

REALISING THE AIRPORT CITY VISION

實現機場城市願景



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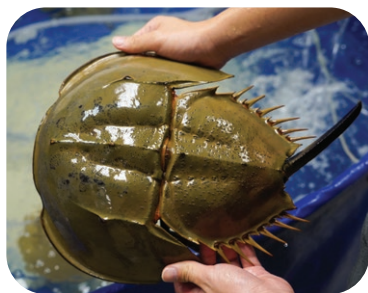


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香港國際機場刊物

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THE AIRPORT CITY VISION TAKES FLIGHT

「機場城市」願景啟航

The Airport Authority (AA) envisages a transformation to progressively turn Hong Kong International Airport (HKIA) into an Airport City. The blueprint entails an AA investment of more than HK\$40 billion in the 10 years to 2030, aimed at enhancing the airport's capacity and functionality.

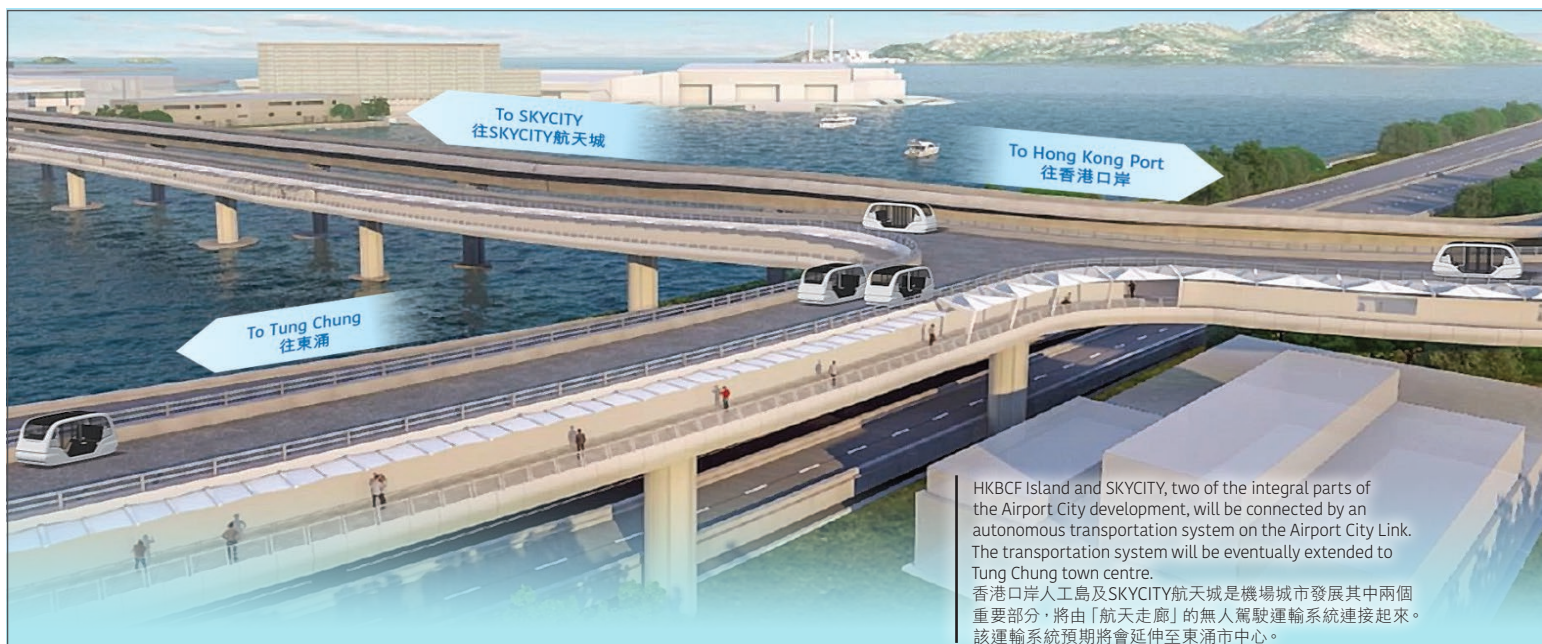
The Airport City looks to capitalise on HKIA's unique geographical advantage and capture opportunities arising from the new infrastructure. The development will integrate and create synergies among economic activities and services in and around the airport, as well as in the wider region.

機場管理局的願景是將香港國際機場逐步發展成為「機場城市」，有關發展藍圖包括機管局於直至2030年的十年內，投資超過400億港元以提升機場運力與功能。

機場城市發展願景將充份利用機場獨特地理優勢，並把握各項新基建帶來的機遇，以整合機場及其周邊以至更廣大地區的經濟活動與服務，發揮強大協同效應。



An artist's impression of the Intermodal Transfer Terminal and Airport City Link.
多式聯運中轉客運大樓及「航天走廊」的構想圖。



3RS and Airport Facilities Enhancement

The three-runway system (3RS), a major infrastructure project that will increase HKIA's long-term capacity, is a crucial part of the Airport City vision. The 3RS project involves the reclamation of approximately 650 hectares of land and the construction of the third runway, a supporting taxiway system, a new full-fledged Terminal 2, a new passenger building and associated infrastructure.

Meanwhile, works are being undertaken to enhance existing airport facilities, including the refurbishment of boarding gates and other terminal facilities; construction of the Sky Bridge to connect Terminal 1 and North Satellite Concourse; leveraging technology to enhance passenger services; and more.

三跑道系統及提升機場設施

三跑道系統是重要的基礎建設項目，長遠而言有助增加香港國際機場的容量，對實踐機場城市願景起關鍵作用。項目涉及填海拓地約650公頃、興建第三條跑道、相關滑行道系統、提供全面客運服務的二號客運大樓、三跑道客運大樓及相關基礎建設。

同時，機管局一直提升機場現有設施，包括美化登機閘口及其他客運大樓設施、興建「天際走廊」連接一號客運大樓及北衛星客運廊，以及利用科技提升旅客服務等。

SKYCITY and AWE Phase II Development

SKYCITY is an integral part of the Airport City development, in which New World Development's "11 SKIES" will become Hong Kong's largest integrated complex for retail, dining, and entertainment facilities.

Phase II of AsiaWorld-Expo (AWE) will house Hong Kong's largest indoor performance venue that can accommodate 20,000 people. The gross floor area of AWE's exhibition facilities will be increased to 100,000 square metres. The synergy between AWE and SKYCITY is expected to transform HKIA into a new landmark for visitors and residents alike.

SKYCITY航天城及亞洲國際博覽館第二期發展

SKYCITY航天城是發展機場城市的重要部分，其中新世界發展的「11 SKIES」將會是全港最大型的綜合購物、餐飲及娛樂設施。

與此同時，亞洲國際博覽館第二期將設全港最大、可容納2萬人的室內表演場地。亞博館第二期落成後，展覽設施總樓面面積將增至10萬平方米，與SKYCITY航天城締造協同效應，機場勢將成為一個吸引旅客及市民的矚目新地標。

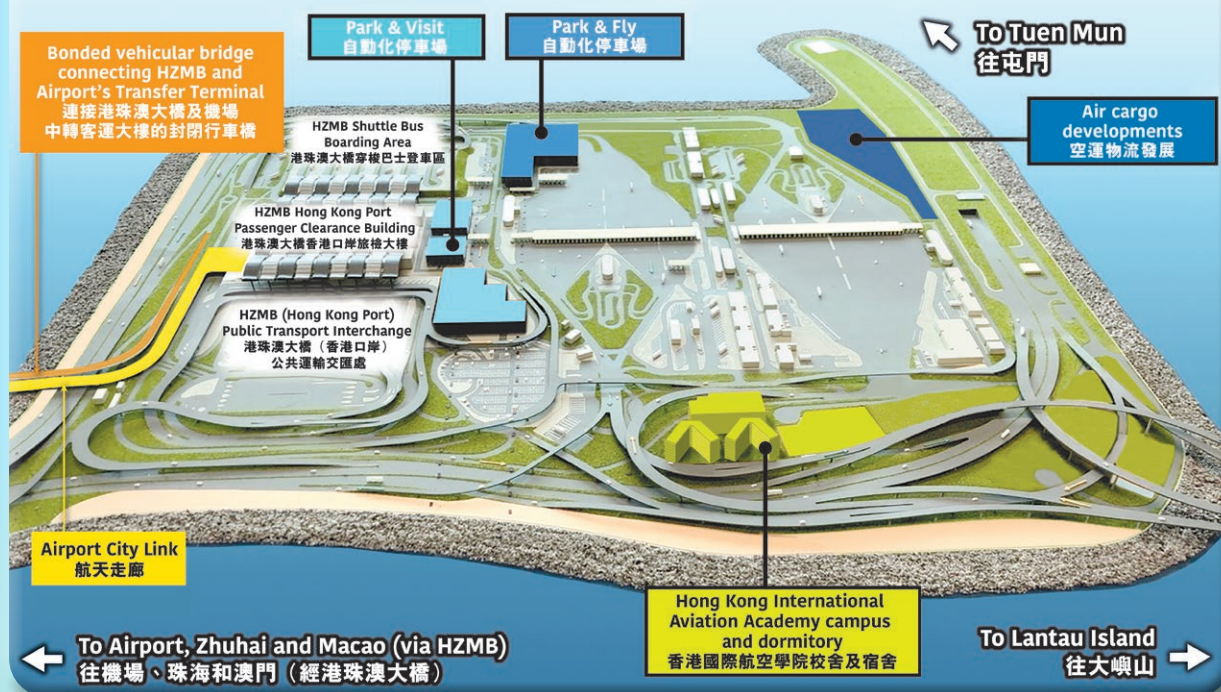


AWE's Phase II Development will house Hong Kong's largest indoor performance venue. 亞博館第二期發展將設有全港最大室內表演場地。

SCAN
掃描

QR Code to view HKIA's transformation into an Airport City
QR碼以了解香港國際機場發展成為機場城市的詳情





Development of HKBCF
香港口岸人工島發展

HKBCF Island Development

On the Hong Kong Boundary Crossing Facilities Island (HKBCF) of the Hong Kong-Zhuhai-Macao Bridge (HZMB), two automated car parks offering some 6,000 parking spaces will be constructed. For “Park and Fly” passengers, they can transfer to the boarding gates directly from the HKBCF restricted area, facilitated by a bonded vehicular bridge connected to the airport’s Intermodal Transfer Terminal, without going through immigration procedures. On the other hand, “Park and Visit” visitors can go from HKBCF to SKYCITY or other parts of Hong Kong via the Airport City Link, which is a vehicular and pedestrian bridge run by an autonomous transportation system connecting HKBCF and SKYCITY. The system will later extend to Tung Chung town centre.

In addition, a new Hong Kong International Aviation Academy campus and dormitory will be built, while land parcels have been reserved for future air cargo developments.

香港口岸人工島發展

港珠澳大橋香港口岸人工島將建造兩個自動化停車場，提供約6 000個停車位。經港珠澳大橋到香港國際機場轉機的「Park and Fly」旅客，可以經連接至機場多式聯運中轉客運大樓的封閉行車天橋，從香港口岸禁區直接前往機場登機閘口，過程中無須辦理出入境香港手續。另一方面，「Park and Visit」訪港旅客則可通過「航天走廊」從香港口岸前往SKYCITY航天城或香港其他地區。「航天走廊」利用自動駕駛運輸系統的行車及行人天橋連接香港口岸人工島及SKYCITY航天城，未來將延伸至東涌市中心。

此外，香港口岸人工島上將興建香港國際航空學院校舍及宿舍，另有部分土地預留作未來航空貨運發展。

Air Cargo Development

To strengthen its leading status in air cargo, HKIA will capture the rising opportunities offered by the high-value, high-growth air cargo, including temperature-controlled cargo such as medicine and vaccines, and e-commerce. AA is planning to build the HKIA Logistics Park in Dongguan and an airside intermodal cargo handling facility at HKIA. With the new facilities in operation, customs clearance, security screening, palletisation and other services for Mainland exports can be completed in Dongguan before shipping the goods to HKIA by sea, for air transshipment to worldwide destinations. For imports to the Mainland, the goods can be directly shipped from the HKIA restricted area to Dongguan. The initiatives are expected to boost the airport’s cargo handling volume and serve as a growth engine for the industry.

航空貨運發展

為鞏固香港國際機場航空貨運的領先地位，機管局將把握高價值、高增長空運服務帶來的機遇，包括加強發展藥物和疫苗等溫控貨物，以及電子商貿的相關服務。機管局亦計劃於東莞設立「香港國際機場物流園」，並在機場興建「空側海空聯運貨運碼頭」。未來內地出口貨物可於東莞物流園完成清關、安檢及打板等步驟，通過海路運送到香港國際機場，再以飛機轉運到世界各地。至於進口內地的空運貨物，可直接從香港國際機場禁區運到東莞。預計這項目能提高香港國際機場的貨運量，並成為業界的增長動力。



OUTSIZED CARGO IN GOOD HANDS WITH HACTL

香港空運貨站
有效處理大型貨物

Hactl handles cargo of different sizes, including the very large and the special-shaped. This applies to an 850kg yacht mast that the company recently handled. Featuring massive dimensions of 1,970cm x 64cm x 70cm, the mast was moved by 747-8F operator AirBridgeCargo from Paris Charles de Gaulle Airport to Hong Kong International Airport (HKIA), for onward delivery to Mainland China.

The mast was transported on board the freighter on two connected 20-foot pallets. Upon arrival at HKIA, the item was then unloaded using four main deck loaders positioned in a line. The lowering procedure

was carefully synchronised to avoid putting stress on the valuable cargo. With Hactl's Ground Services team liaising with the Airport Authority, a smooth cargo handling process was ensured by temporarily closing the road in front of the aircraft parking bay and traffic diversion. These were to provide sufficient space for the challenging manoeuvre, while not affecting other airfield operations.

香港空運貨站有限公司處理不同大小的貨物，包括巨型及特別形狀貨物。最近，香港空運貨站便處理了一件體積龐大的遊艇桅杆。該桅杆長1 970厘米、



闊64厘米、高70厘米，重850公斤，由俄羅斯空橋貨運航空以747-8F型貨機，從巴黎戴高樂機場運抵香港國際機場，再送往中國內地。

這枝桅杆以兩個20呎長的相連載具裝上貨機，運抵香港國際機場後，則以四台並排而列的上層裝載機從貨機卸載。為免這件貴重貨物受到任何損壞，四台裝載機下降時工作人員必須小心翼翼地使其高度保持一致。為確保整個過程能順利完成，貨站停機坪團隊預先與機場管理局溝通協調，於貨機停機位前方實施臨時封路及改道措施，騰出充裕空間完成此項困難的卸載工作，以及不妨礙其他停機坪運作。

PLAZA PREMIUM GROUP

環亞機場服務管理集團

PLAZA PREMIUM FIRST EXTENDS AWARD-WINNING LOUNGE EXPERIENCE

環亞優逸庭
獲行業領先殊榮

Plaza Premium First Hong Kong was recently named the Best Independent Airport Lounge at the Business Traveller Asia-Pacific Awards 2020 for its acclaimed lounge services. The accolade marks its second consecutive win in the category.

Located near Gate 1 of Departures Level at HKIA, the upscale lounge features à la carte dining at Primo and the airport's most extensive whisky selection at Aerobar. Other services include shower cabins, complimentary massage,



and ambassadors who offer passengers personalised choices to suit their different needs.

In addition, Plaza Premium Lounge Hong Kong near Gate 35 was named the runner-up in the same award category. The lounge features spectacular apron views and has launched Smart Order, a contactless food-ordering system via mobile for the convenience and safety of travellers.

香港環亞優逸庭近日在Business Traveller Asia-Pacific Awards 2020 (「2020亞太商旅獎」)中獲評為「最佳獨立機場貴賓室」，表揚其廣受稱

譽的貴賓室服務。這已是環亞優逸庭連續第二年勇奪此獎項。

毗鄰香港國際機場離港層1號閘口，環亞優逸庭內的Primo用餐區供旅客享用單點菜單上的美食，並設有Aerobar酒吧，其威士忌選擇為全機場之冠。環亞優逸庭亦提供淋浴間及免費按摩等設施和服務，其貴賓室大使更會因應不同旅客提供切合其個人需要的服務。

此外，鄰近35號閘口的香港環亞機場貴賓室亦入選「最佳獨立機場貴賓室」名單。旅客從該貴賓室可欣賞到停機坪的遼闊景色，並可在流動電話上透過近期推出的非接觸式食品點餐系統Smart Order點餐，方便之餘亦可保障旅客健康。



CATHAY PACIFIC CARGO INTEGRATES BLOCKCHAIN ULD TRACKING SEAMLESSLY

國泰貨運整合集裝箱
區塊鏈追蹤管理系統

Capitalising on the power of blockchain, Cathay Pacific Cargo became the first airline to harness the technology to manage its stock of Unit Load Devices (ULD), which are used to transport cargo. The airline first introduced the smart system in 2019 at its Cargo Terminal at HKIA, and subsequently included other Hong Kong cargo agents during the second phase this year.

Previously, drivers were required to write down ULD numbers and manually exchange paperwork at the Cathay Pacific Cargo Terminal when delivering or collecting cargo. With the new system, drivers can now enter the ULD number into a smartphone app

that logs the transfer in a blockchain ledger. The process instantly informs the agent and the airline on who has custody of a specific ULD.

Building on its smooth operation at HKIA, the blockchain system was extended to four US ports in September, and the team also worked on finessing the location information of the system. Future goals are to automate the process using smart ULD Bluetooth technology, with full smart ULD capability anticipated in two years.

國泰貨運成為首家航空公司，以區塊鏈記錄貨物運輸集裝箱保管情況。該航空公司於2019年在旗下位於香港國際機場的貨運站首次引入該項智能系統，並已

Republished from Cathay Pacific Cargo's [Cargo Clan](#), credit to Cedar Hong Kong 內容摘錄自國泰貨運《Cargo Clan》，鳴謝 Cedar Hong Kong



於今年進入第二階段，將其他香港貨運代理亦納入系統中。

在數碼化系統推出之前，當司機交付或收取貨物時，需要在提單上寫下集裝箱的編號，並在國泰航空貨運站親手領取及提交文件。新系統實施後，他們可以透過智能電話應用程式輸入集裝箱編號，該程式會在區塊鏈的分類記帳內，將集裝箱的保管轉換情況記錄下來，讓貨運代理及航空公司清楚掌握集裝箱當時由哪一方保管。

區塊鏈系統成功在香港國際機場暢順運作後，於9月拓展至美國，在當地四個航站實施。團隊亦致力完善該系統的定位詳情。未來目標是利用藍牙技術，讓整個系統自動化運行，預計在兩年內實現集裝箱完全智能化。



“AWESOME” DINING AT ARENA KITCHEN

亞博館Arena Kitchen
品味優閑時刻

Arena Kitchen at the AsiaWorld-Expo (AWE) has returned with a fresh look and dining experience. Located on Level 1 of the AWE, the newly renovated restaurant invites diners into a modern, relaxing atmosphere for an “AWESome” getaway.

Using premium ingredients, Arena Kitchen creates delectable dishes on a wide-ranging menu of contemporary international



cuisine, from main courses and all the way to cakes and dessert. The restaurant also offers a variety of wines and beverages to suit every occasion, and is also equipped to host buffets, cocktail receptions and themed parties.

Airport staff can enjoy 20% off the main menu, while the daily Happy Hour offers a buy-one-get-one-free promotion on select wines and beers.

位於亞洲國際博覽館一樓的Arena Kitchen最近以煥然一新的面貌登場，新設計糅合現代風格，為顧客帶來優閑的用餐體驗。

Arena Kitchen以優質食材炮製令人回味的國際料理，備有多款主菜、蛋糕、甜品、各式飲品及美酒。此外，這家餐廳更可配合不同活動性質提供自助餐、舉辦雞尾酒招待會及主題派對。

機場員工可享主餐牌八折優惠，另外在每日歡樂時光時段，可享指定葡萄酒及啤酒買一送一優惠。

HKIA GEARED FOR CAPTURING THE GROWING PHARMA MARKET

香港國際機場準備就緒 把握醫藥品市場增長機遇

As the world's busiest airport in international air cargo, Hong Kong International Airport (HKIA) has been playing an instrumental role in the import and transshipment of medicine and pharmaceutical products. These activities involve highly complex logistics and require a high standard of proficiency and often stringent temperature control.

Excellent Connectivity for Efficient Transportation

When dealing with the transportation of medicine and pharmaceutical products, efficiency is of utmost importance. Strategically located at the heart of Asia, HKIA is well positioned to be the preferred gateway in Asia to transship pharmaceutical products from manufacturing sites at different regions including Europe and the United States to other Asian countries.

At HKIA, aircraft carrying the temperature-sensitive pharmaceuticals will be allocated to parking stands close to the cargo terminals so that the products can be transported to cargo terminals quickly for immediate release or transfer to the next flight for transshipment.

緊密空運網絡 促進高效運輸

醫藥品運輸工作中，效率是最重要的一環。香港國際機場位於亞洲中心，地理位置優越，是歐美等不同地區生產地點向其他亞洲國家轉運醫藥品的區內首選門戶。

作為全球最繁忙的國際貨運機場，香港國際機場在醫藥品的進口及轉運任務上一直擔當重要角色，當中涉及高要求的物流處理，須對有關運作瞭如指掌，並會採取嚴格的溫度控制。



[1]

在香港國際機場，載有對溫度敏感醫藥品的航機會被分配到靠近貨運站的停機位，抵港後便可快捷地運送到貨運站即時發貨，或運送到下一班航機轉運。



[2]

[1]

As a global air cargo hub, HKIA has been playing an instrumental role in the import and transshipment of pharmaceutical products.

作為全球航空貨運樞紐，香港國際機場一直在醫藥品的進口及轉運任務上擔當重要角色。

[2]

HKIA possesses the largest fleet of cool dollies among airports in Asia to serve as mobile temperature-controlled storage.

香港國際機場現有的冷凍拖卡車隊為亞洲所有機場中規模最大，可作為流動溫控儲存設施。

[3]

Dedicated apron shelters protect temperature-controlled products from direct weather elements when the airline containers or cool dollies are staged temporarily at the apron.

專用停機坪遮蓋供航空公司集裝箱或冷凍拖卡在停機坪短暫停留期間使用，保護溫控貨物免受天氣因素直接影響。

[4a-4b]

Three cargo terminals offer about 5,000 square metres of dedicated cold room storage with different temperature ranges to suit the requirements of different temperature-controlled pharmaceutical products.

機場三個貨運站提供總面積約5,000平方米的專用冷藏庫，這些冷藏庫能維持不同溫度範圍，切合各種溫控醫藥品的溫度要求。

Dedicated Cold-chain Facilities for Seamless Temperature-controlled Transportation

HKIA is equipped with state-of-the-art infrastructure and facilities to provide safe, efficient, and reliable end-to-end temperature-controlled transportation services for all kinds of pharmaceutical products. About 30 cool dollies at HKIA – the largest fleet among airports in Asia – ensure temperature-controlled transportation over the apron. The cool dollies are also equipped with real-time temperature and GPS tracking to ensure that the pharmaceuticals maintain their required conditions.

Additionally, two pioneering apron shelters serve as effective on-ramp solutions to protect temperature-controlled products from direct weather elements. Electricity supply for temperature-controlled airline containers and cool dollies are also available at the shelters to support their continuous operation for onward transportation.

All three cargo terminals provide a total of about 5,000 square metres of dedicated cold rooms with different temperature ranges for pharmaceuticals to await onward transshipment flights or release to consignees.



專用冷鏈設施 確保無縫溫控運輸

香港國際機場配備先進的基礎設施，為各類醫藥品提供安全、高效及可靠流暢的點對點溫控運送服務。香港國際機場現有約30部冷凍拖卡，為亞洲所有機場中規模最大，這些設施有助確保在停機坪運送時貨物溫度受控。冷凍拖卡配備實時溫度監察功能，確保醫藥品維持在所需溫度；並設有全球衛星定位系統，以確保醫藥品的運輸快捷無誤。

此外，香港國際機場設有兩個嶄新停機坪遮蓋，能有效地保護溫控貨物在停機坪免受天氣因素直接影響。遮蓋亦有電力供應，供航空公司溫控集裝箱及冷凍拖卡使用，以支持它們隨後的運作。

機場三個貨運站內設有總面積達約5,000平方米的專用冷藏庫，這些冷藏庫能維持不同溫度範圍，以存放正短暫等候下一班轉運航機或收貨人收取的醫藥品。



Globally Certified Pharmaceutical Handling Excellence

HKIA is one of the few airports in the world recognised as a Partner Airport of the International Air Transport Association's (IATA) Center of Excellence for Independent Validators in Pharmaceutical Logistics (CEIV Pharma), the global standard for temperature-controlled pharmaceutical airfreight handling. Its three cargo terminals, three ramp handling operators and a home-based carrier have been awarded the IATA CEIV Pharma Certification. In addition, the three HKIA cargo terminal operators have attained World Health Organisation's Good Distribution Practices for Pharmaceutical

Products Certification.

In 2019, HKIA and fellow CEIV Pharma-certified Brussels Airport teamed up to launch the world's first airport-to-airport Pharma Corridor. The Corridor offers a seamless shipment of pharmaceutical products between the two airports, while complying with strict IATA CEIV Pharma standards in order to assure the integrity of shipments.

With its top-notch cargo handling capabilities and excellent connectivity, HKIA stands ready to provide a seamless temperature-controlled solution in transporting pharmaceuticals professionally, and to the highest international standards.

卓越醫藥品處理能力獲得國際認證

香港國際機場是全球少數獲得國際航空運輸協會醫藥品冷鏈運輸 (CEIV Pharma) 認證的合作夥伴機場之一，在處理溫控醫藥品空運方面達到國際認可的標準。機場的三間航空貨運站、三間停機坪飛機服務商及一間以香港為基地的航空公司，均成功取得CEIV Pharma認證。此外，機場三家航空貨運站營運商亦獲得世界衛生組織的「藥品良好分銷規範認證」。

於2019年，香港國際機場與比利時布魯塞爾機場一同創立全球首個機場間「藥品貨運通道」。來往兩地機場的醫藥品在「藥品貨運通道」下能達到無縫運輸，同時符合嚴格的CEIV Pharma標準，保證貨物品質。

憑藉出色的貨物處理能力及緊密廣闊的空運網絡，香港國際機場已準備就緒，以最高國際標準為溫控醫藥品提供無縫流暢的專業運輸服務。

[3]

[4b]

[4a]



1 AA'S SYNDICATED LOAN FACILITIES COMMENDED

機管局銀團貸款摘下獎項

The Airport Authority (AA) recently received a GlobalCapital Asia Award under the Best Investment Grade Syndicated Loan category. The accolade commends AA's signing of five-year HK\$35 billion syndicated loan facilities with 21 local and international banks in June. The facilities comprise a term loan tranche of HK\$17.5 billion and a revolving credit facility tranche of the same amount.

Since the pandemic outbreak, the all-in pricing of 82 basis points over the Hong Kong Inter-Bank Offered Rate (HIBOR) is one of the lowest interest rates for club or syndicated bank loan deals with the same tenor. The facilities will be utilised to fund AA's capital expenditures such as the three-runway system project and general corporate purposes.

GlobalCapital Asia highlighted that the loan attracted an overwhelming demand from banks and was oversubscribed, reflecting the banks' confidence in AA's credit. AA therefore increased the loan facilities amount to HK\$35 billion from an initial HK\$20 billion, making it the largest loan syndication in Hong Kong in 2020. It was also the first Hong Kong corporate syndicated loan that is compliant with the Equator Principles, a guideline used to manage environmental and social risks in projects.

機場管理局在「GlobalCapital亞洲大獎」中奪得「最佳投資級別銀團貸款」獎項，表揚機管局於6月與21家本地及國際銀行簽訂五年期的350億港元銀團貸款，當中包括金額同樣為175億港元的定期貸款及循環貸款。

這項貸款的整體定價為按照香港銀行同業拆息加82個基點，是自疫情爆發以來，同年期俱樂部式或銀團銀行貸款交易中的最低利率水平。貸款將用作機管局資本開支，包括三跑道系統項目在內的資本開支，以及一般企業用途。

《GlobalCapital Asia》表示，這項貸款吸引了多家銀行的踴躍支持，並獲得超額認購，反映銀行界對機管局的信貸能力充滿信心，因此，機管局的貸款額由原訂的200億港元增至350億港元，成為2020年香港最大宗銀團貸款。同時，機管局的貸款亦是首個符合「赤道原則」(Equator Principles)的香港企業銀團貸款。「赤道原則」為一項指引，用以管理項目的環境及社會風險。

2 OVERCOMING CHALLENGES THROUGH COLLABORATION

攜手克服航空貨運挑戰

AA joined the Asian Logistics, Maritime and Aviation Conference 2020 held on 17 and 18 November. The virtual conference provided an opportunity for industry leaders to exchange insights on the latest market intelligence across different areas, including logistics, air cargo, supply-chain management, and maritime industries.

In particular, AA co-organised the Air Freight Forum at the conference. Under the theme of "Overcoming

Challenges and to Prevail under the Pandemic", industry speakers from Seabury Consulting, Hong Kong International Airport (HKIA) Air Cargo Carrier Liaison Group, DHL Express, International Air Transport Association (IATA), Cainiao Network and AA shared their views on the global air cargo challenges and opportunities in a COVID-19 world. More than 1,140 participants attended the online forum. AA General Manager, Aviation Logistics Alaina Shum discussed HKIA's leading role in a successful airport community collaboration that has maintained an efficient and resilient cargo operation under the pandemic. She also highlighted HKIA's excellent temperature-controlled cargo handling capabilities to handle the upcoming COVID-19 vaccines shipment.

11月17日及18日，機管局參與亞洲物流航運及空運會議2020。是次會議透過網上平台舉行，匯聚行業專家及翹楚，就物流、空運、供應鏈管理及航運業等不同領域的最新市場情報交流意見。

機管局在活動中合辦空運論壇。論壇以「無懼疫情挑戰 邁步迎難而上」為主題，由來自Seabury Consulting、香港國際機場航空公司貨運聯絡小組、DHL Express、國際航空運輸協會、菜鳥網絡及機管局的業界演講嘉賓，分享在2019冠狀病毒疫情下全球航空貨運業面臨的挑戰及機遇。逾1,140名參與者出席網上論壇。機管局航空貨運及後勤總經理沈朝暉闡述機管局成功帶領機場同業攜手合作，在疫情下維持貨運運作高效暢順。她亦介紹香港國際機場具備卓越的溫控貨物處理能力，應對即將抵港的2019冠狀病毒疫苗運送工作。



[2]



3 TWICE RECOGNISED FOR CORPORATE GOVERNANCE AND SUSTAINABILITY

獲頒最佳企業管治大獎 兩大獎項

AA was recognised with dual distinctions at the Best Corporate Governance Awards 2020 on 2 December. The AA Annual Report 2019/20 received the Platinum Award in the Public Sector/Not-for-Profit (Large) Category, while its Sustainability Report 2018/19 scooped up the Sustainability and Social Responsibility Reporting Award in the same category.

Organised by the Hong Kong Institute of Certified Public Accountants (HKICPA), the annual awards honour organisations that set a high benchmark for corporate governance. The two accolades speak volumes on AA's internal controls along with a clear elaboration on the roles and reporting lines throughout the annual report, as well as its collaboration with business partners in enhancing HKIA's overall sustainability performance.

12月2日，機管局在「2020最佳企業管治大獎」中獲頒發兩項殊榮。機管局2019/20年報獲得公營／非牟利機構

(大型機構) 組別白金獎，而其2018/19可持續發展報告亦奪得同一組別的「可持續發展及社會責任報告獎」。

一年一度的「最佳企業管治大獎」由香港會計師公會主辦，旨在表揚實現高標準企業管治的企業和機構。機管局獲頒發這兩個獎項，足證機管局致力透過實行卓越有效的內部監控，在年報內清楚披露企業管治框架，並與業務夥伴緊密合作，以提高香港國際機場的整體可持續發展表現。

4 TESTING EMERGENCY READINESS FOR THE NO LAND LINK PLAN

陸路連繫中斷實地演習

A drill was conducted at HKIA during the early hours of

13 November to ensure business continuity under major operation disruptions. In support of the Hong Kong Government's No Land Link Plan for emergency transportation arrangements, the drill involved the concerted efforts of AA, AVSECO, AsiaWorld-Expo and the Police Force.

Once the No Land Link Plan is activated by the Government's High Level Command Centre, transportation between the airport and the city would be limited to local ferries. The drill aimed to test the emergency response and co-ordination among the participating parties on passenger flow and crowd management. In particular, it focused on the arrival flow from Terminal 1 to SkyPier for local ferry boarding, as well as the departure flow from SkyPier to Terminal 1 Departures Kerb for check-in process.

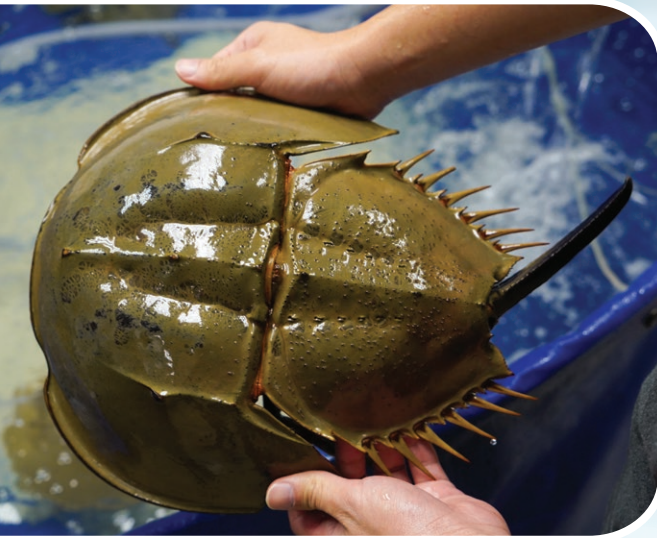
香港國際機場於11月13日凌晨進行演習，以確保發生重大運作中斷事故時能繼續提供服務。演習配合香港政府「陸路連繫中斷」計劃下的緊急交通安排。參與演習的機構包括機管局、機場保安有限公司、亞洲國際博覽館及警務處。

當政府高級指揮中心啟動「陸路連繫中斷」計劃時，來往機場與市區的交通便只有渡輪服務。演習模擬到港旅客由一號客運大樓前往海天客運碼頭乘搭渡輪往市區，以及離港旅客由海天客運碼頭前往一號客運大樓離港層落客區辦理登記手續，以測試各相關單位在客流及人群管理方面的緊急措施及協調工作。



PROTECTING CHINESE HORSESHOE CRABS FROM PLASTIC POLLUTION

保護中國鰲免受微塑膠污染



in accordance with the Environmental Permit for the Expansion of Hong Kong International Airport into a Three-Runway System.

There are about 8,000 wild juvenile Chinese horseshoe crabs in Hong Kong. The project studies the ecological risks of microplastics for Chinese horseshoe crabs and identifies local pollution hotspots. Microplastics are tiny and often mistakenly eaten by aquatic creatures which could block their digestive

systems and threaten their lives. As part of the study, the team

collected sediment samples from five investigation sites, and identified microplastics ranging in size from 31 to 5,000 micrometres. The mudflat of Shui Hau of Lantau had the most serious issues, with the average amount of microplastics three to four times higher than other sites. The team also discovered an abundance of polyethylene terephthalate ("PET") in Hong Kong waters, along with other polymer types. PET is commonly used in plastic bottles, containers, and tableware.

In addition, the project team exposed artificially bred juvenile Chinese horseshoe crabs to three types of high-density microplastics, i.e. PET, polymethylmethacrylate ("PMMA") and nylon, for 100 days

The soft sand or mud of Hong Kong's shallow western waters is one of the Chinese horseshoe crab's habitats which hold significant ecological value in the world. With a history of more than 400 million years, the Chinese horseshoe crab is known as a "living fossil". As the species may be caught for reselling or to produce reagents, they are considered endangered. Combined with the serious plastic pollution problems in its habitat, there is a pressing need to protect this wonder of the natural world.

Bearing this in mind, the Marine Ecology Enhancement Fund (MEEF) has funded a team from The Hong Kong Polytechnic University and City University of Hong Kong to carry out a multi-year project that began in 2018. The MEEF was set up by the Airport Authority (AA)



The project studies the ecological risks of microplastics for Chinese horseshoe crabs and identifies local pollution hotspots. 項目研究微塑膠對中國鰲造成的生態風險，並找出微塑膠污染的黑點。



The MEEF has funded a team from The Hong Kong Polytechnic University and City University of Hong Kong to study the ecological risks of microplastics for the endangered Chinese horseshoe crabs. 改善海洋生態基金資助香港理工大學及香港城市大學合作的團隊，研究微塑膠對瀕危中國鱗造成的生態風險。

香港境內約有8 000隻野生年幼中國鱗。該項目研究微塑膠對中國鱗造成的生態風險，並找出微塑膠污染的黑點。微塑膠體積小，水生物經常誤認為食物，如不慎吞下便可能會阻塞消化系統，並危害其生命。

研究團隊在五個調查地點收集沉積物樣本，再從中辨識出體積大小介乎31至5 000微米不等的微塑膠。微塑膠污染於大嶼山水口泥灘最為嚴重，微塑膠數量平均值較其他調查地點高出3至4倍。團隊亦發現香港水域含有大量聚對苯二甲酸乙二醇酯(PET)，以及其他種類的聚合物。PET常用於膠樽、容器及餐具等日常物品。

另外，團隊又將人工培育的年幼中國鱗暴露於三種高密度微塑膠，即PET、聚甲基丙烯酸甲酯(PMMA)及尼龍的環境中100天，以研究其生理反應。研究發現的影響包括成長緩慢(體重及頭胸寬度較正常低3%至7%)，以及活動能力和意欲大幅下跌達60%，因此牠們尋找食物及逃避捕獵者的能力亦較低，當中PET更會增加中國鱗的死亡率。

項目的研究結果可以為香港政府及其他海洋研究和保育機構提供重要的基線數據，有助他們制訂有效的保育政策及方案。這些工作將有助保育香港一帶的瀕危中國鱗，並提高大眾對環境保護的關注。

to study the physiological response. Identified impacts included stunted growth rates (weight and prosomal width 3% to 7% less) as well as reduced mobility and intention to move (up to 60% lower). As such, they are less able to find food and escape from predators. In particular, PET was found to increase the crabs' mortality rate.

The research project has provided crucial baseline data for the Hong Kong Government and other marine research and conservation organisations to effectively implement conservation policies and programmes. These initiatives will be instrumental in supporting the endangered Chinese horseshoe crabs in Hong Kong and raising further awareness about environmental conservation.

香港西部水域近岸淺水範圍的軟沙或軟泥是中國鱗其中一處棲息地，具有重要生態價值。中國鱗有逾四億年歷史，素有「活化石」之稱。然而，大量中國鱗被捕捉轉售或用於生產試劑，因此中國鱗已被列為瀕危物種。此外，其生境亦受到嚴重的微塑膠污染威脅，反映中國鱗的保護工作刻不容緩。

有見及此，由機場管理局根據擴建香港國際機場成為三跑道系統的環境許可證規定成立的改善海洋生態基金，撥款資助香港理工大學及香港城市大學的合作團隊，由2018年開始進行為期數年的研究項目。

The project team exposes artificially bred juvenile Chinese horseshoe crabs to three types of microplastics commonly found in Hong Kong's western waters to study their physiological response. 研究團隊將人工培育的年幼中國鱗暴露於香港西部水域常見的三種微塑膠環境中，以研究其生理反應。



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GOING THE EXTRA MILE WITH ENRICHING ONLINE LEARNING EXPERIENCES

「EXTRA MILE里•想高飛」創造豐富網上學習體驗

The Airport Authority's (AA)

EXTRA MILE project recently utilised online interactive platforms for interest workshops to enrich the hands-on skills of its participants. Co-organised with community partners, the workshops enabled the participants to explore their interests in a safe home environment as well as to prepare for future opportunities following the pandemic.

The EXTRA MILE community investment project aims to foster shared value between the airport

community and society. Its three programmes have extended fruitful deliverables to the target groups since its launch in 2018: Working Holiday@ Lantau for working youth; The Pioneer for non-Chinese speakers (NCS); and EduCare for working parents at Hong Kong International Airport.

機場管理局的「EXTRA MILE 里•想高飛」項目近期利用網上互動平台，舉辦一系列手作興趣班，幫助參加者學習更多技能。

工作坊由機管局與社區夥伴合辦，讓參加者安坐家中亦能發掘不同方面興趣，並為未來做好準備，把握疫情減退後出現的機會，盡展所長。

香港國際機場社區投資項目「EXTRA MILE 里•想高飛」旨在促進機場同業與社區夥伴攜手合作，創造共享價值。自2018年啟動以來，該項目推出「工作x假期@大嶼山」計劃、「先鋒」計劃及「家長•童樂」計劃，分別為在職青年、非華語人士及機場在職家長三個目標社群而設，成效有目共睹。

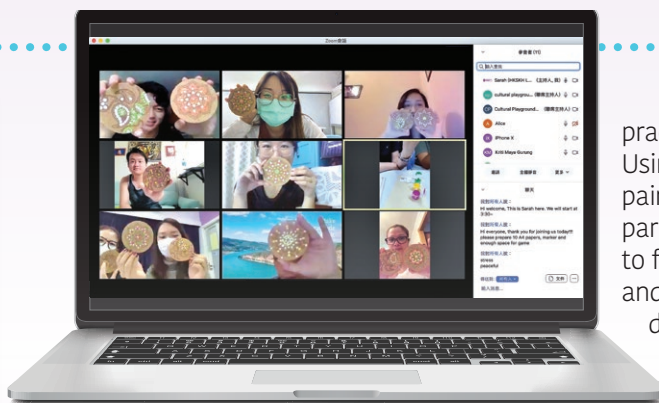


Working Holiday@Lantau: Online coffee making workshop

Youth participants were trained in an online workshop where they stayed at their hostel and learned to brew hand drip coffee using Ethiopian Yirgacheffe washed and dried-in-the-fruit beans. The session covered various topics such as grinding beans, setting the ideal water temperature as well as tailoring the bitterness and strength of the coffee to suit their preference.

「工作x假期@大嶼山」計劃：網上手沖咖啡班

青年參加者於宿舍參加網上工作坊，學習以埃塞俄比亞耶加雪菲水洗及日曬咖啡豆沖調咖啡。工作坊亦教授多方面與咖啡相關知識，例如研磨咖啡豆、調校理想水溫，以及因應自己的喜好調整咖啡的苦味和濃度。



practise mindfulness. Using a precise dot painting technique, participants were able to focus intensely and experience a deep sense of calm when applying the mandala pattern.

The Pioneer: Online Mandala coaster making workshop

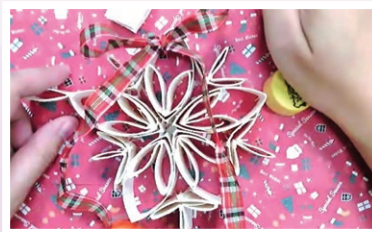
As a way to appreciate cultural diversity throughout the programme, non-Chinese speaking (NCS) participants took part in a relaxing workshop in which they carefully designed mandalas on coasters at home. Mandala is a spiritual symbol and creating one is a good way to

「先鋒」計劃：網上曼陀羅杯墊製作班

非華語人士透過在家中參加工作坊，在輕鬆氛圍下，學習在杯墊上設計出精緻的曼陀羅圖案，體驗多元文化。曼陀羅圖案是一種精神心靈上的象徵，創作過程亦是訓練靜觀正念的好方法。參加者學習精確的點畫技術，全神貫注繪畫曼陀羅圖案，讓心靈達到極致平靜。

EduCare: Online Christmas wreath decoration workshop

Tung Chung primary school students got into the festive spirit at this creative workshop. During the session, the participants were taught how to create mini Christmas wreath decorations using eco-friendly materials for a greener festive spirit at home.



「家長•童樂」計劃：網上聖誕花環裝飾班

東涌區小學生透過參加創意手工藝班，感受佳節喜悅。導師教授參加者如何利

用環保材料，製作迷你聖誕花環裝飾。學生製作的聖誕花環可掛在家中，增添濃厚節日氣氛。

DIGITISING BAGGAGE RECONCILIATION PROCESS

推行電子化行李確認程序

To boost the operational efficiency and create a greener baggage reconciliation process at Hong Kong International Airport (HKIA), the Airport Authority (AA) started the full implementation of a Digitalised Baggage Containerisation Report (eBCR) to reconcile baggage loaded onto each aircraft in mid-December.

Before that, baggage reconciliation at planeside required a paper report filled out by hand by AVSECO staff and passed to airline representatives on the apron. The next step was a trip to the Baggage Management Office (BMO) to submit the records for manual reconciliation. With the new eBCR system, the staff can file a digital report using a tablet device, which is then automatically sent to the airlines, ramp handling agents and BMO once the

planeside loading process is complete.

Baggage reconciliation reports can now be retrieved for investigation for up to a year, whereas physical reports were only kept for three months. The eBCR enhances the operational efficiency of baggage reconciliation, and subsequently contributes to the On-Time Performance of departure flights. It also brings environmental benefits by saving up to 500,000 pieces of paper per year.

為提高香港國際機場的營運效率，讓行李確認流程更符合環保原則，機場管理局於12月中開始全面推行電子化行

李集裝箱報告 (eBCR)，以此技術確認裝載上每架飛機的行李。

在此之前，行李確認須由機場保安有限公司員工在飛機旁親手在紙上填寫報告，並交給停機坪上的航空公司代表，隨後再前往行李管理辦事處提交記錄，以作人手核對。採用新eBCR系統後，員工可以利用平板電腦設備提交電子報告。當所有行李裝上飛機後，電子報告將自動發送給航空公司、停機坪飛機服務代理及行李管理辦事處。

以往，實體報告僅保存三個月，而現時透過eBCR則可檢索一年內的電子報告。eBCR提高行李確認流程效率，因而提高航班準時離港表現，同時亦帶來環保效益，預計每年將節省多達50萬張紙。



HAECO APPLIES NEW TECHNOLOGY TO LOCATE GROUND SERVICES EQUIPMENT

港機工程應用新技術 追蹤地勤設備位置

At a sprawling airport like HKIA, allocating specific airfield tools and equipment in a timely manner can be a challenge. Previously, HAECO staff relied on verbal communication through the radio system, and often needed to drive around the airport island to locate a single piece of equipment.

To enhance efficiency in this area, HAECO introduced location-tracking technology for ground services equipment (GSE). Using Internet of Things (IoT) and long range combined with low power (LoRaWAN) technologies that grant network coverage across the entire airport island, HAECO developed a software system that can currently report and

track the precise locations of more than 120 GSEs. The new technology addresses the previous disruptions to the Wi-Fi or cellular signals due to the limited transmission distance or constant battery drainage.

Aside from saving time and effort, the system is expected to deliver numerous green benefits due to reduced driving time. The eco-friendly advantages include a 75% reduction in respirable suspended particulates arising from driving to locate the equipment, and reduced noise pollution from such vehicular traffic.

在香港國際機場如此龐大的機場，要迅速分配特定飛行區工具及設備殊非

易事。以往，香港飛機工程有限公司的員工依靠無線電話系統溝通，並不時為一部地勤設備，要在機場島內駕車尋找。

為提升這方面的效率，港機工程推出地勤設備定位追蹤技術。利用物聯網及遠程低功耗 (LoRaWAN) 技術，港機工程開發了一項軟件系統，將網絡範圍拓闊，涵蓋整個機場島，目前可以匯報及追蹤逾120個地勤設備的準確位置。這項新技術亦同時解決了因傳輸距離限制或電池電量不斷消耗，而對Wi-Fi或蜂窩式信號造成干擾的問題。

該系統除了能夠節省人力和時間，預期亦由於減省了駕車時間而為環境帶來多項好處，包括因駕車尋找地勤設備而產生的可吸入懸浮粒子預期縮減75%，以及降低行車造成的噪音污染。



A LoRaWAN tracker is installed on GSE for location tracking.
地勤設備上安裝了遠程低功耗 (LoRaWAN) 追蹤器，以便追蹤位置。

AIRPORT STAFF SAVE THE DAY 機場員工竭誠服務

Hong Kong International Airport (HKIA) is home to unsung heroes who are always ready to help passengers in need, attested by regular compliments for their excellent service.

香港國際機場員工以客為本，時刻準備就緒為有需要的旅客提供協助。這群無名英雄更憑藉卓越服務，備受旅客讚賞。

Appreciation of Passenger Services Staff 表揚客運服務員工



➤ Monny Chu 朱翠娥

Passenger Services Supervisor
Jardine Airport Services Limited
督導員 - 客運服務
怡中航空服務有限公司

"I enquired about departure information at a check-in counter as I planned to return to Taiwan next month. Passenger Services Supervisor Monny Chu patiently answered my questions in an informative manner. Ms Chu reminded me to possess a negative COVID-19 nucleic acid test report fulfilling specific requirements, and further listed out the required information on the report.

I also enquired about travelling with my pet. Ms Chu clearly explained the required documents and noted that such requirements may vary with each airline. She reminded me to confirm such arrangements with the airline in advance. I thank Ms Chu for

her professionalism and kind attitude towards passengers."

「我在登機櫃檯查詢下月回台灣的資料，當值的客運服務督導員朱翠娥耐心地一一回答。她提醒我，屆時需要出示符合指定要求的2019冠狀病毒病核酸檢測陰性證明，並列出報告需要包含的資料，讓我更清楚明白。

我亦詢問了有關攜帶寵物旅行的資料。朱女士清晰說明需要辦理的文件，並指出每間航空公司的要求可能有所不同，建議我應事先向航空公司查詢確認有關安排。我十分感謝朱女士以專業及友善的態度提供協助。」

– Ms Chen, a passenger from Taiwan
台灣旅客陳女士

OUR GROWING HKIA FAMILY 機場大家庭

Airport Authority colleagues can submit their wedding or new born baby photos to hkianews@hkairport.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@hkairport.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。

➤ Sung Wan Ho 宋允皓 20 days 20天

Mother: Heidi Fok
母親：霍詠君
Terminal Operations Department
客戶大樓運作部

➤ Ng Tsz Ching 吳芷澄 3 months 3個月

Father: Ryan Ng
父親：吳浩基
Technical Services
Infrastructure Department
基建設施及工程維修部

