, 23 October – 3 November 2017, Conakry, Republic of Guinea

Apron Management, 28 October – 1 November 2017, Tehran, Iran
Training calendar

Africa

**ACI-ICAO Aerodrome Certification**
12—16 February 2018  Johannesburg, South Africa

**Airport Safety Management Systems Implementation** *
26 February—2 March 2018  Johannesburg, South Africa

**Accident & Incident Investigation**
5—7 March 2018  Johannesburg, South Africa

Asia Pacific

**Introduction to Airport Economics**
18—20 February 2018  Abu Dhabi, UAE

**GSN 2 – Airside Safety & Operations**
19—23 February 2018  Kuala Lumpur, Malaysia

**Understanding Annex 14**
25—27 February 2018  Abu Dhabi, UAE

**Airport Business Development and Planning**
4—6 March 2018  Abu Dhabi, UAE

**GSN 1 - Safety Management Systems**
25—29 March 2018  Abu Dhabi, UAE

Europe

**Airport HR Management** *
5—9 February 2018  Istanbul, Turkey

**ACI-ICAO Aerodrome Certification**
12—16 March 2018  Port of Spain, Trinidad and Tobago

**Managing Airport Service Quality at Airports**
19—21 March 2018  Montego Bay, Jamaica

**Airport Financial Management**
5—9 February 2018  Munich, Germany

**GSN 1 - Safety Management Systems**
5—9 February 2018  Athens, Greece

**GSN 4 - Working with Annex 14**
12—16 March 2018  Port of Spain, Trinidad and Tobago

**GSN 1 - Safety Management Systems Implementation for US Airports** *
19—23 March 2018  Maui, Hawaii

*Can be taken as an elective for the Airport Management Professional Accreditation Programme (AMPAP)

**Course availability and dates subject to change. Visit our Global Training calendar for the most up-to-date information

For additional information please contact us at training@aci.aero
The Global ACI-ICAO Airport Management Professional Accreditation Programme (AMPAP) is an executive development programme for airport executives worldwide. The primary focus is to develop airport managers through a six-course curriculum that covers all functional areas of the airport business in key areas. AMPAP encourages participants to share best managerial practices in an interactive, cross cultural environment while establishing a global network of contacts.

Look out for 2018 Gateway course venues

www.IAP.aero
Key events and courses

Highlighted events and training
December 2017–April 2018

- **ACI-NA AIR SERVICE DATA & PLANNING**
  - 8—10 January 2018
  - San Antonio, TX

- **ACI AFRICA REGIONAL ASSEMBLY, CONFERENCE AND EXHIBITION**
  - 13—17 April 2018
  - Lagos, Nigeria

- **ACI 10TH ANNUAL AIRPORT ECONOMICS & FINANCE CONFERENCE & EXHIBITION**
  - 9—11 April 2018
  - London, UK

- **MANAGING AIRPORT SERVICE QUALITY AT AIRPORTS**
  - 19—21 March 2018
  - Montego Bay, Jamaica

- **ACI/ICAO AERODROME CERTIFICATION**
  - 26 February—2 March 2018
  - Kona, Hawaii

- **Events**
- **Training/courses**

*This course can be taken as an elective for the Airport Management Professional Accreditation Programme.*
ACI ASIA-PACIFIC REGIONAL ASSEMBLY CONFERENCE & EXHIBITION
23—25 April 2018
Narita, Japan

11TH ACI AIRPORT EXCHANGE
5—7 December 2017
Muscat, Oman

INTRODUCTION TO AIRPORT ECONOMICS
18—20 February 2018
Abu Dhabi, UAE

AIRPORT SAFETY MANAGEMENT SYSTEMS IMPLEMENTATION*
26 February—2 March 2018
Johannesburg, South Africa

AIRPORT HR MANAGEMENT*
5—9 February 2018
Istanbul, Turkey

* These events are part of ACI’s Global Airport Training Program.
ACI Events calendar
December 2017—June 2018

**11th ACI Airport Exchange**
5—7 December 2017  Muscat, Oman

**ACI-NA Air Service Data & Planning**
8—10 January 2018  San Antonio, TX

**ACI-NA Risk Management Conference**
10—12 January 2018  New Orleans, LA

**ACI-NA Air Cargo Conference**
18—20 February 2018  Austin, TX

**ACI 10th Annual Airport Economics & Finance Conference & Exhibition**
9—11 April 2018  London, UK

**ACI Africa Regional Assembly, Conference and Exhibition**
13—17 April 2018  Lagos, Nigeria

**ACI Asia-Pacific Regional Assembly Conference & Exhibition**
23—25 April 2018  Narita, Japan

**ACI-NA Legal Affairs Spring Conference**
2—5 May 2018  San Francisco, CA

**ACI-NA Jumpstart® Air Service Development Program**
3—6 June 2018  Cleveland, OH

**ACI-NA Business of Airports Conference**
11—13 June 2018  Portland, OR

**28th ACI World Annual General Assembly and 28th ACI Europe General Assembly, Congress and Exhibition**
18—20 June 2018  Brussels, Belgium

For a full listing of ACI events, please visit [www.aci.aero/events](http://www.aci.aero/events).
SAVE THE DATE

13th ACI Asia-Pacific Regional Assembly, Conference & Exhibition

April 23-25, 2018
Narita, Japan

For further inquiries
www.aci-asiapac.aero | events@aci-asiapacific.aero
Paccaya Resources Ltd. is a Hong Kong based company, specialising in advisory services for companies associated with the travel sector and in particular as it pertains to generating commercial value from tourism and airport concessions.

For airports, the Paccaya team specialises in analysing the commercial revenue generated from airport concessions (general and duty-free retail, food & beverage, advertising, currency exchange, etc.), comparing the results to international benchmarks (peer group airports), and advising on short and long-term improvements and planning. Additional areas of expertise include concession planning, alternative models of duty free management, tender planning & promotion, assessing potential bidders, etc.
Conpros supports airports, ground handling services and airlines in optimizing their operations by advisory services, technology consulting and project management. Conpros’ added-value consulting approach is based on long-term industry experience, innovative service delivery, agile concepts, advanced technology and digital business readiness to assure efficiency, quality, competitiveness and sustainable business success.

Confidex is a leading location based platform provider that enhances the passenger experience and increases operational efficiency at airports. As a passenger flow data aggregator, Confidex increase airport operators insight with its in-depth understanding of passengers metadata.
In this issue

**On the agenda:** Customer service

**Airport profile:** Airports of Mauritius

**Special Report:** Air Transport IT trends

**Plus:** Amsterdam Schiphol, Rail links & Going green

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