

# Singapore Aviation Safety Seminar 2019 Program

Last updated February 28, 2019

## Tuesday, March 5

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1245 - 1400

Foyer

### Registration and Lunch

1400 – 1420

Sim Kee Boon Auditorium

### Welcome and Opening Remarks

**Speakers:**

Mr. Tay Tiang Guan, Deputy Director-General, Civil Aviation Authority of Singapore (CAAS)  
Dr. Hassan Shahidi, President & CEO, Flight Safety Foundation (FSF)

1420 – 1440

Sim Kee Boon Auditorium

### Keynote Address

**Speaker:**

Mr. Conrad Clifford, Regional Vice President for Asia Pacific, International Air Transport Association (IATA)

1440 – 1515

Foyer

### Photo-Taking and Refreshment

1515 – 1545

Sim Kee Boon Auditorium

### Global Safety Brief

**Speaker:**

Dr. Hassan Shahidi, President & CEO, Flight Safety Foundation

1545 – 1700

Sim Kee Boon Auditorium

### Plenary Session: What's making a difference in safety?

Over the past 10 years, we have heard from many parts of the world about the implementation of Safety Management Systems and risk-based decision making based on real data. We expected to see a big difference as airlines, air navigation service providers, and others learn from their operations on common errors and mistakes. For the last decade, we have witnessed significant progress, but as we have improved the safety performance, we have also raised the bar on expectations. In 2018, we saw some reverse trends in commercial operations. Fatalities are up. Even major accidents are up. Yet some of the same accident categories are still occurring with some of the same contributing factors are showing up in the air accident and incident investigations. This may mean we have to take stock of what is really working and make sure these solutions are getting to the intended stakeholders with the intended effects. What will we need to do to enhance implementation of existing solutions to all of Asia Pacific while we continue to keep a look out for the next aviation safety issues in our future?

**Session Moderator:** Mr. William Voss, Special Independent Adviser

**Panelists:**

Mr. Gerardo Hueto, Assistant Director (Safety and Flight Ops), IATA  
Mr. Martin Eran Tasker, Technical Director, Association of Asia Pacific Airlines (AAPA)  
Ms. Juliana Goh, Assistant Director and Site Leader, MITRE Asia Pacific Singapore  
Mr. Todd Sigler, Director, System Safety & Regulatory Affairs, Boeing Commercial Airplanes

1700 - 1900

Paya Lebar Hall, Poolside

### Cocktail Reception

Hosted by Civil Aviation  
Authority of Singapore

## Wednesday, March 6

0800 – 0900

Foyer

### Morning Coffee with Exhibitors

Join us for coffee and networking before the day begins

0900 – 0920

Sim Kee Boon Auditorium

### APAC Safety Brief

**Speaker:** Mr. Mark Millam, Vice President Technical, FSF

0920 - 1020

Sim Kee Boon Auditorium

### Session I - Panel Discussion: Safety Performance in APAC

The growing air traffic in the APAC region and the increasingly complex operating environment necessitate the involvement of both industry and States in ensuring high levels of safety. In this session, speakers will share the current trends of safety performance in APAC region.

**Session Moderator:** Mr. Blair Cowles, Regional Director, Safety and Flight Operations, IATA

**Panelists:**

Mr. Danny Ho, Executive Vice President, Corporate Safety, Security & Environment Division, EVA AIR

Ms. Victoria Wilk, Director, China Safety & Regulatory Affairs, Boeing

Mr. Alan Foo, Director (Flight Standards), CAAS

1020 – 1050

Foyer

### Morning Break

1050 – 1150

Sim Kee Boon Auditorium

### Session II - Global Flight Tracking Systems

The devastating MH370 air incident accountable for the loss of many lives, has highlighted the limitations in current air navigation systems, and have urged the development of Global Flight Tracking systems. The ICAO Global Aeronautical Distress & Safety System (GADSS) concept of operations has been developed as a plan to prevent future events. In this session, speakers will discuss the development and implementation of latest flight tracking technologies.

1050 – 1110 Aircraft Tracking – SIA's Journey

**Speaker:**

Mr. Subramanian Rajappa, Senior Manager, Singapore Airlines Ltd

1110 – 1130 Airbus implementation of Flight Tracking, Autonomous Distress Tracking and Post Flight Localization & Recovery Components"

**Speaker:**

Mr. Claude Pichavant, Senior Expert (Communication & Surveillance), Airbus

1130 – 1150 Compliance with GADSS through FlightAware

**Speaker:**

Mr. Low Theng Hui, Director, Asia Pacific, FlightAware

1150 – 1240

Sim Kee Boon Auditorium

### Session III - Controlled Flight into Terrain (CFIT)

Controlled Flight into Terrain or CFIT incidents make up a large portion of air incidents leading to fatalities, and is often attributed to a lack of attention from the pilot, or a lack of training given to flight crew. Most large transport aircraft have terrain warning systems and with an appropriate response CFTI accidents can be avoided. In this session, speakers will discuss today's challenges for the remaining causes for CFIT, as well as how this can be improved through quality flight crew training.

1150 – 1210 CFIT Events – How we can reduce the risk

**Speaker:**

Mr. Yasuo Ishihara, Technical Fellow, Honeywell

1210 – 1230 Heads-Up Guidance System

**Speaker:**

Mr. Jamie Ian Gabriel, Director Marketing, Rockwell Collins

1230 – 1250 Pilot's Mental Health - The Need for Better Attention in Aviation Industry

**Speaker:**

Capt. Jeffery Ang, Commercial Airline Pilot, Branch Chairman, Air Line Pilots Association - Singapore (ALPA-S)

1240 – 1400

Paya Lebar Hall

Lunch

1400 - 1500

Sim Kee Boon Auditorium

Session IV - Loss of Control in Flight (LOC-I)

Loss of control in flight or LOC-I is an accident category in which an aircraft leads to unrecoverable state during flight. The unrecoverable conditions of these events contribute to a high percentage of the aircraft accidents becoming fatal. LOC - I often surfaces as a result of catastrophic failure in one or more of the critical systems responsible for flight (eg. engine failure) and/or unwanted conditions exerted onto aircrafts (eg. icing, stalling of the aircraft). In this seminar, speakers will discuss the measures currently in place and ongoing developments in technology to prevent the causes of LOC - I.

1400 – 1415 LOC-I: UPRT Training

**Speaker:**

Capt. Paul Martin, Deputy Chief Pilot – Projects, Scoot

1415 – 1430 Evidence-Based Approach to LOC-I Prevention

**Speaker:**

Capt Sunny Sum, DCP(T) A350, Flight Operations Training & Standards, Singapore Airlines Ltd

1430 – 1445 Management of LOC-I in Airlines

**Speaker:**

Capt. Chen I-Ko, Vice President A340/A330 Check Pilot, Corporate Safety Office, China Airlines

1445 – 1500 LOC-I during Go-Arounds

**Speaker:**

Capt. Ramesh Krishnan - Chief Pilot - Training & Standards, AirAsia India

1500 – 1545

Sim Kee Boon Auditorium

Session V - Cargo Safety

Cargo Safety is essential to flight safety. Items onboard such as portable electronic devices (PEDs) and lithium ion batteries have often been identified as potential safety hazards and can endanger the safety of the flight. In this session, speakers will discuss the threats and risks related to PEDs and lithium-ion batteries concealed in personal items or even not declared during shipments. As we deal with these threats, there are challenges in the implementation of possible crew response measures and making the systems impenetrable for letting these hazards get in the wrong place at the wrong time.

1500 – 1520 Addressing the Risks Posed by PEDs

**Speaker:**

Mr. David Brennan, Assistant Director Cargo Safety & Standards, IATA

1520 – 1540 Addressing the Safety Challenges associated with Cargo – An Airlines Perspective

**Speaker:**

Mr. Alexander Cornelius, Manager Cargo Safety, Security & Compliance, Singapore Airlines Ltd

1545 – 1615

Foyer

Afternoon Break

1615 – 1720

Sim Kee Boon Auditorium

### Session VI - Cabin Safety

Cabin safety contributes to the prevention of accidents and incidents, the protection of the aircraft's occupants, through proactive safety management, including hazard identification and the safety risk management, and increase survivability rates in the event of an emergency situation. In this session, speakers will discuss on the development and implementation of effective cabin crew competency-based training and qualification programs, unruly passengers training by airlines, safety equipment and furnishings onboard aircraft and safety role of cabin crew in the operational environment.

1615 – 1630 Unruly Passengers: Responding to the growing frequency and severity of incidents

**Speaker:**

Mr. Tim Colehan, Assistant Director, External Affairs, IATA

1630 – 1645 Flying Safely is more than taking care of the ill or injured passenger

**Speaker:**

Mr. Richard Gomez, Vice President of Aviation Education Products, MedAire

1645 – 1700 Aviation Safety: Making sure the past has a future

**Speaker:**

Ms. Catherine Chan, Group Safety Manager – Operational Safety (Cabin), Cathay Pacific Airways Ltd

1700 – 1715 Cabin Safety Management

**Speaker:**

Mr. Johnny Chin, Assistant Manager Flight Safety, Singapore Airlines Ltd

1720 – 1730

Sim Kee Boon Auditorium

### Closing Remarks

1730 – 2000

Hosted by Civil Aviation  
Authority Singapore

### Welcome Dinner – Changi Beach Seafood Restaurant

## Thursday, March 7

0800 – 0900

Foyer

### Morning Coffee with Exhibitors

Join us for coffee and networking before the day begins

0900 – 1000

Sim Kee Boon Auditorium

### Session VII - Initiatives to Promote and Support Runway Safety Culture

Runway Safety remains a key priority for all States to ensure safe and orderly growth for aviation. How does States keep pace with the increasing volume of passengers and air traffic while maintaining existing levels of safety? In this session, FAA will present several initiatives that cover various aspect of operations related to runway safety. These initiatives consist of improvement to runway visual aids, training of airside drivers, ATCOs and ATS procedures, and runway status lights. Furthermore, FAA will also share its operational challenges faced by the regulator when developing runway safety initiatives.

**Speaker:**

Mr. Michael Watkins, Senior Asia/Pacific Air Traffic Representative, FAA

Flight Operations Breakout Track

0900 – 1000

Seletar Room 1 & 2

### Session VII - Big Data for Predictive Maintenance

With technological advancements, the drive to improve reliability and performance combined with access to data across more mechanical systems and components, Predictive Analytics Tools are more than feasible than ever before. The improved performance will have positive impacts on safety. In this session, speakers will share the future of predictive maintenance and what maintenance organizations could be doing to take advantage of opportunities available today.

Flight Data for the Enterprise

**Speaker:**

Mr. Joel Klooster, Vice President & General Manager, Asia Pacific, GE Aviation, Digital

Maintenance and Engineering Breakout Track

1000 – 1030

Foyer

### Morning Break

1030 – 1130

Sim Kee Boon Auditorium

### Session VIII – Runway Safety Data Collection and Processing

A mandatory accident and incident report system, together with voluntary reporting system for precursor events, will facilitate the collection of safety deficiencies. In this session, FAA will share the benefits of the safety data collected, what safety information should be collected and how it should be processed, though a program of data analysis to identify potential safety issues and trends, and to determine any preventive actions required.

**Speaker:**

Mr. Michael Watkins, Senior Asia/Pacific Air Traffic Representative, FAA

Flight Operations Breakout Track

1030 – 1130

Seletar Room 1 & 2

### Session VIII - Achieving Safety with Engineering Innovations

With an industry focused on optimizing human resources and minimizing aircraft downtime, engineering innovation can produce great results in maintenance operations. In this session, the speakers will discuss the opportunities that automation, virtual reality (VR)/augmented reality (AR) is providing for training our maintenance crews, how the use of robotics is improving the quality of maintenance performed and how both are bringing new safety and efficiency results.

1030 – 1050 Prototyping a Visual Inspection System for Aircraft

**Speaker:**

Dr. Mark Rice, Scientist, Institute for Infocomm Research, A\*STAR

1050 – 1110 Use of Drones for Aircraft Inspection to Improve Turnaround Time

**Speaker:**

Mr. Teong Soo Soon, Programme Director, UAV Business Unit, ST Engineering Aerospace Ltd

1110 – 1130 Presentation Title TBA

**Speaker:**

Mr. Wilin Ng, Acting Senior Vice President, (Innovation, Technology & Fleet Management), SIA Engineering Company

Maintenance and Engineering Breakout Track

1130 – 1215

Sim Kee Boon Auditorium

Flight Operations Breakout Track

### Session IX - Enabling Technologies and Systems that Address Runway Safety Risk

In this session, speakers will share with participants on innovative and emerging technologies that could bring tangible safety and efficiency benefits to address runway safety risks for safe aerodrome operations.

1130 – 1145 Presentation Title TBA

**Speaker:**

Mr. Andy Chin, Senior Manager, Engineering and Specialised System, Airfield System (Runway 3 Interface), Changi Airport Group

1145 – 1200 Runway and Approach Technology

**Speaker:**

Capt. Bob Aaron, Senior Safety Pilot, Flight Technical and Safety, The Boeing Company

1200 – 1215 Presentation Title TBA

**Speaker:**

Dr. Logan Jones, Runway Safety Specialist, NAVBLUE

1130 – 1215

Seletar Room 1 & 2

Maintenance and Engineering Breakout Track

### Session IX - Advanced Manufacturing Technologies

Now that the manufacturing sector has entered an age of rapid technological growth, the industry's systems and processes continue to transform. The transformation and development of advanced manufacturing technologies are the driving forces on how the parts will look and perform. Recognizing that 3D printing aircraft parts deliver consistently precise results, the airline industry is introducing the technology into aircraft manufacturing processes while addressing airworthiness and improvements to flight safety. In this session, speakers will share on the latest development of various manufacturing technologies and challenges in performing regulatory oversight and certification of the aircraft parts, in the midst of supporting aviation growth.

1130 – 1145 Presentation Title TBA

**Speaker:**

Dr. Ho Chaw Sing, Managing Director, National Additive Manufacturing Innovation Cluster (NAMIC)

1145 – 1200 Additive Manufacturing Application in Aviation – Opportunities and Challenges

**Speaker:**

Dr. Zheng Guo Ying, Deputy Chief Engineer, ST Engineering Aerospace Ltd

1200 – 1215 Advanced Manufacturing Technologies: Regulatory Challenges

**Speaker:**

Mr. Jonathan Tan, Deputy Head Airworthiness Engineering – Standards, CAAS

1215 – 1315

Sim Kee Boon Auditorium

Flight Operations Breakout Track

### Session X - Runway Safety

Round table dialogue on what it takes to enhance runway safety to minimise risks of runway incursions, runway excursions and other runway-related events.

**Session Moderator:** Mr. Victor Tan, Deputy Director (Aerodrome and ANS Regulation) / Head (Air Traffic Services Regulation), CAAS

**Panelists:**

Mr. Michael Watkins, Senior Asia/Pacific Air Traffic Representative, FAA

Mr. Andy Chin, Senior Manager, Engineering and Specialised System, Airfield System (Runway 3 Interface), Changi Airport Group

Capt. Bob Aaron, Senior Safety Pilot, Flight Technical and Safety, The Boeing Company

Dr. Logan Jones, Runway Safety Specialist, NAVBLUE

1215 – 1315

Seletar Room 1 & 2

Maintenance and Engineering Breakout Track

### Session X – Risk Management Modeling and Information Sharing Beyond Maintenance

We are often seeking the systems and platforms that tell us more about how to think about risk and ways it can be modeled and visualized for better planning and decision making. We know that human factors play out different in different situations, different cultural environments and different special circumstances. All this information can be a huge challenge to build and maintain. Where are we breaking this down in ways that become useful to more people in the organization or more organizations within the industry?

1215 – 1230 Presentation Title TBA

**Speaker:**

Ms. Amal Felfel, International Business Development Manager, Safety Line

1230 – 1245 From Reactive to Predictive Aviation Risk Management: Rise of the Big Data Analytics

**Speaker:**

Mr. Fahad Masood, Squadron Leader, MRAs

1245 – 1300 Presentation Title TBA

**Speaker:**

Mr. Marko Krnjic, Product Manager, CGE Risk Management Solutions

1315 – 1415

Paya Lebar Hall

## Lunch

1415 – 1515

Sim Kee Boon Auditorium

## Session XI - Technology in Safety &amp; Training

International standards and regulations for training are largely based on the evidence from accidents involving the early generation jet aircraft. This was perhaps based on the belief that covering the "worst case" events in training will help our front-line employees avoid the same mistakes of the past. Over time, the addition of interesting and novel training events got added to the requirements and now has become a long laundry list of things to get done during training. The fact is our evidence continues to grow and the tools and technology to use for training is ever changing. Why wouldn't we handle upgrading our training to meet current demands with curriculum, hardware and software. This session talks about the latest developments in training.

1415 – 1440 VR in Improving Airside Ops Training for Safety

**Speaker:**

Mr. Khoo Beng Keat, Executive Director, Aviation Virtual Pte Ltd

1440 – 1505 SKYBRARY and Safety Learning

**Speaker:**

Mr. Joe Sultana, Director Network Management, EUROCONTROL

1515 – 1545

Foyer

## Afternoon Break

1545 – 1700

Sim Kee Boon Auditorium

## Session XII - Continuing Investigation Role

During the implementation of risk management, we must remember there are three basic areas of hazards to manage. Reactive, Proactive and Predictive. Many of us get very excited about the proactive and predictive forms of gathering information and analysis as we seek to safety, but tragedy still occurs in the world and sadly, according to IATA in 2017, only about 30% of the world's commercial jet aircraft accidents have a complete investigation publicly available. When it comes to incidents, we can only speculate that it's probably less of a percentage. This session focuses on lessons learned from past events or real operational incidents and describes the contributing factors and how they aligned to create an actual event.

1545 – 1610 Lessons Learned from Recent Incident

**Speaker:**

Mr. Chong Chow Wah, Director, Transport Safety Investigation Bureau of Singapore

1610 – 1635 Role of Accident Investigation and Areas of Special Interest

**Speaker:**

Mr. Caj Frostell, Former Chief Accident Investigation and Prevention Section, ANB, ICAO

1635 – 1700 21st Century Challenges in Accident Investigation and The Way Forward

**Speaker:**

Mr. Bikal Jha, Aviation Faculty, Modern College of Business and Science-Oman

1700 – 1715

Sim Kee Boon Auditorium

## Closing Remarks

## Friday, March 8

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0900 – 1030  
Seletar Room 1 & 2

### Flight Operations Risk Assessment Workshop – Part 1

FORAS is a methodology that serves as a tool for hazard identification and risk management on flight operations in order to achieve a proactive and predictive approach on the implementation of SMS.

FORAS is a system that gathers the weather information, crews' experience, airport equipment, aircraft's equipment, via the system producing the quantization index. The system will generate Departure Risk Value (DRV) and Approach and Landing Risk Value (ALRV) 2.5 hours before the departure of respective flights. Crew members are able to access the FORAS risk value and safety reminders via mobile devices such as iPad on pre-flight preparations for enhancing their risk awareness.

**Workshop Speakers:**

Mr. William Yeh DSVP, Corporate Safety, Security & Environment Division, EVA AIR

Mr. Frank Kao, Professional Engineer, Corporate Safety, Security & Environment Division, EVA AIR

Ms. Jenny Tseng, Engineer, Corporate Safety, Security & Environment Division, EVA AIR

0900 – 0910 What is FORAS and why do we need it?

0910 – 1030 How it works and how to set it up

1030 - 1100  
Seletar Room 3

### Morning Break

1100-1230  
Seletar Room 1 & 2

### Flight Operations Risk Assessment Workshop – Part 2

1100 – 1115 How it works and how to set it up

1115 – 1130 FORAS Demonstration

1130 – 1200 The Introduction of Flight Ops Ricks Assessment Calculator (FORAC)

1200 – 1230 Questions and Discussion