



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Ref.: TC 2/3.82 (SGP16801, SGP18801) – 18/35

9 March 2018

Subject: Singapore – ICAO Developing Countries
Training Programme and
Singapore – ICAO Programme for Young Aviation
Professionals 2018/2019

Action required: To note information and,
if interested, complete online Scholarship/
Fellowship Application Form

Sir/Madam,

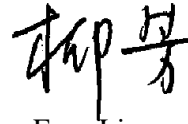
I have the honour to refer to the jointly established Singapore – ICAO Developing Countries Training Programme (DCTP), which is sponsored by the Singapore Government and administered by ICAO's Technical Cooperation Bureau (TCB). The DCTP was renewed on 19 August 2015 for another three years from April 2016 to March 2019 and expanded to provide 300 fellowships and ten scholarships. Since 2001, 1,036 fellowships and 14 scholarships have been taken up.

On 5 February 2018, to mark the 60th anniversary of the Singapore Aviation Academy (SAA) and Singapore's 15th year as an ICAO Council member, a new five year Singapore – ICAO Programme for Young Aviation Professionals (PYAP) was established to provide 40 scholarships and 600 fellowships for young aviation professionals (aged 35 and below). The PYAP is sponsored by the Singapore Government and administered by ICAO's TCB.

I am pleased to announce that in 2018/2019, 108 fellowships for 17 courses will be available under the DCTP while eight scholarships and 120 fellowships for 13 courses will be available under the PYAP. Details of the courses as well as terms and conditions applicable to these Scholarships/Fellowships are explained in **Attachment A and B** for DCTP and PYAP respectively. It is important to note, however, that course content and course delivery are outside the Organization's purview and hence the sole responsibility of the Government of Singapore.

Nominating Governments should complete and endorse the Nomination Form available online before applicants proceed with the online application at www.saa.com.sg/fellowships. Kindly note that States having submitted candidates will be informed of the result of the selection about three weeks prior to the commencement of the course.

Accept, Sir/Madam, the assurance of my highest consideration.



Fang Liu
Secretary General

Enclosures: (in English only)

A – Information on Singapore – ICAO Developing Countries Training Programme 2018/2019

B – Information on Singapore – ICAO Programme for Young Aviation Professionals 2018/2019

Singapore – ICAO Developing Countries Training Programme 2018/2019

Singapore and ICAO jointly established a Developing Countries Training Programme (DCTP) in 2001 which is sponsored by the Singapore Government and administered by the ICAO Technical Cooperation Bureau for specialised training programmes conducted by the Singapore Aviation Academy (SAA). The programme has been awarding fellowships for training at SAA. It was further extended and expanded in 2004, 2007, 2010 and 2013. In 2013, a new Aviation Leaders Scholarship for Diploma in Civil Aviation Management was introduced. In response to overwhelming and continued demand, the fellowship and scholarship programme has been extended for another three years from 2016 to 2019, and expanded to provide 300 fellowships and 10 scholarships. Since 2001, 1,036 fellowships and 14 scholarships have been taken up.

List of Courses offered under Fellowships

Training Programmes	Dates	Closing Dates for Application
Safety Oversight Managers	9 – 26 July 2018	21 May 2018
Aviation Security Management Programme	16 – 19 July 2018	28 May 2018
Aviation Weather Risk Management	23 – 27 July 2018	4 June 2018
Safety Oversight of Aviation Meteorological Services	30 July – 2 August 2018	11 June 2018
Emergency Management Workshop	30 July – 3 August 2018	11 June 2018
Future Airports: Transforming Mind-sets of Regulators and Airport Operators	13 – 17 August 2018	25 June 2018
Safety Oversight Inspectors (Aerodromes)	13 – 17 August 2018	25 June 2018
Methodology and Best Practices for Aviation System Block Upgrades (ASBU) Implementation	13 – 17 August 2018	25 June 2018
Aerodrome Certification	3 – 6 September 2018	16 July 2018
Future Airports: Technology and Digital Agility for Regulators and Airport Operators	15 – 19 October 2018	27 August 2018
Air Traffic Management Safety Investigation and Analysis	22 – 26 October 2018	3 September 2018
Civil Aviation Management Programme	22 October – 2 November 2018	3 September 2018
Procedures and Design Process for Performance-based Navigation Airspace	12 – 23 November 2018	24 September 2018
Air Disasters: Crisis Planning and Business Continuity Management	19 – 23 November 2018	1 October 2018
Airport Emergency Service Command Leadership Workshop	3 – 7 December 2018	15 October 2018
Safety Oversight Inspectors (Flight Operations)	18 February – 1 March 2019	31 December 2018
Safety Audits of Air Traffic Services	25 February – 1 March 2019	7 January 2019

Note: Course dates are subject to change. For the latest dates, please visit SAA's website at saa.caas.gov.sg.

Terms of Fellowships

The Government of Singapore will bear the training fees, daily allowance of sixty Singapore Dollars (S\$60) and hotel accommodation for participants accepted for the programmes. Complimentary breakfast will be provided at the hotel and lunch at SAA during training days. Travel arrangements are to be made and costs borne by the nominating Governments.

Hotel accommodation will be provided for the training duration, i.e. one day before course commencement (after 2 pm) and one day after the course (till 12 noon). Daily allowance will be limited to the training duration, i.e. from the start of the course up to the last day of the course. Expenses to be incurred for stay beyond this duration will not be covered. Participants are advised to secure their own overseas travel insurance to cover themselves for the period of the training in Singapore.

Application Procedures

The fellowships/scholarships are intended for government officials nominated by their respective Governments. Nominating Governments should preferably nominate not more than two candidates for each course and advise which candidate should take priority if more than one candidate is nominated.

Applications should be made online at saa.caas.gov.sg/fellowships. Before proceeding with online application, Nominating Governments should complete and endorse the Nomination Form available online. The PDF copy of the completed Nomination Form needs to be submitted as part of the online application. All applications should be submitted online by the stated closing dates.

For enquiries, please contact:

Course Administration
Singapore Aviation Academy
Tel: (65) 6540 6216 / 6540 0433; Fax: (65) 6542 9890 / 6543 2778; Email: saa@caas.gov.sg

ICAO Fellowship Programme

ICAO firmly believes that the safe and efficient operation of air transport systems is totally dependent on the skills and knowledge of the national personnel who operate and maintain these systems. ICAO, with UNDP support, has assisted over 50 developing States in establishing national civil aviation training centres. Through its Technical Cooperation Programme, ICAO has been active in awarding fellowship training in the various fields of civil aviation. In the past 15 years, around 15,000 fellowships were awarded to almost every developing State.

Singapore Aviation Academy (SAA)

SAA is the internationally-recognized training arm of the Civil Aviation Authority of Singapore. Made up of four specialized schools – the School of Aviation Management, the School of Aviation Safety and Security, the School of Air Traffic Services and the School of Airport Emergency Services – SAA has trained over 120,000 participants from 200 countries and territories. SAA was conferred the prestigious 34th Edward Warner Award by the ICAO Council on behalf of its then 185 Member States in 2000 “in recognition of its eminent contribution as a centre of excellence in international civil aviation training”. In 2012, SAA was certified as an ICAO TRAINAIR *PLUS* Full Member. As a member, SAA aims to contribute towards the common goal of elevating global aviation training standards by developing educational resources and sharing valuable knowledge with the aviation community. SAA is also endorsed as an ICAO Government Safety Inspector Training Centre and ICAO Aviation Security Training Centre. In 2014, SAA was designated an ICAO Regional Training Centre of Excellence and re-designated in 2017 for another 3 years.

SAFETY OVERSIGHT MANAGERS

9 – 26 July 2018

This course provides you with an understanding of the fundamental principles contributing to the effective and efficient management of safety oversight activities of a State's aviation regulatory body.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the role and responsibilities of a safety oversight manager
- Understand the ICAO Standards and Recommended Practices (SARPs) and other national civil aviation regulations relating to safety oversight
- Update your Organization's safety oversight system

WHAT IS COVERED

- Obligations under the Chicago Convention
- ICAO SARPs
- ICAO Organization Structure
- Expanded ICAO Universal Safety Oversight Audit Programme Processes and Audit Results
- Establishment and Management of the Safety Oversight System
- ICAO Safety Audit Oversight Manuals
- Management of Aircraft Operators
- Selection and Recruitment of Technical Staff for Civil Aviation
- Development of Staff Training and Competence Policy
- Regulatory Framework
- Inspectors' Handbooks
- National Aviation Regulatory Authority Organization Structure and Roles: Powers and Enforcement
- Quality Systems and Safety Management
- ICAO Aircraft Incident/Accident Investigation Audits

- Management of Aerodrome Safety
- Air Traffic Services Safety Management and Audits
- Civil Aviation Authority of Singapore's Safety Management System
- Designation and Delegation Policy
- Operations and Management of Personnel Licensing
- Management of Cabin Safety Operations
- Legal Principles Underlying Safety Oversight Functions
- Bilateral Agreements and Article 83 *Bis*: Transfer of Responsibility
- Success Factors: Managing Global and Corporate Strategies
- Best Practices in Resource Management
- Strategic Business Planning for Managers
- Management of the Regulator and Industry Interface
- Management of Aircraft Incident/Accident Investigation
- Management of Dangerous Goods
- Understanding and Managing Human Factors in a Regulatory/Operational Aviation Environment

LEARNING ACTIVITIES

- Exercises
- Panel Discussions

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for the safety oversight of aircraft operations and maintenance such as managers and inspectors from civil aviation administrations.

AVIATION SECURITY MANAGEMENT PROGRAMME

16 – 19 July 2018

This programme provides you with an understanding of the requirements, principles and practices to effectively implement aviation security (AVSEC) management.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Understand AVSEC management concepts
- Apply best practices for planning and managing AVSEC
- Develop an AVSEC framework in line with ICAO requirements

WHAT IS COVERED

- Understanding AVSEC
 - AVSEC: The big picture
 - ICAO's role and approach to aviation security
 - The State's security oversight obligations
 - Aircraft security
 - Cargo and mail security
 - Threats to critical aviation information and communication technology systems

- Enhancing the Security Manager's Toolkit
 - Training effectiveness
 - Human factors in AVSEC operations
 - Harnessing new technologies, research and development
- Building a Robust AVSEC Framework
 - Regulatory oversight
 - Crisis management and response to acts of unlawful interference
 - Quality control
 - Security management system
- Fostering Effective Partnerships in AVSEC
 - Airport security

WHO SHOULD ATTEND

This programme is beneficial to AVSEC managers and supervisors from civil aviation administrations, airport authorities, air navigation service providers, airlines and AVSEC related agencies.

AVIATION WEATHER RISK MANAGEMENT

23 – 27 July 2018

This course is designed to equip you with knowledge and skills to determine how hazards and risks from adverse weather conditions impact flight operations, and ways to manage these risks.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Identify and use various weather and climate products and services to facilitate operational decision-making, flight planning, operational control and air traffic services.
- Put in place practices, processes and procedures to effectively and proactively manage weather-related risks, enhancing operational effectiveness and efficiencies.
- Identify ways to enhance safety and performance, resulting in the reduction of passenger and crew injuries, diversions and aircraft damages due to adverse weather.

WHAT IS COVERED

- Impact of Weather on Aviation Operations
 - Effects and cost of weather to aviation
 - New trends in occurrence causation and weather-related mishaps
- Current Weather Safety Nets
 - Weather information status and aviation weather system
 - ICAO Annex 3; World area forecast system
 - Tropical cyclone warning and volcanic ash advisory centres
 - Safety and quality initiatives
- Weather Decision-making
 - Naturalistic decision-making and plan continuation error
 - Threat/error management and situational awareness
 - Facilitating and improving decisions
- Weather Risk Management Systems
 - Aviation weather hazards and risks
 - Weather risk profile for your operation
 - Weather risk management process, monitoring and review
 - Weather risk control system
 - Procedures for dispatching aircraft and coping with weather
- Climatology and Weather Patterns
 - Weather-related risks
 - Global climatology and weather patterns
 - Regional weather risks and weather risks with station climatology
 - Improving meteorology in route manuals
- Investigation of Weather Occurrences
 - Weather investigations to support safety management systems (SMS) and safety performance
 - Event assessment process and “Weather Package” in data collection
 - Collection of human factors data and analysis of meteorological data
 - ICAO Doc 9756 Part III
- Proactive Forecasting Systems for Supporting Decision-making
 - Effect of weather forecasting on commercial aviation
 - Decision-making in the cockpit, dispatch, tower, etc.
 - Tactical weather decision aids and code grey forecasting system
 - Storm readiness programmes

WHO SHOULD ATTEND

This course is beneficial to personnel who use weather information for operational, investigation and safety purposes from civil aviation administrations, airlines, air navigation service providers, airport authorities, investigation agencies and meteorology agencies.

SAFETY OVERSIGHT OF AVIATION METEOROLOGICAL SERVICES

30 July – 2 August 2018

This course provides you with an understanding of a State's safety oversight functions and activities relating to aviation meteorology (MET) in accordance with ICAO's requirements.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the ICAO standards on safety oversight relating to aviation MET
- Implement Quality Management System (QMS) and competency assessments for aviation MET staff

WHAT IS COVERED

- Overview of the State's Safety Oversight Obligations
 - Critical elements of a safety oversight system
 - ICAO Standards and Recommended Practices
 - State Safety Programme
 - Safety Management System (SMS)
- ICAO Annex 3 and Docs 8896, 9837, 9873
 - MET observations and reports
 - Forecasts
 - Significant Meteorological Information (SIGMET), aerodrome warnings and wind shear alerts and warnings
 - QMS requirements
 - Training, qualification and competency standards requirements

- Working Relationship between ICAO and World Meteorological Organization
- Safety Oversight of Aviation MET services
 - Empowerment and legal authorities
 - Audit and inspection activities
 - Continuous monitoring
 - Singapore's experience

- Safety Oversight MET Inspectors
 - Roles and responsibilities
 - Qualification and training
 - Skills and personal attributes
 - MET Inspector's handbook

LEARNING ACTIVITIES

- Learning Journey to Meteorological Service Singapore
 - Set-up of MET Watch Office and MET Observation Station
 - Aviation weather services and products, including its role as ICAO designated Operational Meteorological Information (OPMET) gateway
 - Implementation of QMS and SMS

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for the effective regulation and oversight of aviation MET from civil aviation administrations, aviation accident investigation agencies and MET agencies.

EMERGENCY MANAGEMENT WORKSHOP

30 July – 3 August 2018

This strategic workshop provides you with updates on the latest developments in emergency planning and aircraft incident management.

WHAT YOU WILL LEARN

Upon completion of this workshop, you will be able to:

- Understand and implement ICAO Standards and Recommended Practices (SARPs) relating to emergency preparedness
- Identify risks at airports and recommend appropriate actions to counter and manage such risks
- Develop an incident and emergency management system for your Organization

WHAT IS COVERED

- Emergency Preparedness for Airport Emergency Services (AES)
- Legal Aspects of Disaster and Emergency Management
- Crisis Management at Changi Airport
- ICAO's Requirements for Very Large Capacity Aircraft (VLCA) and its Emergency Management

- Medical Response to Major Incidents at Airports
- Managing Maritime Disaster
- Aircraft Rescue Fire-fighting Management
- Airport Emergency Planning
- Incident and Emergency Management System
- Fire-fighting and Rescue Disaster Handling Experience
- Visit to Changi Airport Fire Station
- Psychological Impact
- Bulk Fuel Fire Management
- Airport Exercise Planning
- Aircraft Accident Investigation

LEARNING ACTIVITIES

- Case Studies

WHO SHOULD ATTEND

This workshop is beneficial to fire officers, emergency service commanders, airport executives and operational supervisors from civil aviation administrations, airport authorities, emergency service providers and airlines.

FUTURE AIRPORTS: TRANSFORMING MINDSETS OF REGULATORS AND AIRPORT OPERATORS

13 – 17 August 2018

As leaders in your industry, you have the responsibility to lead and transform your organization to be agile and proactive in anticipating and adapting to rapidly changing business environments, e.g., changing demographics of worker population and digital disruption.

This programme will provide you with the concepts, methods, frameworks and industry-specific case studies, to diagnose the state of transformation in your organization, analyze industry trends, identify potential gaps to effect holistic transformation and develop a ‘transformation roadmap’ unique to your organization’s vision, purpose and strengths.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Gain the big picture of the aviation landscape and the purpose of transformation
- Identify possible gaps in your organization and industry
- Address difficult issues with creativity and critical thinking
- Apply ‘Story’, ‘Purpose’, ‘Environment’, ‘Capabilities’ and ‘Leadership’ (SPEC’L) framework, to assess the state of transformation in your Organization
- Design interventions around the SPEC’L framework to help your Organization transform systemically, in a structured way.
- Strategizing and leading the transformation efforts in your organization
- Overcoming challenges specific to your organization
- Transforming the development and business process
- Getting started in your organization
- Understand ‘Purpose’ of transformation and how to get there via effective strategy design
- Discover the unique challenges of your Organization and industry and apply creative problem-solving techniques for ‘Environment’, ‘Capabilities’ ‘Leadership’ and ‘Story’
- Sharing by airport operators and regulators on bringing one’s airport through a transformation journey

WHAT IS COVERED

- Transforming the Enterprise – Through discussions and exercises, participants learn how to kick start their transformation efforts and bring it up to the next level.

LEARNING ACTIVITIES

- Case Studies
- Discussions and exercises
- Learning journeys to Changi Airport

WHO SHOULD ATTEND

This programme is beneficial to director-level and senior management personnel from civil aviation administrations, airport authorities and relevant government agencies.

SAFETY OVERSIGHT INSPECTORS (AERODROMES)

13 –17 August 2018

This course provides you with an understanding of the safety oversight of aerodromes required of a State's aviation regulatory body and their importance.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the role and responsibilities of an aerodrome inspector
- Understand the ICAO Standards and Recommended Practices (SARPs) and other national civil aviation regulations on safety oversight relating to aerodromes
- Review and update your Organization's safety oversight mechanisms relating to aerodromes

WHAT IS COVERED

- Overview of the State's Safety Oversight Obligations
 - Critical elements of a safety oversight system
 - ICAO SARPs
 - State Safety Programme
 - Safety Management Systems (SMS)
- ICAO Annex 14 (Aerodromes), Vol II (Aerodrome Design and Operations)
 - Certification of aerodromes and aerodrome data
 - Physical characteristics: Runways, taxiways, clearways, stop ways, holding bays
 - Obstacle restriction and removal: Obstacle limitations surface and requirements
 - Visual aids for navigation: Indicators and signalling devices, markings, lights, signs and markers

- Aerodrome operational services, equipment and installations

- Aerodrome Maintenance
 - Pavements
 - Runway pavements overlay
 - Visual aids
- Airport Certification
 - Issuance and renewal of airport operating certificate/licence
- ICAO Doc 9137 (Airport Services Manual)
- ICAO Doc 9157 (Aerodrome Design Manual)
- Auditing of Aerodromes
 - Role and responsibilities of an aerodrome inspector
 - Auditing principles, techniques and procedures
 - Auditing of rescue and fire-fighting
 - Auditing of an airport's SMS
- Aerodrome Inspections
 - Airfield: Pavement, markings, lightings and obstructions
 - Rescue and fire-fighting
 - Training programme: Review, records and documentation
 - Training of apron drivers
 - Fuelling facilities
 - Runway incursion prevention
 - Wildlife and foreign object damage management

WHO SHOULD ATTEND

This course is beneficial to personnel involved in safety oversight management and inspection of aerodromes such as safety managers, inspectors and auditors from civil aviation administrations and airport authorities.

METHODOLOGY AND BEST PRACTICES FOR AVIATION SYSTEM BLOCK UPGRADES (ASBU) IMPLEMENTATION

13 – 17 August 2018

This course provides you with a common understanding of the Aviation System Block Upgrades (ASBU) methodology and how best to implement the modules. This interactive and practical course will also guide you in making capability-implementation decisions, developing a business case to support investment decisions and communicating the value impact of the ASBU framework.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Describe and apply concepts, framework and requirements of ASBU
- Identify business case elements for ASBU implementation
- Understand the process of how to negotiate with multiple ASBU stakeholders

WHAT IS COVERED

- ASBU Overview and Value: Guidance in Selecting ASBU Capabilities
 - Introduction of the ASBU concept and framework
 - Global aviation challenges
 - Course conceptual model
 - Introduction of course case study and exercise format
- Identifying Operational Performance
 - Decision process to understand need for upgrades
 - Evaluating economic, demographic and market trends
 - Identifying the aviation system's projected demand and expected capacity

- Needs and Dependency Analysis (NDA) overview: Prerequisites and preparation
- NDA candidate ASBU modules needs dependencies and needs inventory
- NDA baseline inventory and gap analysis

- Operational and Business Views of Case Study Alternatives
 - NDA impact analysis
 - Assessing ASBU operational effects using performance indicator
 - Business case analysis
 - Operational benefits
 - Life-cycle costs
 - Aviation service provider financial results
 - Aircraft operator financial results
 - Identifying other social effects: Passengers, safety and environment
 - Summarising social results

LEARNING ACTIVITIES

- Case Studies on Economic Value and Decision-making
 - Economic impact of ASBU investment policy
 - Multi-stakeholder negotiation and timing to realise the 'Best' return on investment
 - Multi-stakeholder role-play exercise

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for ATM modernization programmes and ASBU capability-implementation from civil aviation administrations, air navigation service providers, airlines, airport authorities, air traffic management (ATM) system manufacturers and solution providers.

AERODROME CERTIFICATION

3 – 6 September 2018

This course provides you with an in-depth understanding of aerodrome certification requirements as well as implementation tools.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Explain the objectives of certifying an aerodrome
- Understand the implications in certification
- Elaborate the responsibilities and obligations under the certification regime

WHAT IS COVERED

- Review of ICAO Aerodrome Certification Requirements
 - ICAO Annex 14 (Aerodromes)
 - ICAO Doc 9774 (Manual on Certification of Aerodromes)
- ICAO Annex 14 Standards and Recommended Practices
- ICAO Technical Manuals Relating to Aerodrome Design and Operations
- State Regulatory Set-up and Legislative aspects
- Aerodrome Certification Requirements and Procedures
- Methodology on Preparation of Aerodrome Manuals
- Aerodrome Certification Processes and Surveillance
- Obligations of Regulator and Aerodrome Operator
- Airport Management Structure Sample
- Competence Models for the Various Functional Areas and Corporate Responsibilities
- Understanding and Implementing an Aerodrome Safety Management System (SMS)
- Introduction to Basic Human Factors and Work Place Safety

- Audit and Inspection Methods for Ensuring Compliance
- Reporting of Airport Accidents/Incidents for SMS

LEARNING ACTIVITIES

- Practical Exercises
 - Documentation and implementation of regulatory requirements
 - Aerodrome design and operations
 - Identification of hazards and defences
- Site Visits

WHO SHOULD ATTEND

This course is beneficial to personnel involved in the regulation, design, development and certification of airports from civil aviation administrations and airport authorities.

FUTURE AIRPORTS: TECHNOLOGY AND DIGITAL AGILITY FOR REGULATORS AND AIRPORT OPERATORS

15 – 19 October 2018

This programme will provide you with the concept and application of a transformative mind-set shift and the ability to lead and rally your Organization to become more digital and agile to the needs of your operation and customers. You will be equipped with a sound understanding of agile and digital strategies and techniques to unleash new digital initiatives for developing innovative business strategies. Case studies on application of Digital Strategies would include the use of new technologies, capitalising on digital trends best practices.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Achieve enterprise digital agility
- Set up a digital capability within your organization
- Strategize and lead digitalization initiatives
- Set up measures to drive digital success
- Plan development infrastructure to support agile development
- Glean latest technology and digital trends
- Generating growth through data and analytics
- Bridging the gap between business and IT
- Automating the product/application delivery
- Sharing by airport operators and regulators on the need to stay agile and adapt to disruptions in technology
- Build up the digital capabilities of one's airport

WHAT IS COVERED

- Digital trends and challenges
- Identifying digitization opportunities and charting the digital roadmap

LEARNING ACTIVITIES

- Case Studies
- Discussions and Exercises
- Learning journeys to Changi Airport

WHO SHOULD ATTEND

This programme is beneficial to middle management personnel from civil aviation administrations, airport authorities and relevant government agencies.

AIR TRAFFIC MANAGEMENT SAFETY INVESTIGATION AND ANALYSIS

22 – 26 October 2018

This course provides you with guidance on best practices in systemic safety investigation and analysis techniques as applied to air traffic management (ATM). It covers both relevant human factors theories and practices as well as examines key issues relating to safety investigation and analysis in the ATM environment.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand best practices in systemic safety investigation and analysis techniques in ATM
- Identify key issues in safety investigation and analysis in an ATM environment
- Apply witness interviewing skills and techniques

WHAT IS COVERED

- Introduction to ATM Safety Investigation and Analysis
 - Overview
 - ICAO Annex 13 (Aircraft Accident and Incident Investigation)
 - Purpose and objectives
 - Analysis techniques
- Managing Human Error and Just Culture
 - Principles of human error
 - Just Culture
- Organizational Accidents
 - Overview
 - The SHEL Model (Software, Hardware, Environment, Liveware)
 - The Reason Model and Systemic Occurrence Analysis Methods (SOAM)
- Human Performance Limitations
 - Stress and fatigue
 - Threat and error management

- Information processing
- Situational awareness
- Decision-making

- Witness Interviewing Techniques
 - Theory and practice
- SOAM
 - Human involvement
 - Contextual conditions
 - Organizational and system factors
 - Barriers in accident prevention
- Investigative Issues and Reporting Requirements
 - Investigator qualities
 - Human bias
 - Data organization tools
 - Traps and tips for investigators
- Effective Findings and Recommendations
 - Developing effective findings and recommendations

LEARNING ACTIVITIES

- Interviewing Skills
- Application of SOAM
- Case Studies
 - Practice and consolidation of safety investigation and analysis techniques
 - Syndicate work to further refine safety investigation and analysis techniques

WHO SHOULD ATTEND

This course is beneficial to ATM managers, supervisors, safety managers, investigators, trainers and inspectors from civil aviation administrations, air navigation service providers and military air traffic service providers.

CIVIL AVIATION MANAGEMENT PROGRAMME

22 October – 2 November 2018

This programme will provide you with a broad overview and perspective of the civil aviation sector, its major elements and their interfaces in an integral eco-system. It will also provide you with a focused examination of each element, their key requisites and the regulatory and operational best practices to meet these requirements and address prevailing and future challenges.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Understand the fundamental principles, and main aspects and factors of civil aviation
- Comprehend each of the major civil aviation elements, their inter- and external linkages, and their essentials
- Glean policies, strategies and methods in meeting the key requirements and dealing with issues

WHAT IS COVERED

- Air Transport/Aviation and Economic Development
 - Economic Development and the Aviation Sector
 - Air Transport Development - Singapore's Experience
 - Air Transport Law and Regulations
 - Airline Strategies
 - Aviation and Human Resource Development
 - International Aviation and Climate Change
 - Public Governance and Policies
- Airport Planning and Management
 - Fundamentals of Airport Planning and Design
 - Airport Management
 - Airport-Airlines Collaboration in Hub Airport
 - Airport-Airlines Partnership – CAG's Experience
 - Airport Commercial Management – CAG's Experience
 - Service Quality Management

- Aviation Safety and Security
 - Safety Oversight and State Safety Programme
 - Safety Oversight of Air Operators and Approved Organizations
 - Safety Oversight of Aerodromes
 - Safety Oversight of Air Navigation Services
 - Safety Management Systems
 - Aviation Security
 - Safety and Security Aspects in Handling Dangerous Goods
 - Human Factors in Aviation

- Air Traffic Management
 - Air Traffic Management
 - Global Air Navigation Plan and Aviation System Block Upgrades
 - ATM Initiatives – CAAS' Experiences
- Crisis Management and Emergency/Business Continuity Planning
 - Crisis Management in Aviation
 - Emergency Response to Aircraft Accidents
 - Aircraft Accident Investigation and Management
 - Public Health Management and Aviation
 - Crisis Communications
 - Business Continuity Planning

LEARNING ACTIVITIES

- Visits to Changi Airport, Singapore Air Traffic Control Centre and MITRE Asia Pacific (Singapore)
- Case Studies
- Group Exercise

WHO SHOULD ATTEND

This course is beneficial to middle management personnel from civil aviation administrations, airport authorities, air navigation service providers, airlines, and aviation-related government and private Organizations.

PROCEDURES AND DESIGN PROCESS FOR PERFORMANCE-BASED NAVIGATION AIRSPACE

12 – 23 November 2018

This course provides you with insights of Performance-based Navigation (PBN) concepts and their application for the planning and design of PBN airspace, in accordance with ICAO's Standards and Recommended Practices (SARPs).

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the principles and concepts of PBN in airspace design
- Recognise the essential elements in the ICAO Global Plan for CNS/ATM systems
- Develop strategies to design various airspace structures

WHAT IS COVERED

- ICAO Global Plan for Communication, Navigation and Surveillance/ Air Traffic Management (CNS/ATM) Systems
- Commercial Air Transport Operations
- General Aviation and Aerial Work Operations
- Test Flights and Unmanned Aerial Vehicles Operations
- Civil Air Traffic Services (ATS) Operations
- Military ATS Operations

WHO SHOULD ATTEND

This course is beneficial to ATS managers, supervisors, safety managers, airspace planners, trainers and inspectors who are involved in ATS airspace design and procedures from both civil and military ATS providers and regulators, as well as airline flight planning personnel from operational control centres.

- Air Traffic Flow Management (ATFM)
- ATC Separation Criteria
- PBN
- Instrument Approaches Procedures – Conventional and Area Navigation (RNAV)
- Standard Instrument Departures/Arrivals (SIDs/STARs)
- Simplified Airspace Organization
- Flexible Use of Airspace (FUA)
- Airspace Design Planning
- Air Traffic Management Initiatives in Singapore

LEARNING ACTIVITIES

- Design Different Airspace Structures
- Draft Airspace Design Implementation Rules for Different Civil and Military Scenarios.

AIR DISASTERS: CRISIS PLANNING AND BUSINESS CONTINUITY MANAGEMENT

19 – 23 November 2018

This course provides you with the fundamental tools on crisis planning and response after an air disaster and is led by a team of professionals with practical knowledge and experience in crisis planning.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Identify the key response strategies managing air disaster crisis
 - Learn the different perspectives of a public and private sector
 - Understand and apply the key thrusts of an integrated approach in crisis planning and coordination involving the key stakeholders
 - Set up a business continuity plan
 - Apply recovery strategies for business continuity
- Airport crisis management & emergency operations centre (EOC) operations
 - Crisis management planning
 - Business Continuity Management (BCM)
 - Standards and guidelines
 - Understanding the aviation business
 - Business continuity and recovery strategies
 - Business continuity plan development
 - Systematic implementation
 - Crisis communication within BCM
 - Perspectives on BCM from operators
 - Exercise planning, conducting, controlling & after action review

WHAT IS COVERED

- Crisis Planning in Civil Aviation
 - Fundamentals of crisis preparedness and management
 - Aircraft search & rescue (SAR) and rescue coordination centre (RCC) operations
 - Overview of next-of-kin management
 - Overview of crisis communications
 - Overview of aircraft accident investigation
 - Airport crash site management

LEARNING ACTIVITIES

- Case Studies
- Table-top Exercises
- Learning Journey to Crisis Management Centres and Related Facilities

WHO SHOULD ATTEND

This course is beneficial to management, senior executives and operational personnel from civil aviation administrations, airport authorities, airlines, aircraft manufacturers and personnel with responsibilities in crisis management and business continuity planning.

AIRPORT EMERGENCY SERVICE COMMAND LEADERSHIP WORKSHOP

3 – 7 December 2018

This course provides you with the knowledge and understanding of the roles and responsibilities of an Executive Fire Officer.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the roles and responsibilities of an Executive Fire Officer

- Airport Emergency Planning – Mass Casualties Preparation
- Development of Emergency Planning Exercises

WHAT IS COVERED

- Executive Leadership – Managing Multiple Roles
- Building Your Business Case
- Public Safety Administration – Planning for Growth
- Assessing Community Risk and Capabilities
- Understanding Airport Emergency Management

LEARNING ACTIVITIES

- Practical Exercises
- Case Studies

ASSESSMENT AND CERTIFICATION

A certificate of attendance will be issued to participants who achieve at least 80% attendance.

PREREQUISITES

- Have completed airport fire officer training or equivalent
- Be in a supervisory position as Duty Officer/Officer In-charge for at least two years

WHO SHOULD ATTEND

This course is beneficial to senior aircraft rescue and fire-fighting personnel from civil aviation administrations, military airports and airport authorities.

This course is Module 4 of the Senior Airport Fire Officers Course.

SAFETY OVERSIGHT INSPECTORS (FLIGHT OPERATIONS)

18 February – 1 March 2019

This course provides you with an understanding of the fundamental principles underlying the safety oversight measures relating to flight operations required of a State's aviation regulatory body and their importance.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the role and responsibilities of a flight operations inspector
 - Understand the ICAO Standards and Recommended Practices (SARPs) and other national civil aviation regulations on safety oversight relating to flight operations
 - Review and update your Organization's safety oversight mechanisms relating to flight operations
- Certification procedures: Documentation evaluation, demonstration, inspection and certification phase
 - Ground and flight operations inspection
- Document Evaluation
 - Flight documents and manuals
 - Aircraft flight manuals
 - Operations manual
 - Security programme manual
 - Maintenance control manual
 - Minimum equipment list, configuration deviation list and dispatch authorisation

WHAT IS COVERED

- Introduction to Flight Operations
 - Flight operations safety oversight functions and activities
 - ICAO Doc 7300 (Convention on International Civil Aviation)
 - ICAO SARPs and guidance materials
- Role and Responsibilities of a Flight Operations Inspector
 - Code of conduct and statutory powers
 - Qualification and training
 - Compliance and enforcement
 - Flight operation of an aircraft: Monitoring
 - Flight operations occurrence reports: Investigation
 - Flight crew licences: Assessment
- Air Operator Certificate
 - Application: Initial enquiry and pre-assessment by regulatory body
- Special Operations
 - All-weather operations
 - Extended range twin operations
 - Minimum navigation performance specification
 - Reduced vertical separation minima
 - Required navigation performance
 - Ultra-long range
 - Polar route
- State Responsibilities Regarding Commercial Air Transport Operations by Foreign Operators
 - The right of States to inspect aircraft from other States
 - State approval for a foreign operator to operate within its territory
 - Operator audits by established commercial audit Organizations
 - Approval process and continued surveillance

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for the safety oversight of aircraft operations such as flight operations inspectors, safety managers and auditors from civil aviation administrations and airlines.

SAFETY AUDITS OF AIR TRAFFIC SERVICES

25 February – 1 March 2019

This course provides you with an understanding of international requirements, as well as the principles and skills necessary for the effective planning and conduct of safety audits of air traffic services (ATS).

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Define the role and responsibilities of safety auditors
- Plan and develop safety audit procedures
- Identify deficiencies in the ATS system and implement corrective action plans

WHAT IS COVERED

- Safety Audit Concept
 - Safety management systems in ATS
 - Overview of ICAO
 - Universal Safety Oversight Audit Programme (USOAP)
 - Continuous Monitoring Approach (CMA)
- Safety Audit Planning and Processes
 - Role and responsibilities of safety auditors
 - Procedures for safety audits
 - Planning safety audits
 - Analysing the safety audit process
 - Key findings and classifications of safety audits
 - Safety recommendations and observations
 - Safety audit reports and follow up audits
- Principles for Safety Audits
 - Safety concept models
 - Audit objectives to ascertain compliance with relevant documents
 - Processes and situations which could lead to non-compliance or non-adherence to standards and procedures
 - Implementation of corrective action plans to correct identified deficiencies in the ATS system

- Scope of Safety Audits
 - Auditing of ATS operations manuals
 - Provisions for ATS route structure
 - Application of prescribed separation minima
 - Provisions for visual or radar observation of manoeuvring areas
- Procedures for low visibility aerodrome operations
 - Maintaining traffic volumes and controller workload
 - Procedures for failure or degradation of ATS systems, including communication, navigation and surveillance (CNS)
 - Procedures for incidents reporting and other safety-related occurrences
- Operational and Technical Issues
 - Operational working conditions
 - Display of flight plan, control and coordination data
 - Input and output devices for automation systems
 - CNS and other safety significant systems and equipment
- Licensing and Training Requirements
 - Training and licensing of controllers with valid ratings
 - Maintenance of competency
 - Maintenance of efficient teamwork
 - Implementation of new or amended procedures and updated communications, surveillance and other safety significant systems
 - Maintenance of proficiency in the English language
 - Use of standard phraseologies

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for the planning and conduct of safety audits of ATS such as safety managers and system planners from civil aviation administrations and air navigation service providers.

Singapore – ICAO Programme for Young Aviation Professionals 2018/2019

To mark the 60th anniversary of the Singapore Aviation Academy (SAA) and Singapore's 15th year as an International Civil Aviation Organization (ICAO) Council Member in 2018, Singapore and ICAO jointly launched a new Singapore – ICAO Programme for Young Aviation Professionals (PYAP), providing 40 scholarships and 600 fellowships over five years for specialized training programmes conducted by SAA. This programme, sponsored by the Singapore Government and administered by the ICAO Technical Cooperation Bureau (TCB), is targeted at government officials (aged 35 and below) from developing ICAO Member States.

List of Courses offered under Fellowships/Scholarships

Training Programme	Dates	Closing Dates for Application
ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation	7 – 10 May 2018	26 March 2018
Strategic Airport Management Programme	7 – 11 May 2018	26 March 2018
Airport Commercial Development Programme	4 – 8 June 2018	16 April 2018
Introduction to Air Law	2 – 6 July 2018	14 May 2018
Safety Oversight Inspectors (Air Navigation Services)	9 – 13 July 2018	21 May 2018
Crisis Management in Aviation Security Workshop	23 – 27 July 2018	4 June 2018
Safety Management Systems Implementation	1 – 5 October 2018	13 August 2018
ICAO Training Package: Personnel Licensing System	8 – 12 October 2018	20 August 2018
State Safety Programme Implementation	22 – 26 October 2018	27 August 2018
Civil Aviation Management Programme	22 October – 2 November 2018	27 August 2018
ICAO Training Package: ICAO Government Safety Inspectors Airworthiness – Air Operator and Approved Maintenance Organization Certification	12 – 29 November 2018	24 September 2018
Aircraft Accident Investigation Techniques	11 – 15 February 2019	24 December 2018
Scholarship for Diploma in Civil Aviation Management	Subject to dates of compulsory and elective courses	

Note: Course dates are subject to change. For the latest dates, please visit SAA's website at www.saa.com.sg.

Terms of Fellowships

The Government of Singapore will bear the training fees, daily allowance of Sixty Singapore Dollars (S\$60) and hotel accommodation for participants accepted for the fellowship. Complimentary breakfast will be provided at the hotel and lunch at SAA during training days. Travel arrangements are to be made and costs borne by the nominating Governments.

Hotel accommodation will be provided for the training duration, i.e. one day before course commencement (after 2 pm) and one day after the course (till 12 noon). Daily allowance will be limited to the training duration, i.e. from the start of the course up to the last day of the course. Expenses to be incurred for stay beyond this duration will not be covered. Participants are advised to secure their own overseas travel insurance to cover themselves for the period of the training in Singapore.

Terms of Scholarships

The Government of Singapore will bear the training fees, daily allowance of Sixty Singapore Dollars (S\$60), hotel accommodation and up to three economy return airfares for participants accepted for the scholarship. Complimentary breakfast will be provided at the hotel and lunch at SAA during training days. SAA will purchase the air tickets for the accepted participant. Arrangements will be made for the participant to arrive in Singapore one day before the course commences and depart Singapore one day after the course ends.

Hotel accommodation will be provided for the training duration, i.e. one day before course commencement (after 2 pm) and one day after the course (till 12 noon). Daily allowance will be limited to the training duration, i.e. from the start of the course up to the last day of the course. Expenses to be incurred for stay beyond this duration will not be covered. Participants are advised to secure their own overseas travel insurance to cover themselves for the period of the training in Singapore.

Application Procedures

The fellowships/scholarships are intended for government officials nominated by their respective Governments, aged 35 and below during the year the course is conducted. Nominating Governments should preferably nominate not more than two candidates for each course and advise which candidate should take priority if more than one candidate is nominated.

Applications should be made online at www.saa.com.sg/fellowships. Before proceeding with online application, Nominating Governments should complete and endorse the Nomination Form available online. The PDF copy of the completed Nomination Form needs to be submitted as part of the online application. All applications should be submitted online by the stated closing dates. Scholarship applications should be submitted at least seven weeks before the start of the first course.

For enquiries, please contact:

Course Administration
Singapore Aviation Academy
Tel: (65) 6540 6216 / 6540 0433; Fax: (65) 6542 9890 / 6543 2778; Email: saa@caas.gov.sg

ICAO Fellowship Programme

ICAO firmly believes that the safe and efficient operation of air transport systems is totally dependent on the skills and knowledge of the national personnel who operate and maintain these systems. ICAO, with UNDP support, has assisted over 50 developing States in establishing national civil aviation training centres. Through its Technical Cooperation Programme, ICAO has been active in awarding fellowship training in the various fields of civil aviation. In the past 15 years, around 15,000 fellowships were awarded to almost every developing Member State.

Singapore Aviation Academy (SAA)

SAA is the internationally-recognized training arm of the Civil Aviation Authority of Singapore. Made up of four specialised schools – the School of Aviation Management, the School of Aviation Safety and Security, the School of Air Traffic Services and the School of Airport Emergency Services – SAA has trained over 120,000 participants from 200 countries and territories. SAA was conferred the prestigious 34th Edward Warner Award by the ICAO Council on behalf of its then 185 Member States in 2000 “in recognition of its eminent contribution as a centre of excellence in international civil aviation training”. In 2012, SAA was certified as an ICAO TRAINAIR PLUS Full Member. As a member, SAA aims to contribute towards the common goal of elevating global aviation training standards by developing educational resources and sharing valuable knowledge with the aviation community. SAA is also endorsed as an ICAO Government Safety Inspector Training Centre and ICAO Aviation Security Training Centre. In 2014, SAA was designated an ICAO Regional Training Centre of Excellence and re-designated in 2017 for another three years.

ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation

7 – 10 May 2018

This advanced Safety Management System (SMS) course will provide you with the knowledge and skills to develop and apply hazard identification and safety risk mitigation (HIRM) tools in the context of a SMS and State Safety Programme (SSP). The fundamental HIRM processes in this course is based on guidance materials in ICAO Doc 9859 (Safety Management Manual) with various enhancements as appropriate. This competency-based training has been developed in accordance with ICAO Doc 9941 (TRAINAIR PLUS Methodology).

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Develop proactive, reactive and predictive methodologies for hazard identification
- Establish Hazards and Risk Management database
- Validate hazard information and activate Safety Risk Management (SRM) projects for specific hazards
- Utilise a SRM Tool to perform and document a SRM Task

WHAT IS COVERED

- Operational context of SRM
- Various approaches for hazard identification
 - Voluntary safety reporting forms
 - Occurrence notification reports
 - Operational data monitoring review reports
- Processing of hazard information
 - Hazard and risk management database
 - Validation of hazard information

- Management of SRM process
 - Activate SRM for specific hazard
 - Hazard, unsafe event, consequence threads
- Completing the SRM project report
- SRM tools
 - Consolidated Barrier Strength Value (CBSV) methodology to derive Risk Index value
 - Awareness of Bow Tie XP (BTXP) safety risk mitigation tool

LEARNING ACTIVITIES

- Quizzes
- Group Exercises
- Progress and Mastery Tests

PREREQUISITES

- Attended SMS/SSP or equivalent courses
- Have relevant aviation professional/operational background

WHO SHOULD ATTEND

This course is beneficial to operational personnel and regulatory inspectors involved in the performance or oversight of HIRM processes, personnel from civil aviation administrations, air navigation service providers, airport authorities, airlines and maintenance organizations.

Strategic Airport Management Programme

7 – 11 May 2018

This programme will provide you with the policy formulation competencies so as to effectively position your airport to achieve the desired strategic outcomes required by stakeholders.

WHY YOU SHOULD ATTEND

This programme's differential advantage is that it seeks to impart competencies on how to strategically position an airport and how to lead the various airport functions and operations efficiently and profitably. This programme will also include sharing on best practices on managing Changi Airport and selected airports in Europe.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Formulate long-term strategic objectives to manage airports efficiently and profitably
 - Identify key drivers and considerations of airport management functions
 - Gain insights on creating a positive passenger service experience
 - Forecast airport traffic for capacity planning and driving of future traffic demand
 - Identify and manage the significant factors contributing to airport efficiency
 - Set, align and apply performance indicators for key airport operations
- Operations efficiency and service quality development
 - Examples of airport strategic transformation
 - Success factors for airports
 - Airport benchmarking
- Airport Management
 - Terminal services management
 - Marketing to stakeholders
 - Safety and security management
 - Emergency services management
 - Air cargo management
 - Air navigation services
 - Airport business continuity management

WHAT IS COVERED

- Strategic Airport Development
 - Airport positioning and strategy development
 - Commercial and retail strategy development
 - Airport network, capacity and traffic development

LEARNING ACTIVITIES

- Case Studies
- Interactive Workshops
- Learning Journeys to Changi Airport

WHO SHOULD ATTEND

This programme is beneficial to Directors and above from civil aviation administrations and airport authorities.

Airport Commercial Development Programme

4 – 8 June 2018

This programme will provide you with an understanding of airport business and practical applications of commercial management and planning. The success factors in growing non-aeronautical revenue will also be addressed.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Apply various tools for airport commercial planning
- Identify different aspects of non-aeronautical revenue and key revenue drivers in growing them
- Learn best practices for rental structure and commercial shop designs
- Understand and identify new trends in airport advertising
- Manage Airport Service Quality (ASQ) benchmarks for concessionaries

WHAT IS COVERED

- Airport Commercial Development Concepts
 - Overview of non-aeronautical revenue
 - Types of commercial business models and managing of tenders/ Request for Proposals
 - New trends in airport commercial
 - Airport retail and food and beverage outlet design

WHO SHOULD ATTEND

This programme is beneficial to personnel involved in airport commercial development from civil aviation administrations, airport authorities and relevant airport business agencies.

- Airport Commercial Development Examples
 - Overview of airport commercial development Transforming Changi Airport, Sochi and Rio de Janeiro International Airport
- Airport Marketing
 - Trends in airport advertising
 - Airport marketing and promotion tools to increase sales
- Tools and Benchmarking
 - Useful tools for commercial planning
 - ASQ game changers

LEARNING ACTIVITIES

- Case Studies
- Workshops
- Learning Journeys to Changi Airport and Downtown Shopping Malls

Introduction to Air Law

2 – 6 July 2018

This course equips and updates you with the fundamental concepts of air law. It also explains how air law developments impact airport and airline businesses with an emphasis on the regulation of air carriers, airports, aerospace organizations and aircraft operations.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the regulatory framework governing civil aviation
- Determine the roles of international organizations and aviation stakeholders
- Examine the liability issues for stakeholders
- Appreciate recent developments in air law and their impact on the aviation industry
- Role of the ICAO, Governments, Regulators, International Airlines and other Industry Organizations
- Liability Issues
- Recent International and Regional Legal and Regulatory Developments
 - Airline ownership and control
 - Open skies
 - Low-cost carriers
 - Mergers and competition law
 - Safety and security audits
 - Enhanced security measures
 - Passenger rights
 - Privacy and data protection
 - Airbus A380
 - Minimum insurance
 - Risk management

WHAT IS COVERED

- International Framework of Civil Aviation Law
- Basis for Ratification of International Treaties and Agreements
- International Air Traffic Treaties and Agreements: Bilateral and Open Skies
- Legal Aspects of Air Carriers Operations, Air Traffic Control, Aviation Security, Airport Operations and Accident Investigations
- Model Laws and Regulations
- Practices and Processes for Transportation of International Requirements in National Legislation

WHO SHOULD ATTEND

This course is beneficial to legal and non-legal professionals from civil aviation administrations, airport authorities, air navigation service providers, airlines, aerospace industry, aircraft manufacturers, insurance companies and other aviation related organizations.

Safety Oversight Inspectors (Air Navigation Services)

9 – 13 July 2018

This course provides you with an understanding of the fundamental principles underlying the safety oversight measures relating to air navigation services (ANS) required of a State's aviation regulatory body and their importance.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand the role and responsibilities of an ANS safety oversight inspector
- Understand the ICAO Standards and Recommended Practices (SARPs) and other national civil aviation regulations relating to ANS
- Update your organisation's safety oversight mechanisms relating to ANS

WHAT IS COVERED

- Overview of the Global Air Traffic Management (ATM) Operational Concept
- Overview of the State's Safety Oversight Obligations
- ICAO Annex 11 (Air Traffic Services)
- ICAO Doc 4444 (ATM)
- ICAO Doc 7030 (Regional Supplementary Procedures)
- The ANS Safety Oversight Inspector
- The Service Provider
- Human Factors in ANS
- ICAO Universal Safety Oversight Audit Programme Beyond 2010

WHO SHOULD ATTEND

This course is beneficial to personnel responsible for ANS oversight management and inspection such as inspectors, safety managers and auditors from civil aviation administrations and air navigation service providers.

Crisis Management in Aviation Security Workshop

23 – 27 July 2018

This workshop provides you with an overview of international aviation security (AVSEC) conventions, regulations and principles.

WHAT YOU WILL LEARN

Upon completion of this workshop, you will be able to:

- Understand the requirements of the ICAO Annex 17 (Security) and ICAO Document 8973 (Security Manual)
- Perform effective crisis management roles in line with international best practices
- Apply human factors principles
- Plan for contingency and how to minimise threats

WHAT IS COVERED

- ICAO Annex 17 and Doc 8973
 - ICAO Standards and Recommended Practices
- National Policy Planning for Security Crisis Management
 - Objectives of national policy
 - National security planning
 - Best practices in implementation plan
- Threats and Risks Facing the Aviation Industry
 - Past, current and emerging threats
- Passenger Security
 - Screening of passengers and staff
 - Protection of sterile areas
 - Mixing of screened and unscreened passengers
 - Control of hold baggage
- Human Factors in Security
 - Human information processing
 - Focus detection

- Physiology and circadian
- Vigilance: Signal detection
- Stress and vigilance
- Crisis Management
 - Definition and stages of a crisis
 - Roles of appropriate authorities and airlines
 - Crisis management procedures
- Crisis Communication
 - Handling of families and next-of-kin
 - Communication with media
- Technology and Equipment Security
 - Role of technology in security
 - Interface between technology and human factors
 - Development of security technology
- Staffing for AVSEC Operations
 - Staff set-up for AVSEC operations
- Training for AVSEC Personnel
 - Human resource development process in security training
- Aviation Issues, Challenges and Trends
 - Types of threats
 - Measures to minimise threats
- Contingency Planning
 - Identification of threats
 - Risks management
 - Best practices

LEARNING ACTIVITIES

- Case Studies
- Contingency Planning Exercises

WHO SHOULD ATTEND

This workshop is beneficial to managers involved in the handling of crisis management or AVSEC from civil aviation administrations, airport authorities, ground handlers, airlines and AVSEC related agencies.

Safety Management Systems Implementation

1 – 5 October 2018

This course will provide you with the knowledge and skills to facilitate the design, implementation and maintenance of an operationally effective Safety Management System (SMS) to meet the standards prescribed in ICAO Annex 19 Safety Management, ICAO Doc 9859 Safety Management Manual and other related guidance materials.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Have an appreciation of fundamental safety management principles and concepts
- Understand and apply Annex 19 SARPs relating to SMS implementation
- Be competent with SMS implementation and its pertinent processes
- Be conversant with ICAO Doc 9859 guidance materials relating to SMS

WHAT IS COVERED

- Safety Management Fundamentals
 - Definition and evolution of safety
 - Accident causation
 - Safety culture and organisation risk profile
 - Protection and production
 - Change management
 - Safety management systems-quality management systems (SMS-QMS) integration
 - Safety reporting and investigation
 - Safety data collection and analysis
 - Hazard identification and risk mitigation
- ICAO Annex 19 SARPs
 - State safety management responsibilities
 - SSP Implementation
- State safety oversight critical elements
- SMS framework and acceptance
- Safety data collection, analysis, protection, sharing and exchange
- Global aviation safety plan objectives
- Safety Management System processes
 - SMS organisation and accountabilities
 - SMS gap analysis and implementation plan
 - SMS integration
 - SMS manual and records
 - SMS committee and administration
 - Safety policy and objectives
 - Emergency response plan
 - Hazard Identification and Risk Management
 - Management of change
 - Occurrence reporting and investigation
 - Safety data processing and analysis
 - Safety Performance Indicators and ALoSP
 - Disciplinary policy and procedures
 - Safety training and communication
 - SMS audit (including PSOE concept)
- Supplementary Tools and Guidance Material
 - Safety Performance Indicators
 - Acceptable Level of Safety Performance
 - Safety Risk Management

WHO SHOULD ATTEND

This course is beneficial to personnel involved in safety management and SMS oversight from civil aviation administrations, airport authorities, airlines, maintenance organizations, air navigation service providers and design and manufacturing organizations.

ICAO Training Package: Personnel Licensing System

8 – 12 October 2018

This course provides you with an understanding of the fundamental concepts and principles to set up an effective personnel licensing (PEL) system in a PEL office. Additionally, it equips you with the essential know-how and attitudes to manage the PEL system. This should facilitate the answering of the ICAO's Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach PEL Protocol Questions (PQs). Using a blended learning approach, this course comprises both e-learning and classroom delivery.

PART ONE (E-LEARNING)

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Identify the essential components and processes of a PEL system
- Describe the regulatory system governing PEL and the requirements of a PEL office
- Describe the processing of licences, language proficiency requirements, and the examining principles of PEL

WHAT IS COVERED

- The Action of PEL
- The Licensing Authority
- Principles Governing the Establishment and Implementation of a PEL office
- Regulatory System Governing PEL
- Establishment of a PEL Office
- Record Keeping
- Technical Guidance for Licensing Procedures
- Processing of Personnel Licences and Ratings
- Language Proficiency Requirements
- Delegation and Transfer of Functions and Responsibilities
- Written and Oral Examinations
- Flight Test and Practical Examinations

LEARNING ACTIVITIES

- Quizzes

PART TWO (CLASSROOM)

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

WHO SHOULD ATTEND

This course is beneficial to operations inspectors, airworthiness inspectors, ANS inspectors, flight crew licensing inspectors and maintenance licensing inspectors involved in developing or upgrading its own State licensing or PEL system from civil aviation administrations.

- Apply procedures for the issuance of flight crew and non-flight crew licences
- Apply procedures for the validation and conversion of flight crew licences
- Determine criteria for designation of medical examiners and the process of medical assessment
- Determine key elements and processes addressing approval of training organization
- Describe enforcement actions for non-compliance of regulations

WHAT IS COVERED

- Licensing of Flight Crew
- Licensing of Non-Flight Crew
- Conversion and Validation of Foreign Licences
- Medical Assessment
- Approval and Surveillance of Training Organizations
- Enforcement Policy and Procedures

LEARNING ACTIVITIES

- Recap of Contents Covered in Part One
- Case Studies

ASSESSMENT AND CERTIFICATION

You will be required to pass a mastery test at the end of each module. A certificate of successful completion will be awarded if you pass all the mastery tests with a minimum score of 80%.

PREREQUISITE

To qualify for Part Two, you must successfully complete Part One within 60 days before the commencement of Part Two.

State Safety Programme Implementation

22 – 26 October 2018

This course will provide you with the knowledge and competency on ICAO Annex 19 (Safety Management) SARPs and ICAO Doc 9859 (Safety Management Manual) guidance material pertaining to State Safety Programme (SSP) implementation and administration.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Have an appreciation of fundamental safety management principles and concepts
- Understand and apply Annex 19 SARPs relating to SSP implementation
- Be competent with SSP implementation and its pertinent processes
- Be conversant with ICAO Doc 9859 guidance materials relating to SSP

WHAT IS COVERED

- Safety Management Fundamentals
 - Definition and evolution of safety
 - Accident causation
 - Safety culture and organization risk profile
 - Protection and production
 - Change management
 - Safety Management Systems (SMS) – Quality Management Systems (QMS) integration
 - Safety reporting and investigation
 - Safety data collection and analysis
 - Hazard identification and risk mitigation
- ICAO Annex 19 SARPs
 - State safety management responsibilities
 - SSP implementation
 - State safety oversight critical elements
 - SMS framework and acceptance
 - Safety data collection, analysis and exchange

- Guidance for safety information protection
- Global Aviation Safety Plan (GASP) objectives
- State Safety Programme Processes
 - SSP organization and accountable executive
 - Gap analysis and implementation plan
 - SSP manual, administration and records
 - SSP coordination platform
 - State safety policy and objectives
 - SMS regulation, acceptance and audit
 - Agreement on service providers' safety performance
 - Safety data collection, analysis, protection and sharing
 - Safety performance indicators, alerts and targets
 - Risk-based surveillance mechanism
 - Enforcement policy and procedures
 - Hazard identification methodologies and database
 - Safety Risk Mitigation methodology and tooling
 - Management of change
 - Safety culture and organization risk profiling
- Supplementary Tools and Guidance Material
 - Safety Performance Indicators
 - Acceptable Level of Safety Performance
 - Safety Risk Management

WHO SHOULD ATTEND

The course is beneficial to personnel responsible for SSP implementation and administration; state safety oversight; acceptance and surveillance of service providers' SMS; and aviation accident investigation from civil aviation administrations.

Civil Aviation Management Programme

22 October – 2 November 2018

This programme will provide you with a broad overview and perspective of the civil aviation sector, its major elements and their interfaces in an integral eco-system. It will also provide you with a focused examination of each element, their key requisites and the regulatory and operational best practices to meet these requirements and address prevailing and future challenges.

WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Understand the fundamental principles, and main aspects and factors of civil aviation
- Comprehend each of the major civil aviation elements, their inter- and external linkages, and their essentials
- Glean policies, strategies and methods in meeting the key requirements and dealing with issues

WHAT IS COVERED

- Air Transport/Aviation and Economic Development
 - Economic Development and the Aviation Sector
 - Air Transport Development - Singapore's Experience
 - Air Transport Law and Regulations
 - Airline Strategies
 - Aviation and Human Resource Development
 - International Aviation and Climate Change
 - Public Governance and Policies
- Airport Planning and Management
 - Fundamentals of Airport Planning and Design
 - Airport Management
 - Airport-Airlines Collaboration in Hub Airport
 - Airport-Airlines Partnership – CAG's Experience
 - Airport Commercial Management – CAG's Experience
 - Service Quality Management

- Aviation Safety and Security
 - Safety Oversight and State Safety Programme
 - Safety Oversight of Air Operators and Approved Organizations
 - Safety Oversight of Aerodromes and Air Navigation Services
 - Safety Management Systems
 - Aviation Security
 - Safety and Security Aspects in Handling Dangerous Goods
 - Human Factors in Aviation
- Air Traffic Management
 - Air Traffic Management
 - Global Air Navigation Plan and Aviation System Block Upgrades
 - ATM Initiatives – CAAS' Experiences
- Crisis Management and Emergency/Business Continuity Planning
 - Crisis Management in Aviation
 - Emergency Response to Aircraft Accidents
 - Aircraft Accident Investigation and Management
 - Public Health Management and Aviation
 - Crisis Communications
 - Business Continuity Planning

LEARNING ACTIVITIES

- Visits to Changi Airport, Singapore Air Traffic Control Centre and MITRE Asia Pacific (Singapore)
- Case Studies
- Group Exercise

WHO SHOULD ATTEND

This course will be beneficial to middle management personnel from civil aviation administrations, airport authorities, air navigation service providers, airlines, and aviation-related government and private organizations.

ICAO Training Package: ICAO GSI Airworthiness – Air Operator and Approved Maintenance Organisation Certification

12 – 29 November 2018

This course provides you with an understanding of the basic concepts and steps involved in certifying maintenance organizations and air operators from airworthiness perspective. You will be taught the five-phase certification process based on ICAO SARPs and Model Civil Aviation Regulations (MCRs).

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Evaluate an operator's pre-assessment statement form and review formal application
- Evaluate an applicant's maintenance procedures manual and identify unacceptable errors
- Evaluate an applicant's training curriculum, results of main base inspection and determine inspector actions
- Complete an approved maintenance organisation's certificate and operations specifications (Ops Specs) and identify items that must be included in the certification report
- Evaluate an air operator's compliance statement, maintenance control manual and proposed minimum equipment list
- Evaluate a conformity inspection report and identify recommendations involving inspector observations/reports of demonstration flights
- Complete an air operator's certificate and Ops Specs and identify items to include in the certification report

WHAT IS COVERED

Part 1: Approved Maintenance Organisation (AMO)

- Pre-application Phase
 - Evaluating an operator's pre-assessment statement form

PREREQUISITES

- Have a minimum of five years' experience in airworthiness
- Possess knowledge in air law and airworthiness requirements, natural science and aircraft general knowledge, aircraft engineering and maintenance as well as human performance, as specified in ICAO Annex 1 (Personnel Licensing), Para 4.2.1.2

WHO SHOULD ATTEND

This course is beneficial to licensed maintenance engineers, technicians or mechanics from aircraft maintenance, repair and overhaul organizations as well as airworthiness inspectors from civil aviation administrations.

- Identifying the pre-application meeting objectives
- Conducting pre-application meeting
- Formal Application Package
 - Reviewing the formal application package
 - Identifying the objectives for the formal application meeting
- Approval Phase
 - Reviewing and evaluating the maintenance procedures manual
 - Identifying unacceptable errors
 - Evaluating quality assurance system
 - Inspecting an AMO's training programme
 - Conducting facilities and equipment inspections
 - Issuing the AMO certificate

Part 2: Air Operator Certification (AOC)

- Conducting the Pre-application Meeting
- Conducting the Formal Application Meeting
- Evaluating a Statement of Compliance
- Evaluating the Maintenance Control Manual
- Evaluating the Minimum Equipment List
- Reviewing a Continuous Maintenance Programme
- Conducting Aircraft and Equipment Conformity Inspections
- Inspecting an Operator's Maintenance Facilities
- Evaluating Demonstration Flights
- Issuing the AOC

Aircraft Accident Investigation Techniques

11 – 15 February 2019

This course provides you with an understanding of aircraft accident investigation techniques and equips you with the knowledge and skills to participate in and support formal investigations.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Understand aircraft accident investigation techniques
- Participate and support in formal investigations

WHAT IS COVERED

- ICAO Annex 13
- Preparation to Conduct an Investigation
- On-site Investigation Tasks
- Use of Critical Data in Investigation
- Technical Investigation
- Operations Investigation
- Understanding Human Factors in Aircraft Accidents
- Aviation Medicine and Pathology

- Organizational Factors in Safety from Airlines' Perspective
- Safety Products: Approach and Landing Accident Reduction Tool Kit
- Sharing of Safety Information
- Writing the Final Report
- Survival Factors
- Human Factors
- Interviewing Techniques
- Accident Site Safety

LEARNING ACTIVITIES

- Accident Site-Mapping Exercises using GPS, Laser and other Measuring Equipment
- Case Studies

WHO SHOULD ATTEND

This course is beneficial to personnel involved in accident investigations from civil aviation administrations, airport authorities, air navigation service providers, airlines, accident investigation agencies and related aviation organizations.

This course is Module 1 of the Aircraft Accident Investigation Techniques and Management Course.

Diploma in Civil Aviation Management

This diploma combines strategic aviation regulatory elements with operational considerations to address common concerns in air transport through the sharing of international best practices and Singapore's experience. It provides you with an in-depth understanding of how the various components of the civil aviation industry function and integrate.

WHAT YOU WILL LEARN:

Upon completion of this programme, you will be able to:

- Understand the economic and non-economic drivers for airport regulators, airports and airlines
- Identify the common concerns and key trends in civil aviation development
- Identify the key considerations in policies making for the various civil aviation components
- Plan and execute the key deliverables to meet your national and organisation's needs
- Design policies to manage the industry's challenges

PROGRAMME STRUCTURE

This programme comprises both compulsory and elective courses. You may select up to 2 compulsory courses and any elective course based on your profession or areas of interest. You have the flexibility to attend each chosen course based on your preferred sequence/schedule.

Compulsory Courses (Choose One or Both)	
Aviation Leaders Programme in Public Policy	2 weeks
Civil Aviation Management Programme	2 weeks
Elective Courses (Choose Any)	
Aviation Management	
Air Transport Economics and Financial Management	3 days
Air Transport Strategies for Success	3 days
The Airline Business	3 days
The Airport Business	3 days
Air Disasters: Crisis Planning and Business Continuity Management	5 days
Airport Commercial Development	5 days

Programme	
Airport Ramp Management	5 days
Emergency Management Workshop	5 days
Introduction to Air Law	5 days
Aviation Safety	
Aircraft Accident Investigation Techniques	5 days
Aircraft Accident Investigation Management	5 days
Incident Investigation: Effective Safety Risk Management	5 days
Safety Management Systems Implementation	5 days
State Safety Programme Implementation	5 days
Integrated Safety Management Systems	2 weeks
Safety Oversight Managers	2 weeks 4 days
Aviation Security	
Aviation Security Management Programme	4 days
Airport Security Operations Managers	5 days
Aviation Security Auditing Techniques and Developing Security Manuals	5 days
Air Traffic Services	
Air Traffic Management Safety Investigation and Analysis	5 days
Methodology and Best Practices for Aviation System Block Upgrades (ASBU) Implementation	5 days
Total Duration of Compulsory and Elective Courses must add up to a minimum of 6 weeks .	

DURATION

6 – 8 weeks

CERTIFICATION

A Professional Diploma in Civil Aviation Management will be awarded to those who have successfully completed the compulsory course and chosen electives, as well as passed all examinations for the elective courses within the candidature period. Diploma holders may append the abbreviated form of the qualification “Dip. Civil Aviation Mgt.” after their name.

WHO SHOULD ATTEND

Senior executives, managers and operational personnel from civil aviation administrations, airport authorities, air navigation service providers, airlines and related industries as well as those who want to understand the challenges facing the industry and have a good grounding in aviation management.

CANDIDATURE PERIOD

The programme is to be completed within 3 years of admission.

PREREQUISITES

- Have appropriate training or some knowledge of the aviation industry
- Be proficient in the English language

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