

DRIVING FORWARD WITH AUTONOMOUS ELECTRIC TRACTOR TECHNOLOGY

引入無人駕駛拖車技術提升效率



THIS MONTH'S CONTENTS

本月內容



COVER STORY 封面故事

**HKIA pioneers
autonomous electric
tractor technology**
機場率先採用無人駕駛
拖車技術

4

AIRPORT PARTNERS 機場夥伴

**Cathay Pacific Cargo debuts freighter route to
South America**

國泰貨運首次飛航南美洲

6

FOCUS 焦點

Moving forward on the Sky Bridge

天際走廊邁向新里程

8

AROUND THE AIRPORT 機場要聞

**New Executive Director,
Engineering & Technology on board**

工程及科技執行總監履新

10

FEATURES 飛常事

**Safe solution to the
Automated People Mover system**
旅客捷運系統列車安全提案

12



GOING GREEN 環保天地

AA maintains carbon management recognition
機管局再獲碳管理認證

14

TIME OUT 忙裏偷閒

Strong strides on the streets
跑入大街小巷

15



HKIA Tower, 1 Sky Plaza Road
Hong Kong International Airport
Lantau, HONG KONG
香港大嶼山香港國際機場
翔天路一號機場行政大樓
www.hongkongairport.com



Have a great idea for *HK Airport News*?

Contact us via

hkianews@hkairport.com

and tell us what you're thinking.

若你對《翱翔天地》有任何意見，

歡迎隨時與我們聯絡，電郵地址為

hkianews@hkairport.com。

HK Airport NEWS
翱翔天地

The newsletter of Hong Kong International Airport
香港國際機場刊物

2020 FEB 二月 Issue 141 第141期

HK Airport News is published by Airport Authority Hong Kong. All rights reserved. This publication may not be sold. No part of this publication may be otherwise reproduced, adapted, performed in public or transmitted in any form by any process without the prior authorisation of Airport Authority Hong Kong. © Airport Authority Hong Kong 2020

《翱翔天地》由香港機場管理局印製並保留一切版權。本刊物為非賣品。未經香港機場管理局授權不得複製、使用、向公眾以任何方式展示或傳播刊物內任何內容。

©香港機場管理局2020

FSC
LOGO
HERE

Printed on environmentally-friendly paper ♻️

MEETING WITH GLOBAL BUSINESS LEADERS

全球領袖聚首一堂

Airport Authority (AA) Chairman Jack So together with CEO Fred Lam attended the World Economic Forum (WEF) Annual Meeting 2020 held in Davos, Switzerland from 21 to 24 January as part of the Hong Kong delegation led by the Hong Kong SAR Government. The AA plays a key role on the global platform as a WEF Partner, Industry (Aviation, Travel & Tourism) Governor, as well as a member of the WEF Community of Chairpersons and International Business Council.

Throughout the four-day event, AA delegates participated in more than 20 meetings, official sessions and social events that served to facilitate an international exchange of ideas and demonstrate Hong Kong International Airport's leading aviation hub status to the world's leaders of global influence.

In particular, the AA co-hosted the Hong Kong Night – “Perspectives from Hong Kong” Reception with the HKSAR Government, Hong Kong Exchanges and Clearing Limited, MTR Corporation Limited, Swire Group and Far East Consortium. Chairman So shared his insights in a panel discussion on HKIA's strategies and experience in capturing the opportunities from the rapid developments of the Greater Bay Area.

機場管理局主席蘇澤光與行政總裁林天福以香港特區政府率領的香港代表團成員身分，出席於1月21日至24日在瑞士達沃斯舉行的2020年世界經濟論壇年會。機管局作為世界經濟論壇合作夥

伴、行業（航空及旅遊）理事，以及世界經濟論壇董事長社區及國際工商理事會的成員，在國際平台扮演重要角色。

在為期四天的活動中，機管局代表參與20多項會議、官方會議及社交活動，與極具影響力的全球領袖進行溝通交流，並展示香港國際機場作為航空樞紐的領先地位。

機管局更與香港特區政府、香港交易及結算所有限公司、香港鐵路有限公司、太古集團及遠東發展攜手合辦「香港之夜」活動，蘇主席在專題討論中，分享了香港國際機場在把握大灣區蓬勃發展所帶來機遇方面的策略及經驗。



HKIA PIONEERS AUTONOMOUS ELECTRIC TRACTOR TECHNOLOGY

機場率先採用無人駕駛拖車技術



Differential Global Positioning System (red circle) and high-definition cameras (green circle) are equipped on the AET featuring improved location accuracy rate.

無人駕駛拖車設有差分全球定位系統（紅色圈示）及高清攝影機（綠色圈示），以提高定位的準確度。

Hong Kong International Airport (HKIA) showed its commitment to enhancing operational efficiency through the use of automation technology.

It is the first airport in the world to apply driverless autonomous electric tractor (AET) technology into live airport operations for baggage delivery. The AET ensures the efficiency of baggage delivery by alleviating various external factors such as inclement weather and accidents.

Introduced by the Airport Authority (AA) and extensively tested over a

period of one and a half year, the AET has been used on the airport bonded road to and from the SkyPier Baggage Hall since December 2019, running four kilometres per round trip to deliver baggage for sea-to-air and air-to-sea transfer passengers.

The AET's safety and accuracy is guaranteed by a range of technologies. It is equipped with four optical radars that prevent people or foreign objects from colliding with it, giving it a faster reaction time than the human brain. The vehicle brakes slowly when any object is

within 10 to 35 metres away and quickly when it is within 10 metres. Using Differential Global Positioning System (dGPS) technology, AET enjoys a location accuracy rate of about 10 to 15 centimetres which is more accurate than GPS.

The eight high-definition cameras using the image positioning technology on the AET help keep the vehicle on the right track. There is also a remote monitoring system to ensure safety by sounding an alarm for abnormal behaviour of the AET, and allowing emergency stopping of the AET remotely if necessary. At any given time, the operations team can switch it over to manual driving mode as contingency.

So far the AET has racked up more than 2,500 kilometres without a single accident. Looking forward, the plan is to increase the size of the fleet with three extra AETs by mid-2020, as well as extending the application to Terminal 1 Baggage Hall and the apron area in the future, in an effort to further enhance operation efficiency of baggage handling activities.

香港國際機場致力透過使用自動化技術以提高營運效率，更成為全球首個機場於實際環境應用無人駕駛拖車技術運送行李。無人駕駛拖車的運作不受惡劣天氣及意外等多種外界因素影響，能確保行李運送效率。

無人駕駛拖車由機場管理局推出，經過一年半廣泛測試後，於2019年12月起投入運作，經機場封閉路段來往海天客運碼頭行李處理大堂，來回路程全長四公里，運送經海路轉機旅客及經飛機轉乘快船旅客的行李。

無人駕駛拖車採用多項科技，以確保其安全及準確性。拖車配備了四部光學雷達，可防止撞到人或外來物，反應比人



The AET is equipped with optical radars to detect nearby objects to prevent collision and provide location information to AET. 無人駕駛拖車配備光學雷達，以偵測及防止撞擊到附近物件，並向拖車提供定位資料。



腦還要快。當拖車前方10至35米範圍內出現任何物件，拖車便會緩緩停下；如物件處於距離拖車10米範圍內，拖車就會自動急停。無人駕駛拖車亦採用差分全球定位系統（dGPS）技術，較一般全球定位更為精確，其定位準確率約為10至15厘米。

此外，拖車上裝有八部高清攝影機，利用影像定位技術，確保拖車按正常路線行駛。同時車上亦設有遙距監察系統，如拖車與系統失去聯繫，便會立即停車。如拖車出現異常情況，便會響起警報，以策安全。在有需要時，更可遙距緊急剎停拖車。

至今無人駕駛拖車已累計行駛逾2,500公里，並無發生任何意外。機管局計劃於2020年中額外增設三架無人駕駛拖車，日後更會將這項技術推展至一號客運大樓行李處理大堂及停機坪範圍，藉此進一步提高行李處理運作效率。

HKIA has been deploying AET for baggage delivery in specific airport restricted areas. 香港國際機場在特定禁區範圍採用無人駕駛拖車運送行李。



In January, the AA celebrated the AET's milestone of reaching its 1,000km travelling distance since its operation. 在1月，機管局慶祝無人駕駛拖車自投入運作以來達到1,000公里行駛距離的里程。



CATHAY PACIFIC CARGO DEBUTS FREIGHTER ROUTE TO SOUTH AMERICA 國泰貨運首次飛航南美洲

Cathay Pacific Cargo operated its first-ever freighter route to South America in mid-December 2019.

Its state-of-the-art Boeing 747-8F took off from Hong Kong to Santiago, Chile via Anchorage and New York to collect over 110 tonnes of freshly harvested cherries for distribution to markets in Mainland China, Hong Kong, Japan and South Korea.

The charter showcased the efficiency of Cathay Pacific Cargo's air freight logistics by delivering the cherries picked up in the



Republished content and photos by Cargo Clan, from Cathay Pacific Cargo
內容及照片轉載自國泰貨運《Cargo Clan》通訊

early hours in Santiago to the supermarket shelves in Asia in the following afternoon.

Captain Frederic Maury piloted the historic leg from New York to Chile in which the aircraft flew above the Andes mountain range, volcanoes in Ecuador and Peru, and Argentina's Aconcagua - the tallest peak in the Americas.

國泰貨運於2019年12月中旬首次飛往南美，以先進的波音747-8F型貨機從

香港出發，途經美國安克雷奇及紐約，前往智利聖地牙哥接收並運送逾110噸新鮮採摘的車厘子，以應付中國內地、香港、日本及南韓市場的需求。

這批車厘子於早上在聖地牙哥果園採摘好，到翌日下午就已在亞洲的超級市場上架出售，充分展現國泰貨運快捷高效的空運流程。

是次由紐約飛往智利的歷史性旅程由機長Frederic Maury負責，航機沿着安第斯山脈、厄瓜多爾和秘魯的火山群，以及美洲最高的山峰阿根廷阿空加瓜山飛行。



RAMPING UP HACTL'S OPERATIONAL EFFICIENCY

香港空運貨站提升停機坪運作效率

Every second counts in ramp operations, so Hactl has devised a new operating system that enhances communication, streamlines loading operations and reduces the manpower required for each aircraft turnaround.

COSAC-eLoading is app-based, and automates what was previously a largely manual, paper-based system. By immediately communicating any last-minute changes in the manifest to the ramp team, and identifying every dolly and mapping its ramp location before loading,



it ensures all cargo is presented and loaded in the correct order. Operations and customers receive real-time updates on the loading progress direct from the ramp.

The new system verifies cargo loaded against the flight manifest to prevent cargo being missed off a flight. Through COSAC-eLoading, the frontline team is also immediately notified if a particular planned unit is not ready for dispatch from the terminal to the aircraft.

停機坪運作分秒必爭，為此香港空運貨站設計出革新的停機坪運作系統，以

提升通訊效率及簡化裝機程序，並減少處理每班航機所需人手。

空運管理系統「COSAC-eLoading」是一項手機應用程式，將舊有的人手操作系統無紙化及自動化。該系統能即時將貨單的任何最新改動傳送至停機坪團隊，並可識別各個拖卡，以及顯示其於裝上航機前在停機坪的位置，從而確保所有貨物按正確次序裝載。操作人員及客戶亦可直接獲取貨物在停機坪的實時最新裝載進度。

新系統能驗證貨物是否按照航機貨單裝載，以避免貨物漏單的問題。如規劃內因有載具未準備好而導致貨物未能從貨運站送往機艙，前線人員亦可即時透過「COSAC-eLoading」系統得知。

鮎孝
Sushi Taka

SUSHI & SAKE BAR TAKA SATISFIES SUSHI CRAVINGS

鮎孝優質壽司滋味

A new addition to HKIA's world of cuisine offerings has arrived as Sushi & Sake Bar Taka recently opened at the East Hall Food Court at Departures Level, serving premium Edomae Sushi at affordable prices. Greeting travellers with its minimalist interior



design, Sushi Taka offers sushi bar, dine-in and take-out services to suit travellers' different needs.

The concept of Sushi Taka is introduced by legendary chef Takashi Saito, owner of the renowned 3-Michelin-starred restaurant Sushi Saito in Tokyo and supervisor of the 2-Michelin-starred Restaurant Sushi Saito in the Four Seasons Hotel Hong Kong.

Each dish is supervised by Chef Saito and the fresh sushi is sourced from the famous Yamayuki Group, known as the King of Tuna Fish in Tokyo.

Ingredients used at Sushi Taka are freshly flown to Hong Kong daily from Japan's Toyosu Market and its

range of award-winning Japanese seasonal and rare sake is supplied by Hasegawa Saketen.

又一知名餐廳進駐香港國際機場。鮎孝最近在離港層東大堂美食廣場開業，以親民的價格，為旅客提供頂級的江戶前壽司。店舖以簡約風格設計，並提供壽司吧、堂食及外帶服務，迎合旅客的不同需要。

鮎孝的概念來自位於東京的米芝蓮三星壽司殿堂Sushi Saito店主齋藤孝司，以及香港四季酒店米芝蓮兩星壽司店Sushi Saito的主管。壽司的每個製作環節均由齋藤孝司監督，魚料則由素有東京吞拿魚王之稱的山幸集團供應。

鮎孝使用的食材主要來自日本豐洲市場，每天新鮮空運到港，顧客更可品嚐到由長谷川酒店供應的多款日本清酒，包括得獎的季節限定及罕有酒款。

はなむすび
華御結
hana-musubi

A HEALTHY TASTE OF JAPAN

健康和風滋味

Travellers who are fans of Japanese fare can delight in knowing that hana-musubi has set up shop at HKIA. Located at the Arrivals Hall, hana-musubi serves up an enticing selection of Japanese specialties and desserts that are prepared with healthy diet and delicious flavours top of mind. In particular, it has made its mark



as the only Japanese Omusubi specialty store in Hong Kong, producing freshly made Omusubi using premium Japanese rice and seasonal ingredients from Japan.

華御結現已進駐香港國際機場，讓喜愛日本美食的旅客大飽口福。位於抵港大堂的店舖提供多款和風料理及甜品，全部採用健康食材製作，滋味可口。華御結更是全港唯一「御結（日本飯團）」專門店，以優質日本米搭配日本時令食材，製作新鮮美味的正宗「御結」。

MOVING FORWARD ON THE SKY BRIDGE

天際走廊邁向新里程

The new Sky Bridge at Hong Kong International Airport (HKIA) reached another important milestone in mid-January – with the delivery of the main structure to its final position. This means that the prefabrication phase of the construction programme has successfully concluded for what is expected to be the world’s longest airside bridge.

Getting these massive pieces in place was no easy task. To minimise disruption to the airport operation, the steel segments were prefabricated off-site in Zhongshan, and transported to the assembly yard in September and October 2019, where they were subsequently assembled to form the Sky Bridge’s main structure. On 9 January, the project team made use of the very tight time window at midnight to transport the main bridge structure more than 3km

across the apron to its final position for lifting and connection works. It was then erected on the bridge towers on the following day.

“We are pleased with the successful delivery of Sky Bridge’s main structure, which concludes the prefabrication phase of its construction on schedule,” remarked Airport Authority Executive Director, Engineering & Technology Ricky Leung. “This also marks the first time HKIA has transported such a mega structure within the apron area.”

This high-precision task opened the doors for the final phase of the project, in which facilities will be installed at both ends and renovations will take place throughout the main structure. Expected to commence operations in summer 2020, Sky Bridge offers a number of attractions, including an observation deck, restaurants and other facilities, as well as a glass-bottom floor that allows passengers to watch aircraft movement underneath the bridge.

香港國際機場的天際走廊建造工程於1月中踏進另一重要里程碑，天際走廊主結構已運抵最終位置，項目的預製施工階段亦已順利完成，預期天際走廊將成為全球最長的機場禁區行人天橋。

要運送如此龐大的建築物結構絕非容易。為將工程對機場運作的影響減至最少，天際走廊的預製鋼結構組件預先在中山組裝，其後於2019年9月至10月期間運送至香港國際機場的組裝工場，經焊接後組成主橋結構。於1月9日凌晨時分，項目團隊把握短短數小時的時間，將主橋結構在停機坪上運送至距離工場逾三公里的最終位置，並於翌日進行升橋工序，將主橋結構與橋塔連接。

機場管理局工程及科技執行總監梁永基表示：「我們很高興天際走廊主橋結構已成功運抵最終位置，預製施工階段亦按時完成。這亦是香港國際機場首次在停機坪內運送如此龐大的建築物結構。」

隨着高精確度的工程完成，項目亦進入最後階段。項目團隊將於天際走廊兩端安裝設施，整個主橋結構亦會進行裝修工程。預計於2020年夏季啟用的天際走廊將設有瞭望台、餐廳及其他設施，而天橋亦設有透明玻璃地板，讓旅客一睹飛機在橋下經過的場面。

The 200m-long Sky Bridge will connect Terminal 1 and the North Satellite Concourse, while allowing aircraft to taxi underneath the bridge. 全長200米的天際走廊將連接一號客運大樓及北衛星客運廊，飛機可在橋下經過。





The main bridge structure is erected on the bridge towers overnight with the use of mega jacks on self-propelled modular transporters.

項目團隊通宵進行升橋工序，利用自行式液壓平板車上的巨型起重系統，將主橋結構升高與橋塔連接。



The project team makes use of the very tight time window to transport the main bridge structure across the apron to its final position for lifting and connection works.

項目團隊把握短短數小時的時間，將主橋結構在停機坪上運送至最終位置。

SKY BRIDGE - FAST FACTS

天際走廊 - 資料一覽

Length 長度

Spans 200 metres long; connects Terminal 1 with the North Satellite Concourse
全長200米；連接一號客運大樓與北衛星客運廊

Weight of main structure 主結構重量

Over 5,000 tonnes; made primarily of steel
逾5 000噸；主要由鋼製成

Distance that the main structure was transported on the apron for erection 主結構在停機坪運送至升橋地點的距離

Over 3km from assembly yard at the airport to final position, taking 7 hours to complete
運送至距離在機場的組裝工場逾3公里的最終位置，歷時7小時

Headroom clearance 淨空高度

Over 28 metres high; allows the largest passenger aircraft A380 to pass underneath
超過28米高；可讓現時最大型的客機A380從橋下通過

Glass-bottom floor 玻璃地板

Approx. 70 metres long; enables travellers to view apron activity
約70米長；可讓旅客欣賞停機坪的景致

Reduction in shuttle bus trips 減省穿梭巴士班次

100,000 less shuttle bus trips each year
每年減省10萬班次穿梭巴士

Passengers' travel time 旅客路程所需時間

Approx. 5 to 10-minute walk from Terminal 1 to the North Satellite Concourse
由一號客運大樓步行至北衛星客運廊需時約5至10分鐘

[1]



1 NEW EXECUTIVE DIRECTOR, ENGINEERING & TECHNOLOGY ON BOARD

工程及科技 執行總監履新

Ricky Leung stepped into his new role as Executive Director, Engineering Technology of the Airport Authority (AA) on 16 January 2020, taking the torch from Alex Kwan who started his retirement.

Leung is tasked with leading the Engineering & Technology Division, where his responsibilities include managing the AA's assets as well as delivering engineering and capital works projects for the expansion of the existing airport facilities and developments at Hong Kong International Airport (HKIA) to meet the increasing passenger demand. He is also responsible for leading the digital transformation of the airport to ensure that new technologies are developed to improve operational efficiency and to accelerate HKIA's transformation into a data-driven airport. Throughout his 28-year career with the AA, he has served in a wide range of important roles covering planning, design, construction, facilities, systems, operations and maintenance.

Leung is a chartered civil and structural engineer with over

35 years of experience. He has played a key role in the recent major infrastructure projects at HKIA including the Terminal 1 extension and Sky Bridge. Leung was appointed as Deputy Director, Engineering & Technology in 2015.

Leung holds a Master of Business Administration degree from the Chinese University of Hong Kong and a Bachelor of Science (Engineering) Degree from the University of Hong Kong. In addition, he is a board member of Hong Kong IEC Limited, Construction Industry Council, and Logistics and Supply Chain MultiTech R&D Centre Limited.

梁永基於2020年1月16日開始接替退休的關景輝，出任機場管理局工程及科技執行總監。

梁永基領導工程及科技處，負責管理機管局資產及香港國際機場現時多項機場設施擴建及發展項目的工程規劃及基本建設工程，以應付與日俱增的旅客需求。他亦負責領導機場的數碼轉型工作，確保開發新技術以提高機場的營運效率，並加快香港國際機場的數碼變革步伐。在機管局工作的28年間，他曾擔任多個重要職務，涵蓋機場基建、設施及系統的規劃、設計、建設、運作及維修。

梁永基是特許土木及結構工程師，擁有超過35年經驗，在機場進行的多個大型基建項目中擔任重要角色，包括一號客運大樓擴建部分及天際走廊等。他於2015年獲委任為工程及科技副總監。

梁永基持有香港中文大學工商管理碩士學位及香港大學理學士（工程）學位，

亦是香港國際展覽中心有限公司董事會成員，以及物流及供應鏈多元技術研發中心有限公司的董事局成員。

2 3RS PROJECT JOB FAIR OFFERS JOB OPPORTUNITIES

三跑道系統招聘會 提供就業機會

The AA held its HKIA Three-runway System (3RS) Project Job Fair on 15 January at the Mong Kok headquarters of the Hong Kong Construction Industry Employees General Union.

Job aspirants explored a range of opportunities offered by contractors carrying out construction work on the 3RS project including Zhen Hua Engineering Company Ltd.-China Communications Construction Company Ltd.-CCCC Dredging (Group) Company Ltd. Joint Venture, China State Construction Engineering (Hong Kong) Limited, and Sinohydro Corporation Limited, Powerchina Airport Construction Company Limited, Paul Y. Construction Company Limited, and Rock-One Engineering Company Limited (SAPR) Joint Venture. The companies provided vacancies of 25 functions across various areas related to the construction works of the 3RS project.

[2]



於1月15日，機管局在香港建造業總工會旺角總部舉行「香港國際機場三跑道系統招聘會」。

招聘會為求職者提供不同就業機會，參與招聘的公司為三跑道系統建造工程承建商，包括香港振華—中國交建—中交疏浚聯營、中國建築工程（香港）有限公司，以及中國水電—電建航空港—保華—建信工程聯營，提供與三跑道系統建造工程相關25個工種的職位空缺。

3 CELEBRATING A GREENER CHINESE NEW YEAR

綠色環保慶新春

Chinese New Year celebrations are always more enjoyable when we are also mindful of the environment. For the ninth consecutive year, the AA continued its tradition of supporting environmental non-government organisation Greeners Action on its Lai See Packets Reuse and Recycling Programme. Over the years, the initiative has helped to ensure that as few red packets as possible are sent to landfills and are instead reused the following year.

From 29 January to 19 February, 19 collection points were set up at the HKIA Tower, the Reclamation Project Site Office, Third Runway Project Site Office and Landside Project Site Office receptions, Terminal 1 Customer Service Centres, and the Airport World Trade Centre to collect the red packets from passengers and airport community staff.

慶祝農曆新年之際亦不忘環保。機管局連續第九年支持由非政府環保組織綠領行動主辦的「利是封回收重用大行動」，為環保出一分力。是項活動旨在減少利是封被送往堆填區，以及鼓勵市民重用利是封。

活動於1月29日至2月19日進行，機管局於機場行政大樓、填海工程工地辦事處、三跑道項目工程辦事處及非飛行區工程工地辦事處的接待處、一號客運大樓旅客服務中心及機場世貿中心設置19個回收箱，以收集旅客及機場員工的利是封。



4 LIGHTENING THE LOAD

旅程更輕鬆無憂

Passengers travelling with heavy baggage can now conveniently lighten their load by taking advantage of the baggage pick-up and delivery service at HKIA at a charge. The new service can be arranged through S.F. Express (Hong Kong) Limited or Worldwide Flight Services.

By using the service, the baggage will be collected from locations including passengers' home, hotel or other designated downtown locations (subject to the service providers), and delivered to the Baggage Storage and Delivery Counter at HKIA. For arriving

passengers, after reclaiming their baggage and completing the customs clearance process, they can drop their bags at Baggage Storage and Delivery Counter which will be delivered directly to their home or hotel (subject to the service providers).

攜帶大量行李的旅客，只要使用收費行李到戶服務，便可輕鬆踏上旅程。旅客可透過順豐速運香港有限公司或環美航務使用該項新服務。

服務人員會從旅客的住所、酒店或多個指定市區地點（視乎服務供應商而定）提取行李，然後運送至機場的行李寄存及送遞櫃檯。抵港旅客在領取行李及完成海關檢查後，可以將行李送交行李寄存及送遞櫃檯，然後從機場直接送到其住所或酒店（視乎服務供應商而定）。

SCAN
掃描

QR code
to contact
service
providers
for details
QR碼聯絡
服務供應商



SAFE SOLUTION TO THE AUTOMATED PEOPLE MOVER SYSTEM

旅客捷運系統列車安全提案



(From left) Roger Yiu, KH Tsang, Jessica Lee, Nicola Lu, Chrono Pang and CK Chung from the Technical Services Department are responsible for the maintenance of the Automated People Mover system.

(左起) 來自工程及維修部的姚德英、曾國雄、李國欣、盧毓瑩、彭飛煌及鍾志健負責旅客捷運系統的維修工作。

While Hong Kong International Airport already functions at high levels of efficiency, there is always room for enhancement. The Work Improvement Team (WIT) Programme rewards teams of Airport Authority (AA) staff for coming up with solutions to the operational challenges they encounter in their day to day work. Among the two projects awarded the coveted “AA Work Improvement Team Grand Award - Gold” in December 2019, one went to “Driverless”, a team from the Technical Services Department.

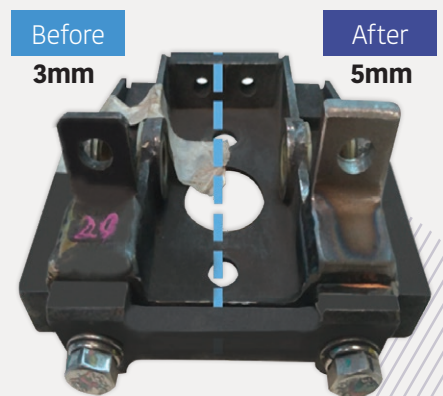
The team observed that the number of incidents related to train pantographs of the airport’s Automated People Movers (APM) had increased since the opening of the Midfield Concourse in 2015: from just one incident in 2016 to eight in 2018. In particular, the L-shaped mounting

brackets of the power-collecting pantograph assembly were frequently found broken, which often damaged the pantograph assembly and had to be replaced at considerable cost.

The Driverless team found that the culprit of the problem was the excessive bouncing force to which the pantographs were being subjected.

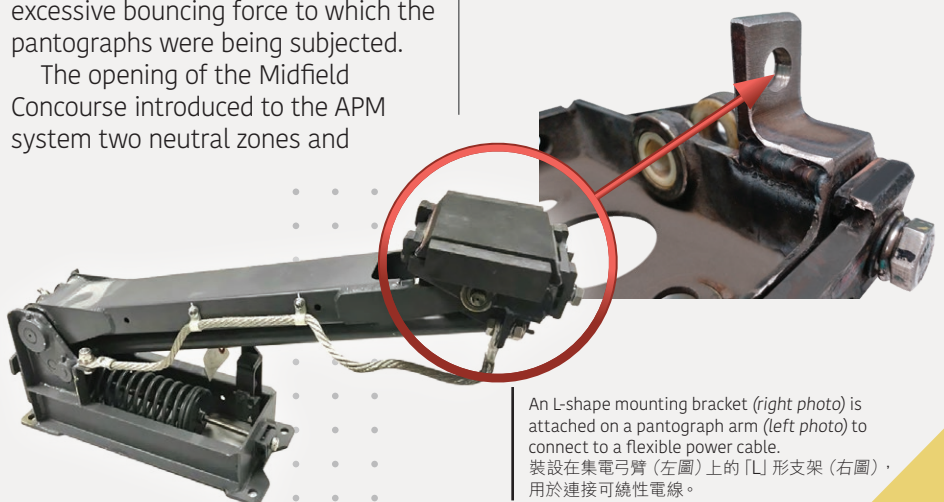
The opening of the Midfield Concourse introduced to the APM system two neutral zones and

high speed end approach areas which were found to be causing the bouncing, a force that the 3mm thick L-shape mounting brackets could not withstand. While the ultimate solution is the elimination of the neutral zones and high speed end approach areas which will be implemented in phases, the team has come up with an interim solution to eliminate incidents caused by broken L-shape mounting bracket.



The team comes up with a solution of increasing the thickness of the L-shape mounting brackets from 3mm to 5mm capable of withstanding the bouncing force to which the pantograph is subjected.

團隊構思出改善提案，就是將「L」形支架的厚度從三毫米增加至五毫米，以提升集電弓所能承受的回彈力。



An L-shape mounting bracket (right photo) is attached on a pantograph arm (left photo) to connect to a flexible power cable. 裝設在集電弓臂(左圖)上的「L」形支架(右圖)，用於連接可繞性電線。

The team decided to make a simple yet well-proven enhancement to the system – increasing the thickness of the L-shape mounting brackets from 3mm to 5mm with the approval of the original equipment manufacturer. This is concluded after a thorough review and a testing period during which the new and old designs were benchmarked against each other, with the new one found to be 3.4 times stronger and capable of withstanding the bouncing force.

The result was nothing but impressive. Since the enhancement, the same incident has not been recorded, saving up to \$2.4 million in the repair and maintenance cost of the APM system.

香港國際機場向來以效率卓著見稱，不斷精益求精。為此，機場管理局推出「創益先鋒計劃」，鼓勵員工就日常工作中遇到的營運挑戰，想出相應改善方案。於2019年12月，兩支參賽隊伍一同奪得「創益先鋒卓越大獎 – 金獎」，其中一隊是來自工程及維修部的「無人駕駛」隊伍。

團隊觀察到中場客運大樓自2015年啟用以來，與機場旅客捷運系統列車集電弓相關的事故由2016年的一宗，增加至2018年的八宗，情況令人關注。特別是用於集引電力的集電弓裝置上的「L」形支架經常被發現鬆脫斷開，導致

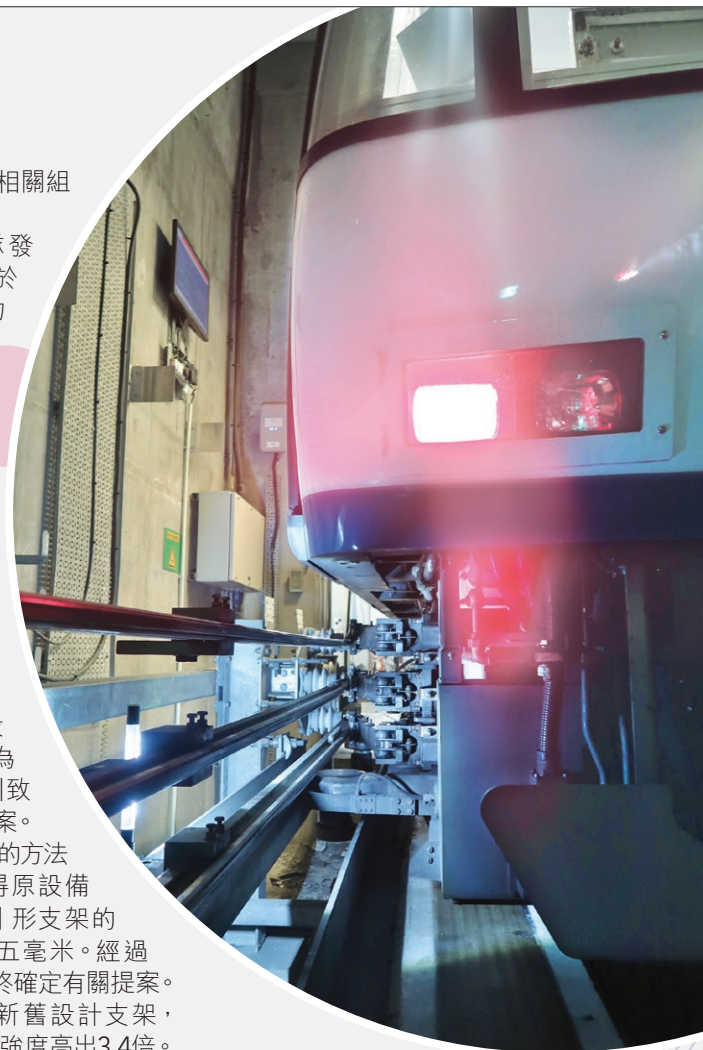
集電弓裝置受損，更換相關組件的費用亦不菲。

「無人駕駛」團隊發現問題的成因，是由於集電弓承受過大回彈力所致。

隨着中場客運大樓啟用，旅客捷運系統設有兩個中性區域及高速末端進場區域，這兩個區域被認為是造成回彈力過大的原因，而厚度只有三毫米的「L」形支架無法承受。解決問題的最終方法是移除中性區域及高速末端進場區域，而在分階段進行移除工程前，團隊為解決「L」形支架損壞引致事故提出了臨時改善方案。

團隊決定以簡單有效的方法改善系統，就是在取得原設備製造商批准後，將「L」形支架的厚度從三毫米增加至五毫米。經過全面測試和檢討後，最終確定有關提案。在測試時，團隊比較新舊設計支架，結果發現新支架的受力強度高出3.4倍。

新提案的成效非常顯著，自實行改善方案後再無發生同類事故，旅客捷運系統的維修費用更因而減省最多達240萬港元。



Pantograph of an APM for collecting traction power from power rail.
旅客捷運系統透過集電弓從導電軌集引電力。

The solution applies to the APM system which transports passengers between Terminal 1, Midfield Concourse and SkyPier.
提案應用於接載旅客來往一號客運大樓、中場客運大樓與海天客運碼頭的旅客捷運系統。



AA MAINTAINS CARBON MANAGEMENT RECOGNITION

機管局再獲碳管理認證

The Airport Authority (AA) received the CarbonCare Label for the fifth consecutive year. Launched in 2011 by Carbon Care Asia, the distinction recognises the AA's

efforts to measure, reduce and offset its carbon footprint arising from Hong Kong International Airport's (HKIA) operations. To this end, it was further lauded for

establishing an effective carbon management plan and independently verifying its carbon footprint.

The AA was among the recipients of some 300 labels awarded to Hong Kong organisations including listed and private companies, government departments, social enterprises and non-governmental organisations.

機場管理局連續第五年獲頒授「低碳關懷標籤」，表揚其一直致力計量、減少及抵銷香港國際機場的碳排放影響，在建立有效碳管理計劃及獨立核實碳排放的工作亦備受肯定。「低碳關懷標籤」由低碳亞洲於2011年推出。

今屆約有300家香港機構獲頒發標籤，其中包括上市公司及私營公司、政府部門、社會企業及非政府組織。

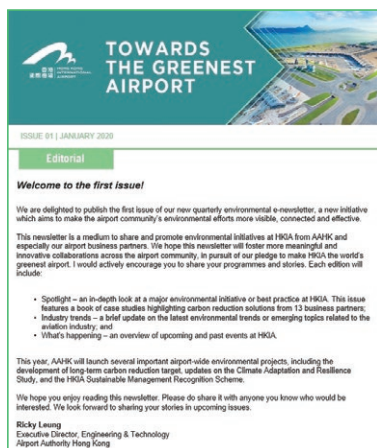


“TOWARDS THE GREENEST AIRPORT” HIGHLIGHTS GREEN PRACTICES AIRPORT-WIDE

《邁向綠色機場》通訊介紹機場環保措施

The AA launched the inaugural issue of its quarterly environmental e-newsletter “Towards the Greenest Airport” highlighting green initiatives implemented by the AA and its airport business partners at HKIA. The e-newsletter aims to share and promote the airport community's environmental efforts.

The newsletter is organised around three key sections. ‘Spotlight’ showcases a major environmental initiative or best practice at HKIA.



‘Industry Trends’ shares updates on the latest green trends in the aviation industry, while ‘What’s Happening’ promotes environmental events at HKIA.

The e-newsletter is the first in a series of airport-wide environmental projects set to be

rolled out this year. Others include the development of a long-term carbon reduction target, updates on the Climate Adaptation and Resilience Study and the HKIA Sustainable Management Recognition Scheme.

SCAN 掃描

QR Code to
subscribe
to the HKIA
Environmental
e-newsletter

QR碼訂閱
香港國際機場
電子版
環保通訊

機管局最近刊發首份電子環保通訊季刊《邁向綠色機場》，以介紹機管局及機場業務夥伴在香港國際機場實行的環保措施，同時分享及宣揚機場同業的環保工作。

環保通訊分為三大部分：「專題報導」一欄介紹整個機場的主要環保措施或最佳實踐方式，在「業界動態」中亦分享航空業的最新環保發展趨勢，「活動資訊」則推廣機場各項環保活動。

該份電子通訊為機管局計劃於今年推出的一系列機場環保項目揭開序幕，其他項目包括制訂長遠減碳目標、更新《氣候適應及應變能力研究》及設立「香港國際機場可持續管理表揚計劃」。

STRONG STRIDES ON THE STREETS

跑入大街小巷



The Airport Authority (AA) Running Team put its best foot forward into the new decade by turning in a solid performance in the Hong Kong Streetathon 2020 on 12 January.

A total of 47 runners divided into two groups to compete in different distances, with 27 runners led by AA Executive Director, Finance William Lo and Deputy Director, Service

Delivery Steven Yiu navigating through a designated 10km course along the Kwun Tong Bypass.

There was another outstanding display of stamina and determination by the other 18 runners who completed a rigorous 32km course in which they ran through the Eastern Harbour Crossing - the first-ever in Hong Kong - on the streets from Hong Kong east and culminated at Kowloon east.

新一年伊始，機場管理局跑步隊參加於1月12日舉行的「香港街馬2020」，展示強勁的跑步實力。參加街馬的47名機管局健兒分為兩組，參與不同距離的賽程，其中27名健兒在機管局財務執行總監羅志聰及機場運行副總監一運作及服務姚兆聰帶領下，從觀塘繞道起步，沿着指定的10公里賽道直奔終點。

其餘18名跑手憑藉無比堅毅耐力，穿越東區海底隧道，挑戰全港第一場跑經東隧的32公里賽。他們在港島東的街道上競跑，全力奔向設於九龍東的終點線。

TIME OUT TO TRY OUT TRADITIONS

賀年攤位迎新歲

The AA Staff Club organised a series of traditional Chinese artwork booths at HKIA Tower in late January for staff to immerse in festive traditions as they ushered in the Year of the Rat.

Staff explored memorable activities at the booths such as expressing their wishes through personalised fai chun writing on spring couplets which they brought home in time for the holidays. They also tapped into their creativity in the traditional Chinese paper cutting and



flour craft making activities as well as received lucky windmill decorations which were distributed to staff.

於1月下旬，機管局職員康樂會在機場行政大樓設置中國傳統手工藝攤位，讓員工喜迎金鼠，體驗中國傳統習俗文化。

活動包括邀請書法家即席揮毫，讓員工將滿載個人願望的傳統揮春及春聯帶回家；另外亦向員工贈送風車裝飾品及精緻麵粉公仔，共賀新歲。在另一項賀年活動上，員工更發揮創意親手製作中國傳統剪紙工藝，寓意新一年好運連連。



THE OMBUDSMAN'S AWARD 2019 FEATURE

2019申訴專員嘉許獎專題

Organised by the Office of The Ombudsman, the Ombudsman's Awards recognise professionalism in handling complaints and aim to foster a positive culture of service in the public sector. Sally Ching of the Airport Authority's Terminal 1 Department was honoured with the Award for being exceptionally meritorious in the course of conducting enquiries or investigations. 申訴專員嘉許獎由申訴專員公署舉辦，旨在表揚在處理投訴方面達到專業水平的政府部門/公營機構及人員，並在公共服務範疇推動正面的投訴文化。來自機場管理局一號客運大樓運作部的程杏樹獲頒發申訴專員嘉許獎，嘉許她在處理查詢或調查時的卓越表現。



» Sally Ching (right) 程杏樹 (右)

Senior Operation Officer, Customer Service
Terminal 1 Department
高級顧客服務營運主任
一號客運大樓運作部

Sally has been working in the Customer Service Team for over 11 years and has handled numerous passenger incidents in good manner. For example, Sally received an enquiry

from a passenger who was refused to bring the remains of her late mother into the cabin. Sally helped to liaise and clarify with the airlines so that the passenger was allowed to bring the remains into the cabin after clarifying certain regulations of the airlines. Sally's empathy earned the appreciation of the passenger.

In another case, an anxious lady approached Sally after losing contact with her elder sister who was boarding an onward flight. She was attempting to relay the news to her sister that her mother was in critical condition in hospital. Sally took immediate action by making several public announcements, and then relayed the message through ground staff which was finally successful.

Sally takes great pride in her work in listening to passengers and is willing to do whatever it

takes to offer timely assistance to customers in need.

程杏樹在顧客服務團隊工作逾11年，以專業的態度妥善處理多宗旅客查詢和投訴。例如她曾收到旅客查詢，該旅客因攜帶母親的骨灰上機而遭拒絕登機，而航空公司要求她必須將骨灰放入行李內寄艙。程杏樹於是協助該名旅客聯絡航空公司並進行協調，在解釋航空公司若干規例後，旅客最終獲准將骨灰帶上機。該名旅客非常感激程杏樹全力幫忙。

另一個例子是一名女士與登上中轉航班的姐姐失去聯絡，焦急徬徨地向程杏樹求助，而該名女士希望通知姐姐有關母親病危的消息。程杏樹馬上發出多次廣播，並透過地勤人員傳達消息，最終成功向旅客的姐姐轉達。

對在工作上能夠聆聽旅客需求，程杏樹感到十分自豪，並樂意竭盡所能，適時為有需要的旅客提供協助。

OUR GROWING HKIA FAMILY

機場大家庭

Airport Authority colleagues can submit their wedding or new born baby photos to hkianews@hkgairport.com and stand a chance to receive an HKIA cash coupon valued at HK\$200. The selected images will be published in *HK Airport News*. 機場管理局同事提交他們的結婚或新生嬰兒照片至 hkianews@hkgairport.com，即有機會獲得200港元的香港國際機場現金券。獲選照片將於《翱翔天地》刊登。

» Karlie Lau 劉芊柔 12 days 12天

Mother: Carman Au
母親：區嘉雯
Terminal 1 Department
一號客運大樓運作部



» Angus Ho 何俊熙 8 months 8個月

Father: Freddy Ho
父親：何智忠
Third Runway Division
三跑道項目處

