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## ***Courses eligible for funding under the Enhanced Training Support Package for Air Transport***

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### **Course Title**

- 1 [NUS-SAA Professional Certificate in Data Proficiency for Aviation Professionals](#)
- 2 [Air Transport Community Enrichment \(ACE\) Programme](#)
- 3 [ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation](#)
- 4 [Redefining Aviation of Tomorrow: Data Analytics and Artificial Intelligence](#)
- 5 [Redefining Aviation of Tomorrow: Disruptions, Innovations and Opportunities](#)
- 6 [Airport Best Practices: Airport Ramp Management](#)
- 7 [Airport Best Practices: Airport Ramp Operations \(Fundamental\)](#)
- 8 [Airport Best Practices: Airport Ramp Operations \(Intermediate\)](#)
- 9 [Airport Best Practices: Airport Terminal Operations](#)
- 10 [Airport Best Practices: Airport Terminal Performance Management](#)
- 11 [Airline Business for Aviation Professionals and Regulators](#)
- 12 [The Geopolitics of Aviation](#)
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- 16 [Airport Best Practices: Airport Ramp Safety](#)
- 17 [Safety Management Systems Implementation for Line Station Managers](#)

# NUS-SAA Professional Certificate in Data Proficiency for Aviation Professionals

Data underpins the success of organisations in mining assets to develop strategies, optimise efficiency and profitability. This course provides you with the competencies to participate in a data analytic process to solve business problems applicable to the aviation industry. You will be equipped with the fundamentals of data analytics, data processing and visualisation techniques for big data sense-making, to derive data-driven business decisions. This course will explore the application of data analytics in effective Airport-Collaborative Decision Making (A-CDM), key principles and useful tools. This course combines the expertise from the National University of Singapore's School of Continuing and Lifelong Education (NUS SCALE) in data analytics, and CAAS' knowledge on regulatory and industry best practices. This course is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Recognise the characteristics of advanced analytics that are key to Industry 4.0
- Create visualisations to effectively communicate data insights
- Apply basic data analytics process and concepts and build simple models for classification and prediction
- Understand and apply concepts of Design Thinking to innovation projects
- Gain insights to design and implement effective A-CDM

## WHAT IS COVERED

- Analytics in Industry 4.0
  - Smart factories and transformations brought by the Internet of Thing (IoT) and the Industrial Internet of Things (IIoT)
  - Cloud computing
  - Predictive and prescriptive analytics
  - Human-machine collaborative efforts, augmented intelligence, future of work and skills needed in Industry 4.0 and Smart Economy
- Data analytics begins with me
  - Big data and data analytics
  - The data analytics process
  - Introduction to machine learning
  - A primer on artificial intelligence
  - Introduction to statistical concepts
  - Logistic regression
- Data visualisation begins with me
  - Introduction to data visualisation using Qlik Sense
  - Application of visualisation to data
  - Effective communication of analysis with data visualisation
- Data analytics for managers
  - Stages in analytics projects / building the Data Science Team
  - Open source and innovation
  - Privacy, ethics and biases
  - Sentiment analysis of survey data

## WHAT IS COVERED (CONT'D)

- Design thinking bootcamp
  - Core principles of design thinking and innovation
  - User insight research methods, data collection and analytics
  - Identify latent need and innovation opportunities
  - Develop, test and communicate concept prototyping
- Data-driven customer experience
  - Customer experience and customer journey
  - Customer research methods, survey questionnaire design
  - Online customer experience
  - Customer data analytics methods
  - Factor analysis and predictive modelling (regression analysis)
- A-CDM
  - Key principles of A-CDM
  - Understand A-CDM's best practices
  - Implementation methods of A-CDM
  - Application of data sharing, automation and decision-support tools in A-CDM
  - Benefits and implementation challenges of A-CDM

## WHO SHOULD ATTEND

This course is beneficial for middle and senior management personnel from civil aviation administrations, airport authorities, airport companies and government agencies.

## LEARNING LEVEL

Fundamental 

## LEARNING ACTIVITIES

- Lectures
- Workshop
- Case studies

# NUS-SAA Professional Certificate in Data Proficiency for Aviation Professionals

## DURATION

8 Days  
0830 hrs – 1730hrs\* (SGT/GMT+8)  
\*subject to change

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

Details on how to access the online course will be provided to participants who have been accepted for the course.

## ASSESSMENT AND CERTIFICATION

A Professional Certificate will be awarded to participants who achieve at least 75% attendance and pass the assessment(s) with a minimum score of 50%.

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/nus-fcdp-app1>
- For corporate applications, please request for the Letter of Offer (LOO). A copy of the LOO can be requested via [saa\\_admissions@caas.gov.sg](mailto:saa_admissions@caas.gov.sg)
- Others: <https://go.gov.sg/nus-fcdp>

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

## FEE

S\$7,100

Participants from Singapore are required to add GST to the course fee.

## FUNDING

SkillsFuture Singapore (SSG)'s Enhanced Training Support Package (ETSP) is available for eligible companies in the air transport sector.

Singaporeans/ PR participants will receive 90% funding support, and up to \$10 per hour absentee payroll (absentee payroll claims are only applicable to employers) for training hours completed, if they meet the funding criteria.

For enquiring on funding for this course, please contact **Mr Steven Loo** ([steven.loo@nus.edu.sg](mailto:steven.loo@nus.edu.sg)).

# Air Transport Community Enrichment (ACE) Programme

*A blended learning programme*

This 3-week modular programme provides you with a broad overview of the aviation ecosystem including fundamentals of airport operations, air traffic control, Safety Management Systems (SMS) and Airport Emergency Services (AES). It is designed to impart knowledge on how airport operations is of paramount importance in facilitating the passenger service chain experience. **ACE** is delivered as an online course for Airport Operations (module 1) and Safety Management (module 2), and as a blended learning for Airport Emergency (module 3). Participants are encouraged to attend the full programme to gain an appreciation of the aviation ecosystem and its various components.

## YOU WILL LEARN

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

- Gain an appreciation of the aviation ecosystem
- Understand the fundamentals, key concepts and aspects of airport operations, aerodrome control, SMS and AES
- Comprehend how airport operations facilitate the passenger service chain experience

## WHAT IS COVERED

Module 1: Airport Operations (online)

- Aviation eco-system
- Terminal planning
- Ramp operations
- Ground handling agents
- Quality service management
- Low cost carriers handling
- Crisis management
- Airport-Collaborative Decision Making (A-CDM)
- Air cargo operations
- Appreciation of air traffic control

Module 2: Safety Management (online)

- Cabin safety oversight
- Fundamentals of SMS
- Hazard identification risk management
- Safety performance monitoring
- Air accident investigation
- Unmanned Aircraft Systems

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course*

## WHAT IS COVERED (CONT'D)

Module 3: Airport Emergency (blended)

- Changi Airport emergency plan
- Exercise planning, design and evaluation
- Fire chemistry and basic first aid
- Working in smoke-filled and dark environment
- Human behaviour in emergency situations
- Survival techniques and tactics
- Classification of Dangerous Goods
- Fire-fighting and wet training
- Life as Fire fighter: Fire-fighting equipment and vehicles

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises
- Practical sessions

## WHO SHOULD ATTEND

This programme is beneficial to airline and airport personnel from airlines and airport-related organisations. Participants will attain a certificate upon successful completion of each module.

## DURATION

Full programme: 3 weeks

Module 1 – 3: 5 days per module

*Modules can be taken in any sequence, or as a stand-alone course.*

## FEES

- Module 1 - S\$1,120 per participant
- Module 2 - S\$1,022 per participant
- Module 3 - S\$1,090 per participant

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

# ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation

This advanced Safety Management System (SMS) course provides you with the knowledge and skills to develop and apply hazard identification and risk mitigation (HIRM) tools in the context of a SMS and State Safety Programme (SSP). The fundamental HIRM processes in this course are based on guidance materials in ICAO Safety Management Manual (Doc 9859, 3<sup>rd</sup> Ed) with various enhancements as appropriate. This competency-based training has been developed in accordance with ICAO TRAINAIR PLUS methodology (Doc 9941).

This course is offered as an elective module under the [Diploma in Aviation Safety Management](#).

## 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

## NOTE

This course will provide you with an in-depth knowledge on the SMS-HIRM process which is broadly covered in the SMS/SSP courses.


## 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 authorities, air navigation service providers, airport authorities, airlines and maintenance organisations.

## PREREQUISITES

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

## LEARNING LEVEL

Advanced 

## DURATION/TRAINING DATES

4 days, 2-5 Nov 2020

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$2,000

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg)).

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)



# Redefining Aviation of Tomorrow: Data Analytics and Artificial Intelligence

This course provides you with the competencies to analyse your organisation's data efficiently, harness the power of data sharing, and draw useful insights through data analytics to transform passenger experience and build smart airport capabilities in the aviation industry. Through the course, you will also gain knowledge on data intelligence and analytics, and how they can help to streamline business processes, such as decision-making, cost-cutting, automation, and identification of new business opportunities. This course is one of the few globally available, and is led by a team of experienced professionals from the National University of Singapore (NUS).

## WHAT YOU WILL LEARN

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

- Present data intelligence for reporting
- Make real-time or near real-time decisions to mitigate business risks and ensure business continuity
- Make quick assessment of organisations' maturity/ readiness for data driven decision making
- Manage quality and reliability of analytics projects, and measure the ROI of analytics
- Create practical steps to build smart airport capabilities and how they can be applied across the aviation industry
- Understand what business analytics are and their practical application, e.g. smart airport, automation and seamless passenger experience

## WHAT IS COVERED

- Understanding and interpreting data
- Analytical models
- Generating growth through data and analytics
- Use of data analytics in airport infrastructure planning and transformation of aviation processes
- Regulators', airlines' and airport operators' perspective in building smart airport capabilities, and how they can be achieved effectively.
- Case studies of business analytics being successfully applied in organisations to improve operations, management, increase revenue, business recovery, and transform passenger experience.

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg)).

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).

## LEARNING ACTIVITIES


- Case studies
- Group discussions and exercises

## WHO SHOULD ATTEND

This course is designed for middle management personnel from civil aviation administrations, airports, airlines, and relevant government agencies who are responsible for business initiatives, regulatory oversight, operations and management reporting.

The course is also beneficial to aviation professionals who are keen to understand and learn how data analytics and intelligence can empower business/airport processes and transform passenger experience.

## LEARNING LEVEL

Intermediate 

## DURATION/TRAINING DATES

5 days, To be advised

## MODE OF DELIVERY

Physical classroom

## FEE

S\$3,400

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

# Redefining Aviation of Tomorrow: Disruptions, Innovations and Opportunities

Jointly organised with

This course provides you with a comprehensive understanding of the disruptions to the aviation business and study on how corporate organisations, including the aviation industry, can leverage on growth opportunities to lead and foster innovation to stay ahead of the competition. You will analyse the impact of Industry 4.0\* and acquire knowledge and strategies to change the way you operate to be future-ready. This course is one of the few globally available, and is led by a team of experienced professionals from the National University of Singapore (NUS) and aviation industry practitioners.  
*This course was formerly titled Future Airports: Disruptions, Innovations and Opportunities*

## WHAT YOU WILL LEARN

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

- Understand the history and evolution of \*Industry 4.0
- Analyse disruptive business models and its impact to business operation, including aviation
- Formulate new business models, innovative concepts and apply these principles to business operations and processes
- Gain strategic tools to transform digital disruption to opportunities

*\*Industry 4.0 refers to the adoption of computers and automation, enhanced with smart and autonomous abilities fuelled by data and artificial intelligence. The result is the optimisation of resources and processes within each organisation.*

## WHAT IS COVERED

- Overview of Industry 4.0 and its impact on businesses and aviation
- Case sharing: concepts for new business models, including the aviation industry
- Business solutions: how to formulate a successful innovation strategy for your organisation
- Measures to optimise growth opportunities through digital and non-digital innovations

## WHO SHOULD ATTEND

This course is designed for middle management personnel from civil aviation administrations, airports, airlines and relevant government agencies, who are responsible for harnessing disruptive innovations and technology to counter the potential negative externalities.

It is also beneficial to aviation professionals who are keen to understand the impact of disruptive business models and technology, and new business solutions to enhance airport operations.

## LEARNING LEVEL

Intermediate 

## LEARNING ACTIVITIES

- Case studies
- Discussions and exercises

## DURATION/TRAINING DATES

5 days, To be advised

1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Physical classroom

## FEE

S\$3,400

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).

This course provides you with the competencies to manage airside operations more effectively. Through the course, you will gain knowledge on the intricacies and complexities of the airside environment, and learn to better manage diverse issues faced in an airside environment. This is module III of the [Airport Best Practices: Airport Ramp Operations and Management \(AROM\)](#) programme, and is an elective module of the [Diploma in Civil Aviation Management](#). This course is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Apply best practices to better manage the diverse issues in an airside working environment
- Gain practical knowledge on airside planning principles, considerations and concepts
- Understand collaborative decision making processes involving the various industry players and agencies

## WHAT IS COVERED

- Overview of airside/ramp management
- Airside planning/development
- Airport security
- Working with government agencies and collaborating with airport partners
- Working with airline operators, low cost carriers, ground handling agents, and maintenance/cleaning contractors
- Airside policies and handling agreements
- Aerodrome certification – impact on airside operations
- Air cargo management
- Crisis management and crisis management centre set-up
- Airport emergency plan
- Operations readiness and transfer
- Strategies in managing airside
- Airline operators committee
- Human factors

## WHO SHOULD ATTEND

This course is beneficial to personnel involved in airside operations and management from civil aviation administrations, airport authorities and organisations supporting airport ground operations or airside safety.

## LEARNING LEVEL

Advanced 

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises

## DURATION/TRAINING DATES

4 days, 12-15 Oct 2020

1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$1,900

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSES

- [Airport Best Practices: Airport Ramp Safety](#)
- [Airport-Collaborative Decision Making \(A-CDM\)](#)
- [ICAO Annex 14 Requirements and Application](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).



# Airport Best Practices: Airport Ramp Operations (Fundamental)

A module of Airport Ramp Operations and Management  
Pre-requisite to Airport Ramp Operations (Intermediate)

This course provides you with competencies to carry out airside operations smoothly and safely, by applying appropriate strategies to resolve common operational challenges in an airside environment. This is module I of the [Airport Best Practices: Airport Ramp Operations and Management \(AROM\)](#) programme and a pre-requisite to the [Airport Best Practices: Airport Ramp Operations \(Intermediate\)](#) course. This course is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Develop key performance indicators for a more efficient and safer airside operations environment
- Apply knowledge to mitigate common operational challenges at the airside
- Understand standard ramp operations terminologies

## WHAT IS COVERED

- Overview of airside operations
- Airside infrastructure and systems – Airside operations' requirements
- Airside operations and management – Roles and responsibilities
- Passenger and baggage handling services
- Ramp handling service
- Line maintenance and support
- Estate management (Airside)
- Apron and aircraft stand planning
- Safety clearances and ramp markings
- Aircraft stands and gate assignments
- Pest control and purpose
- Standard operating procedures
- Overview of airside safety
- Foreign Object Damage (FOD) management
- Managing Airside works

## WHO SHOULD ATTEND

This course is beneficial to personnel involved in airside operations and management from civil aviation administrations, airport authorities and organisations supporting airport ground operations or airside safety.

## LEARNING LEVEL

Fundamental 

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises

## DURATION/TRAINING DATES

5 days, To be advised  
0900 hrs – 1700 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$2,000

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSES

- [Airport Best Practices: Airport Ramp Safety](#)
- [ICAO Annex 14 Requirements and Application](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

# Airport Best Practices: Airport Ramp Operations (Intermediate)

A module of Airport Ramp Operations and Management

This course provides you with competencies to carry out airside operations smoothly and safely, by applying appropriate strategies to resolve common operational challenges in an airside environment. This is module II of the [Airport Best Practices: Airport Ramp Operations and Management](#) programme. You are required to complete [Airport Best Practices: Airport Ramp Operations \(Fundamental\)](#) as a pre-requisite. This course is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Develop key performance indicators for a more efficient and safer Airside Operations environment
- Understand standard ramp operations terminologies
- Apply knowledge to mitigate common operational challenges at the airside

## WHAT IS COVERED

- Airfield lighting systems
- Wildlife control
- Pest control and purpose
- Airside rules and regulations
- Airside accident investigation – vehicles/equipment
- Aircraft accident investigation
- Contingency planning/pre-emptive alert culture
- Performance indicators and standards
- Airside fire safety requirements
- Aircraft recovery and equipment
- Oil farm and hydrant systems
- Airside operations/safety committee
- Overview of aerodrome control
- Airport security
- Airport operator organisation and safety management system

## LEARNING LEVEL

Intermediate 

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises

## WHO SHOULD ATTEND

This course is beneficial to personnel involved in airside operations and management from civil aviation administrations, airport authorities and organisations supporting airport ground operations or airside safety.

## DURATION/TRAINING DATES

5 days, 5-9 Oct 2020  
1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$2,000

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSES

- [ICAO Annex 14 Requirements and Application](#)
- [Airport Best Practices: Airport Ramp Safety](#)
- [Integrated Safety Management Systems](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

# Airport Best Practices: Airport Terminal Operations

A module of Airport Terminal Operations and Performance Management

This course provides you with competencies to carry out operations in the airport terminal effectively, by equipping you with a comprehensive understanding on the complexities of running an airport terminal, and learning best practices to address common problems faced by airport stakeholders (airlines, service providers and passengers) in the daily operations. This course is Module I of the [Airport Operations and Performance Management](#) programme and is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Effectively manage airport terminal operations
- Handle various emergencies and better manage passengers in distress
- Recognise the relationship between passengers' experience and airport performance
- Apply the best practices of airport terminal operations


## WHAT IS COVERED

- Overview of terminal operations
- The aviation eco-system and the changing landscape – in Singapore and global perspectives
- Managing airport service providers
- Landside activities
- Overview of airport security
- Standard operating procedures
- The passengers' experience
- Low-cost carriers' operation
- Terminal Facilities Management
- Passenger terminal planning – concepts, areas and functions
- Fire protection for airport buildings
- Flight information management systems/Information technology facilities
- Terminal areas and functions
- Baggage handling systems
- Airport performance and feedback systems
- Dangerous goods operations
- Baggage security and handling

## WHO SHOULD ATTEND

This course is beneficial to terminal duty supervisors or managers, airport personnel involved in airport terminal operations from civil aviation administrations, airport authorities, airlines, airport service providers and organisations.

## LEARNING LEVEL

Fundamental 

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises

## ASSESSMENT AND CERTIFICATION

A Certificate-of-Completion will be awarded by SAA to those who have successfully completed the course and passed the assessment(s).

## DURATION/TRAINING DATES

5 days, To be advised  
0900 hrs – 1700 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

\$\$2,100

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSE(S)

- [Airport-Collaborative Decision Making \(A-CDM\)](#)
- [Redefining Aviation of Tomorrow: Data Analytics and Artificial Intelligence](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

# Airport Best Practices: Airport Terminal Performance Management

A module of Airport Terminal Operations and Performance Management

This course provides you with a deeper understanding and knowledge to manage airport terminal operations and crisis management during abnormal operations. It delves into the various complexities and challenges of running an airport terminal, best practices in airport terminal management, and examine the outlook of airport operations in the post-COVID-19 world. This course is Module II of the [Airport Terminal Operations and Performance Management](#) programme and is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Effectively manage the operations of an airport terminal
- Better understand the roles of key players in the industry and the importance of maintaining a strong collaborative relationship amongst the airport stakeholders
- Best practices: Regional airport and Singapore Changi Airport


## WHAT IS COVERED

- Overview of airport terminal management
- Passenger terminal development
- Terminal management
- Safety management
- Singapore Changi Airport: Quality service management – Building a service culture
- Airport-Collaborative Decision Making (A-CDM)
- Identify key performance indicators (KPIs) and setting standards
- Air cargo management
- Impacts of regulations and infrastructure constraints on airport capacity
- Airline business models and managing airline operators
- Crisis management and communications
- Post COVID-19 – managing new challenges and sharing from an airline's perspectives
- Terminal operations and best practices

## WHO SHOULD ATTEND

This course is beneficial to terminal duty supervisors or managers, airport personnel involved in airport terminal operations from civil aviation administrations, airport authorities, airlines, airport service providers and organisations.

## LEARNING LEVEL

Intermediate 

## LEARNING ACTIVITIES

- Case studies
- Group discussions and exercises

To fully benefit from the course, you are encouraged to take Module I before Module II.

## ASSESSMENT AND CERTIFICATION

A Certificate-of-Completion will be awarded by SAA to those who have successfully completed of the course and passed the assessment(s).

## DURATION/TRAINING DATES

5 days, To be advised  
1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$2,400

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSE(S)

- [Airport Best Practices: Airport Ramp Management](#)
- [Airport-Collaborative Decision Making \(A-CDM\)](#)
- [Strategic Airport Management Programme](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)



# Airline Business for Aviation Professionals and Regulators

Jointly organised with the Centre for Air Transport Management,  
Cranfield University



This course provides you with the knowledge and skills to analyse various airline strategies and business models, as well as identify and assess trends in airline management and economics. The interactive five-day programme is built on Cranfield University's expertise in air transport management, strategy and economics. This is an elective course offered under the Diploma in Civil Aviation Management and is delivered via eLearning.

## WHAT YOU WILL LEARN

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

- Examine the latest developments with regard to airline revenues, costs and profitability and their effect on the air transport industry and regulatory bodies
- Evaluate the impact of digitalisation on airline management
- Recognise the changing nature of airlines business models and strategies and its impact on regulators and the wider aviation industry
- Identify emerging trends in the airline sector

## WHAT IS COVERED

- Global and regional trends in the air transport industry
- Emerging airlines business models
  - Low-cost vs. full-service
  - Hybridisation of business models
  - Long-haul low-cost airlines
  - Prospects of long-haul low-cost airlines
- Airline revenues and costs
  - Trends in airline revenues
  - The role of ancillary revenues
  - Trends in airline cost drivers
  - Management of airline costs
  - Drivers of airline demands
- Airline profitability
  - Introduction to airlines' financial statement
  - Measuring airline profitability and performance
  - Challenges to airline profitability
  - Key performance indicators
- Digital airline management
  - Trends in airline digitalisation
  - Competition in the digital age
  - Digital applications in air cargo management

## WHO SHOULD ATTEND

This course is beneficial to middle management involved in airline and air transport development from civil aviation administrations, airport operators, airlines, aircraft lessors, air transport consultancies and aerospace companies.

## LEARNING LEVEL

Fundamental

## LEARNING ACTIVITIES

- Lectures
- Discussions
- Group workshop
- Case studies

## DURATION/TRAINING DATES

5 days, To be advised  
1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

\$3,600

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).

## ABOUT THE CENTRE FOR AIR TRANSPORT MANAGEMENT, CRANFIELD UNIVERSITY

Globally recognised as a leading research and teaching centre, the Centre for Air Transport Management at Cranfield University focuses on the commercial aspects of managing airlines and airports through integrating management with economics, finance, strategy, planning, design, operations, marketing, business development and technology.

## RELATED PROGRAMMES

- [Airport Economics and Business Management](#)
- [Master of Business Administration in Aviation](#)
- [Master of Aviation by Distance Learning](#)





Aviation as a sector is inherently exposed to geopolitical risk. This interactive five-day course provides you with an understanding of the varied geographical and political landscape of the global aviation industry, as well as factors and forces which underpin global aviation today and in the future. This course is built on Cranfield University's expertise in air transport management, strategy and international aviation law. This is an elective course offered under the [Diploma in Civil Aviation Management](#) and is delivered via eLearning.

## WHAT YOU WILL LEARN


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

- Conduct a strategic industry level analysis of the global airline industry using key economic, geographical and political factors
- Examine the latest trends and developments driving the growth of emerging air markets around the world today
- Identify the key geopolitical forces impacting and shaping the global airline industry

## WHAT IS COVERED

- Global aviation landscape
  - Defining geopolitics
  - National (domestic) and international air markets
  - Air space sovereignty
  - The 1944 Chicago Convention
  - Freedoms of the Air
- The bilateral system
  - National interest
  - Air Service Agreements (ASAs)
  - Balance of power/industry power distribution
  - Defenders and challengers
- International relations and aviation
  - The future for multilateralism
  - The European Common Aviation Area (ECAA)
  - Regional air markets
  - Single air market aspirations: ASEAN and Africa
  - Centre of the World: The Arabian Gulf
- Geography and aviation
  - Geographical location and aviation
  - Northern and Southern Hemispheres
  - Centre of the world: The Arabian Gulf
  - End-of-line carriers: Qantas & South African
  - The big three: Europe, USA and China
  - The Asian century
- Geopolitics and the industry
  - Extraterritoriality and aviation
  - The globalisation paradox
  - Emerging air markets
  - The future of aviation and growth possibilities

## LEARNING LEVEL

Fundamental 

## RELATED COURSES

- [Redefining Aviation of Tomorrow: Disruptions, Innovations and Opportunities](#)
- [International Air Law: Application and Practice](#)

## LEARNING ACTIVITIES

- Lectures
- Discussions
- Group workshop
- Case studies

## WHO SHOULD ATTEND

This course is beneficial to personnel and middle management involved in air transport development from civil aviation administrations, air navigation service providers, airport operators, airlines, air transport consultancies and aerospace companies.

## DURATION/TRAINING DATES

5 day, To be advised  
1500 hrs – 1900 hrs (SGT/GMT+8)

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

\$3,600

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).

## ABOUT THE CENTRE FOR AIR TRANSPORT MANAGEMENT, CRANFIELD UNIVERSITY

Globally recognised as a leading research and teaching centre, the Centre for Air Transport Management at Cranfield University focuses on the commercial aspects of managing airlines and airports through integrating management with economics, finance, strategy, planning, design, operations, marketing, business development and technology.

# ICAO Annex 14 Requirements and Application

This course provides you with an understanding of ICAO Annex 14 (Aerodromes and Heliports), Circular 305 on Operations of New Larger Aeroplanes on Existing Aerodromes and ICAO PANS-Aerodromes (ICAO Doc 9981), as well as international specifications on the planning and design of aerodromes and their operations. You will develop competencies to plan and design aerodromes in accordance with ICAO Standards and Recommended Practices (SARPs), as well as learn procedures and best practices relating to aerodrome certification, development, operations and regulatory compliance. This course is an elective module under the [Diploma in Aviation Safety Management](#).

## WHAT YOU WILL LEARN

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

- Gain knowledge and skills on the planning and design of aerodromes and their operations
- Understand ICAO Annex 14 (Aerodromes) and be able to implement related SARPs.

## WHAT IS COVERED

- Safety assurance, responsibilities and obligations
- ICAO Annex 14, Volume I (Aerodrome Design and Operations) – Latest version
  - Aerodrome design criteria and certification requirements
  - Aeronautical data for promulgation in the Aeronautical Information Publication
  - Aerodrome physical characteristics
  - Obstacle restriction and removal
  - Visual aids for navigation and for denoting obstacles and restricted use areas
  - Electrical systems
  - Aerodrome operational safety and emergency services
  - Aerodrome maintenance
- ICAO Circular 305 (Operations of New Larger Aeroplanes on Existing Aerodromes)
- ICAO PANS-Aerodromes (ICAO Doc 9981)
- ICAO Annex 14, Volume II (Heliports)
  - Heliport data
  - Physical characteristics of heliports
  - Obstacle restriction and removal
  - Visual aids
  - Heliport services

## LEARNING ACTIVITIES

- Case studies
- Group exercises

## DURATION/TRAINING DATES

4 days, To be advised

## MODE OF DELIVERY


Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## WHO SHOULD ATTEND

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

## LEARNING LEVEL

Fundamental 

## KEY INSTRUCTOR

Mr Arun Rao has over 40 years of experience in planning, design and construction of airports in India, Mauritius, Maldives, Guayana and Montreal. He is the former Chief of Aerodromes, Air Routes and Ground Aids section under Air Navigation Bureau of ICAO. He is a certified safety oversight auditor of ICAO and an ICAO-nominated instructor for ACI-ICAO training courses on aerodrome certification. Mr Arun Rao was also a member of Civil Safety Advisory Council of the Ministry of Civil Aviation, Government of India. He has been an Airport Engineering, Safety and Certification consultant since 2007.

## FEE

S\$1,900

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSES

- [Safety Oversight Inspectors \(Aerodrome\)](#)
- [Airport Best Practices: Airport Ramp Operations and Management](#)
- [Airport Best Practices: Airport Ramp Safety](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

# Safety Management Systems Implementation

This course provides 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 and other related guidance materials. This course is offered as an elective module under the [Diploma in Civil Aviation Management](#) and a core module under the [Diploma in Aviation Safety Management](#).

## WHAT YOU WILL LEARN

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

- Gain an appreciation of fundamental safety management principles and concepts
- Understand and apply Annex 19 Standards and Recommended Practices (SARPs) relating to SMS implementation
- Be competent with SMS implementation and its pertinent processes
- Be conversant with SMS 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

## FEE

S\$2,300

Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.

## RELATED COURSES


- [State Safety Implementation Programme](#)
- [Human Factors in Aviation Workshop](#)
- [ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation](#)

- SMS 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 database
  - Management of change
  - Occurrence reporting and investigation
  - Safety data processing and analysis
  - Safety performance indicators and Acceptable Level of Safety Performance (ALoSP)
  - Disciplinary policy and procedures
  - Safety training and communication
  - SMS audit which includes Present, Suitable, Operating, Effective (PSOE) SMS assessment concept
- Supplementary tools and Guidance Material (GM)
  - Safety performance indicators and ALoSP worksheet
  - Bow Tie Safety Risk Management (SRM) tool worksheet

## WHO SHOULD ATTEND

This course is beneficial to personnel and management involved in aviation safety and risk management from civil aviation administrations, airport authorities, airlines, air navigation service providers and other aviation organisations. It may also benefit other industries involved in occupational health, safety and environment.

## LEARNING LEVEL

Intermediate 

## DURATION/TRAINING DATES

5 days, 12-16 Oct 2020

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

# Air Traffic Flow Management and Collaborative Decision Making

This course provides you with the competencies to effectively implement strategies relating to Air Traffic Flow Management (ATFM) and Collaborative Decision Making (CDM). You will be able to apply practical knowledge of ATFM using the latest ATFM simulation technology to enhance ATFM capabilities in your organisation, as well as key stakeholders' management for CDM implementation. This course is developed in accordance with ICAO documents and supported by CANSO.

## WHAT YOU WILL LEARN

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

- Enhance ATFM/CDM capabilities in your organisation
- Apply ATFM principles and strategies in an operational environment
- Apply best practices relating to ATFM implementation

## WHAT IS COVERED

- ATFM overview
  - Definitions
  - ATFM concepts
  - Principles and benefits of ATFM
- ATFM operational implementation
  - Organisational structure of ATFM unit
  - Operations of an ATFM service
- ATFM concept of operations
  - Contents of a ConOps
  - Global ATFM ConOps
  - Multi-Nodal ATFM
  - Future ConOps
- ATFM phases
  - Strategic
  - Pre-Tactical
  - Tactical
  - Post Event Analysis
- Capacity declaration
  - Nominal
  - Dynamic
- Monitoring capacity and demand
  - Importance of accurate demand
  - Interpreting demand and capacity
  - Understanding weather impacts on capacity
- ATFM solutions/measures
  - Description of all ATFM measures
  - Modelling, implementing, amending and cancelling ATFM measures

- Stakeholder roles
  - ATFMU
  - Airspace Users
  - Air Traffic Control (ATC)
  - Airport Authorities
  - Weather Services
- Communication and Collaboration

## LEARNING ACTIVITIES

- Table-top exercises
- Case studies
- Practical ATFM exercises including strategic planning, pre-tactical planning, tactical implementation and Post Event Analysis

## INSTRUCTOR

Mr Stuard Ratcliffe is an experienced operational specialist in ATM, ATFM and CDM with international experience as project lead or subject matter expert in the implementation or assessments of ATFM/CDM in the USA, Africa, Asia Pacific, Australia, Middle East, China, Russia and Latin America. Mr Ratcliffe is the Co-Chair of the CANSO ATFM WG. He served on the ICAO DOC9971 (CDM/ATFM Manual) review panel. Mr Ratcliffe has completed a Senior Management Program at the University of Stellenbosch Graduate School of Business and practiced as an ATC for 25 years.

## HEAR FROM PAST PARTICIPANTS

*"The course gave a good overview of ATFM implementation. I like the culture mix in the class and the way the instructor involved us in peer learning – the diversity of experiences and exchange of information added to the depth in learning."*  
Ahmad Sami Abughallab, Saudi Arabia

*"The instructor is very knowledgeable in the subject matter. Relevant examples and operational scenarios provided enabled us to practise applying the knowledge learned. Great course and instructors!"*  
Valerie Wee, Singapore

*"The course helps in understanding of capacity and demand for the airspace and is essential in improving ATFM systems."*

Dedume Prosper, Ghana



# Air Traffic Flow Management and Collaborative Decision Making

## WHO SHOULD ATTEND

This course is beneficial to operational personnel, managers and management who are involved in ATFM/CDM from civil aviation administrations, air navigation service providers and organisations managing ATFM/CDM.

## LEARNING LEVEL

Fundamental 

## DURATION/TRAINING DATES

5 days, 19-23 Oct 2020

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course*

## FEE

S\$3,000

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## SUPPORTING ORGANISATION

CANSO – the Civil Air Navigation Services Organisation – is the global voice of air traffic management (ATM) worldwide. CANSO Members support almost 90 percent of world air traffic. Members share information and develop new policies, with the ultimate aim of improving air navigation services (ANS) on the ground and in the air. <https://www.canso.org>

## RELATED COURSES

- [Methodology and Best Practices for Aviation System Block Upgrades \(ASBU\) Implementation](#)
- [Airport-Collaborative Decision Making \(A-CDM\)](#)
- [Human Factors in Air Traffic Services Workshop](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)



This course provides you with competencies to improve airside safety, by equipping you with the knowledge on the management of airport ramp safety. It covers both the theoretical and practical aspects of ramp safety, and is facilitated by experienced airport professionals. This course is an elective module of the [Diploma in Aviation Safety Management](#).

## WHAT YOU WILL LEARN

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

- Understand the importance of airside safety and enhance ramp safety management
- Identify potential hazards in airside
- Gain practical knowledge on airside inspections and safety audits
- Understand the roles of the various stakeholders in airside safety
- Apply best practices to improve airside safety

## WHAT IS COVERED

- Overview of safety management system and ramp safety operations
- Airside operations' responsibilities and relationship with safety unit
  - Airside operations' accountability and responsibilities
  - Safety unit's involvement with safety management
- Identifying accident-prone airside activities
  - Aircraft technical handling and support
  - Apron handling/aircraft refuelling
  - Development construction works
- Infrastructure, installations, markings/signs: safety implications
  - Airside marking/signs and roadway system
  - Aircraft guidance docking system
  - Passenger loading bridges
  - Apron lightings
- Foreign object debris and ramp safety
- Safety inspection and checklist
  - Routine and detailed airside inspections
  - Management inspection/audit
  - Thorough inspection using checklist
- Airport ramp safety audit
- Involvement of airlines and ground handling agents in airport ramp safety
- Relationship between airport operators and airlines
  - Achieving consensus in actions for safety
  - Human factors affecting safety
  - Airside activities – impact on safety
  - On-site safety and inspection/audit
  - Airside fire safety requirements
  - Safety oversight of ground service providers
  - Wildlife control

## WHO SHOULD ATTEND

This course is beneficial to personnel from civil aviation authorities, airport authorities/operators and organisations involved in airport ground operations or airside safety preferably with at least one year working experience relating to airside operations.

## LEARNING LEVEL

Fundamental 

## KEY INSTRUCTOR(S)

**Ms Mary Ng** is currently a Senior Consultant (Airside Operations) for Changi Airport Group (CAG). She has a wealth of experience in baggage handling processes and airside safety management, and was the Head of the Airside ORAT Team for the commissioning of airside operations for Changi Airport Terminal 2. She was also the Chief of Apron Control and Management Service at CAG from 2000 till late 2007, before taking on the role of Senior Consultant at Changi Airports International.

## LEARNING ACTIVITIES

- Group discussions
- Case studies

## DURATION/TRAINING DATES

5 days, 26-30 Oct 2020, 7-11 Dec 2020

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$2,500

*Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg).

# Safety Management Systems Implementation for Line Station Managers

This course provides 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 and other related guidance materials.

## WHAT YOU WILL LEARN

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

- Gain an appreciation of fundamental safety management principles and concepts
- Understand and apply Annex 19 Standards and Recommended Practices (SARPs) relating to SMS implementation
- Be competent with SMS implementation and its pertinent processes
- Be conversant with SMS 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
  - SMS framework and acceptance
- SMS 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 database
  - Management of change
  - Occurrence reporting and investigation
  - Safety data processing and analysis
  - Safety performance indicators and Acceptable Level of Safety Performance (ALoSP)
  - Disciplinary policy and procedures
  - Safety training and communication
  - SMS audit which includes Present, Suitable, Operating, Effective (PSOE) SMS assessment concept
- Supplementary tools and Guidance Material (GM)
  - Safety performance indicators and ALoSP worksheet

## WHO SHOULD ATTEND

This course is beneficial to line station managers involved in aviation safety and risk management from airport authorities, airlines, air navigation service providers and other aviation organisations. It may also benefit other industries involved in occupational health, safety and environment.

## LEARNING LEVEL

Intermediate 

## DURATION/TRAINING DATES

4/5 days with 4 different training schedules to cater to various time zones

Dates (2020)	Time (SGT/GMT+8)	Days
19-22 Oct	1300-1800	4
9-12 Nov	1500-2000	4
16-19 Nov	1000-1500	4
23-27 Nov	0800-1200	5
30 Nov- 3 Dec	1500-2000	4

## MODE OF DELIVERY

Live virtual classroom via Zoom 5.0

*Details on how to access the online course and dedicated access link will be provided to participants who have been accepted for the course.*

## FEE

S\$1,600

*Fees may also be paid in USD. Participants from Singapore are required to add GST to the fee. Funding is available for this course. Please refer to the [funding information](#) for details. Alumni discounts do not apply for participants who qualify for SSG enhanced funding.*

## RELATED COURSES

- [State Safety Programme Implementation](#)
- [Human Factors in Aviation Workshop](#)
- [ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation](#)

## APPLICATION

Please apply through the following links:

- Individuals eligible for SSG's ETSP Funding: <https://go.gov.sg/saa-etsp>
- For corporate applications, please contact Sultana Begum ([sultana\\_begum@caas.gov.sg](mailto:sultana_begum@caas.gov.sg))

For course enquiries, please email [saa@caas.gov.sg](mailto:saa@caas.gov.sg)

## FUNDING INFORMATION

These programmes are supported by SkillsFuture Singapore (SSG) and NTUC.

### SSG Enhanced Training Support Package

Singaporeans/ PR participants will receive 90% funding support, and up to \$10 per hour absentee payroll (*absentee payroll claims are only applicable to employers*) for training hours completed, if they meet the funding criteria.

*Funding criteria:*

Participant:

- Must be from companies in the air transport sector/white-listed companies
- Achieves at least 75% attendance for each course
- Passes the assessment with a minimum score of 50% for each course (where applicable, depending on the competency requirement for each course).

### NTUC

Unionised companies in the air transport sector will receive an additional NETF Collaborative Fund (NCF) funding support which funds 50% of the unfunded course fees up to \$250 per member. This can be used together with the SSG course fee funding. The application and submission of the NCF claims should be done by the respective unionised company.

- 1) Unionised company apply for courses that are supported by NCF.
- 2) Unionised company obtains their union's endorsement for the NCF application prior to course commencement.
- 3) Upon course completion, the company will generate the list of employees who have attended the training for the union to verify on membership status etc before the NCF claim is routed to NTUC for processing and disbursement.

Please complete the **NCF application form** and return to NTUC for approval. Alternatively, companies may also email Ms Poon (email: [yeeman@e2i.com.sg](mailto:yeeman@e2i.com.sg)) directly on enquiries relating to the application process.

### Application Process

For corporate registration, please contact Ms Sultana Begum (email: [Sultana\\_BEGUM@caas.gov.sg](mailto:Sultana_BEGUM@caas.gov.sg)).

For individual applications, please submit your applications at <https://go.gov.sg/saa-etsp>.

### Enquiries

For enquiries on funding, please contact Ms Andrea Cho (email: [andrea\\_cho@caas.gov.sg](mailto:andrea_cho@caas.gov.sg)) or Ms Sultana Begum (email: [Sultana\\_BEGUM@caas.gov.sg](mailto:Sultana_BEGUM@caas.gov.sg)).