出國報告（出國類別：開會）

赴菲律賓宿霧參加「國際飛航管制員協會 (IFATCA) 亞太地區年會」報告書

服務機關：交通部民用航空局

姓名職稱：謝柏楷　技正

陳妍君　管制員

陳薇茵　管制員

派赴國家：菲律賓

出國期間：中華民國 111 年 10 月 19 日～10 月 23 日

報告日期：中華民國 111 年 12 月 5 日

提要表

<table>
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<tr><td>報告名稱：</td><td>赴菲律賓宿霧參加 「國際飛航管制員協會 (IFATCA)亞太地區年會」報告書</td></tr>
<tr><td>計畫主辦機關：</td><td>交通部民用航空局</td></tr>
<tr><td>出國人員：</td><td>
<table>
<tr><th>姓名</th><th>服務機關</th><th>服務單位</th><th>職稱</th><th>官職等</th><th>E-MAIL 信箱</th></tr>
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<tr><td>陳妍君</td><td>交通部民用航空局</td><td>飛航服務總臺</td><td>飛航管制員</td><td>薦任(派)</td><td>聯絡人：
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<tr><td>前往地區：</td><td>菲律賓</td></tr>
<tr><td>參訪機關：</td><td>菲律賓飛航管制員協會</td></tr>
<tr><td>出國類別：</td><td>開會</td></tr>
<tr><td>出國期間：</td><td>民國 111 年 10 月 19 日 至 民國 111 年 10 月 23 日</td></tr>
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<tr><td>報告書頁數：</td><td>27 頁</td></tr>
<tr><td>報告內容摘要：</td><td>本次會議為過去兩年多 COVID-19 疫情之後實體會議重新舉辦的第一場 IFATCA 亞太年會。採取實體線上雙軌並行制。會議主題為疫情後的韌性，專題演講之主題與第一線管制員作業息息相關，內容含括人為因素與疲勞議題、正向公正文化的推動情形、國際航空組織之合作基石、重大壓力事件處理作法、IFATCA 於 ICAO 工作之參與、以及 IFATCA 內部工作小組任務內容說明。 過去兩年之疫情，航空業首當其衝；隨著疫情趨緩，各國逐步解封，航行量也開始緩慢復甦，如何安全地回復到疫情前之航行量能是 ICAO 以及各個國際組織在疫情後所看重之焦點。隨著航行量的增加，飛安事件之增加在所難免，人為因素做為飛安事件最易被檢討之原因，也是所有飛航管制員可以思考並自我期勉精進之方向。飛航安全蘊於飛安文</td></tr>
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	化，亞太區之正向安全文化尚有可以進步之空間，期許各國能夠能承諾對安全文化之重視，並以獎勵代替懲罰來鼓勵安全事件之自願通報。 在疫情期間，各國多積極利用此段時間強化飛航環境之硬體新建／改建、引入新技術、新系統；各國也都意識到管制員在疫情期間因航行量驟減而可能有管制技巧生疏之疑慮，進而積極辦理各類人員強化訓練之機制，我國亦同。 IFATCA 作為全球飛航管制員之領導組織，積極透過參與 ICAO 全球及地區之會議，在不同議題上協助飛航管制專業發聲，且對內亦傾聽會員協會之需求，調整並提供各種訓練資源供會員利用，針對會員協會所提出之問題加以研究並擬定建議作法，對於強化飛航管制員社群之專業性有正向之貢獻。
電子全文檔：	
附件檔：	
限閱與否：	否
專責人員姓名：	莊順淑
專責人員電話：	02-23496197

目　錄

壹、 目的.....2
貳、 過程.....4
參、 會議內容紀要.....6
一、 第一天(10 月 20 日)：來賓致詞及專題演講.....6
二、 第二天(10 月 21 日)：專題演講與會員協會會務報告.....11
三、 第三天(10 月 22 日)：IFATCA 會內工作小組工作報告及 2023 年相關計畫… 21
肆、 心得.....25
伍、 建議.....26
一、 鼓勵第一線值班同仁積極參與國際會議.....26
二、 因應後疫情時代，持續精進管制員的管制能力，也持續深化安全文化之環境.....26
三、 強化航空產業各領域之國際參與，深化與航空相關利益者之合作，共同開創疫情後之航空新時代.....27
陸、附錄.....28

壹、目的

一、 國際飛航管制員協會聯盟簡介

「國際飛航管制員協會聯盟(International Federation of Air Traffic Controllers' Associations, IFATCA)」設於加拿大蒙特婁，其宗旨是聯合全球各地飛航管制員，提高飛航管制員專業知識及提升飛航安全。主要發起國為奧地利、法國、盧森堡、比利時、西德、荷蘭、丹麥、冰島、挪威、芬蘭、愛爾蘭及瑞士等 12 個國家，為一非政治性之獨立專業組織，目前已有超過 130 個國家加入，共有 5 萬多名會員。IFATCA 主要分成四大地區：歐洲、美洲、亞太、非洲/中東，IFATCA 在全球所有的飛航管理機構享譽全球並在各個不同的國際性組織，如國際民航組織(International Civil Aviation Organization, 以下簡稱 ICAO)及 Eurocontrol 工作分組的許多領域上具有代表權。也因此，我國現為非聯合國組織成員的情況下，參加 IFATCA 為獲得國際民航組織最新資訊的來源之一。每年的 IFATCA 年會，我國飛航管制協會(以下簡稱 ROCATCA)均積極派員參加，IFATCA 設立目標如下：

(一) 促進國際空中航行的安全、效率和規律性。

(二) 協助發展飛航管制之安全有序制度。

(三) 促進國際飛航管制員間之學術交流。

(四) 維護飛航管制員之應有權益。

(五) 擴展與其它相關國際組織間之相互利益。

(六) 致力發展泛世界管制員協會聯盟事業。

二、　中華民國飛航管制員協會簡介

我國於 1978 年首度應邀以觀察員身份參加在丹麥哥本哈根舉辦之 IFATCA 第 17 屆年會，1979 年我國持續獲邀參加在比利時布魯塞爾舉行之第 18 屆年會，並進一步與 IFATCA 理事會討論我入會之可行性，1980 年我國正式成立「中華民國飛航管制員協會」，並以 ROCATCA (Republic of China Air Traffic Controllers' Association)名義正式申請加入 IFATCA，註冊名稱為「ROCATCA (TAIWAN)」。

貳、 過程

一、 參加 IFATCA 2022 年第 38 屆亞太地區年會

IFATCA 每年定期召開全球性年會，亦針對區域性的作業由四大地區（歐洲、美洲、亞太、非洲/中東）辦理定期地區性年會，亞太地區第一屆年會於 1984 年在斐濟舉行，爾後由亞洲地區及太平洋地區之會員國輪流主辦。

礙於疫情，2020 及 2021 年之 IFATCA 亞太年會都採視訊方式舉行，2020 年由新加坡主辦，2021 年由我國主辦。今年由於疫情逐漸受到控制，各國紛紛放寬旅遊限制，IFATCA 亞太區執行副主席(Executive Vice President, EVP)、我國交通部民用航空局飛航服務總臺(下稱總臺)管制員陳妍君與亞太地區 IFATCA 會員協會共同決議本年度亞太年會將採實體方式進行，並由原本預計籌辦 2020 年亞太年會之國家菲律賓接下主辦國的重責大任。

由於各國國境開放限度不一， 此次會議為了鼓勵所有會員國出席，採取實體線上雙軌並行制，鼓勵各國來賓跟代表以實體方式參與，若無法，亦可以視訊方式出席會議；會議中亦有多場講座來賓是以連線方式進行講演。會議前兩天，每日早上 9 點鐘開始，中間休息一小時午餐，下午進行至五點鐘；第三天之議程只有半天，下午則是與當地管制員互動之活動安排。

我國自退出聯合國後，國際空間被壓縮，參與國際民航組織事務管道或國際會議相對減少，民航相關資訊取得不易，雖然從網路可以取得部分資料，惟無法得知相關作業討論過程，致無法全盤瞭解法規改變後可能之影響及因應作為，爰藉由參加 IFATCA 每年舉行的全球性年會及亞太地區年會，經由資訊分享、簡報說明、意見交流及溝通，可瞭解飛航管制作業相關辦理情形，對於提升飛航安全與服務品質有所助益，爰民航局每年編列預算，積極參與 IFATCA 事務，強化與各國之交流與合作。

二、 名詞定義

本報告內使用大量航空英文專業縮寫，為使閱讀者方便查詢，特列此表(表1)。

表一、縮寫英文原意中譯

AFTN	Aeronautical Fixed Telecommunication Network	航空固定電信網絡
AIDC	ATS interfacility data communication	跨飛航情報區/設施間資訊溝通系統
AIS	Aeronautical Information Services	飛航情報服務
ANSP	Air Navigation Services Provider	飛航服務提供者
ATM	Air Traffic Management	飛航管理
ATFM	Air Traffic Flow Management	飛航流量管理
ATIS	Automatic terminal information service	自動終端情報服務
CANSO	Civil Air Navigation Services Organization	民用飛航服務組織
CISM	Critical Incident Stress Management	重大事件壓力管理
CNS	Communication, navigation and surveillance	通訊、導航及監視
FLOS/FLAS	Flight Level Orientation Scheme/ Flight Level Allocation Scheme	飛航空層協調計畫
IATA	International Air Transport Association	國際航空運輸協會
ICAO	International Civil Aviation Organization	國際民航組織
IFALPA	International Federation of Air Line Pilots' Associations	航空公司機師協會國際聯合會
IFATCA	International Federation of Air Traffic Controllers’ Associations	國際飛航管制員協會聯盟
PLC	Professional and Legal Committee	IFATCA 專業與法制委員會
RCR	Runway Condition Report	跑道狀況報告
ROCATCA	Republic of China Air Traffic Controllers’ Association	中華民國飛航管制員協會
TOC	Technology and Operational Committee	IFATCA 技術與操作委員會

參、 會議內容紀要

一、 第一天(10 月 20 日)：來賓致詞及專題演講

(一)來賓致詞

本日為會議第一天，會議於臺灣時間 08:45 正式開始。會議開始後先播放菲律賓副總統預錄之談話短片，內容中感謝國際飛航管制員協會聯盟建立這樣一個平臺，使各國能有密切之聯繫並交換最新資訊、趨勢以及在飛航管理上實際的做法，期許經過疫情風暴後，飛航管制人員能做好航情回升之準備，繼續提供專業服務，除了保障飛航安全外，並能引領航空事業的發展。隨後由主辦國菲律賓管制員協會會長 Sir Rudy 及 IFATCA 亞太區執行副主席、我國管制員陳妍君進行開幕致詞，主辦單位亦安排有當地文化展演，邀請與會來賓一同體驗主辦國的熱情好客及風俗魅力。

(二)專題演講

本日會議主要內容為三場專題演講，說明如下：

1. 國際飛航管制員協會聯盟(IFATCA)在國際民航組織(ICAO)中扮演的角色

第一場專題演講的主題是「國際飛航管制員協會聯盟在國際民航組織中扮演的角色(IFATCA’ s Work in ICAO)」，主講者為 IFATCA 的 ICAO 主要窗口聯絡人 Mr. Jean F. Lepage，他用 25 個問題，如 1 個 SARPS(Standards and Recommended Practices)的形成是否需要 2 至 5 年的時間等此類問題，帶大家深入淺出的了解 ICAO；並介紹 ICAO 的組織架構以及五大策略目標(安全、容量及效率、保安、經濟發展、環保)。另外 Mr. Lepage 認為，ICAO 不會強迫各國一定要完全遵守

其頒布的規定，但精髓在於，能夠先行全盤了解 ICAO 制定相關規定的意義，並能具體說明無法符合的合理原因。

圖一、ICAO 五大策略目標

2. 後疫情時代之人為表現：相關研究之最新進展

第二場專題演講的主題為「後疫情時代之人為表現：相關研究之最新進展(Updates and Advances in Human Performance in a Post-Covid Context)」。主講者為奧地利資深管制員 Ms. Lea-Sophie Vink，其目前亦為奧地利人為表現研究之首席代表，演講主要內容如下：

(1) 人為因素及人為表現

(2) 疲勞管理與班務時間

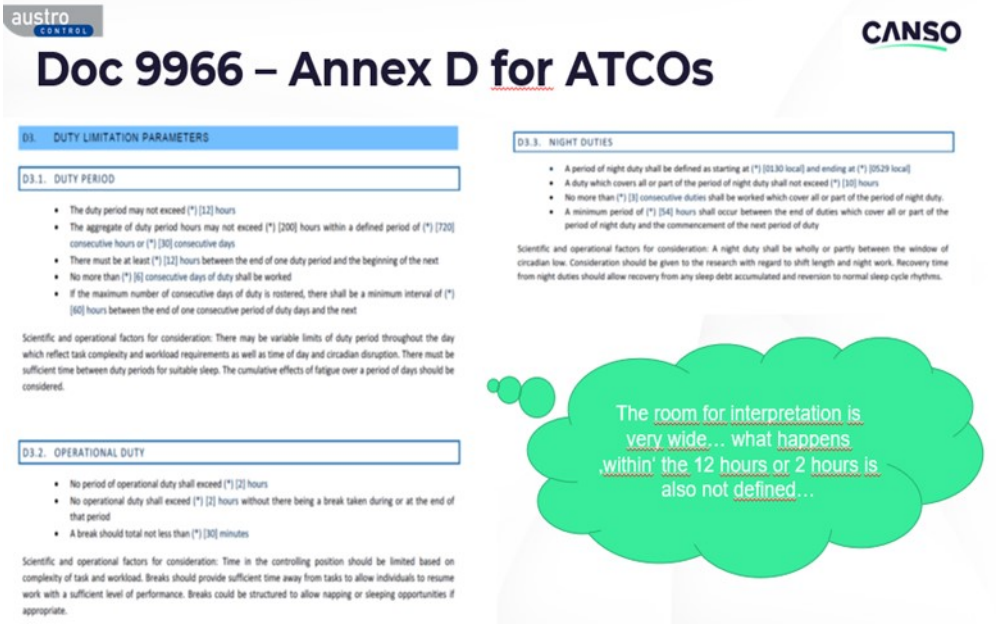
(3) 公正文化

(4) 人為失誤

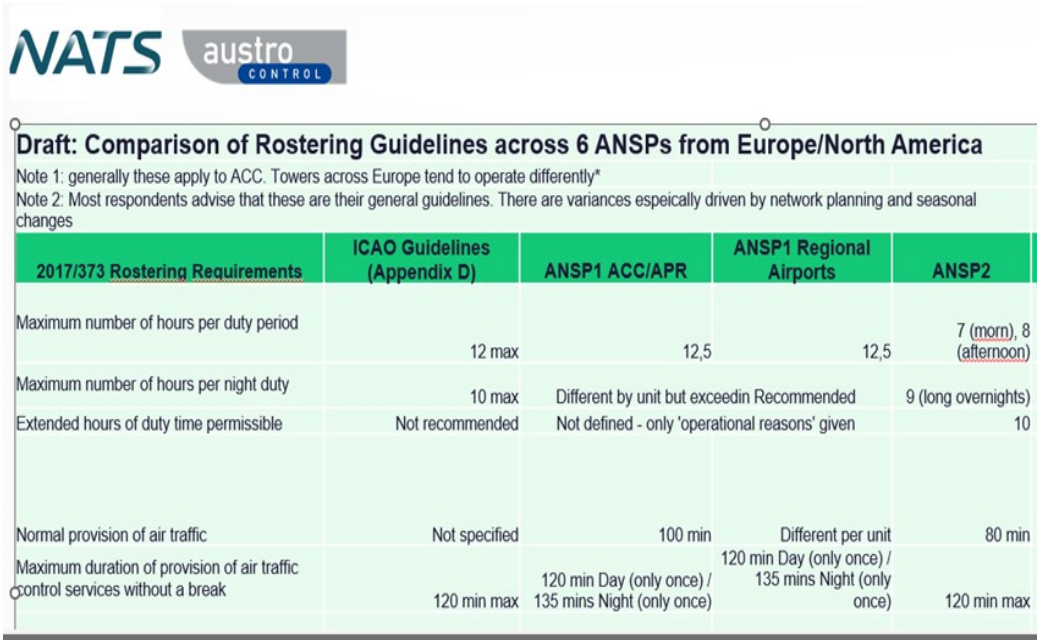
(5) 嘗試使用數據來分析人為失誤及並將之應用於改善策略

目前，奧地利發現該國實際在執行 ICAO 疲勞管理的規定時，有些無法立即達成的部分，如班務時間無法完全符合 ICAO 現行規定。

奧地利在這方面採取的策略是採用漸進式達成，說明無法符合的原因，並持續尋求相關規定的擴大解釋，以逐步符合 ICAO 的規定。



圖二、奧地利資深管制員 Lea-Sophie Vink 分享疲勞管理之相關文件



圖三、奧地利資深管制員 Lea-Sophie Vink 分享歐洲/北美 6 家 ANSP 的實際班務時間與 ICAO Doc9966 APPENDIX D 比較

3. 管制員，正向安全文化的關鍵參與者

第三場專題演講的主題為「管制員，正向安全文化的關鍵參與者(ATCOs, Key Player for Positive Safety Culture)」。主講者為 ICAO 亞太地區辦公室飛航管理(Air Traffic Management ATM)事務專員 Ms. Lia Sunok Lee，其為南韓飛航管制員，於 2020 年進入 ICAO 亞太地區辦公室北京分處擔任 ATM 專員，並負責安全管理相關業務。其本次演講主要內容如下：

(1) 全球飛航管理運行概念（Global Air Traffic Management Operational Concept, Doc 9854

(2) 從國際民航組織的角度看正向安全文化

(3) 發展正向安全文化(Developing a positive safety culture)

(4) 正向安全文化特徵

(5) 安全為組織當務之急

(6) 安全優先

(7) 安全人人有責

(8) 安全文化現狀及推行之挑戰

圖四、ICAO 亞太區辦公室飛航管理事務專員 Lia Sunok Lee 分享亞太區 ICAO 會員國之安全文化現狀及推行之挑戰

本場演講雖然名為「管制員，正向安全文化的關鍵參與者」，惟演講內容實為整體安全文化之表述，並於演講中舉數個管制員於作業中的積極安全文化表現作為範例說明。Lia Sunok Lee 於演講中提到安全文化推行的挑戰，如成員缺乏對組織解決安全問題的信心、成員害怕報告本身的錯誤會有後續處分等，確實是推行安全文化的關鍵挑戰，這部分有賴組織持續展現推行安全文化的決心，對於自願報告者盡可能免除其罰則，並建立每個人都應協助組織找出安全風險並協助解決的觀念，以逐漸形成良好的組織安全文化。

二、 第二天(10 月 21 日)：專題演講與會員協會會務報告

第二天會議於台灣時間早上九點準時開始，今日的會議主軸，上午為專題演講，共有三場；下午的議程則為會員協會會務報告。

(一) IFATCA 參與 ICAO 亞太地區會議相關成果

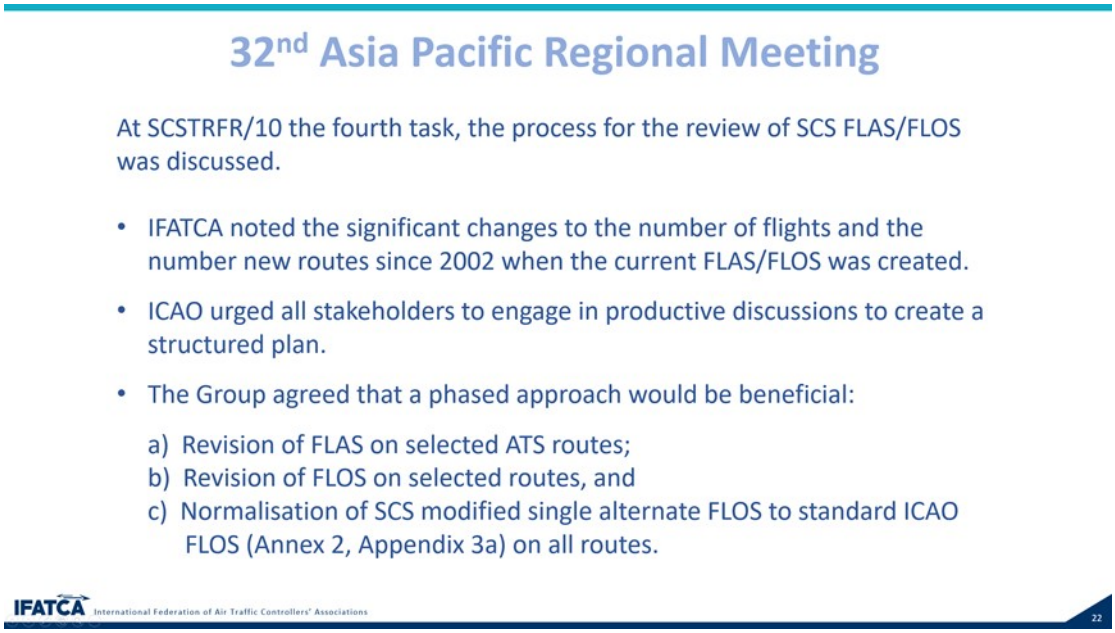
上午的專題演講第一場為「國際飛航管制員協會聯盟和國際民航組織亞太地區會議成果(IFATCA and ICAO APAC Regional Meeting Outcomes)」，主講者為 IFATCA 之 ICAO 亞太區代表 Mr. John Wagstaff，當中提到，IFATCA 是獲准參加 ICAO 會議的國際組織之一，自去年 10 月 IFATCA 亞太區線上會議後，ICAO 亞太地區已舉行了 38 次會議，涵蓋亞太區各層面航空相關議題。IFATCA 收到許多會議的邀請，但由於人力和財力資源的限制，參與的主要是與管制員相關議題的會議，同時也對其他會議仍進行了追蹤，並記錄了相關成果。IFATCA 在過去一年主要參與了以下主題的會議：飛航安全相關的及飛航管理相關的 (包括 ATFM, AIS/ATM、CNS)及航空氣象。

Mr. John Wagstaff 點出， 在今年度 ICAO 亞太區的安全監督小組會議報告中， 亞太區的風險熱點區顯著減少。本情報區與馬尼拉情報區之交界處過去總被列為安全監督熱點，但由於近幾年跨飛航情報區/設施間資訊溝通系統(ATS interfacility data communication, AIDC) 的設置而風險降低，遂移除觀察熱點清單。

在中南海飛航流量管理小組會議以及飛航管理小組會議的部分，ICAO 亞太區辦公室肯定各個會員國在疫情期間不斷進行國對國縮減隔離試驗做法，並持續呼應各會員國應充分利用雷達監視及 AIDC，在安全無虞的前提下繼續朝縮減隔離或移除飛航空層協調計

畫(Flight Level Orientation Scheme/ Flight Level Allocation Scheme, FLOS/FLAS)的方向進行，配合 ICAO 無縫天空計畫的推展，朝向更優化及更有效率的空域使用目標邁進。

圖五、IFATCA ICAO 亞太區代表 John Wagstaff 分享 IFATCA 參與 ICAO 亞太地區會議之相關會議結論



圖六：中南海飛航流量管理小組會議之重點摘要

(二) 航空國際組織論壇

第二場演講為航空相關國際組織論壇，採線上形式，邀請 CANSO、IATA 以及 IFALPA 等組織代表參加此場座談。每一個組織的代表依據其當前組織重點發展之工項、對疫情後亞太區航情復甦之看法、以及未來可能的合作契機進行說明，演講內容分述如下。

1. 消除無形的障礙(Taking Down the Invisible Wall)

第一個發表的主題為「消除無形的障礙(Taking Down the Invisible Wall)」，主講者為 CANSO 亞太區事務主席 Mr. Poh Theen Soh，其簡報當中提到了未來在飛航管制領域的四大挑戰：

(1) 未能將資源及投資挹注飛航管理(Failure to draw in resources and investments into ATM)

(2) 不信任和缺乏協調的方法(Mistrust and lack of coordinated approach)

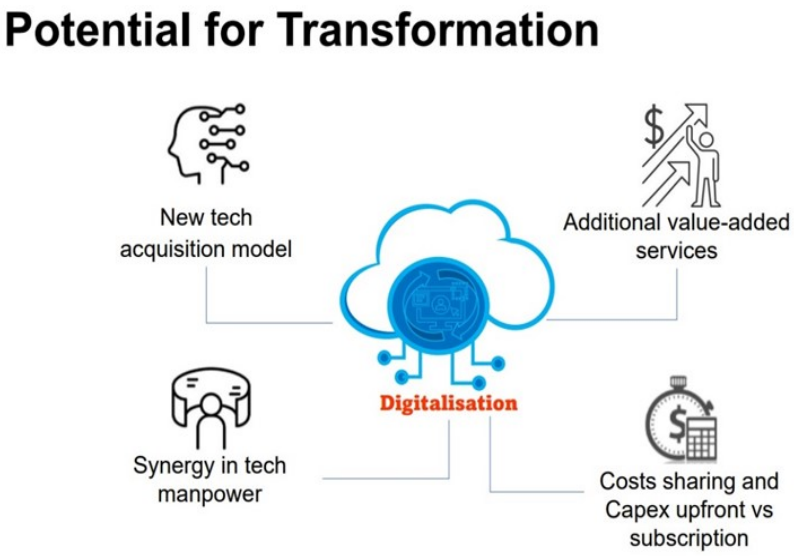
(3) 供需缺口擴大(Widening gap between demand and supply capacity)

(4) 飛航管理標準下降(Drop in ATM safety standards)

根據這四個飛航管理領域未來可能遇到的問題，CNASO 進而提出了未來 ATM 的轉型概念：運用數位化進行資訊交換。

CANSO 亞太區事務主席 Mr. Soh 在其演講的最後，強調飛航管理數位化是未來的趨勢，而促成這樣的發展需仰賴各利益關係方的合作。他引用 IFATCA 的創立宣言 “……, a comprehensive solution requires a high level of cooperation between all members of ATM community”(全面性的解方仰賴飛航管理領域裡各方面的

高度合作)來勉勵與會的飛航管制員多多親身參與飛航管理數位化的未來。

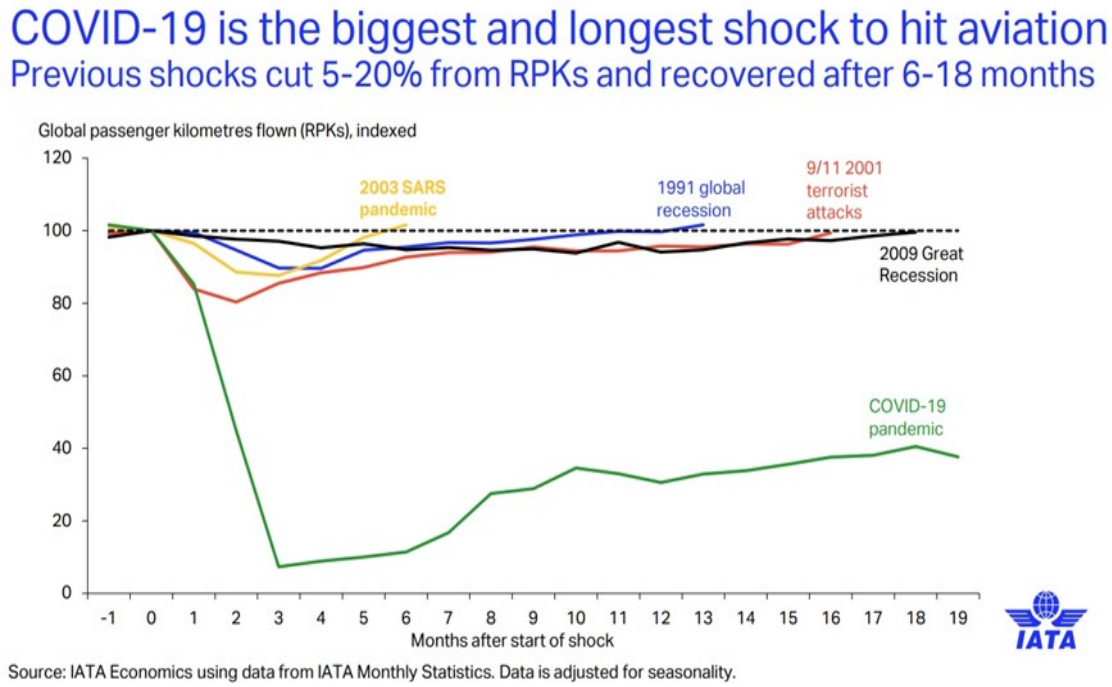


圖七、CANSO 亞太區事務主席 Mr. Poh Theen Soh 分享如何應對上述飛航管理之四大挑戰

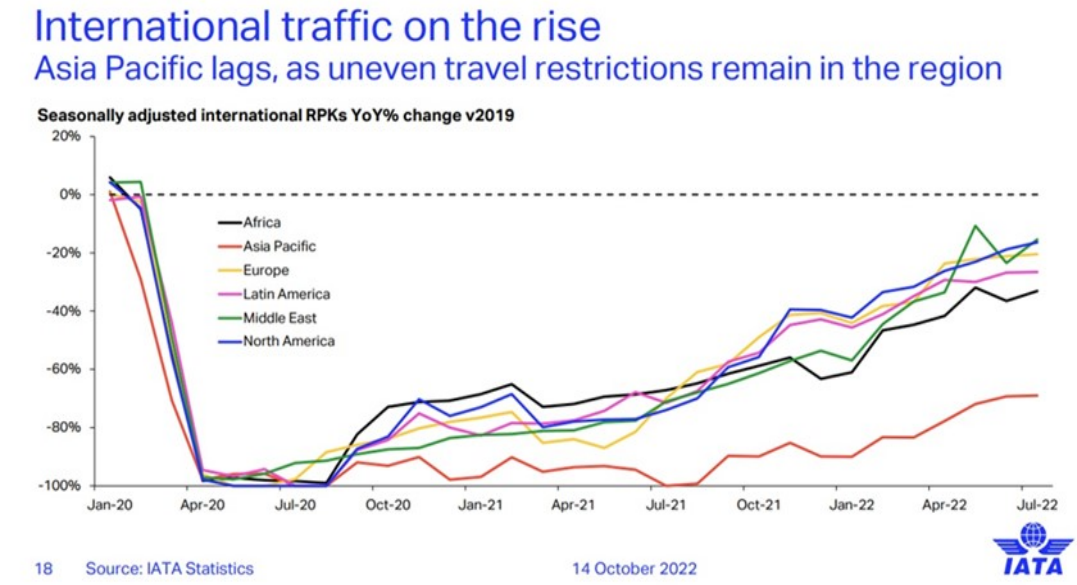
2. 安全及航空營運(Safety and Flight Operations)

第二場發表的主題為「安全及航空營運(Safety and Flight Operations)」，主講者為 IATA 亞太區操作及安全助理執行長 Mr. John Moore，IATA 支持各方面航空營運和安全的相關議題，包括飛航管理、基礎設施、空中助導航服務／飛航管制服務收費、跑道安全等，並通過系統性的查核制度建立安全標準，例如 IATA 營運安全查核，評估航空公司的營運管理和控制系統等。Mr. Moore 亦提及 COVID-19 疫情對全球航空產業的影響，比起 2003 年 SARS 疫情及 2009 年金融海嘯等影響更加劇烈，且航情復甦所需要之時間更久，隨著各國逐漸開放邊境，航情逐漸恢復當中，但亞太區域由於隔離政策等旅行限制因素，恢復趨勢

仍較歐美地區緩慢。



圖九、IATA 亞太區操作及安全助理執行長 Mr. John Moore 藉由趨勢圖說明 COVID-19 疫情相比 2003 年 SARS 疫情及 2009 年金融海嘯對航空產業之影響更加劇烈。



圖十、IATA 亞太區操作及安全助理執行長 Mr. John Moore 分享亞太區的旅遊限

制使得航情復甦較其餘地區緩慢。

然而，在復甦階段，航空業可能會面臨的挑戰如下：

(1) 需求反彈的速度出乎意料

(2) 人員感染 COVID-19 造成人力問題

(3) 機場人力不足造成作業延遲

(4) 無法僱用到足夠且受過訓練之人力

(5) 空域限制和緊急應變

(6) 燃油價格因為國際情勢而浮動

以上因素可能造成非預期之航班延誤或取消，但以目前之情勢樂觀預測，總體而言全球於 2024 年可望恢復至疫情前之航情量，但各區域的恢復狀況仍視實際狀況而定，有些區域可能要到 2025 年。

圖十一、IATA 亞太區操作及安全助理執行長 Mr. John Moore 分享 COVID-19 後各區域航情恢復之預計時間

3. 航空公司機師協會國際聯合會區域合作(IFALPA Regional Collabration)

第三場發表的主題為「航空公司機師協會國際聯合會區域合作(IFALPA Regional Collabration)」，主講者為泰國航空 Amornvaj 機長，現任航空公司機師協會國際聯合會 IFALPA(International Federation of Air Line Pilots' Associations) 之訓練副會長。IFALPA 是一個國際非營利組織，成員有近 100 個國家的 100,000 多名飛行員，旨在促進全球最高水平的航空安全，並成為飛行員的全球倡議者，為會員和航空業發聲。與管制員同身為第一線航空從業人員，IFALPA 目前與 IFATCA 長期合作的相關議題包含減輕組員操作負擔、飛行員的心理健康、推動正向的安全文化。在公正文化此議題上，IFALPA 一份針對亞太區的問卷調查中顯示，僅有 18%認為公司有正向的安全文化，12%認為沒有，70%不確定，顯示正向的安全文化在亞太地區航空公司之推動，仍有很大的努力空間。

(三)重大事件壓力管理 Critical Incident Stress Management（CISM）

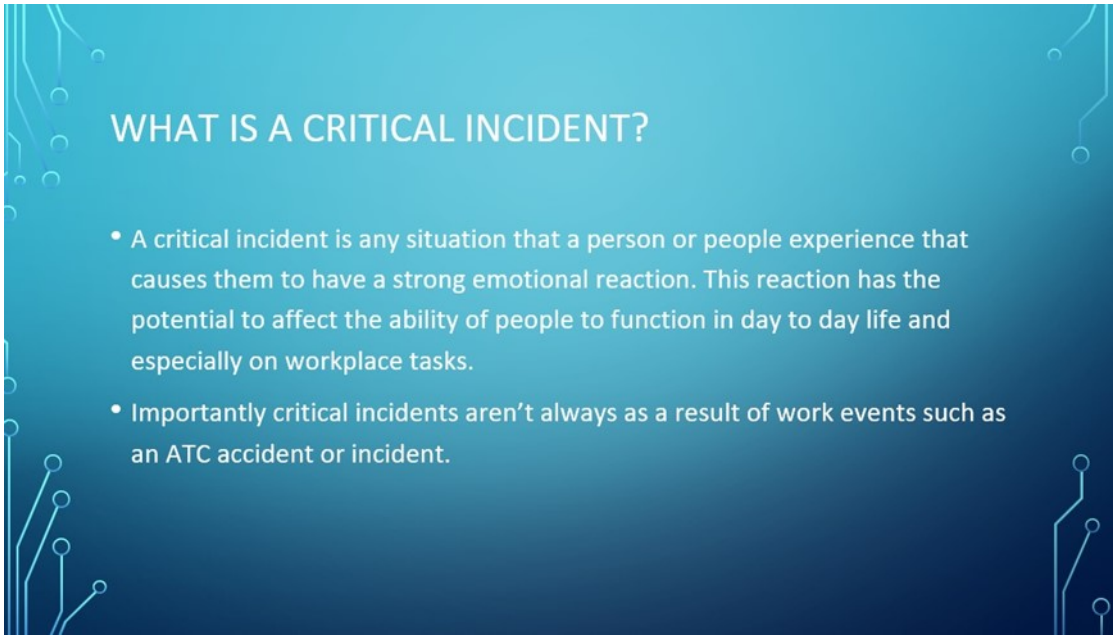
上午的第三場演講的主題為重大事件壓力管理，由澳洲飛航管制員 Tom McRobert 及紐西蘭飛航管制員 Janet Taylor 及機師 Mark Mehlhopt 共同主講。CISM 為當前 Eurocontrol 相當重視之議題，尤其在疫情期間， 許多航空從業人員面臨裁員，或是因為疫情而面臨親人離世，以及因為各國防疫規定造成機組員於過去兩年不斷重複居檢隔離，造成許多人員面臨心理的壓力及創傷。

Mr. McRobert 首先定義重大事件(Critical Incident)，是一個人或多人經歷任何導致他們產生強烈情緒反應的情況，這種反應有可能影響人們在日常生活中的能力，尤其是在工作場所中。重大事件並不總

是由管制員導致的事故或一般事故等事件引起，像是這兩年的疫情，也是可能造成管制員重大壓力的事件。

職業壓力可能來自緊急情況、意外事件、意外事故、調查、工作環境或時間壓力，Ms. Taylor 即分享紐西蘭的駕駛及管制員協會之所以開始 CISM 的計畫，其實是從一群需要身兼多職的女性管制員及飛行員開始，他們組成支持團體，在需要時互相提供協助資源及支持，並為彼此加油打氣；這個計畫慢慢擴展到其他的生活壓力事件，諸如同事的重要親人過世時，或是發現有同事疑似有自殺傾向時，他們就會派小組同仁進行關懷。

小組的成員都是機師及管制員協會之成員，協會安排相關的陪伴訓練課程給有意願做為種子關懷員的同仁修習，沒有背景限制。依據澳洲及紐西蘭所發展出 CISM 及類似的同儕支持制度，可以由工會、協會、飛航服務單位、外部專門單位發起，或是可以僅針對單一重大事件提供支持計畫。



圖十二、澳洲飛航管制員 Tom McRobert 分享重大事件壓力管理

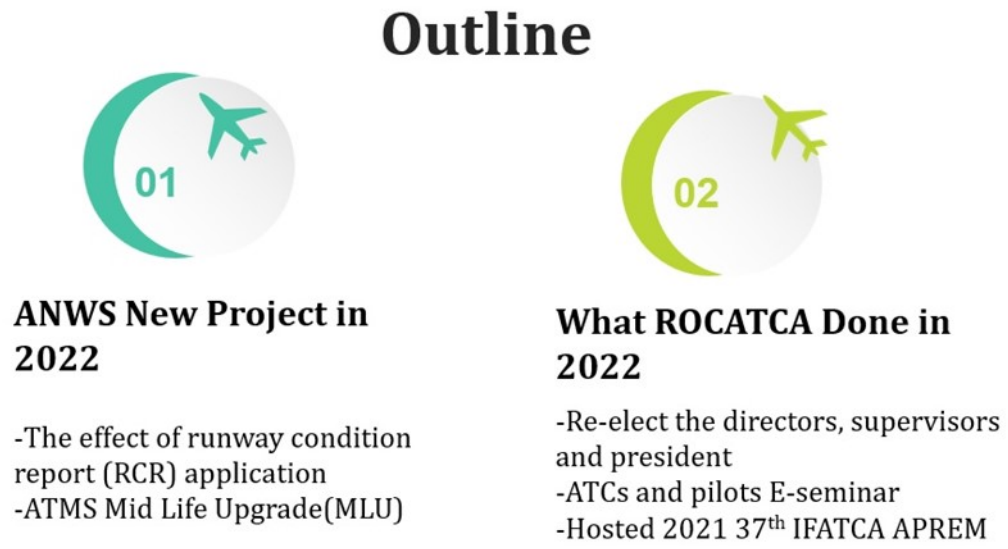
(四)會員協會報告

第二天下午的會員協會報告分為上下半場，上半場由西南亞及太平洋區的會員協會報告，下半場由北亞及東南亞區的會員協會報告。各會員國本年度的報告重點綜整如下：

1. 跑道狀況報告(Runway Condition Report, RCR)的執行狀況：各國的做法大多為航務員觀測後，再透過傳真或網路將 RCR 資訊傳遞給管制員，若有顯著變化，管制員會即時播報；新加坡利用自動觀測系統，將數據直接輸入 ATIS 播報系統內。我國桃園國際機場目前則是採行兩階段觀測，天氣有變化時，先由航務單位透過機場之攝影機對跑道狀況進行觀測，等待跑道有空檔時，再進行實體的跑道觀測，以降低對航機起降之影響，並兼顧即時跑道資訊之提供。而伊朗則是由系統提供相關代碼，透過 AFTN 轉發給管制員，未來會朝向用 AFTN 將代碼轉發給 ATIS，再透過 ATIS 播報給飛行員。
2. 疫情時代的航情恢復狀況：誠如 IATA 的報告所示，目前各國之航情恢復狀況約為疫情前六至七成，部分國家如新加坡國境開放較早，國際航班已恢復至疫情前的八、九成航情量；蒙古因受到烏俄戰爭之影響，過境航班顯著下降，約餘 1 成左右；日本、印度、菲律賓、印尼等幅員較廣、境內航班多之國家，也表示其國內線已回到疫情前之水準。待中國及其轄下之特別行政區域逐步解封，亞洲區之航行量預期將會以較急遽之方式回彈。
3. 整建機場及軟、硬體設施升級：香港機場新建第三跑道以及數位塔臺之場面監控系統、澳門機場整建滑行道、尼泊爾擴建 Gautam Buddha International Airport、蒙古新烏蘭巴托國際機場

ZMCK 正式營運等。

本年度，我國之會員協會報告由飛航服務總臺區域管制中心陳管制員薇茵主講，分享之內容包括總臺之飛航管理系統期中升級(Mid Life Upgrade)計劃順利完成說明、我國自 2021 年 11 月 4 日依照 ICAO 之時程正式於全臺灣所有民方管制機場執行 RCR 之資訊提供、以及過去一年協會在促進會員互動交流所舉辦之活動介紹，報告內容令與會者印象深刻。



圖十三、中華民國飛航管制員協會本年度會員協會報告大綱

三、 第三天(10 月 22 日)：IFATCA 會內工作小組工作報告及 2023 年相關計畫

會議第三天上午所安排之議程為與 IFATCA 及會員協會權益相關之介紹及說明，包括 IFATCA 內部的委員會工作內容、各任務小組之工作報告，以及亞太區未來兩年之相關活動規劃，說明如下。

(一)IFATCA 內部各工作小組及訓練課程介紹

本場演講由 IFATCA 執行委員之一、IFATCA 於 ICAO 之主要窗口代表 Mr. Jean-Francois Lepage 主講，他首先介紹 IFATCA 執行委員會為 IFATCA 之主要決策小組，包含會長、副會長、財政長、媒體公關長、IFATCA 全球四個分區的執行副主席、政策副執行長、技術副執行長、ICAO 事務主責人以及辦公室庶務秘書 1 人，每週線上開會一次，每年舉辦兩次實體委員會會議，由其一委員之會員國協辦，委員會成員會針對各自負責之事務以及 IFATCA 之營運相關議題提出報告及討論。

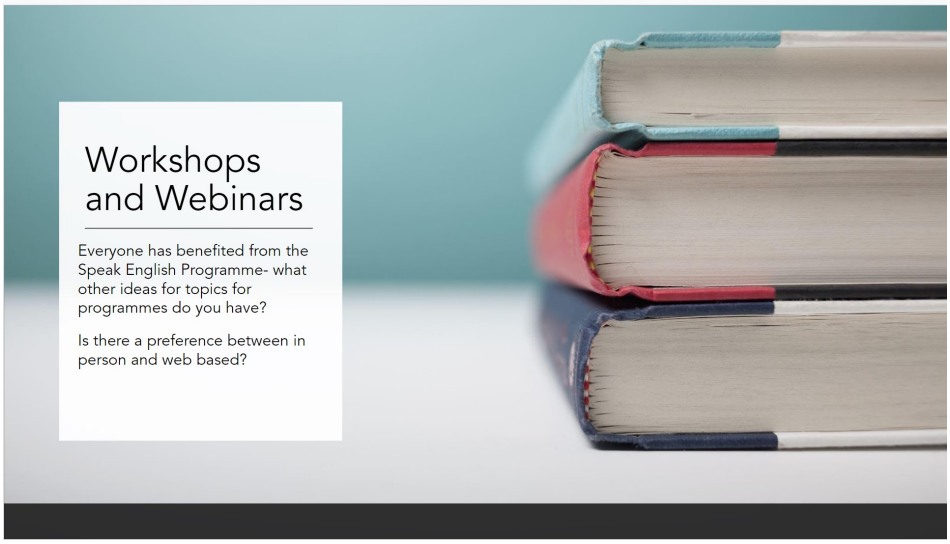
IFATCA 另有財務委員會，每年開會兩次，針對 IFATCA 之預算對照收入及支出進行把關， 並對會員成員所提出之經費補助申請進行檢核；另有一章程委員會，針對 IFATCA 之章程及會議舉行之作法進行解釋，並在需要調整時提出修正建議。例如，過去兩年因為疫情，原 IFATCA 章程中並無舉行線上會員大會之相關作法，此小組便根據疫情之實際狀況以及設想未來可能會遇到之類似情形，提出修改線上會議及電子投票之條文入 IFATCA 之組織章程內。

IFATCA 另有兩專業委員會，一為技術與操作委員會(TOC)，一為專業與法制委員會(PLC)，專門討論航管相關之專業議題。會員協會可以藉由 Job Card 提出希望此兩委員會可以協助研究之問題，由技術副執行長及政策副執行長領導，分派相關研究問題與委員會之成員

進行為期一年至兩年之研究，並於每年的全球年會分別於 Committee B 及 Committee C 之之議程發表相關研究成果，並對 IFATCA 之專業建議手冊提出修改或增訂，這些建議須經過 IFATCA 出席全球年會之會員投票表決通過後，才會增修進 IFATCA 之專業建議手冊中。另外，此二委員會所提出之研究建議，也會作為 IFATCA 參與 ICAO 各工作小組之參考建議及策略方向。此二委員會每年招開兩次實體研討會，其成員各由 10 個會員協會出任，每兩年於 IFATCA 全球年會票選。

(二)IFATCA 2030 任務小組

IFATCA 在過去幾年一直有相關聲浪認為 IFATCA 的工作焦點太以歐洲為中心，因此，於 2019 年接手之新任執行委員會遂成立 2030 任務小組，由瑞士管制員 Mr. Julian Ogilvie 為主席，其功能為蒐集 IFATCA 各會員協會對於 IFATCA 之期望，並協助推動整個聯盟朝會員們希望的方向前進。亞太區由新加坡管制員 Mr. De Wei Lim 及蒙古管制員 Ms. Nainna 為此小組代表，並於此次亞太年會分享本區會員對於 IFATCA 未來走向之建議，包括希望本區能針對管制員的疲勞管理、公正文化、ICAO 政策及手冊做法、無人機及人工智慧等議題舉辦更多專業的工作坊、線上會議以及專業知能訓練課程。



圖十四、IFATCA 2030 任務小組說明其對會員協會進行之問卷調查結果

(三)IFATCA 大家說英語計畫 (Speaking English Program, SEP)

英語為航空通用語言，全球飛航管制員都須有 ICAO 無線電溝通英語檢定能力四級以上之認證始得執業。然而，疫情期間由於航行量驟減，許多非以英語為母語之國家的管制員也因此減少了許多英語使用之機會。因此，IFATCA 自 2020 年疫情起始時，便由亞太區籌備大家說英語計畫，並鼓勵全球 IFATCA 會員利用此平台多多練習英語口說，增進對英語使用之信心，以便於緊急事件發生時能夠更有臨場運用英語處置之能力。此平台歡迎所有會員利用，無須收費，目前每個月參與之人數約為 150 人次。臺灣有兩位管制員參與此項計畫擔任平臺主持人，分別為總臺之管制員陳妍君及楊仲鈺。

圖十五、IFATCA SEP 之主要目的及功能

(四)IFATCA 2023 全球年會、亞太年會及 2024 亞太年會相關資訊

IFATCA 2023 年之全球年會將於 2023 年 5 月 8-12 日假牙買加實體舉行，會議網站已建置完成 (https://ifatca2023.org/)，相關訊息亦可於網站查詢，臺灣公民前往牙買加旅行須辦理簽證，宜及早預劃明年度派遣人員與會事宜。

IFATCA 2023 年之亞太年會由印尼飛航管制員協會主辦，地點由原先的日惹改至峇里島，時間預計為十月中下旬。而 2024 年之亞太年會地點也於此次會議決議，將由印度管制員協會主辦。

肆、 心得

本次會議為過去兩年多 COVID-19 疫情之後實體會議重新舉辦的第一場 IFATCA 亞太年會。過去兩年之疫情，航空業首當其衝；隨著疫情趨緩，各國逐步解封，航行量也開始緩慢復甦，如何安全地回復到疫情前之航行量能是 ICAO 以及各個國際組織在疫情後所看重之焦點。隨著航行量的增加，飛安事件之增加在所難免，人為因素為飛安事件最易被檢討之原因，也是所有飛航管制員可以思考並自我期勉精進之方向。飛航安全蘊於飛安文化，ICAO 亞太區專員針對本區所進行之調查也發現，亞太區之正向安全文化尚有可以進步之空間，期許各國能夠能承諾對安全文化之重視，並以獎勵代替懲罰來鼓勵安全事件之自願通報。

從會員協會報告亦可看出，在疫情期間，各國多積極利用此段時間強化飛航環境之硬體新建／改建、引入新技術、新系統；各國也都意識到管制員在疫情期間因航行量驟減而可能有管制技巧生疏之疑慮，因此，各會員國紛紛於其會員協會報告中提到其國內辦理各類人員強化訓練之機制，我國亦同。

IFATCA 作為全球飛航管制員之領導組織，積極透過參與 ICAO 全球及地區之會議，在不同議題上協助飛航管制專業發聲，且對內亦傾聽會員協會之需求，調整並提供各種訓練資源供會員利用，針對會員協會所提出之問題加以研究並擬定建議作法，對於強化飛航管制員社群之專業性有正向之貢獻。

伍、 建議

一、 鼓勵第一線值班同仁積極參與國際會議

IFATCA 之全球年會以及亞太地區會議，他國多派遣第一線管制同仁與會；本區今年度亞太年會出席人員陳管制員薇茵以第一線值班同仁身分參與本屆亞太年會，並代表我國進行會務簡報，表現優異，亦於會議期間積極與他國管制員交流，尤其與鄰區管制員有許多作業面上議題之討論，彼此之間在作業層面能相互理解對未來跨區合作有很大的幫助；此外，飛航服務總臺陳管制員妍君自 2018 年積極投入 IFATCA 相關會議，並於 2021 年接任 IFATCA 亞太區執行副主席一職，對於拓展本區於航空國際場域之能見度有實質之助益。

IFATCA 會議之專題演講及討論議題多與第一線管制同仁平日作業息息相關，第一線值班人員參與國際會議也有助於了解國際間民航發展之趨勢，亦能增進同仁之國際視野，了解我國作法與國際接軌之同步性。期盼在民航局及總臺的鼓勵下，能培養更多第一線有志同仁參與國際會議，除了將國際視野帶回作業單位，亦達到共同提升臺灣在國際民航能見度之目的。

二、 因應後疫情時代，持續精進管制員的管制能力，也持續深化正向安全文化之環境

本次會議之專題演講，如航空國際組織論壇、Ms. Lea Sophie-Vink 在人為因素及疲勞管理上之探討，以及 Ms. Lia Sunok Lee 在正向安全文化等議題之簡報，都提及後疫情時代航行量的急遽回復可能是飛航安全之隱憂，除在人員訓練上強化管制員對航情之掌控能力，例如，過去一年飛航服務總臺轄下管制單位已經著手進行之高航行量模擬機訓練，並盡力提升第一線

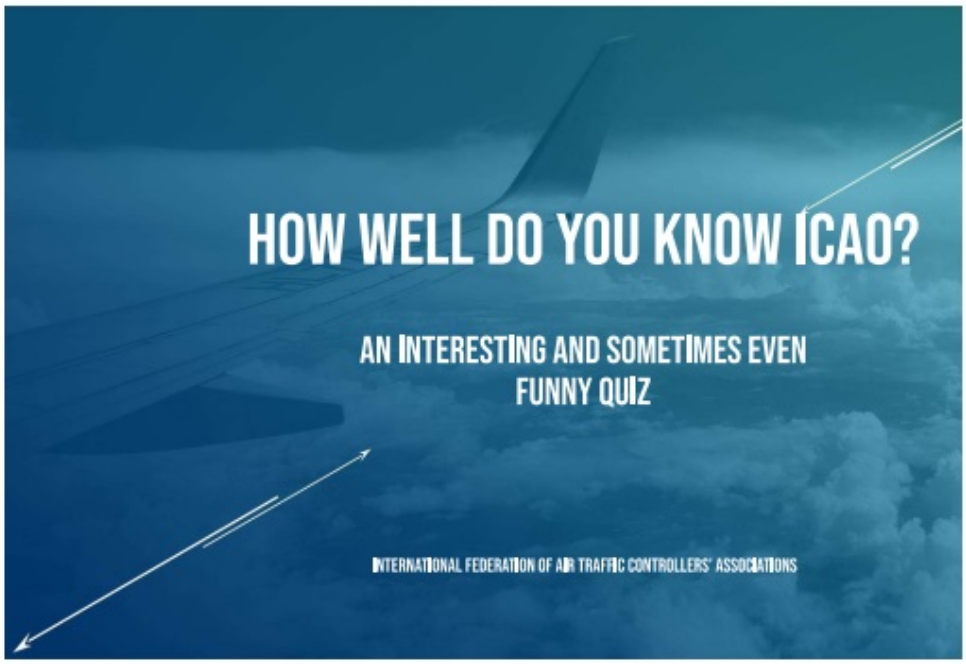
管制同仁之安全觀念以及對安全的重視以外，整體飛航服務組織應如何強化飛航安全資料之蒐集、確保第一線同仁與管理階層間之相互信任進而反饋於安全文化之深根，著實需要組織從上到下一同承諾與努力。

三、 強化航空產業各領域之國際參與，深化與航空相關利益者之合作，共同開創疫情後之航空新時代

會議第二天之航空國際組織論壇，無論是 CANSO、IATA 或是 IFALPA，都強調跨國、跨組織合作之重要性。臺灣雖非 ICAO 會員國，然透過飛航管制員協會參與 IFATCA 之事務、飛航服務總臺於 CANSO 之積極參與、國籍航空公司及地勤公司作為 IATA 之會員、以及近日機師工會組織以觀察員之身份受邀參加 IFALPA 之年會，這些航空領域內不同單位各自針對其自身專業於國際組織之參與，都是未來能促成我國於航空領域與他國進行交流與合作之契機。

陸、 附錄

附錄一、 國際飛航管制員協會聯盟在國際民航組織中扮演的角色(IFATCA’s Work in ICAO)簡報摘要



QUESTION 3

ICAO has several regional offices around the world.

TRUE!

FALSE!

IFATCA

QUESTION 4

The main purpose of ICAO is to create standards and recommended practices, also called SARPs.

TRUE!

FALSE!

IFATCA

FIVE STRATEGIC OBJECTIVES:

Safety

Capacity & Efficiency

Security

Economic Development

Environmental Protection

IFATCA

ANNEXES TO THE CONVENTION, PANS, MANUALS AND CIRCULARS

In addition to the Chicago Convention:

- 19 Annexes
- Procedures for Air Navigation Services (PANS, ex.: Doc. 4444)
- Standards and Recommended Practices (SARPs)
- Standard : necessary
- Recommended Practice : desirable

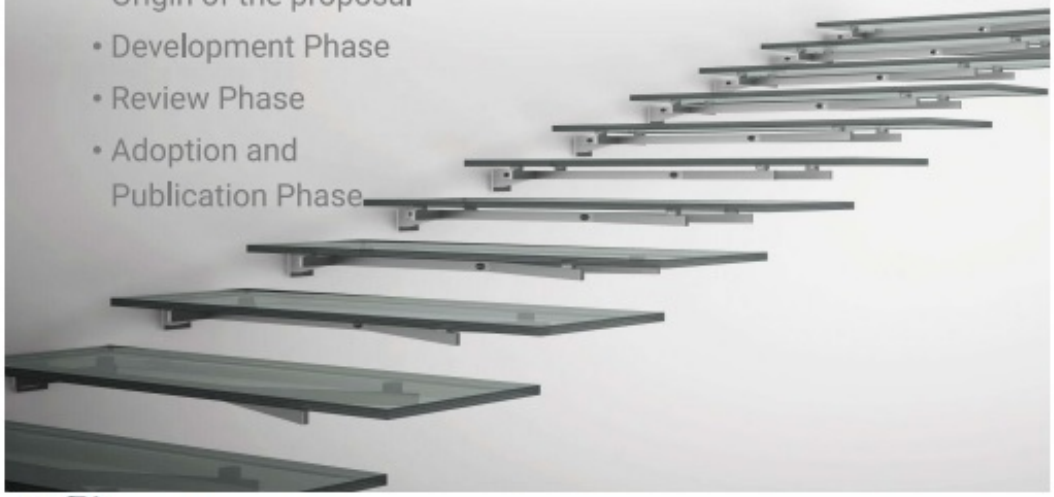
IFATCA

HOW ARE STANDARDS CREATED? WHY ARE THEY NECESSARY?

IFATCA

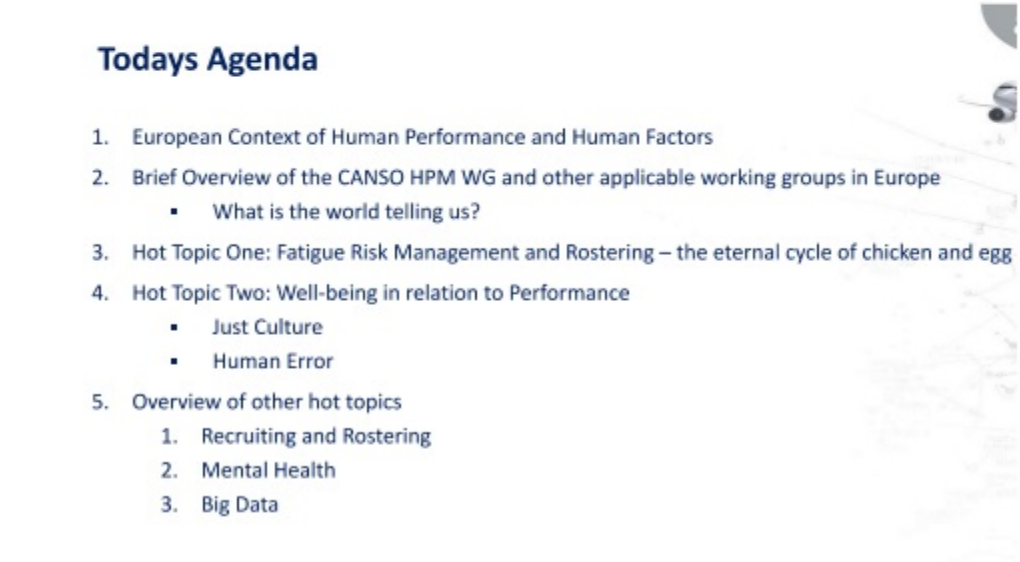
4 PHASES:

- Origin of the proposal
- Development Phase
- Review Phase
- Adoption and Publication Phase



IFATCA

附錄二 、 後疫情時代之人為表現：相關研究之最新進展(Updates and Advances in Human Performance in a Post-Covid Context) 簡報摘要



The Four Layers of Human Performance and Human Factors

New team – consistent vision

- To develop a Global Human Performance in ATM strategy to support CANSO members in addressing current challenges and prepare for future changes in line with the CANSO (Europe) Safety Strategy.
- To further understand, clarify and promote the role of human performance of ***all personnel*** as a vital component for safety goals and operational success.
- To create and ***enhance awareness*** of the relevance of Human Performance Management in ATM and provide guidance on Human Performance in ATM for CANSO members as requested by the SSC.
- To ***provide guidance material*** for ANSPs to be successful in implementing Human Performance Management in their organisations.
- To provide thought leadership about current and future challenges, best practices and trends in Human Performance in ATM (e.g. Automation, Digitalisation, new entries in the ATM airspace)
- To provide advice and guidance regarding CANSO positions as it relates to Human Performance in ATM.

austro CONTROL

Doc 9966 – Annex D for ATCOs

D3. DUTY LIMITATION PARAMETERS

D3.1. DUTY PERIOD

- The duty period may not exceed (*) [12] hours
- The aggregate of duty period hours may not exceed (*) [100] hours within a defined period of (*) [720] consecutive hours or (*) [30] consecutive days
- There must be at least (*) [12] hours between the end of one duty period and the beginning of the next
- No more than (*) [6] consecutive days of duty shall be worked
- If the maximum number of consecutive days of duty is rostered, there shall be a minimum interval of (*) [60] hours between the end of one consecutive period of duty days and the next

Scientific and operational factors for consideration: There may be variable limits of duty period throughout the day which reflect task complexity and workload requirements as well as time of day and circadian disruption. There must be sufficient time between duty periods for suitable sleep. The cumulative effects of fatigue over a period of days should be considered.

D3.2. OPERATIONAL DUTY

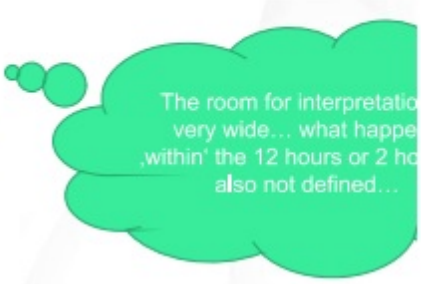
- No period of operational duty shall exceed (*) [2] hours
- No operational duty shall exceed (*) [2] hours without there being a break taken during or at the end of that period
- A break should total not less than (*) [30] minutes

Scientific and operational factors for consideration: Time in the controlling position should be limited based on complexity of task and workload. Breaks should provide sufficient time away from tasks to allow individuals to resume work with a sufficient level of performance. Breaks could be structured to allow napping or sleeping opportunities if appropriate.

D3.3. NIGHT DUTIES

- A period of night duty shall be defined as starting at (*) [00:00 local] and e
- A duty which covers all or part of the period of night duty shall not exceed
- No more than (*) [3] consecutive duties shall be worked which cover all o
- A minimum period of (*) [54] hours shall occur between the end of du period of night duty and the commencement of the next period of duty

Scientific and operational factors for consideration: A night duty shall be wholly o circadian low. Consideration should be given to the research with regard to shift leng from night duties should allow recovery from any sleep debt accumulated and reversio



NATS austro CONTROL

Draft: Comparison of Rostering Guidelines across 6 ANSPs from Europe/North America

Note 1: generally these apply to ACC. Towers across Europe tend to operate differently*
Note 2: Most respondents advise that these are their general guidelines. There are variances especially driven by network planning and seasonal changes

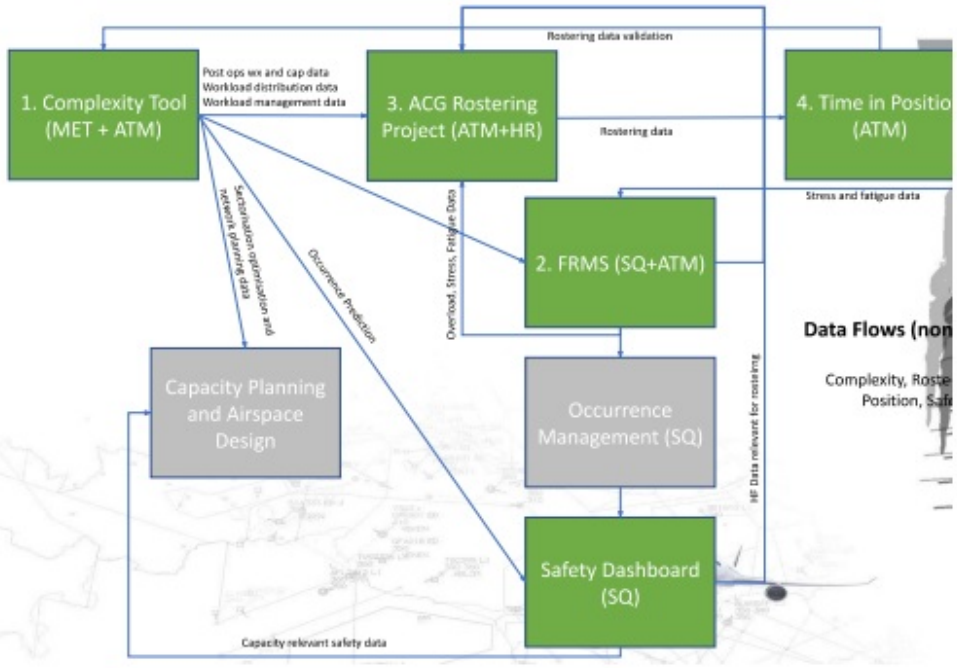
2017/373 Rostering Requirements	ICAO Guidelines (Appendix D)	ANSP1 ACC/APR	ANSP1 Regional Airports	ANSP2	ANSP3	ANSP4	AN
Maximum number of hours per duty period	12 max	12.5	12.5	7 (morn), 8 (afternoon)	7	10 (day) and 12 (night)	7.5 and but with
Maximum number of hours per night duty	10 max	Different by unit but exceedin	Recommended	9 (long overnights)	9	12	15 - once
Extended hours of duty time permissible	Not recommended	Not defined - only 'operational reasons' given		10	Not allowed	Not allowed	
Normal provision of air traffic	Not specified	100 min	Different per unit	80 min	80 min	100 min	
Maximum duration of provision of air traffic control services without a break	120 min max	120 min Day (only once) / 135 mins Night (only once)	120 min Day (only once) / 135 mins Night (only once)	120 min max	120 min max	120 max	
Maximum consecutive day shifts	6 (if so, there shall be 60 hours between next cycle)	4	5	ANSP2 operates a 5 shift system that rosters: 3 on, 2 off	5	4	
Maximum consecutive shifts including nights	6	5	6	Rotational - but ends up being 3 days on and 2 off	6	5	
Maximum hours work per week (Mon-Sun)	50 (or 200 hours per 30 day period)	60	60	60 (max!)	48	50	45 per
Ratio between duty periods and breaks in the provision of air traffic control services		25%	19%	At least 3 per day	N/A	N/A	Not
Maximum number of consecutive duty periods extending into the night, if required by the operating hours of the ATC unit concerned.	3	2 or 3 consecutive night duties	3	2	3	3	
Minimum duration of the rest period following a duty period extending into the night	12 hours minimum	Min 8 by permission otherwise 11 hours	Min 8 by permission otherwise 11 hours	12+	Unknown	12	
How many hours maximum can a controller spend at a workstation?							

austro CONTROL

Fatigue Risk Management Solutions

Essentially, all solutions boil down to three options:

- Medium term / long term defence: Automated Rostering tools to reduce staff leakage and harmonise staff usage. Combined with rotating teams rather than individual tailored. Combined with regular training...
- Short term (as in tactical rostering): dynamic usage of system data (TiP + Complexity + Psych indicators) to actively manage staff and flow management combined with TRM methods for peer-peer observations
- Too late: CISM + occupational health and safety + burn out management and return to work policies



附錄三、 管制員，正向安全文化的關鍵參與者(ATCOs, Key Player for Positive Safety Culture)簡報摘要

ICAO RECONNECTINGTHEWORLD

Objectives

- To understand:
  - **Safety Culture from the ICAO perspective**
  - **The meaning of it for ATCOs**
  - **Importance of ATCOs' Role**

ICAO RECONNECTINGTHEWORLD

Outline

- Positive safety culture from the ICAO perspective
- The meaning of it for ATCOs
- Where we are now
  - current challenges
- What's next?
  - ATCOs, key players in Aviation and key role for Positive Safety Culture

ICAO RECONNECTINGTHEWORLD

POSITIVE SAFETY CULTURE FROM THE ICAO PERSPECTIVE

ICAO RECONNECTINGTHEWORLD

Safety Culture in ICAO SM provisions

- **Annex 19** requires both States and service providers promote a positive safety culture through their SSP and SMS.
- **Annex 19, Appendix 3** provides SARPs to ensure that safety data and safety information are used for maintaining or improving safety.
- **SSPs and SMSs** are sustained by safety data and safety information that is necessary to address existing and potential safety deficiencies and hazards.
- Safety culture is arguably the single most important influence on the management of safety **(Doc 9859).**
  - If an organization has instituted all the safety management requirements but does not have a positive safety culture, it is likely to underperform.

ICAO RECONNECTINGTHEWORLD

Safety Culture is...

"Safety culture is the set of enduring ***values, behaviours and attitudes regarding safety issues****,* ***shared by every member at every level*** *of an organization". A healthy and positive safety culture reflects a* ***real commitment to safety*** *in the organization.*

ICAO RECONNECTINGTHEWORLD

Safety culture is (cont.)

- A safety culture is the natural consequence of having humans in the aviation system.
- It is an expression of how safety is perceived, valued and prioritized by all management and employees in an organization.
- Organizations will have a number of different "safety cultures" that reflect group-level attitudes and behaviors (sub-cultures).
- When the organization has a positive safety culture, and this is visibly supported by upper- and middle-management, front-line personnel tend to feel a sense of shared responsibilities towards achieving the organization's safety objectives.

Safety culture has been described as **"how people behave in relation to safety and risk when no one is watching".**

Doc 9859, SMM 4th edition

附錄四、 國際飛航管制員協會聯盟參與國際民航組織亞太地區會議成果(IFATCA and ICAO APAC Regional Meeting Outcomes)簡報摘要

32nd Asia Pacific Regional Meeting

The scope of the ICAO Asia Pacific Regional Office includes:

- Safety
- ATM (including ATFM, AIS/ATM and SAR)
- CNS
- Meteorology
- Aerodrome operations
- Security
- Facilitation
- Technical Assistance

IFATCA

32nd Asia Pacific Regional Meeting

IFATCA has been involved in meetings of the first four topics in the past year:

- Safety
- ATM (including ATFM, AIS/ATM and SAR)
- CNS
- Meteorology
- Aerodrome operations
- Security
- Facilitation
- Technical Assistance

IFATCA

32nd Asia Pacific Regional Meeting

Safety

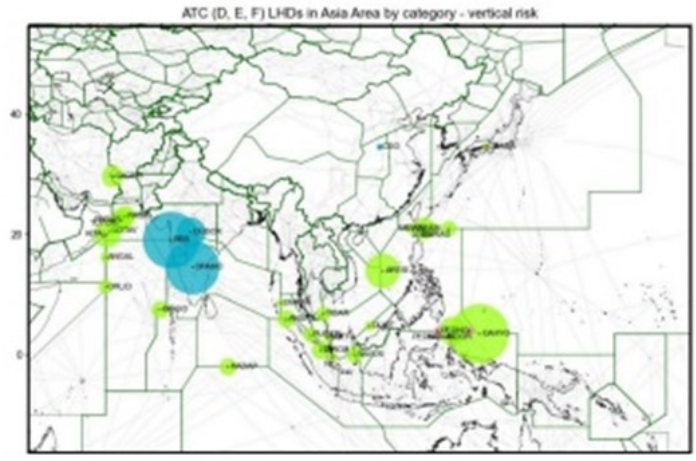
Regional Airspace Safety Monitoring Advisory Group 27th Meeting (RASMAG/27)

This meeting is held annually and the Group reports all the safety occurrence incidents in RVSM airspace relating to vertical or horizontal separation reports from the relevant monitoring agencies. (China, JASMA, MAAR, PARMO and BOBASMA, SEASMA).

- Group reported an overall improvement in the safety level with fewer LHD, LLD and LLE reports, but there are still 10 'Hot Spots' in the area.
- Accurate safety assessment is dependent on open and blame free reporting by pilots and controllers. A Just Culture policy must be in place.

IFATCA

32nd Asia Pacific Regional Meeting



IFATCA

32nd Asia Pacific Regional Meeting

- ICAO noted that although AIDC is not a new technology, when introduced it can significantly reduce LHD incidents. However, there appeared to be cases when AIDC messaging had failed and alerts to controllers may have been not been presented, not seen, or not correctly responded to.
- IFATCA stressed the need for ANSPs to provide controllers with regular recurrent training to maintain their skills to manage busy traffic levels during the current periods of reduced flights in many parts of the region.
- IFATCA also suggested that when normal staffing levels cannot be achieved due to the pandemic and sectors have to be combined, on routes where traffic numbers have returned, consideration should be given to the provision of support staff or the implantation of ATFM measures to efficiently handle the flights.

IFATCA

32nd Asia Pacific Regional Meeting

ATM

Air Traffic Management Sub Group 10th Meeting (ATM SG/10)

This annual meeting reviews the work of the many ATM Working Groups, Task Forces and Coordination Groups over the past year. The Group also covers Search and Rescue (SAR) matters.

The Group monitors the level of implementation and compliance by States of ICAO procedures and address deficiencies that impede the provision of efficient ATM services in the region.

IFATCA

附錄五、 消除無形的障礙(Taking Down the Invisible Wall)簡報摘要

Scope

- CANSO and IFATCA – Common Destiny
- Challenges for the Future
- Potential for Transformation
- Waypoints for Progress

CANSO & IFATCA – Common Destiny

"However, there remained myriad local interpretations and nationalistic approaches to much of the problem solving. In large part it was these uncoordinated approaches and incompatible solutions that prompted a number of European air traffic controllers to look beyond their borders and confer with their neighbours. Calling upon their local experiences, it was the controllers themselves who identified the more esoteric needs and who initiated grass roots domestic and international action to satisfy them.

When they met in Amsterdam, 12 European ATC Associations originally intended to form a pan-European body but, becoming aware of more wide-spread interest in their activities, they extended their horizons and formed a truly international Federation."

Neil Vidler

3

Challenges for the Future – Four Horsemen

1 **Failure to draw in resources and investments into ATM**

2 **Mistrust and lack of coordinated approach**

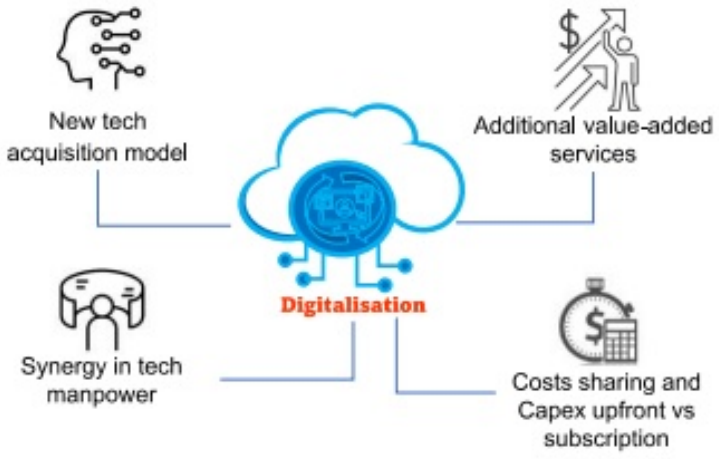
4

Challenges for the Future – Four Horsemen

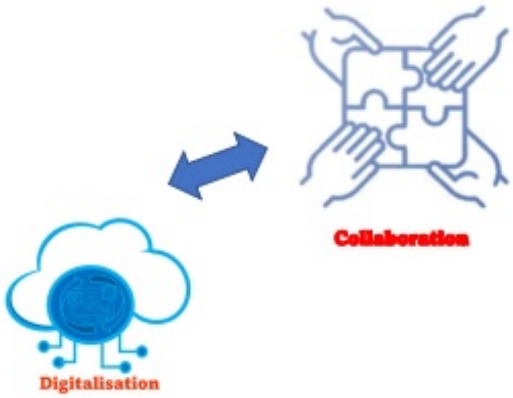
3 **Widening gap between demand and supply capacity**

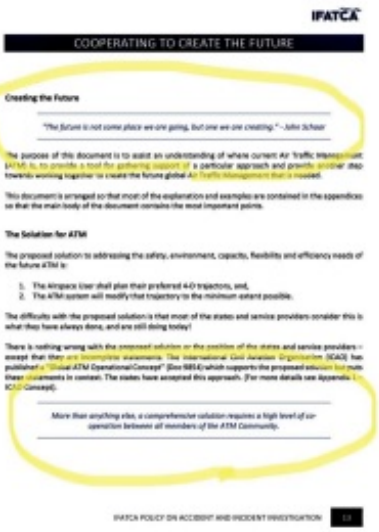
4 **Drop in ATM safety standards**

Potential for Transformation



Waypoints for Progress





IPATCA

COOPERATING TO CREATE THE FUTURE

Creating the Future

"The future is not some place we are going, but one we are creating." - John Schaar

The purpose of this document is to assist an understanding of where current Air Traffic Management (ATM) is, to provide a tool for gathering support of a particular approach and provide another step towards working together to create the future global Air Traffic Management that is needed.

This document is arranged so that most of the explanation and examples are contained in the appendices so that the main body of the document contains the most important points.

The Solution for ATM

The proposed solution to addressing the safety, environment, capacity, flexibility and efficiency needs of the future ATM is:

1. The Airspace User shall plan their preferred 4-D trajectory, and,
2. The ATM system will modify that trajectory to the minimum extent possible.

The difficulty with the proposed solution is that most of the states and service providers consider this is what they have always done, and are still doing today!

There is nothing wrong with the proposed solution or the position of the states and service providers – except that they are incomplete statements. The International Civil Aviation Organization (ICAO) has published a "Global ATM Operational Concept" (Doc 9854) which supports the proposed solution but puts these statements in context. The states have accepted this approach. (For more details see Appendix I, ICAO Concept).

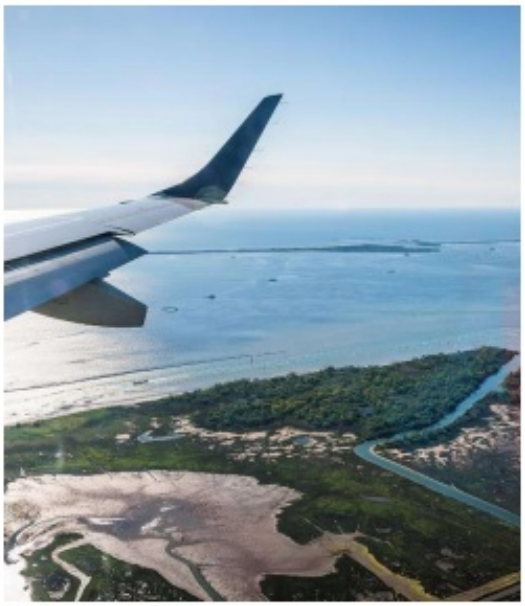
More than anything else, a comprehensive solution requires a high level of co-operation between all members of the ATM Community.

IPATCA POLICY ON ACCIDENT AND INCIDENT INVESTIGATION 13

Conclusion

- Adam Grant on evolution of self-esteem:
  - Phase 1: I'm not important
  - Phase 2: I'm important
  - Phase 3: I want to contribute to something important

附錄六、 安全及航空營運(Safety and Flight Operations)簡報摘要

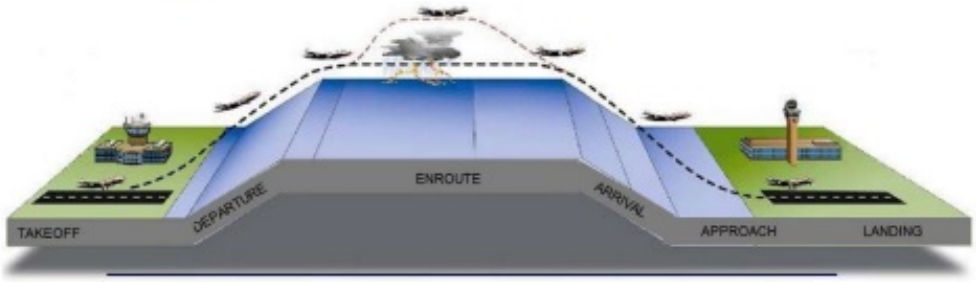


Safety and Flight Operations

- Supports all aspects of **flying operations** and **safety** issues ranging from air traffic management, infrastructure, ANS/ATC charges, runway safety, etc
- Sets industry safety standards with **audit programs,** such as the **IATA Operational Safety Audit**, that assesses the operational management and control systems of airlines

Safety and Flight Operations

The SFO division represents IATA on safety, technical and operational matters.



Safety audit programs

IATA Operational Safety Audit

Aircraft above 5,700kg MTOW

Assess operational management and control systems of an airline

Supports consistent application of a Safety Management System

Measures conformity with applicable ICAO safety standards

IATA Safety Audit for Ground Operations

Ground Service Providers

Assesses the management and oversight systems at HQ level and the implementation of ground operations processes and procedures at selected stations

IATA Standard Safety Assessment

Aircraft below 5,700kg MTOW

Voluntary evaluation program to extend benefits of operational safety and efficiency emanated from IOSA to operators of smaller aircraft not eligible for IOSA

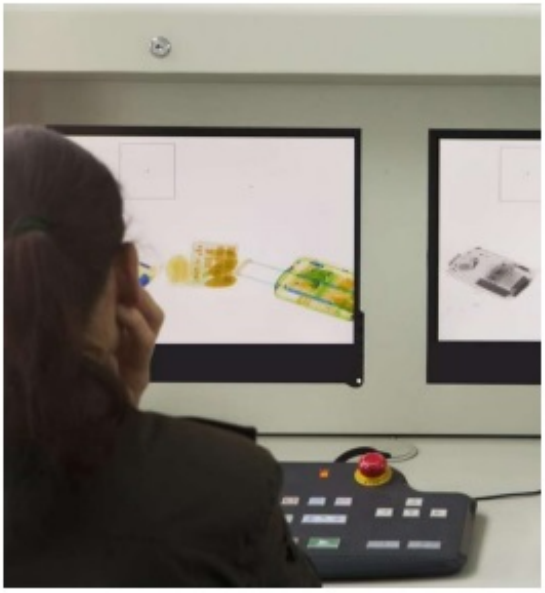
IATA Safety Strategy- Overview

The IATA Safety Strategy is developed around 3 strategic pillars

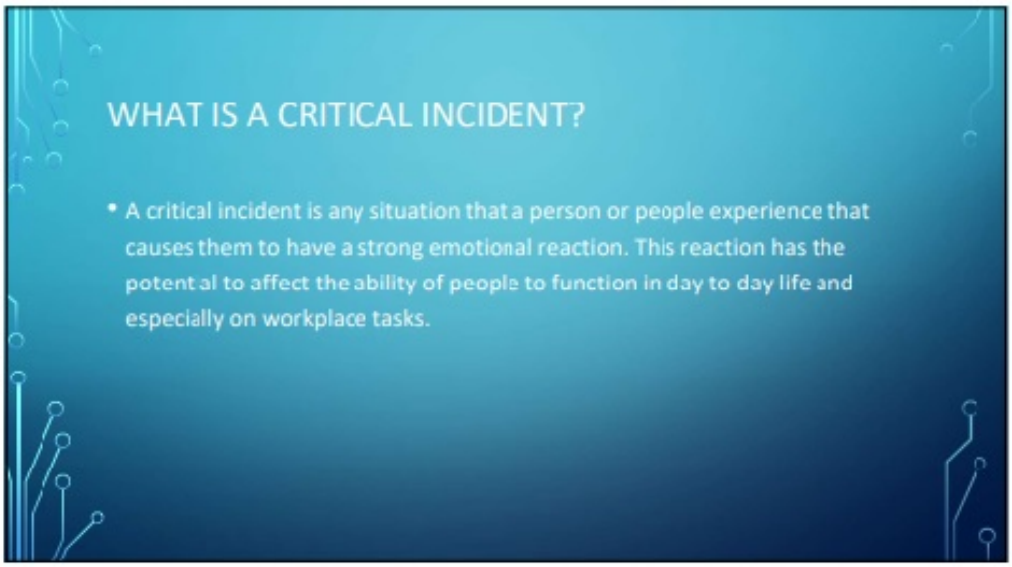
Challenges

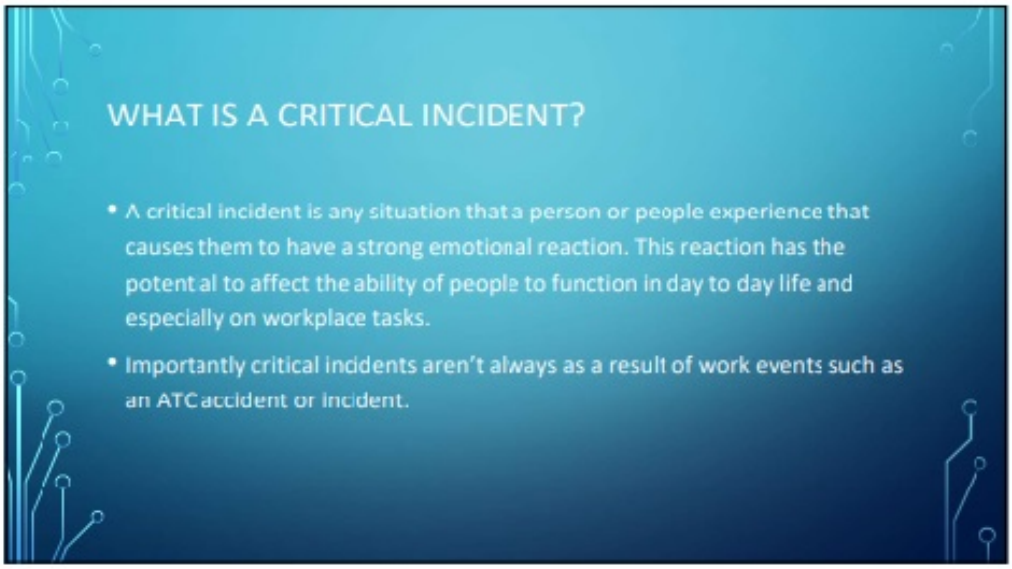
- Unexpected speed of demand rebound
- COVID infections within the workforce
- Delays in having staff operational (delays in security clearance, referrals, and permits)
- Not able to hire people
- Airspace restrictions and contingency ops
- Fuel prices

➡ Flight delays and cancellations



附錄七、 重大事件壓力管理 Critical Incident Stress Management)簡報摘要





OCCUPATIONAL STRESS

- Emergencies
- Incidents
- Accidents
- Investigations
- Work Environment or time pressures

UNEXPECTED TRIGGERS

- Loss of a colleague
- Sickness
- Natural Disasters
- Conflicts

CISM PROGRAM AND PEER SUPPORT

CISM PROGRAM AND PEER SUPPORT

- Internal Program, Peer Support Program. (union or association)
- ANSP program
- External program such as one provided by a professional provider.
- External support only called on for Critical Incidents
- None.

DEVELOPING A PEER SUPPORT PROGRAM.

- Do we need a program?
- Review any existing CISM or support program.
- Management approval and possibly education
- Get help!

1. IFATCA workshops and material. https://www.ifatca.org/
2. Other associations such as Pilots or Emergency services

NZALPA PEER ASSISTANCE NETWORK.

- How long have we been doing the program?
- Support from companies
- Support from volunteers
- Training for supporters. Initial and ongoing
- What do people like about being involved
- Lessons learned or advice for anyone starting a program.

附錄八、 會員協會報告重點摘要

東北亞

一、 香港

(一)New operations

(二)Events

1. Annual Plan
-Technical visits to MAs in APAC
-Hong Kong ATC-Pilot Symposium
-IFATCA Annual Conference participation
-IFATCA TOC meeting in Feb 2023 tentatively

(三)Post-COVID

1. Hong Kong is resuming normalcy
2. No quarantine upon arrival is required
3. Traffic is increasing gradually
4. Daily HKIA movement: ~470 (16 Oct 2022)
5. Daily overflight: ~420 (16 Oct 2022)
6. Around 35% of pre-COVID traffic

二、日本

(一) New operations

1. Advanced Air Mobility

(1) -Osaka/Kansai Expo will be held in 2025.“Flying cars‘will be scheduled to fly.

(2) -In Japan, registration of unmanned aircraft (drones)/ became mandatory in June 2022, and the regulated weight has been reduced from over 200g to over 100g.

(3) -The aircraft certification and skill certification system will become mandatory.

2. Japan Civil Aviation Bureau (JCAB) introduces a CBTA-compliant training and evaluation program,aim to officially launch the system nationwide in April 2023

3. RCR

-RWYCC went into effect on November 4, 2021 as scheduled.

-JCAB provided lectures to promote understanding.

-There was some confusion over the difference between NOTAM and verbal communication.

-The implementation of this measure has been generally successful.

三、澳門

(一) New operations

1. RCF was introduced in Nov 2021 globally

-The RCC and condition can only be input in the ATIS via footer on word-by-word basis

-This time-consuming process may result in delay of RCC being broadcasted in bad weather

-System upgrade is still in progress

2. Land Reclamation has been approved by central government to expand the aerodrome. Including runway extension.

-The Macau Airport Runway island is connected to the apron by two taxiway bridges

-Single Taxiway Operation procedure, drafted by ATC service, has been implemented

-Huge impact to aerodrome operations if one of the taxiway bridges is damaged or blocked or declared unserviceable

(二) Post-COVID

1. Traffic Statistics
   (1) -Aerodrome movement peak at 2019: 200-240 daily
   (2) -Over flight helicopter maximum: 50 daily
   (3) -During COVID aerodrome minimum: less then 10 daily
   (4) -Over flight helicopter minimum: 0
   (5) -Currently Oct 2022 Aerodrome movement maximum: 50-70 daily
   (6) -Over flight helicopter: average 10-20 daily

四、蒙古

(一) New operations

1. Old airport/ZMUB: VFR, GA, Training flights, Military
2. New airport/ZMCK: Commercial flights only
3. RCR
   i.-Distributed by AFTN and e-mail address to ATC

(二) Post-COVID

1. Traffic Statistics
   i. Yearly comparison by Sep: 2021 vs 2022
   ii. Overflights: 46k-30k
   iii. Arrival/Departure: Intl 1680-3681
   iv. Domestic 3205-7013

2. No pay for overtime working
3. No additional annual bonus
4. High inflation- drop in value
5. Lack of human resources

五、臺灣

(一) New Operations

1. The effect of runway condition report (RCR) application
2. ATMS Mid Life Upgrade(MLU)
   (1) The project starts from 2019 to 2022, included tendering, system design, education training, testing etc.
   (2) Replace hardware devices, and upgrade software functions and system interface
   (3) Enhanced **Short Term Conflict Alert (STCA)**:Adjust individual parameters according to the characteristics of **en-route control** and **terminal control**, and optimize the safety warning function.
   (4) Medium Term Conflict Detection(MTCD) :Use surveillance data and flight plan data,offering 3 to 8 minutes alerts before the conflict.

(二) Events

1. ATCs and pilots E-seminar

(1) -Attendee:Pilots, Flight Operations Officer, and ATC .
(2) -Collect questions by Google Form
(3) -Discussion issues included flight operation,RCR,bird strike etc.
(4) -Understand each other.Together ,we make the sky a safer place

2. Hosted 2021 37th IFATCA APREM

(三) Post-COVID

Starting from this year,the flight movement has been gradually increasing in Taipei FIR. Currently we are still about 60% of pre-COVID level,and are expectedly to the fully recoverest by the first quarter next year especially during the Chinese New Year.

東南亞

六、印尼

(一) New operations

1. RCR

(1) Aerodrome operator assess the runway surface conditions, including contaminants, for each third of the runway length, and report it by mean of a uniform runway condition report (RCR)
(2) Aeronautical information services (AIS) provide the information received in the RCR to end users (SNOWTAM)
(3) Air traffic services (ATS) provide the information received via the RCR to end users (radio, ATIS) and received special air-reports
(4) Aircraft operators utilize the information in conjunction with the performance data provided by the aircraft manufacturer to determine if landing or take-off operations can be conducted safely and provide runway braking action special air-report (AIREP)

(二) Events

1. Accident & Incident assistance
2. Speak English Program involvement
3. Key Person in regulatory development with Regulator
4. APAC 100yrs ATC Task Force
5. Essay Writing
6. ICAO Young Professional Program Fellowship

七、 馬來西亞

(一) New operations

1. RCR

(1) Malaysia wx (no rapid changes)

(2) GRF sop- Rwy inspection 1hour roughly

(3) Opinion-current grf sop not effective for Malaysia at this moment

(二) Events

1. CISM with University of Technology Mara
2. MATCA retreat Penang
3. MATCA family day in Kuching Sarawak and Kota Kinabalu Sabah

八、菲律賓

(一) New operations

1. On-going reorganization:

(1) Salary adjustment of ATCs

(2) Renaming position title

(3) Organizational structure changes

(4) Benefits and allowances

2. RCR

(1) 100%Aware of GRF activity

(2) 96% Implementing GRF

(3) -94%Received training on GRF (ATCO)

(4) -18% ATCOs needs additional training

(5) -45% Lack of training for inspectors

(6) -27% Standing water on RWY after heavy rain

(7) Others: Mud

Loose gravel

Sand deposits

Rubber deposits

Bird carcasses

Various trash

(二) Post-COVID

1. Traffic Statistics
   (1) MNL DAILY: 720/day, 87% or pre-pandemic traffic levels
   (2) MNL HOURLY: 40 movements/hr, 20 ARR and 20 DEP
   (3) ENROUTE TRAFFIC: 2022 Ave: 33,140/mo,1014/daily, Aug-Sept 2022

2. Returning to normal operations
   (1) Operations risk assessment was conducted.
   (2) Determine readiness to handle normal traffic.
   (3) Human, Equipment, Environment, etc.

3. COVID numbers at low levels
   (1) Minimum public health protocols in placed
   (2) Booster vaccination on-going

九、 新加坡

(一) New operations

1. RCR
   (1) ICAO methodology for harmonized assessing and reporting runway surface conditions.
   (2) Correspondingly improved flight crew situational awareness and assessment of take-off and landing performances.
   (3) ATC awareness of runway surface conditions will help in better anticipating operation impacts.
   (4) Operational Procedures

i. Automated Runway Condition Reports (A-RCR)
ii. Manual RCR Reporting

   (5) ATC TOWERS (WSSS/WSSL)

i. Notify CAG AMC / SAO of runway contamination (situational awareness)
ii. Advise pilots on runway/weather conditions (RTF)
iii. Notify SG APPROACH on runway conditions.
iv. Check via AIREPs on runway braking action

(二) Events

1. Signing of MOU with NTUC U Associate (26 Sep 2021)
2. Aviation Safety Forum 2022 (7 Mar 2022)
3. HKATCA-ATCA-S: Webinar on COVID (25 Mar 2022)

4. NTUC U-Associate Leader Circle (9 Sep 2022)
5. Malaysia ATC Facilities Visit (8 – 9 Oct 2022)

西南亞

十、印度

(一) New operations

1. RCR

(1) Uniformity (No language bar)
(2) Less transmission on RT as it's mentioned on ATIS
(3) Accuracy in reading and situation awaremess
(4) Complicated and difficulty to take feedback from pilots
(5) Continuous inspection is difficult especially during monsoon season
(6) Latest update gets delayed

(二) Events

1. Celebrated 100 years of ATC in which retired controllers (85 +age) were been invited also blood donation camp, painting and various other activities were conducted along with go green camp.
2. Celebrated Women's Day along with all airport staff including Airlines, ground staff etc.
2.

(三) Post-COVID

ON ATC DAY 2021: Operating Reduced CO2 and fuel-saving direct routing and CDO on single night duty.

十一、伊朗

(一) New operations

1. GRF/RCR has been implemented since January 2022.
2. The primary focus is on airports where the likelihood of adverse weather conditions is high(OICS,OITL,…)
3. A technical team insert their observations into the RCR system(RCAM)
4. The system provides relevant codes which are relayed to ATC through AFTN.

5. The AFTN, thereafter, forwards the codes to ATIS by which they are broadcast to pilots

(二) Events

1. 38TH IFATCA APRM
2. IFATCA Speak English Program

(1) Iran-ATCA has been involved in the SEP since the beginning of the program

(2) There are 4 facilitators from Iran who have an active part in the program

(3) More than 30 controllers have experienced the program as participants

(4) Will continue to support the idea and collaborate with our colleagues around the region

(三) Post-COVID

1. Traffic Statistics

(1) Domestic flight have recovered from COVID19 now, statistics are similar to pre-pandemic situation

(2) International flights to and from the country and flights overflying Iranian airspace recovered to around 100 percent of pre-pandemic traffic

(3) All theoretical training courses are now physically held with consideration of Covid-19 protocols which are still in place

2. Simulator training has been resumed
3. Despite the hindrance caused by Covid-19, speedy process of vaccination allowed air traffic controllers to fully recover from the pandemic and shift rostering has reverted to a normal situation
4. To demonstrate good spirit and morale, the Health Ambassador of Iran-ATCA, forty-one-year-old Hossein Nazari ran 21km along runway 29L of Mehrabad International airport, highlighting the fact that physical and mental health is of the essence in air traffic control

十二、尼泊爾

(一) New operations

1. GAUTAM BUDDHA INTERNATIONAL AIRPORT

(1)Get way to the birth place of Lord Gautam Buddha and airport named after Lord Gautam Buddha.

(2)Lumbini, the birth place of Lord Gautam Buddha is 21.6 km far from the airport.

(3)Official opening date was done on Buddha Jayanti on 26 May 2022.

(4)On 21 April 2022, the newly built 3,000 m runway was opened while the old one was put into use as a taxiway.

(5)The airport was officially opened with the arrival of the first international flight by Jazeera Airways on 16 May 2022

(6)There are two non-precision approach available at the Gautam Buddha Airport; VHF omnidirectional range along a distance measuring equipment (DVOR/DME) and Required Area Navigation (RNAV/RNP).

(7)There is an instrument landing system available to allow aircraft landing even in reduced visibility. The airport also possesses a visual guidance system which gives visual information to the pilot attempting to park the aircraft at the airport parking bay.

2. POKHARA INTERNATIONAL AIRPORT

(1)In April 2016 the foundation stone of the new airport with the aim of beginning operations at the airport on 10 July 2021.

(2)Due to the COVID-19 pandemic in Nepal, in 2021, the construction deadline was extended until 2022.

(3)On 8 August 2022, the Civil Aviation Authority of Nepal set the official opening date for 1 January 2023.

(二) Post-COVID

1. Not being able to do regular activities due COVID-19 pandemic and currently dengue
2. Going to be normal

十三、斯里蘭卡

(一) New operations

1. Document Management System
   (1) E library
   (2) Safety data management system

2. RCR
   (1) Implemented in three international airports
   (2) Using VHF

(3) ATIS and VHF is used to broadcast RCR

(二) Events

1. ATC day 2021 event

(1) Brain Champs ATC day special event

(1) Introduction to ANS-ATM Safety news letter

(2) Launching of DMS

(三) Post-COVID

1. Surviving the crisis and path to recovery
2. Covid 19 effect on Sri Lankan Aviation
3. Post-Pandemic world and recovery Strategies