SEMINAR ON AIR TRAFFIC MANAGEMENT AUTOMATION SYSTEM

(Webinar, 27 October 2020)

MODERATORS

Ms. Xie Yu Lan, Deputy Director General of North China Regional Air Traffic Management Bureau of CAAC

Prior to this, Ms. Xie was the Chief Engineer of North China Regional ATM Bureau of CAAC. She is responsible for the management of ATM facilities, including the adoption of new technology pertaining to air traffic management, planning of strategic development, operation, maintenance, updates and renovation. She has provided overall direction and supervision of the planning and implementation for various air traffic engineering projects in Beijing, including in charge of the construction and operation transition of ATM facilities for Beijing Daxing International Airport, Beijing TMA Center, as well as Beijing ACC Center.

She has also been actively involved in the ICAO Asia/Pacific activities these years. Where, she has been serving as the Co-chair of ICAO Asia/Pacific DAPs WG since 2018, she had ever moderated the ATM Automation System Symposium and the Surveillance Seminar of ICAO Asia/Pacific separately in 2018 and 2019.

Ms. Xie graduated from Tsinghua University with a Master Degree in Control Engineering, and graduated from Beihang University with a Bachelor Degree in Electronic Engineering. She has been specialized in radar and ATM automation systems more than 10 years respectively. She currently is one of the ATM Panelists of CAAC.

Mr. Kwek Chin Lin, Chief ATC Specialist, Civil Aviation Authority of Singapore

Chin Lin is from Civil Aviation Authority of Singapore and his current appointment is Chief ATC Specialist (Systems Development), also concurrently the Chief ATC Specialist (Masterplan).

He joined CAAS in 1983 and has been working in CAAS for more than 37 years, having accrued ATC ratings in Aerodrome, Area and Approach control when he was an operational controller.

After 17 years in active ATC service, he joined the Systems section in late 1999 to participate in the testing and acceptance activities of LORADS II (Singapore's previous ATM system). He stayed on and help developed operational requirements for LORADS III and subsequently helmed the Operational Systems team for testing/validation and operationalization of LORADS III in 2013.

Chin Lin is actively involved in ICAO activities and is currently the Chairman of APAC FANS Interoperability Team ASIA and Co-Chairman of APAC AIDC Task force. He is Singapore's Panel member and Vice-Chairman for Communications Panel (Operational Data Link Working Group).

SPEAKERS

SP/01 - ATC Automation System Selection and Implementation: Best-Practices and Lessons-Learned

Ms. Amee Patel, FAA Group Manager for Second Level Engineering En Route and Oceanic

Amee Patel is the FAA Group Manager for Second Level Engineering En Route and Oceanic. Amee has 27 years of FAA experience and has vast experience with deploying programs in the En Route and Oceanic environment. In this role, she is responsible for providing the technical expertise to sustain and improve En Route & Oceanic ATC system. She is also charged with delivering and supporting quality products, as the modification Office of Primary Responsibility (OPR), while ensuring the safety of the traveling public. Amee is a graduate of Rowan University where she obtained her Bachelor of Science Degree in Computer Science and her minor in Mathematics.

Mr. Joe Evans, FAA Functinal Manager of the Systems Management Team

Joe Evans is the FAA Functional Manager of the Systems Management Team under the guidance of Group Manager Amee Patel. Joe has 23 years of FAA experience developing and maintaining FAA ATC systems. In his current role, he is responsible for leading a diverse group of system managers and engineers supporting the enhancement and lifecycle maintenance of the En Route & Oceanic ATC systems. Prior to joining the FAA, Joe worked for 12 years as a support contractor to the FAA. During this time, he was an engineer and software coder specializing in Flight Data Processing and Conflict Detection software.

SP/02 – Architecture of the Next-generation Air Traffic Control System Based on Cloud Computing and Virtualization Technology

Mr. Ding Hui, Deputy Director, State Key Laboratory of Air Traffic Management System and Technology (SKLATM), CETC LES Information System Co., Ltd.

Mr. Ding Hui is a senior engineer,working in State Key Laboratory of Air Traffic Management System and Technology since 2011. His current role is deputy director of SKLATM responsible for ATM system and technology R&D activities. Mr.Ding is an expert in ATM system architecture and smart-ATM technology. He has conducted studies on critical programs and technologies such as cloud compute, artificial intelligence (AI),etc which are applied in air traffic management system.

SP/03 - The Solution to the Centralized FDP Risks of Large ATM Automation System

Mr. Chen Xiao Yu, Senior Engineer, Air Traffic Management Bureau, CAAC

Mr. Chen Xiao Yu is from North Regional ATMB, working at technical department with highly competent capabilities. He has taken a crucial role in many significant projects (BTMA, BeijingDaxing international airport, NEUP, NEHUP, and AIDC deployment in NATMB). He has obtained profound knowledge and understanding of system analysis, architecture design, integration and implementation, project management and advanced technology research

SP/04 - Application of AMAN Technology in Busy Terminal Area

Mr. Huang Yu Qi, Engineer,East China Regional Air Traffic Management Bureau,CAAC

Mr. Huang is the Engineer of East China Regional Air Traffic Management Bureau,CAAC.He has been engaged in ATM automation system related data maintenance for 10 years.

In December 2016, he participated in a one month AMAN data training provided by Thales, France.In April 2018, he participated in the AMAN software integration of Shanghai terminal control center project.He is mainly responsible for testing and data debugging of AMAN system with controllers.

SP/05 - Digital Transformation in ATM

Mr. Li Fei, Technical Director, Beijing EasySky Technology Ltd.

Mr. Li Fei is from Beijing Easy Sky Technology Ltd.(BEST), which is a joint venture between TEDC and Thales. Li Fei is from Real-time Software Engineering background. He has started his career in ATC domain with Thales since 2001 and has been heavily involved in the design, develop, deployment and commission of more than 10 major ATC systems in China. His current role is the technical director of BEST responsible for the ATC system design and R&D activities.

SP/06 - Air Traffic Integrated Tower System Solution

Mr. Hou Changbo, General Manager assistant · Chengdu Civil Aviation ATC Science & Technology Co., Ltd.

Mr. Hou Changbo is the manager of the ATM products department. He is responsible for the development and implementation of ATC automation system and A-SMGCS system. He has been engaged in surveillance data processing, safety Net Processing within ATM systems for more than 10 years.

SP/07 - ATM Automation System Support to the Airlines Operation Efficiency

Mr. Zhang Ti, Manager Safety and Flight Operations department, North Asia Office

IATA, June 2018 - present.

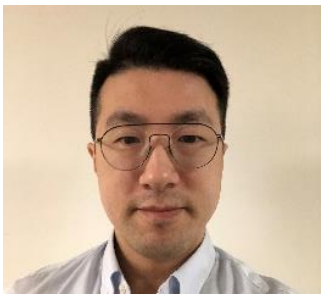
Main responsibilities:

- participate in the two-way communication trial of IATA China ATFM liaison desk and the real operation of liaison desk since June, 2018, participate in the IATA RCG(Regional Coordination Group) job. In the domains of Air Traffic Flow Management, participate in the NARAHG(Northeast Asia Regional ATFM Harmonization Group), Distributed Multi-Nodal ATFM working group, Lancang-Mekong River ATFM working group;
- In-charge of the A-CDM related work within North Asia region(SFO domain);
- In-charge of IATA GADM(Global Aviation Data Management) related work within the North Asia region;
- In-charge of comprehensive Safety related work(Safety report, Operational notice, Accident report, etc) within the North Asia region;

- In-charge of operational data sharing work with Operational Supervisory Center(OSC), CAAC related work within the North Asia region;
- Director Engineer, Operations Quality Analysis Office of Operations Supervisory Center (OSC) CAAC, July 2015 – May 2018 (2 years 10 months);
- Engineer, Contingency Management Office of Operations Management Center (OMC) ATMB CAAC, September 2014 - June 2015 (10 months); and
- Air Traffic Controller, General Dispatching Office of Operations Management Center (OMC) ATMB CAAC, July 2007 - August 2014 (7 years 1 month)

SP/08 - Enhanced Robustness for Provision of ATM Service

Mr. Derek How, Electronics Engineer, Civil Aviation Department, Hong Kong, China



Mr. How is an Electronics Engineer of the Air Traffic Engineering Services Division (AESD) of the Hong Kong Civil Aviation Department (HKCAD). Mr. How worked in IT and systems industry for more than 15 years focusing on IT solutions planning and management. In the past 4 years, he had been serving as the Subject Matter Expert on the Air Traffic Management System (ATMS) in Hong Kong, China. He had also actively engaged in the ICAO meetings with focus on CNS regional matters.

Outline of Presentation: In November 2016, Hong Kong, China commissioned its ATM Automation System which has successfully demonstrated its performance in coping with the challenges of peak traffic demands during the travelling peaks and recovery from adverse weather. A risk-based approach has been adopted throughout ATM Automation System development, testing, acceptance, and transition, as well as handling of teething issues with good lessons learnt. The system is equipped with multiple layers of system resilience with a Main system and a fully equivalent Fallback system, which enhance the robustness for provision of ATM services. Hong Kong, China also shares the key factors and way forward in future ATM Automation System development with enhanced robustness design. In line with the ICAO APAC Seamless ANS Plan, it is a best practice to adopt a robust design to have both the Main and Fallback systems with the same functionality, capability and capacity with seamless switchover time, as is the case at Hong Kong, China.

SP/09 - Smart Tower Prototype at Singapore Changi Airport

Mr. Kwek Chin Lin, Chief ATC Specialist, Civil Aviation Authority of Singapore

Chin Lin is from Civil Aviation Authority of Singapore and his current appointment is Chief ATC Specialist (Systems Development), also concurrently the Chief ATC Specialist (Masterplan).

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SP/10 - Cloud ATM and Service Oriented Architecture for ATM Service

Mr. Sorin Gavrila, ATM Expert, Indra

Mr. Sorin Gavrila is ATM senior engineer working as an ATM expert in Indra. He is an engineer from the University of Alcalá de Henares, with a master in Aeronautics and Airport management, International MBA, Cibersecurity, and Big Data environments.

Outline of Presentation: Indra will present their latest solution in employing the advanced technology of making use of cloud computing and service oriented architecture (SOA) in provision of ATM services, allowing a standard yet flexible integration of data and applications, while de-coupling the ATM applications from its infrastructure.

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SP/11 - Optimizing Surface Traffic Operations through Automated Ground Traffic Management bai

Mr. Zahir Hussain Mohamed Yusuff, Senior Manager – Technical Projects

Technical and Professional Experience

Current
Title : Manager Technical Projects
Duration : Since Jan 2015
Organization : Dubai Airports

Previous
Title : Airfield Lighting Systems Engineer
Duration : July 2007 till Jan 2015
Organization : Dubai Airports

Title : Project Engineer
Duration : May 2003 to June 2007
Organization : Safegate International AB, Sweden

Title : Assistant Manager Maintenance
Duration : May 1999 to April 2003
Organization : TVS. Sundaram Fasteners, Hosur, India

Expertise
International Civil Aviation Organization (ICAO) ICAO- Annexure 14 Volume-1 Aerodrome Design and Operations. ICAO Aerodrome Design Manual Part 4 Visual Aids
ICAO Airport Services Manual Part 9 Airport Maintenance Practices
ICAO-A-SMGCS- limited to Visual Aids

Projects completed ASMGCS Level 4 at Dubai International Airport

Projects completed Visual Docking Guidance System and Gate Operating System Implementation

- Christ Church International Airport, New Zealand
- Auckland International Airport, New Zealand
- Darwin Airport, Australia
- Suvarnabhumi International Airport, Bangkok Thailand
- Kazakhstan International Airport, Kazakhstan,
- Imam Khomeini International Airport, Tehran
- Bahrain International Airport
- Qatar International Airport

- Chhatrapati Shivaji International Airport, Mumbai, India
- Indira Gandhi International Airport, New Delhi, India
- Dubai International Airport

Advanced Surface Movement Guidance and Control System –A-SMGCS

- Implementation of ASMGCS Level 4 at Dubai International Airport
- Implementation of advanced Automated Taxiway Routing System
- Integration of GMR/SMR with the lighting control System.
- Integration of Stand Apron Management System with Lighting Control system
- Integration of UFIS with lighting control system for Stand allocation of aircrafts
- Integration of GMR data with light control system for tracks to be displayed on
- lighting panel
- Integration of Meteorological data with lighting control system for display of weather data in AFL display
- Integration of Cat 11 data with lighting control system for advanced display of traffic movement.

Education

Higher Degree in Electrical and Electronics Engineering

SP/12 - Challenges in Implementing ATM Automation System

Mr. Ravi Rattan Bassi, General Manager, Airports Authority of India

Shri Ravi Bassi is presently holding the post of General Manager in CNS (Planning) Directorate of Airports Authority of India and is well known as a CNS Expert in the International Aviation community.

Presently, Mr. Bassi is responsible for Planning, Procurement, and Implementation of ATM Automation System at Indian airports and ANS Systems with evolving technology in aviation. His role is to meet the current operational ATC requirement and to meet the time line for implementing complex ATM projects.

Mr. Bassi, is having the vast technical experience of 30 years in Aviation Industry and served at various ATC centers.

Mr. Bassi has joined Airports Authority of India in 1990. His educational background with degree in Electronics & Communication Engineering from Institution of Electronics of Telecommunication Engineers, India and professional degree of Masters in Business Administration has helped in gaining the professional and Technical Expertise.

Mr. Ravi Bassi, has a vast experience of implementing ATM Automation Project at more than 42 Airports in India successfully. He is also a core team member of Implementing Air Traffic Flow management System in India. He is also Project In-Charge for implementing Automatic Dependent Surveillance- Broadcast (ADS-B) systems and it's integration with ATM Automation system in India. His domain of expertise is in Planning, designing Operational & Technical requirement and implementing ATC Automation related projects like Air Traffic Flow Management system, ATC Training Simulators, AMHS, Surveillance systems etc. His expertise in the area of ATC Automation is well recognized in Airports Authority of India.

SP/13 – SWIM in support of ATM Automation

Mr. Pedro Fernandez, Project manager, EUROCONTROL

Project Manager at EUROCONTROL supporting the Project manager at EUROCONTROL supporting thstandardization and deployment of SWIM Infrastructure in international Air Traffic Management Projects.

Graduated in computer engineering with studies in international economics, he has more than 20 years of experience in research, development and operation of distributed information systems in public and private international organizations operating global communication networks.
