

出國報告(出國類別：其他)

## 參加第 74 屆國際航空安全峰會 視訊會議報告

服務機關：民用航空局

姓名職稱：孫子強/科長

張泰誠/代理科長

派赴國家：台灣，中華民國

會議期間：110 年 9 月 21 日至 22 日

報告日期：110 年 11 月 23 日





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## 壹、目的

國際航空安全峰會(International Air Safety Summit, IASS)是航空業領先的安全峰會，該會自 1947 年起每年舉辦的國際航空安全峰會迄今已 74 年，提供全球民航產、官、學界對飛安關切議題研討及建立共識之平台，期藉由資訊分享消除或降低可能之飛安風險，進而達到促進整體飛安之目標，屬全球性之會議，參加國際航空安全峰會是獲得航空新知以及快速蒐集航空安全資訊的機會。

第 74 屆國際航空安全峰會實體會議原訂於美國華盛頓特區舉辦，因 2019 年起受新冠肺炎(COVID-19)影響，已連續 2 年起改為線上視訊會議。本次與會者包含航空產品設計製造、航務、維修、訓練及民航主管機關來自 50 個國家之代表計達六百七十六人，我國參加單位除本局外另有我國運安會、飛安基金會及中華、長榮、華信及星宇等航空公司代表參加。2021 國際航空安全峰會(IASS)討論的主題為有效安全領導的必要性，內容包含全球航空安全評估、航空業領導者的核心知識、實施解決方案以降低持續的安全風險…等，皆為全球民航主管機關關注的安全議題。



## 貳、過程：

### 一、第 74 屆國際航空安全峰會(IASS)以視訊方式辦理

因受新冠肺炎影響，採線上虛擬會議執行，另本次會議主要以論壇方式舉辦，大部分講者僅以口說經驗分享及概念論述，未如以往於會後提供與會者簡報檔資料，故部分單元談話內容僅重點摘述及螢幕截圖，先予敘明。

### 二、會議摘要

2021 年舉辦第 74 屆國際航空安全峰會重點與主題在探討有效安全領導的必要性。在安全管理方面，領導者可以發揮至關重要的作用。他們的參與是安全文化的關鍵，雖然對安全和營運完整性的承諾始於管理，但僅靠管理無法推動整個文化。為了讓安全文化蓬勃發展，它必須融入整個組織——這就是安全領導力很重要的原因。沒有優秀的安全領導者，安全文化就無法維持下去。



### 三、本次會議共有四大部分七大單元，議題如下：

#### 第 1 部分：安全領導原則：影響合理的決策

第 1 單元：全球航空安全評估

#### 第 2 部分：安全領導原則：在運營中優先考慮安全

第 2 單元：航空業領導者的核心知識

第 3 單元：飛航運行：實施解決方案以降低持續的安全風險

#### 第 3 部分：安全領導原則：持續改進

第 4 單元：從所有運營中學習：擴大視野以提高飛航安全

第 5 單元：使用共享資料和資訊以提高飛航操作安全

#### 第 4 部分：安全領導原則：展示安全文化

第 6 單元：空域系統的新進入者：嵌入安全文化

第 7 單元：當前航空業的網絡安全格局



### IASS 74 會議主題及四大原則

#### 四、會議開幕式論壇：

主持人 Capt. Conor Nolan, Director of Safety and Security, Aer Lingus, and Chair, Board of Governors, Flight Safety Foundation

與談人 Mr. Andreas Flaig, Vice President, Corporate Safety and Compliance Monitoring, Lufthansa German Airlines

與談人 Mr. Yannick Malinge, Senior Vice President and Chief Product Safety Officer, Airbus

與談人 Mr. Holger Paulmann, Chairman, SKY Airline

與談人 Mr. TAY Tiang Guan, Deputy Director General, Civil Aviation Authority of Singapore



#### 開幕式論壇主持人及與談人

本次會議的重點是說明在新冠肺炎 (COVID-19) 期間，航空業為復甦做準備時，安全領導者的重要性。小組成員將討論安全領導的關鍵原則，並討論自新冠肺炎 (COVID-19) 爆發以來面臨 18 個月的經驗與挫折，同時探討在危機期間，領導力和加強安全文化的挑戰和機會。來自政府和業界的國際領導者將製訂安全領導力的關鍵原則，除了著眼於航空業的安全復甦，也在我們積極“重建得更美好”的同時，加強韌性 (Resilience)。一個優秀安全領導者其所要扮演的一個重要角色，是做出基於安全的決定、傳達這些決定並激勵人們做正確的事情。



## 五、小組會議

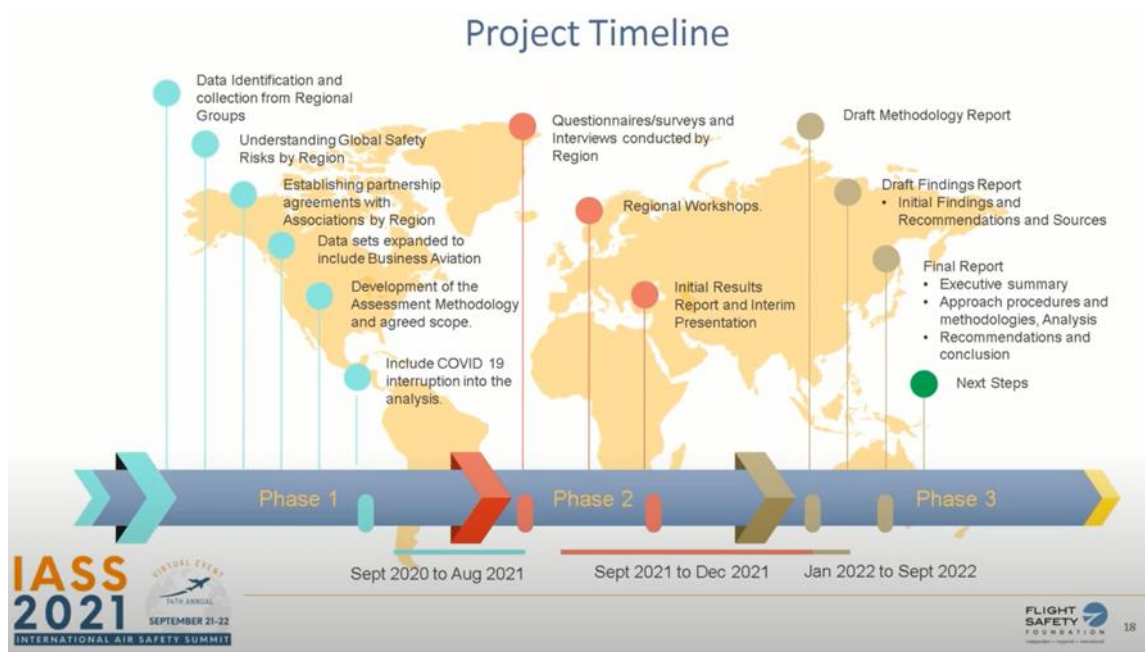
### (一)第 1 單元：全球航空安全評估

主持人 Mr. Mark Millam, Vice President Technical, Flight Safety Foundation

與談人 Mr. Henry Gourджи, Director, Safety Strategy and Policy, Flight Safety Foundation

在疫情的影響之下，許多執行中的安全計畫可能被迫停止執行，這其中包含全球性的安全計畫、區域性，國家層級的航空安全計畫也可能受波及，目前展望國際旅遊預期三年後才會恢復，全球航空業景氣復甦可能要到 2024 年之後，在這期間若有其他區域性變種病毒的產生則可能使全球受影響層面更廣。

全球航空安全評估分成三階段，自 2020 年 9 月起為期 3 年，目前正處於第二階段，整體評估預計於 2022 年 9 月完成。



全球航空安全評估時間表

Global Aviation Safety Assessment:  
Data-Driven Analysis of the Impact of Pandemic on Global Aviation



Overall Methodology



Safety progress may be lost

- Global Safety Action Plans
- Global/Regional/National Aviation Safety Plans
- Safety Management System Implementation
- Proficiency by crew members
- Understanding the evolving Aviation Technology
- Scaling up to meet Pace of Demand
- Maturity of safety intelligence

新冠肺炎對全球安全評估的影響

## (二)第 2 單元：航空業領導者的核心知識(CALM)

主持人 Mr. Harry Nelson, Chair, FSF International Advisory Committee

與談人 Mr. Dai Whittingham, Chief Executive, UK Flight Safety Committee

與談人 Mr. Christopher McGregor, Flight Safety Officer, ATR

與談人 Mr. Mark Searle, Global Director of Safety Operations, Safety and Security, International Air Transport Association (IATA)

全球疫情大流行考驗著航空業的韌性，不但暴露出深層次的裂縫和脆弱性，同時也造成極端的財務困難。組織必須做出艱難的營運決策以維持生計，在此時也無意間削弱了數十年的關鍵安全和營運能力。由於營運和技術人員外流而造成專業知識和人力資源的流失將難以取代。需要重新檢視在後疫情時代，有效管理所需的核心知識。我們應如何幫助當前和未來的業界領導者是本單元探討的問題。

### The Concept

- Core knowledge for Aviation Leaders and Managers (CALM), will be an expert-driven activity that will provide a set of standards and best practices, to be delivered via Continuing Professional Development (CPD) activity
- The Foundation is engaging with industry, regulators, academia, and other partners to develop a safety leadership knowledge framework
- Educational and training organizations will be able to leverage CALM standards to strengthen their programs, and offer new programs for all levels of the sector



### 航空業領導者的核心知識(CALM)概念形成



## Vision and Strategy

**Vision:** a resilient global aviation system in which leaders and managers at all levels have the knowledge, attitudes and skills to effectively manage risks within a robust safety-based culture while recognizing and reinforcing good performance

**ENDS**

**Strategy:** to define and signpost essential domain knowledge, delivered through an industry-wide CPD program, that will help leaders and managers balance business, financial, operational and safety risks

**WAYS**

**Tasks:** Gain acceptance/endorsement of the CPD principle; establish partnerships with industry bodies (IATA, ACI, CANSO); quick wins; identify and leverage existing programs

**MEANS**

### (三)第 3 單元：飛航運行：實施解決方案以降低持續的安全風險

主持人 Capt. Mike Gillen, Vice Chair, FSF International Advisory Committee

與談人 Capt. Stewart Harro, Vice President, Safety and Airworthiness, FedEx Express

與談人 Capt. Seamus Cooke, Base Captain, Aer Lingus

與談人 Mr. Declan Doherty, Safety Specialist, Aer Lingus

與談人 Capt. Barry O' Connor, TRE, Aer Lingus

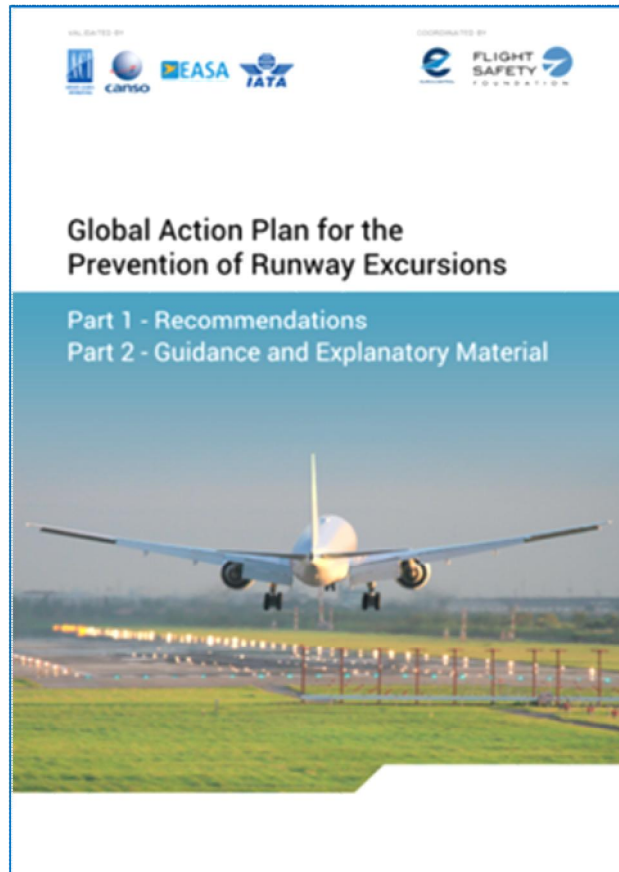
航空界如何實施解決方案以降低持續存在的安全風險？而其中需要我們持續關注的操作風險領域包括：進場和降落、重飛決策和跑道表面安全。跑道

偏離(RE)是最常見的事故類型，憑藉強而有力的風險管理，整個航空界可以在降低這類風險方面做得更好。透過高度關注運行，利益相關者可以互相協助，為提高績效做出貢獻。

儘管 2020 年隨著 COVID-19 大流行存在特定的航空風險，然而跑道偏離的數量和發生率在過去十年中，在全世界仍是保持穩定數據，統計資料顯示商用飛行的跑道偏離事故雖稍有下降，但整體數量來看其嚴重程度，仍然是一項非常高的風險。

國際航空運輸協會 (IATA) 報告稱，從 2005 年到 2019 年上半年，IATA 全球事故資料庫中有 23% (283 件) 的事故涉及跑道偏離，其次是起落架收上著陸/起落架塌陷(15%)，然後是地面損壞(12%)。由於事件預防的複雜性無法單獨達成，跑道偏離風險管理是各單位共同協調努力最好的範例之一，諸如跑道狀況維護報告、飛機性能計算和安全的組員飛航操作，這些操作包含下降規劃、穩定進場、安全著陸和重飛的執行。

共同承擔的風險需要共同解決，這就是為什麼各業界聚集在一起，成立專門的工作小組，討論並研商解決跑道偏離風險。作出具體建議事項，各個細節必須可行並考慮因地制宜。在這個背景條件下於是產生『全球跑道偏離預防計畫』(Global Action Plan for the Prevention of Runway Excursions, GAPPRE)。這份文件包含第 1 部分和第 2 部分，第 1 部分包含對民航組織：機場(Aerodrome Operators)、航空服務提供者 (ANSP)、航空器使用人 (Aircraft Operators)、飛機製造商(Aircraft Manufactures)、監理機構 (Regulators)、國際民航組織 (ICAO) 和研究發展單位 (R&D) 提出建議。第 2 部分提供說明和指導文件，並將對各組織的建議列表指南和說明文件 (GUIDANCE AND EXPLANATORY MATERIAL ,GEM) 提供作為本文件的附錄。



### 全球跑道偏離預防計畫 (GAPPRE)

來自聯邦快遞(FEDex)的機長史都華(Stewart)提到，每家航空公司有各自的運營方式，例如 FEDex 過去曾發生多起飛機於起飛時外型設定不正確的問題，某些雙發動機飛機存在這類的風險，例如 757/767 機隊，甚至 3 發動機的 MD-11 機隊也發生過，但是同樣是雙發動機的 777 機隊及空中巴士機隊則沒有這類的問題，為了緩解已存在的風險，在經過團隊深入探討之後，公司決定統一操作程序，如同現今世界上大多數的航空公司一樣，他們在後推完成開始滑行前就先設定好起飛外型，避免產生相同的錯誤。

從全球到區域到機隊，史都華機長相信在未來會推展到觀測各個飛航組員，他也了解使用個人資料會受到的質疑與關切的議題，這必須在公正文化模型的架構下，具備保護的機制並提供適當的保護方式(例如去標識化 de-identification)，未來將更進一步取得資料並達到這層級。

飛行員藉由適當的訓練包含壓力/驚訝(brain exercise)可達到最佳的表現，目前飛行員高度依賴自動駕駛系統是未來可能的風險，飛行員應該具備從 ILS PRM(純手動飛行) 進場到 CAT III 低能見度進場(自動駕駛落地)整個範疇的操作能力。

## UAS Task Force Findings

- Lack of training in Human response to startle or surprise is when **Distraction** added



## UAS Task Force Findings

- Automation confusion or lack of understanding in every event



## Flight Path Management Team

- Deference to Expertise
- Sensitivity to Operations
- Preoccupation with Failure
- Reluctance to Simplify
- Commitment to Resilience



#### (四)第 4 單元：從所有運營中學習：擴大視野以提高飛航安全

主持人: Mr. Tzvetomir Blajev, Director Europe and Global Operational Safety, Flight Safety Foundation

與談人: Capt. James Kwasny, LOSA Program Coordinator, Allied Pilots Association, American Airlines

與談人: First Officer Bogomir Glavan, Pilot, American Airlines

與談人: Capt. Aidan Murray, Chief Pilot, Ryanair

與談人: Mr. Antonio Licu, BSc, MSc, Head of Operational Safety, SQS and Integrated Risk Management Unit, EUROCONTROL

與談人: Mr. Riccardo Patriarca, BSc, MSc, PhD, Researcher, Department of Mechanical and Aerospace Engineering, Sapienza University of Rome (Italy)

在一個日益緊密相連和複雜的航空系統中，不僅要從極少出錯的事件中學習，還要從正確的事情中學習。數據收集需要從關注危險事件擴展到分析正常操作數據。飛安基金會(FSF)認為，是該進行根本性轉變的時候了，應該從所有行動和事件中學習，而不僅是從那些不被重視的事件中學習。我們從意外及失敗中學習到，不論各個層級或各種專業的人才，即便良好的過程有時也會產生不良的結果。

美國航空(AA)成立「學習及改進小組」(Learning & Improvement Team, LIT)並發展出獨特的 LIT 模組，以韌性(Resilience)為核心，透過學習(Learn)、計畫(Plan)、協調(Coordinate)及適應(Adapt)等四項元素的融合，所產生的綜合效果遠遠超過標準作業程序(SOP)的制訂。





### 美國航空 LIT 模組

#### (五)第 5 單元:使用共享資料和資訊以提高飛航操作安全

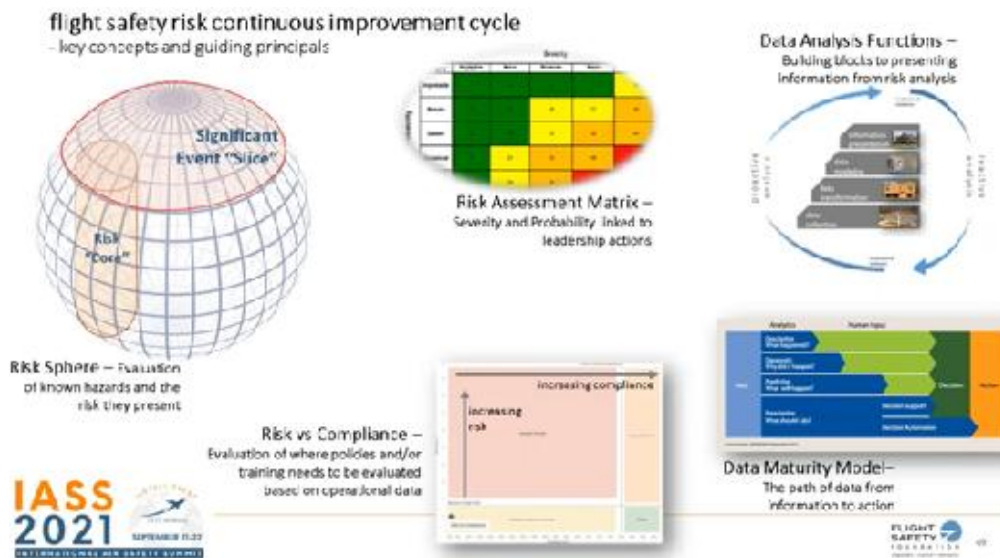
組織管理所面臨的一個關鍵挑戰是快速地收集、分析和處理數據，以便為組織運作創造價值。對於許多人來說，數據分析仍然用於問題出現時對其做出反應，而不是在問題發生之前加以預防。轉型不僅需要管理即時數據流，還需要將數據更完善地轉換為智能，以便主動識別和解決問題。本單元讓營運者知悉全球航空界如何從更廣泛的數位安全資料中共享獲益，以進行危險識別和風險評估。

主持人 Mr. Wally Feerrar, Member, FSF International Advisory Committee

與談人 Mr. Andrew Dunbeck, General Manager, Flight Safety, Delta Airlines

與談人 Mr. Géraud De Rivals-Mazeres, Regional Flight Safety Director, ATR

與談人 Ms. Dawn Amore, President, Volanno



## 航空界常用資源共享的工具

### (六)第 6 單元:空域系統的新進入者：嵌入安全文化

主持人 Ms. Deborah Kirkman, Director, Advanced Aviation Systems,  
Flight Safety Foundation

與談人 Mr. Jon Hanlon, Director, Unmanned Aerial Systems Maintenance  
& Airworthiness, Zipline

與談人: Ms. Diana Cooper, Head of US Policy, Hyundai Urban Air Mobility

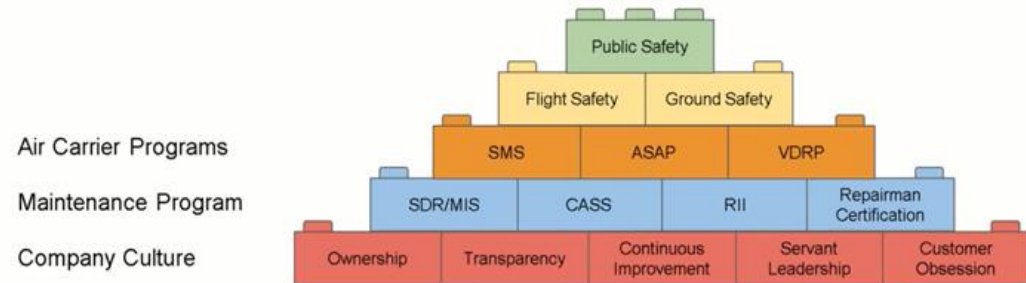
本行業繼續深入了解商業和民用無人機營運和商業太空計劃當前和未來的安全風險管理需求。無論機組人員是遠端操控還是載具自動飛行，在執行飛行之前就必須開始管理風險。本單元在探討我們如何才能帶領下一代新進入者(無人機)進入空域系統，並協助形成以當今最佳方式為基礎的安全文化？

兩位與談人都提到安全領導與安全文化的重要性並介紹該公司的安全文化，

Di ana 小姐分享 Hyundai 公司 Urban Air Mobility 部門內因為主管重視，所以由上到下都相當注重安全文化；JOH 是 Zipline 公司的執行長，該公司的故事始於盧旺達和加納，主要任務為使用無人機運送醫療用品。目前他們已經向醫院和醫療機構運送了數十萬份救命血液和醫療用品，他也分享組織內 SMS 及標準計畫如 ASAP 等等的例子，提到公司文化的價值也說明解決危急時仍要注意安全，例如：救護車去醫院的路上若出車禍則對結果並沒有幫助，JOH 說如果沒有安全則無法安全救人，所以公司若傷及我們要服務的人，我們不會進步，他同時分享公司有很多來自矽谷的技術創新者，而航空業傳統的文化已存在航空業數十年，如何藉由提問、溝通讓新科技與航空安全能橋接並取得平衡，要如何讓人們相信 UAS 是安全的，除了良好的飛安紀錄，更要透明化並繼續做正確的事，不只是針對個別的公司而是對整個真實世界負應有責任。

也有與會者線上提問該公司 UAS 是否有安全報告系統，例如 FOQA 遙測系統？JOH 的答覆是整個飛航運作除了初始的按鈕啟動及卸貨之後才需要有人介入操作，其他都是自動化，不像飛機。我們的系統最後是由維修人員接手，例如某日的側風過大我們可藉由修改軟體將更新後的版本投入下次任務。





### Zipline 公司展示的安全文化建置模組

#### (七)第 7 單元:當前航空業的網絡安全格局

主持人 Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation

與談人 Mr. Steve Luczynski, Chairman, Board of Directors, The Aerospace Village

與談人 Mr. Rashad Karaky, Aviation Cybersecurity Officer, International Civil Aviation Organization (ICAO)

隨著科技進步，大量運用聯網技術使航空業面臨新型風險，這些風險會影響許多方面的航空基礎設施，包括飛機、機場、空域、地面運作和營運調度系統。為了更有效管理全球航空網絡安全風險，ICAO 推動 2021 為航空保安文化年(YOSC - Year of Security Culture)。航空保安文化的建立，其中的一環「網路保安文化」，也特別被提出來探討與說明。航空業是全球基礎設施和經濟的基石，乘客安全一直是最高要求，但越來越多採用互聯技術使飛機、機場和相互依存的航空系統面臨新型風險。網絡安全(cybersecurity)失敗的後果可能會影響人類生活和公共安全；對航空旅行可信度產生的信賴危機則

會破壞經濟和(國際間)國家安全。

講者史蒂夫是太空村(The Aerospace Village)的執行長，該組織是一個由來自公共和民營單位的駭客、工程師、飛行員、政策領導者等組成的多元化團體。他同時會中也介紹第 29 屆「DEFCON」會議的近況；DEFCON 是全球最大的電腦安全會議之一，自 1993 年起，每年在美國內華達州拉斯維加斯舉辦。DEFCON 的與會者包括電腦安全領域的專家、政府雇員、安全研究員、律師、記者、學生和駭客等對安全領域有興趣的成員，涉及的領域主要有電腦架構、硬體修改、軟體安全、無線電竊聽和其他容易受到攻擊的資訊領域。會議除了有對前述技術的分享外，還有多種專案，如 Wargames、最遠距離 Wi-Fi 建立比賽和電腦冷卻系統比賽等等。

## 六、問卷調查結果

(此為與會者非強制性投票，主觀意見僅供參考。)





## 參、心得及建議：

- 一、 航空業已在全球建置用以分享及合作的平台型態，飛安從業人員應提醒領導者承擔適當的壓力，即便在財政困難的情況下仍應持續保持安全為最高優先的核心價值。
- 二、 保持專業人才核心職能訓練，航空業不似其他行業可於短期內恢復正常運作，疫情期間航空界人才的流失將是未來後疫情時代，團隊重建面臨的最大挑戰。
- 三、 在全球化的演變下，發展最迅速並首當其衝的即是航空業，民用航空局的安全監理與飛航服務，應能保持與國際間相同的航空標準，透過持續參加航空安全基金會所舉辦國際航空安全峰會 IASS，並獲得最新的航空業資訊，是提升飛行安全的最佳途徑。
- 四、 承辦單位美國航空安全基金會本次會議未提供簡報資料，僅提供網址給本次與會人員，欲檢視本次完整視頻內容可由下列連結進入  
<https://www.gotostage.com/channel/iass2021>

## 【附件一 會議議程】



### AGENDA

(\*Updated September 17, 2021)

#### Theme: Safety Leadership

The 2021 International Air Safety Summit will explore the need for effective safety leadership. Leaders have a vital role to play when it comes to managing safety. Their involvement is key to developing and maintaining a healthy safety culture. While commitment to safety and operational integrity begins with management, management alone cannot drive the entire culture. For a culture of safety to flourish, it must be embedded throughout the organization — and that is why safety leadership matters.

A safety culture can't sustain itself without great safety leaders.

SEPTEMBER 21, 2021	
PART I	Principle of Safety Leadership: Influencing sound decision-making
0800–1000 EDT [1200–1400 UTC]	An important role of a good safety leader is making safety-based decisions, communicating those decisions and motivating people to do the right thing.
Conference Opening	<p>Opening Remarks:</p> <ul style="list-style-type: none"> <li>• Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation</li> <li>• Dr. Hassan Shahidi, President and CEO, Flight Safety Foundation</li> <li>• Capt. Conor Nolan, Chair, Board of Governors, Flight Safety Foundation</li> </ul>
Executive Panel	<p>This session focuses on the importance of safety leadership during the pandemic and as the aviation sector prepares for recovery. Panelists will discuss key principles in safety leadership and discuss experiences and lessons learned in the more than 18 months since the onset of the pandemic. The challenges and opportunities of leadership and strengthening safety culture during a crisis will be discussed. International leaders from government and industry will map out the critical principles in safety leadership with an eye toward safe recovery of aviation and shoring up resiliency as we proactively “build back better.”</p> <p><b>*Executive Panelists:</b></p> <ul style="list-style-type: none"> <li>• Mr. Andreas Flaig, Vice President, Corporate Safety and Compliance Monitoring, Lufthansa German Airlines</li> <li>• Mr. Yannick Malinge, Senior Vice President and Chief Product Safety Officer, Airbus</li> <li>• Mr. Holger Paulmann, Chairman, SKY Airline</li> <li>• Mr. TAY Tiang Guan, Deputy Director General, Civil Aviation Authority of Singapore</li> </ul> <p>Moderated by Capt. Conor Nolan, Director of Safety and Security, Aer Lingus, and Chair, Board of Governors, Flight Safety Foundation</p> <p><i>*All panelists are members of the Flight Safety Foundation Board of Governors</i></p>





Session 1 – Global Aviation Safety Assessment

Knowing what is really happening on the ground, in the field and as operations are underway is key in order to influence others. As we move through the pandemic recovery, gaining an understanding of the global and regional safety needs of the industry through a data-driven analysis of the impact of the pandemic on aviation is necessary. Where is there uneven recovery? Where has safety progress on long-term risk issues been hampered?

Speaker:

- Mr. Henry Gourdj, Director, Safety Strategy and Policy, Flight Safety Foundation

Moderated by Mr. Mark Millam, Vice President Technical, Flight Safety Foundation

<p><b>PART II</b></p> <p>1200–1400 EDT [1600–1800 UTC]</p>	<p><b>Principle of Safety Leadership: Prioritizing safety in operations</b></p> <p>A good safety leader correctly executes those actions needed to accomplish the mission.</p>
<p>Welcoming Remarks</p>	<p>Welcoming Remarks:</p> <ul style="list-style-type: none"> <li>• Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation</li> <li>• Mr. Harry Nelson, Chair, International Advisory Committee, Flight Safety Foundation</li> </ul>
<p>Session 2 – Core Knowledge for Aviation Leaders and Managers</p>	<p>The global pandemic tested the resilience of the aviation sector, exposing deep fractures and vulnerabilities, and causing extreme financial hardship. Organizations made difficult tactical business decisions to stay afloat, inadvertently weakening decades of critical safety and operational capabilities. Expertise and intellectual capital that were lost through an exodus of operational and technical personnel will be difficult to replace. A renewed focus on core knowledge needed to manage effectively in a post-COVID world is needed. How should we help equip current and future industry leaders?</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Mr. Dai Whittingham, Chief Executive, UK Flight Safety Committee</li> <li>• Mr. Christopher McGregor, Flight Safety Officer, ATR</li> <li>• Mr. Mark Searle, Global Director of Safety, International Air Transport Association (IATA)</li> </ul> <p>Moderated by Mr. Harry Nelson, Chair, FSF International Advisory Committee</p>
<p>Session 3 – Flight Operations: Implementing Solutions to Reduce Persistent Safety Risks</p>	<p>How is the industry implementing solutions to reduce persistent safety risks? Operational risk areas that need our continued focus include approach and landing, go-around decision-making and runway surface safety. With strong leadership in managing these risks, certainly the entire aviation industry can do much better in reducing the type of accident that is most frequent – - runway excursions. With a strong focus on operations, stakeholders can help each other in contributing to improved performance.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Capt. Stewart Harro, Vice President, Safety and Airworthiness, FedEx Express</li> <li>• Capt. Seamus Cooke, Base Captain, Aer Lingus</li> <li>• Mr. Declan Doherty, Safety Specialist, Aer Lingus</li> <li>• Capt. Barry O’Connor, TRE, Aer Lingus</li> </ul> <p>Moderated by Capt. Mike Gillen, Vice Chair, FSF International Advisory Committee</p>



<b>SEPTEMBER 22, 2021</b>	
<b>PART III</b>	<b>Principle of Safety Leadership: Continuously improving</b>
0800–1000 EDT [1200–1400 UTC]	A good safety leader is continuously seeking ways to do things better, rather than being satisfied with the status quo.
<b>Welcome and Award</b>	<p><b>Welcoming Remarks:</b></p> <ul style="list-style-type: none"> <li>• Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation</li> <li>• Mr. Harry Nelson, Chair, International Advisory Committee, Flight Safety Foundation</li> </ul> <p><b>The FSF-Boeing Aviation Safety Lifetime Achievement Award</b></p> <p>Presented by Dr. Hassan Shahidi, President and CEO, Flight Safety Foundation and Mr. Todd Sigler, Senior Director, Global Safety &amp; Regulatory Affairs, The Boeing Company</p>
<b>Session 4 – Learning From All Operations: Expanding the Field of Vision to Improve Aviation Safety</b>	<p>In an increasingly interconnected and complex aviation system, it is imperative to learn not only from things that rarely go wrong but also from things that go right. Data collection needs to expand from a focus on hazardous events to analysis of routine operational data. The Foundation believes it is time for a fundamental shift to learn from all operations and events — not just from those that are unwanted. How are we supporting - the sharing of exchanged ideas and best practices?</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"> <li>• Capt. James Kwasny, LOSA Program Coordinator, Allied Pilots Association, American Airlines</li> <li>• First Officer Bogomir Glavan, Pilot, American Airlines</li> <li>• Capt. Aidan Murray, Chief Pilot, Ryanair</li> <li>• Mr. Antonio Licu, BSc, MSc, Head of Operational Safety, SQS and Integrated Risk Management Unit, EUROCONTROL</li> <li>• Mr. Riccardo Patriarca, BSc, MSc, PhD, Researcher, Department of Mechanical and Aerospace Engineering, Sapienza University of Rome (Italy)</li> </ul> <p>Moderated by Mr. Tzvetomir Blajev, Director Europe and Global Operational Safety, Flight Safety Foundation</p>
<b>Session 5 – Using and Sharing Data and Information to Improve Operational Safety</b>	<p>A key challenge for organizations is gathering, analyzing and acting on data quickly enough to deliver value to operations. For many, data analysis is still used to react to problems as they arise rather than preventing problems before they occur. Transformation is required not only to manage the real-time data flow but also to better convert data into intelligence so issues can be proactively identified and addressed. Operators will show how global aviation can benefit from broader sharing of digital safety data for hazard identification and risk assessment.</p> <p><b>Speakers:</b></p> <ul style="list-style-type: none"> <li>• Mr. Andrew Dunbeck, General Manager, Flight Safety, Delta Air Lines</li> <li>• Mr. Géraud De Rivals-Mazerès, Regional Flight Safety Director, ATR</li> <li>• Ms. Dawn Amore, President, Volanno</li> </ul> <p>Moderated by Mr. Wally Feerrar, Member, FSF International Advisory Committee</p>
<b>Award</b>	The Laura Taber Barbour Air Safety Award presentation.



<p><b>PART IV</b></p> <p>1200–1400 EDT [1600 – 1800 UTC]</p>	<p><b>Principle of Safety Leadership: Demonstrating safety culture</b></p> <p>A good safety leader is demonstrating good safety culture and helping others embed safety culture into the industry.</p>
<p>Welcoming Remarks and Executive Kickoff</p>	<p>Welcoming Remarks:</p> <ul style="list-style-type: none"> <li>Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation</li> <li>Mr. Harry Nelson, Chair, International Advisory Committee, Flight Safety Foundation</li> </ul> <p>Executive Kickoff:</p> <ul style="list-style-type: none"> <li>Ms. Bobbi Wells, Vice President Safety, Environmental and Regulatory Compliance, American Airlines and Member, FSF Board of Governors</li> </ul>
<p>Session 6 – New Entrants into the Airspace System: Embedding Safety Culture</p>	<p>The industry continues to get a better understanding of the current and future safety risk management needs for commercial and civil UAS operations and commercial space programs. Whether crewmembers are operating vehicles remotely or the vehicle is operating autonomously, managing risks starts well ahead of executing the flight. How can we lead the next generation of new entrants into the airspace system and help to form a safety culture that builds on the best of what is in place today?</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>Mr. Jon Hanlon, Director, Unmanned Aerial Systems Maintenance &amp; Airworthiness, Zipline</li> <li>Ms. Diana Cooper, Head of US Policy, Hyundai Urban Air Mobility</li> </ul> <p>Moderated by Ms. Deborah Kirkman, Director, Advanced Aviation Systems, Flight Safety Foundation</p>
<p>Session 7 – Current Cybersecurity Landscape in the Aviation Industry</p>	<p>The increasing adoption of connected technologies exposes the aviation industry to new types of risks. These risks can affect anything across the aviation infrastructure, including aircraft, airport, airspace, ground operations and operational scheduling systems. To better manage aviation cybersecurity risk globally, stronger relationships must be built across the aviation sector as well as with those outside the sector that can assist. What is being done now?</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>Mr. Steve Luczynski, Chairman, Board of Directors, The Aerospace Village</li> <li>Mr. Rashad Karaky, Aviation Cybersecurity Officer, International Civil Aviation Organization (ICAO)</li> </ul> <p>Moderated by Mr. Mark Millam, Vice President, Technical, Flight Safety Foundation</p>
<p>Closing and member recognition</p>	<p>Conference closing remarks and FSF member recognition.</p>

## 【附件二 主持人及與談人資料】



[View Bio](#)

**Capt. Aidan Murray**  
Chief Pilot, Ryanair



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**Mr. Andreas Flaig**  
Vice President, Corporate  
Safety and Compliance  
Monitoring, Lufthansa German  
Airlines



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**Mr. Andrew Dunbeck**  
General Manager, Flight Safety,  
Delta Air Lines



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**Mr. Antonio Licu, BSc,  
MSc**  
Head of Operational Safety, SQS  
and Integrated Risk  
Management  
IWL, EUROCONTROL



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**Capt. Barry O'Connor**  
TBE, Aer Lingus



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**Ms. Bobbi Wells**  
Vice President Safety,  
Environmental and Regulatory  
Compliance, American  
Airlines and Member, IEF Board  
of Governors



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**First Officer  
Bogomir Glavan**  
Pilot, American Airlines



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**Mr. Christopher  
McGregor**  
Flight Safety Officer, ATR



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**Capt. Conor Nolan**  
Chair, Board of Governors, Flight  
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**Mr. Dai Whittingham**  
Chief Executive, UK Flight Safety  
Committee



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**Ms. Dawn Amore**  
President, Volare



**Ms. Deborah Kirkman**  
Director, Advanced Aviation  
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**Mr. Declan Doherty**  
Safety Specialist, Aer Lingus



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Mazeres**  
Regional Flight Safety Director,  
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**Mr. Harry Nelson**  
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**Dr. Hassan Shahidi**  
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Director, Safety Strategy and  
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**Mr. Holger Paulmann**  
Chairman, SKY Airline



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**Capt. James Kwasny**  
LOSA Program Coordinator,  
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**Mr. Jon Hanlon**  
Director, Unmanned Aerial  
Systems Maintenance &  
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**Mr. Mark Millam**  
Vice President, Technical Flight  
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**Mr. Mark Searle**  
Global Director of Safety,  
International Air Transport  
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**Capt. Mike Gillen**  
Vice Chair, FSF  
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**Mr. Rashad Karaky**  
Aviation Cybersecurity  
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**Capt. Stewart Harro**  
Vice President, Safety and  
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Deputy Director General, Civil  
Aviation Authority of Singapore



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Senior Vice President and Chief  
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Director Europe and Global Operational  
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