

# Orient aviation

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## BORN AGAIN AIR INDIA

Revitalised after its bargain basement acquisition by the Tata Group, Air India is on a mission to return to the top ranks of global airlines explains its high powered CEO Campbell Wilson

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ANNIVERSARY

The shortages issue:  
industry caught short by  
rapid post-pandemic recovery

Trends in Asia-Pacific crew training:  
Airlines accelerate investment in training  
academies to guarantee future crew pipeline

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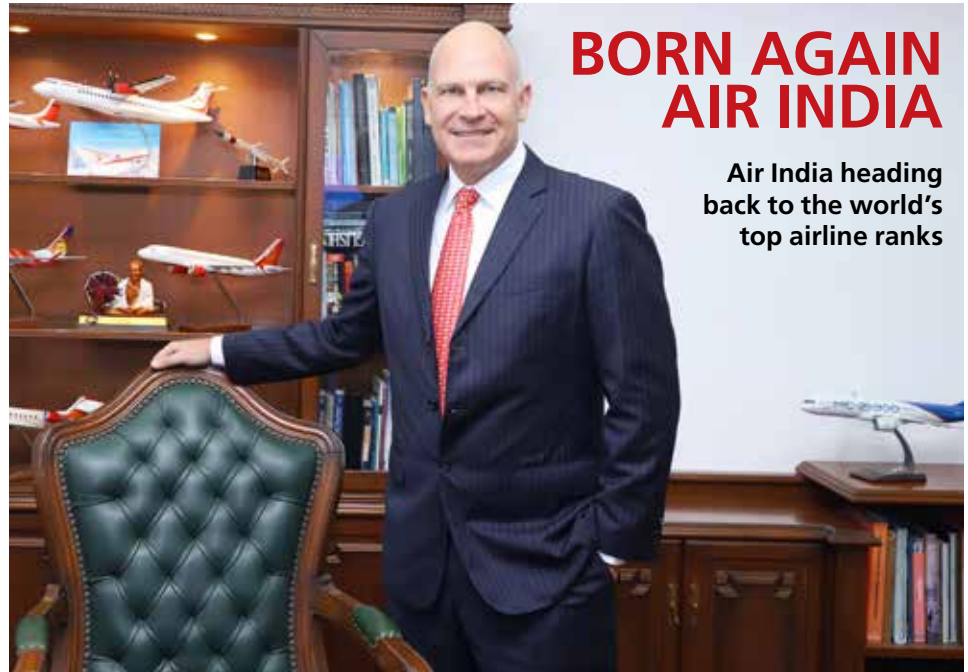
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AIR INDIA**

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back to the world's  
top airline ranks**

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A close-up, profile view of a female pilot in a cockpit, wearing a Bose A30 Aviation Headset. The headset is black with a microphone boom and the Bose logo on the earcup. The pilot is looking forward with a focused expression. In the background, another pilot is visible, also wearing a headset. The cockpit environment is dimly lit, with light coming from the windows.

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# Challenge of maintaining pilot pipeline post-pandemic

Reports of a looming pilot shortage are hardly new. They were rife pre-pandemic and now the COVID crisis is essentially over, they are re-appearing. Boeing's 2022 Pilot and Technician Outlook forecast for the Asia-Pacific, including China, estimates the region will need more than 240,000 new pilots in the next two decades.

Analysts offer several paths to meeting this target.

As pointed out by several of them, it is the practice in many markets for pilots to retire at 65 or even 60 at some airlines.

With more than 60% of the world's pilots aged over 40 in 2023, under present regulations they will be retiring in the next 15 to 20 years, taking a huge swathe of expertise with them.

With forecast demand so high, could it be time to introduce more flexible retirement rules for airline pilots?

Even if the rules for retirement are relaxed, it will only be part of the solution to meeting future cockpit crew demand.

Ab initio training of cadets, teaching them to fly from scratch and specifically training them to a standard that allows them to fly modern commercial jets, will fill some of the demand for cockpit crew.

Airbus has the Asia-Pacific on its radar for ab initio

training, particularly in the key growth markets of China and India.

Boeing is focused on how best to train pilots in their early careers. Ab initio training is in that space as is the integration of competency-based training and assessment (CBTA) into curricula.

Almost certainly we will see plane makers add simulators to their training centres in the growth centres of Beijing, Shanghai, Singapore and New Delhi. Companies such as Montreal-based simulator and training provider, CAE, agree the Asia-Pacific will record the largest growth in pilot demand as the region's fleet of in-service aircraft is projected to significantly increase. It employs 350 people in the region, including flight instructors.

Dubai-headquartered Airways Aviation and Hyderabad-based Asia Pacific Flight Training Academy (APFT) in India recently signed a strategic alliance partnership that will provide prospective students and airline cadets with access to the innovative Pilot Pathway Program from next month.

Other private training providers across the region continue to expand. Everything possible should be done to encourage investment in this critical aspect of aviation to ensure the pilot pipeline meets growing demand. ■

**TOM BALLANTYNE**

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**A trusted source of Asia-Pacific commercial aviation news and analysis**

**ORIENT AVIATION**



## China’s airlines upgrade digital systems to match customer expectations

With air passenger traffic continuing its rapid rebound across the region, Mainland carriers are increasing investment in technology to match expectations of their customers.

Quarterly figures recorded by digital retail provider, Datalex, show digital transactions were 43% of 2019 figures in March, only three months after China’s re-opening to international visitors.

Market indications point to a steady recovery in monthly transaction volumes, Datalex said, with a month-on-month increase in transaction volumes of 26% compared with February this year.

On February 25, 2023, the peak 24 hours for airline travel



in the Lunar New Year Holiday, 1.013 million travellers entered and left China, exceeding a million travellers in a single day for the first time since 2020. Within days of that week three years ago, China joined the world

in shutting its border as COVID spread its tentacles across the world.

A 10,000 person survey conducted by Datalex in the first quarter of 2023 identified a “digital disparity” between the

expectations of travellers and the airlines on which they flew.

In the Asia-Pacific, 33% of end travellers into Singapore believe airlines are lagging behind e-commerce companies such as Amazon in their online digital shopping options. In Australia, 39% of survey respondents felt the same way.

However, 24% of airline executives globally believe the digital shopping options offered by their airlines were ahead of their on-the-ground e-commerce competitors.

This perception gap highlights the post-pandemic digital expectations passengers seek and the necessity for airlines to modernize their online retail offerings, the survey’s analysts believe. ■

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# THE SHORTAGES ISSUE: INDUSTRY CAUGHT OUT BY ACCELERATED RECOVERY

The fury directed at many airlines by passengers exhausted by interminable queues, last minute flight cancellations and lost luggage said it all. With some notable exceptions, flights, services and crew have not matched pent-up demand for travel, associate editor and chief correspondent, Tom Ballantyne, reports.



# Aviation training academies burgeon in Asia-Pacific

It is, undoubtedly, a sign of the times. Airlines and private aviation companies are rapidly expanding training facilities across the region to meet present and future demand for experienced aviation professionals. One example came out of the blue in late February. In an unexpected announcement, Qantas Group CEO, Alan Joyce, said the airline company will build an engineering academy targeted to graduate 300 young aviation specialists each year. Following on from the opening of a pilot academy in Toowoomba, Queensland pre-pandemic, the facility's first student intake will be in 2025. A decision on the location of the academy will be made by year-end, Joyce said.

The Australian airline company's engineering investment is not the only Asia-Pacific project being developed on the training front. After he ordered 470 jets from Airbus and Boeing in February, Air India CEO, Campbell Wilson, revealed the airline group will invest in "a very significant training academy" to increase the number of pilots, cabin crew, engineers and other aviation professionals from within India. The objectives of Campbell and Joyce are the same: build a desperately needed pipeline of talent to meet future demand in the industry.

During the pandemic the industry lost a serious amount of experience - some estimates suggest up to 500,000 staff worldwide - across all operations, from ground handling to back office staff.

Joyce said "it is a whole ecosystem through which pilots and engineers in particular progress. The long-term skills base required relies on constant renewal".

"We order aircraft up to 10 years in advance, so we must think similarly long-term about the people and skills we need to operate them," he said. "Over that period of time, we will create an estimated 8,500 aviation jobs in Australia and most of those jobs require years of training. We look forward to working with the industry, training organizations, unions and governments to finalize details for the engineering academy."

## MINIMUM IMPACT ON TRAINING DEMAND DURING COVID

While trained staff is required across all sectors of the industry, pilot training clearly remains a priority. Even during the pandemic, there was little slowdown in the expansion of training facilities. In a March 2021 report released at the height of the COVID crisis, Asian Sky Group (ASG) reported the number of flight training schools in the Asia-Pacific grew 4% from 2018 to 2020. There were 356 aviation training



schools operating 2,931 fixed-wing aircraft across the region in December 2020, ASG said. Mainland China recorded the largest increase in flight schools, adding 17 in two years. However Australia, which has the largest flight training market in the region, logged a net decrease of three schools between 2018 and 2020.

"COVID-19 had a dramatic effect on the aviation industry, but training schools in the Asia-Pacific showed resilience, especially compared with 2018," ASG said in its Training Report. "For the whole region, there were 24 more training schools, 205 more fixed-wing and 48 more helicopter training aircraft in 2020 than in 2018."

In China alone, ASG said, 65% of the general aviation (GA) fleet serves flight training roles and 52% of the 3,066 GA aircraft in China are piston-engine airplanes typically used for training. Civil Aviation Flight University of China ranked as the top turboprop and piston fixed-wing operator on the Mainland with an estimated 280 aircraft.

Training in aviation skills is definitely a growing business. The International Air Transport Association (IATA) has a robust training portfolio covering all aspects of the industry. It runs its own training centres and provides accreditation to several training facilities worldwide.

"Yes, we have seen a pick-up in this area since we have come out of COVID and we continue to support and provide accreditation to many training centres across the region," IATA's Asia-Pacific regional director airports & external relations, Vinoop Goel, told Orient Aviation.

## SIMULATOR DEMAND REACHES NEW LEVELS

Simulator business is booming. One major training provider is Montreal-headquartered CAE. Its latest Pilot Demand





Outlook said “the Asia-Pacific will see the strongest growth in pilot demand as the region’s fleet of in-service aircraft will significantly increase. Strong economic growth, an expanding middle class, new low-cost carriers, new routes and increasing competition make the Asia-Pacific the fastest growing region for air travel”.

The Canadian company, which employs 350 software, hardware, visual systems engineers, program managers and flight instructors in the region, took advantage of the market disruption as the pandemic took hold to invest US\$1.5 billion in growth opportunities.

CAE has 11 joint ventures (JV) with airlines worldwide. Six of them are in the Asia-Pacific. In 2018, Singapore Airlines and CAE formed a JV, Singapore CAE Flight Training, to provide training for the airline’s pilots and third party Boeing operators in the region. Its joint venture with Japan Airlines trains third party customers and operates a multi-pilot license (MPL) program for new pilots.

At Clark International Airport in the Philippines, CAE and Cebu Pacific formed a JV in 2012 to provide training for Asia-Pacific airlines and Cebu Pacific. CAE’s JV with InterGlobe Enterprises, CAE New Delhi, is the largest training facility in India, graduating more than 5,000 students a year. Other countries in the region where CAE simulators are installed at training academies are in Malaysia, Vietnam, Indonesia, Australia, South Korea, China and Thailand.

Aircraft manufacturers are major players in the training game. Boeing has simulator centres in Singapore and Shanghai. The Airbus Asia Training Centre (AATC) in Singapore is a joint venture between Airbus (55%) and Singapore Airlines (45%). It also has a world class pilot and maintenance training centre in New Delhi and another in Beijing.

## **AIRBUS AND CHINA DEVELOPING AB INITIO FLIGHT TRAINING STANDARD**

As recently as February this year Airbus signed a Memorandum of Understanding with the Civil Aviation Flight University of China (CAFUC) to jointly develop the first ab initio flight training standard in China. This program is a response to the Civil Aviation Administration of China’s (CAAC) new flight training regulations.

“Expanding its flight training footprint in China not only reflects the Airbus commitment to the efficient and safe operation of all its aircraft, but enables Airbus to accompany its airline customers in anticipating and preparing for the future,” Airbus China CEO, George Xu, said.

Another indicator of the training industry’s recognition of Asia’s potential is its investment in India. Dubai-headquartered Airways Aviation and Hyderabad-based Asia Pacific Flight Training Academy (APFT) have signed a strategic alliance partnership that will provide prospective India students and airline cadets access to a new and innovative Pilot Pathway Program from May.

With aviation in India on an exponential growth trajectory and experiencing demand for quality pilots, Airways Aviation founder and chairman, Romy Hawatt, said his organization is best equipped to develop India’s strategic plans. Airways Aviation is the largest global private aviation academy with one of the world’s biggest privately owned training fleets. It has been actively seeking international partners with best global standards and practices. “We believe we will be able to enhance the standards of training, facilities and our fleet thereby helping India attain her coveted goal of becoming a world class aviation training hub, as envisioned by the Ministry of Civil Aviation, Government of India,” said Hemanth D.P., chief executive of APFT. ■

# **Industry winners and losers in post-COVID staff planning**

*From ground handlers to security staff, cleaners to air traffic controllers, almost all types of airport workers are in strong demand in the Asia-Pacific’s tightest labour market in years. The question is: as air traffic drives upwards to pre-pandemic levels and beyond, will the region’s airports be able to handle the pressure?*

**W**hen it comes to airports, Vinoop Goel, the International Air Transport Association (IATA) Asia-Pacific Regional Director of Airports & External Relations, told Orient Aviation “we need to be prepared and be ahead of the game”.

“We have been actively working with airports and governments in the Asia-Pacific, telling them that number one

they need to have a robust traffic forecast. Everything starts with a robust traffic forecast,” Goel said.

Today, an airport may be seeing 30% or 40% of its pre-pandemic traffic and saying it has no staffing issues and no condition issues. “But if the traffic forecast says the borders are going to open next month and in two months you could be up to 80%, they better make sure they have a plan in place to have the infrastructure ready at an airport,” Goel said. “That’s

number one. Number two is to have staffing. If you don't have staffing see what else can be done."

Goel's analysis underscores the fact some airports have been caught short by the pace of the post-pandemic recovery. For example, having lost almost half of its 33,000 strong workforce during COVID, Sydney airport has been trying to rebuild.

Late last year and early this year, its shortfalls sparked chaos, leading to a high number of flight delays and cancellations.

Singapore's Changi Airport began looking for 6,600 new workers, from security to catering staff, last year. One company providing security services at Changi, Certis Group, offered an \$18,000 sign-on bonus, about 10 times the basic monthly salary, for an auxiliary police officer role that would help with traffic and crowd control.

Some of the region's major airlines have handled the recovery of traffic well and Australia and Singapore are not alone in suffering staff shortages. There have been manpower issues in Thailand, Japan and the Philippines.

IATA's Goel told Orient Aviation the staffing issue can be viewed in two ways. "One is the immediate staffing shortage as traffic recovers, which I almost call emergency short-term staffing requirements. And the other is the long-term traffic issues and the long-term issues were already there pre-COVID," he said.

The manpower shortfall comes under three pillars: airlines, security and ground handling. Security has been a big issue, he added, because it is a function contracted out by many airports. Replacing personnel who have left is not easy. Newcomers have to be properly trained and certified, a process that takes time, leading to delays. Ground handling, an area also contracted out, is another key area in the region, he said.

"An airport may not want to add flights when there is not enough ground handling capacity because that will lead to service breakdowns and queues. Even if the infrastructure is there, the planes are there and the airline staffing is there."

What is known is some airports, such as Changi and others in Japan, have been refusing to allow airlines to add flights, calibrating demand with their ability to handle additional traffic.

Nevertheless, Goel said the region has done much better than elsewhere in the



world because, as of December, traffic levels were around 57% of pre-COVID levels; with international at 52% and domestic at 63%.

"Because of this, we are not seeing that pressure on the system in many cases. In the Asia-Pacific we have been quite fortunate because some governments have stepped in and ensured they have subsidized airports, or ensured there have been no staff departures from aviation. Examples are the staffing support packages given by Singapore and Japan. There also have been other [rescue] packages," he said.

As for airports themselves - Asia-Pacific airports lost an estimated \$41 billion in revenue in 2021 and 2022 - they are aware of the issues and fighting to recover. ACI Asia-Pacific (Airports Council International) president, Emmanuel Menanteau, who represents Cambodia Airports as a board director, said that from a big picture perspective, there is a plethora of problems hampering the sustainable recovery of the industry.

"They include revenue shortfalls impacting infrastructure expansion programs and regulatory framework and manpower constraints. Indeed, there is no disputing the pandemic led to a rapid deterioration in the financial health of the airport industry. As a result, the industry has witnessed a significant manpower crunch. Aviation jobs are no longer competitive for job seekers and the sector as a whole is facing competition from several other industries in a tight labour market."

To address this critical challenge, ACI Asia-Pacific has called on governments to work closely with industry stakeholders to identify solutions aimed at alleviating workforce shortages at airports and develop a roadmap to make airport employment more attractive and competitive in the long-term.

"The competitive and economic landscape of the airport industry and the aviation ecosystem has changed dramatically in the last three decades. The airport business requires flexible policy measures capable of restoring equilibrium and stimulating a sustainable recovery from the pandemic and ensuring that longer-term targets of sustainability, infrastructure development and service quality are duly met," Airports Council International said. ■





# Global shortfall of 55,000 cockpit crew predicted by 2030

Concerns about a global pilot shortage are nothing new. It was a hot topic pre-pandemic. COVID brought a hiatus to the discussion. But with recovery underway forecasts of a shortfall in cockpit crew have re-emerged. Associate editor and chief correspondent, Tom Ballantyne, reports.

**O**AG chief analyst travel and aviation data, John Grant, puts it bluntly. Quietly lurking in the background of the post-pandemic recovery is one of the most worrying shortages in the aviation industry – pilots. “While the glamour of apparently great salaries, stopovers in exotic locations and significant fringe benefits, including a uniform and seemingly endless upgrades when traveling, may appear attractive, the aviation industry faces a crisis in the next decade and there appears to be few solutions,” he said.

Estimates vary about the extent of the pilot shortage and when it will cause problems. In broad terms, analysis settles around a shortage of about 55,000 pilots by 2030 with mature markets such as North America and emergent regions such as the Asia-Pacific equally affected, he said.

Grant is not alone in his forecast. The Avia Solutions group cites aviation surveys and reports by leading aviation bodies in 2022 which predicted an imminent pilot shortage. “These incredible predictions were chiefly informed by the state of the aviation industry, characterized by massive staff layoffs and grounded operations, which left many pilots with no option but to seek alternative income to sustain their lives,” Avia said.

“However, with the rebound in global passenger travel from the first to the last quarter of 2022 and into 2023, many airlines continue to struggle with high pilot demand and deficits in pilot supply, starting in Asia and the Pacific, North America and the Middle East and Europe.”

Indeed, another data provider, Statista, has projected that by 2029, the Asia-Pacific will be experiencing the biggest pilot shortage in the world, with more than 22,000 pilots needed to fill demand at the region’s airlines. Alarmingly, there is a view this assessment is significantly underestimating demand.

Avia Solutions forecasts that in Asia and the Pacific, anticipated pilot demand may produce a deficit of about 111,000 pilots. India alone will require close to 7,000 pilots to operate around 500 aircraft due to arrive in the country by the end of the decade.

Several factors are driving the shortage. Firstly, the pandemic itself led to tens of hundreds of pilots being made redundant. A 2021 survey found 55% of pilots globally planned to change jobs in the ensuing twelve months.

Secondly, in Grant’s view, a ticking time bomb was looming. In many markets, pilots must retire at 65 and in

some cases at 60. More than 60% of the world’s pilots are aged over 40, which is “a heavy concentration of resources heading for an armchair, especially when compared with other industries and professions”, Grant said.

And while a steady expansion of pilot training facilities in the Asia-Pacific will feed airlines with new pilots, it will be years before new cockpit crew will have the experience to replace experienced veteran pilots.

Finally, the pandemic put the brakes on airline growth, but it has resumed with a vengeance this year. Airlines are returning planes to the air and are ordering new jets by the hundreds. Carriers are scheduled to accept delivery of 1,540 new aircraft this year alone, an increase of 300 airplanes from 1,240 deliveries in 2022, the International Air Transport Association (IATA) reports, citing Cirium figures.

“On current estimates, aircraft deliveries are forecast to surpass 2019 levels for the first time since the onset of the COVID-19 pandemic. The Asia-Pacific fleet will represent 24% of all deliveries this year, mainly to airlines in China and India, behind Europe (27%) and North America (33%), it said.

In the midst of this, the Asia-Pacific is suffering less from the crew pilot shortage than other regions worldwide. It has lagged behind its peers elsewhere because of prolonged travel restrictions in many countries in the region where airline traffic levels are still hovering around 60% of pre-COVID levels, although the recovery is speeding up now China has re-opened its border.

And there is another factor at play in the region. Many major airlines in the Asia-Pacific did not resort to pilot lay-offs. Government assistance also helped many carriers in the region with subsidies and loans that allowed them to retain staff,



including cockpit crew.

An example: Japanese and Korean airlines did not cut pilot numbers during COVID-19. Singapore Airlines (SIA) also retained a large number of pilots throughout the pandemic, mindful it would need them to support the ramp-up of operations when travel restrictions eased.

A report by analysts CAPA late last year explained: “North Asian airlines did not make many workforce cuts, which will be a benefit during recovery. While many Asia-Pacific airlines cut pilot numbers, Japan’s major airlines kept their pilot workforces relatively intact. All Nippon Airways (ANA) and Japan Airlines (JAL) did not reduce their workforces due to the pandemic, although some of JAL’s employees were assigned to work temporarily in other industries in Japan where there was demand for staff.

“ANA has maintained its pilot recruitment throughout the pandemic. Although borders have been slower to reopen fully in Japan, these airlines should have fewer pilot supply issues than some other airlines. Korean Air also did not make any workers redundant, but it did require temporary paid leave. The airline has said it has pilots to serve its network as it resumes full schedule flying. It also expects to have the cockpit crew necessary to keep pace with mid-term to long-term demand growth.”

CAPA agrees pilot supply was one of the major long-term issues facing the airline industry before COVID-19. “The pandemic period stalled growth, and in many cases caused a hiring hiatus,” it said.

“But now, as Asia-Pacific airlines are restoring their international operations, pilot supply is returning to the top of the priority list. Airlines are spooling up their recruitment and training to account for short-term and long-term expansion.”

Most of the region’s big airlines appear confident they can cope. Cathay Pacific Airways, one carrier hit hard during the pandemic, is hiring 700 pilots through this year. It has resumed its cadet pilot training program, with the aim of training more than 1,000 cadet pilots by 2025. Singapore Airlines also has resumed recruitment of cadets and direct-entry first and second officers. It contacted Singapore-based cadet pilots who had their training disrupted by the pandemic and resumed their training progressively from October last year. AirAsia also has brought back all furloughed pilots.

Close to press time, Airport Authority Hong Kong signed a Memorandum of Understanding with the Hong Kong International Aviation Academy (HKIAA) to establish a pilot training program in partnership with Hong Kong Airlines. The Mainland controlled long-haul carrier will outsource its pilot training to government funded HKIAA as part of the agreement.

“That the HKIAA will seek partnerships with Mainland flying schools is definitively a positive step to integrating with the aviation sector in Guangdong province. Previously, we did not have this kind of training cooperative arrangement,” Chinese University Aviation and Policy Research Centre senior advisor, Law Cheung-kwok, told the South China Morning Post.

## Taking flying to the high school desk

*The Federal Aviation Administration (FAA) has granted the U.S.’s Embry-Riddle Aeronautical University US\$485,000 to fund expansion of its free high school courses for aspiring aviators and engineers*

*Southern U.S.-based Embry-Riddle Aeronautical University, which has campuses in Florida’s Daytona Beach and Preston in Arizona, will use funds to offer more high schools with free courses for students interested in joining the aerospace industry.*

*With the goal of addressing the forecast worldwide shortage of pilots, drone operators and engineers, the FAA and Embry-Riddle will invest the funds in aerospace education in high schools, especially in remote areas, and will equip its training classrooms with desk top flight training devices, small drones, 3D printers and virtual reality systems.*



In a media statement issued in the first week of April, AAHK said: “By partnering with Hong Kong Airlines, the academy expects a substantial increase in the number of pilots and aims to make a significant contribution to aviation in Hong Kong and on the Mainland.”

HKIAA plans to partner with universities in the Hong Kong Special Administrative Region (HKSAR) and flying schools overseas as well as the Mainland. There remains a significant difference between pilot training courses in the HKSAR and China - the fees and costs for cadet pilots are lower on the Mainland than in Hong Kong.

Separately, in 2022, the Cathay Pacific Group inaugurated its new pilot cadet training program with Hong Kong Poly University where chosen cadets complete ground school training in Hong Kong before they advance to flight training at the airline group’s schools outside Hong Kong.

Australian’s Qantas Group and Virgin Australia, which reduced their pilot workforce early in the pandemic, have said their pilot numbers are adequate for operations.

In the Middle East, Emirates Airline is investing \$135 million in an extension to its flight training center in Dubai, to be ready for operation from 2024. By the end of 2024,



Emirates will have 17 flight simulators. It has increased its training capacity by more than 50% in less than two years, partly to accommodate fleet expansion and conversion, but also to facilitate local recruitment.

Ultimately, said Grant, airlines will have to employ more pilots and carry more operational costs than previously the case as salaries increase and more pilots join airlines around the world. These costs are not likely to be absorbed by the airlines but passed onto the traveler in increased airfares. It may only equate to a few more dollars per flight and for most people it will be an acceptable price to pay. What it also confirms is that even in the most technical and advanced industries the price of skilled workers cannot be undervalued.

Avia's Ziemelis warns as global airlines deal with accelerating air travel demand, pilot demand will outstrip current supply in many regional aviation markets in the next two years, with the trend continuing to manifest and worsen in the next decade. "The expanding gap between pilot demand and market supply could increase competition between airlines, with some embarking on contract re-negotiations and implementing pay increases to maintain their pilot workforce," he said.

"While offering more oversized compensation packages may not adequately address the problem, such measures may eat into the airlines' profit margins, reducing their net returns." ■

## China affirms funding support for ICAO's post-pandemic aviation training programs

**T**he Chinese government has provided funds to assist the International Civil Aviation Organization (ICAO) in launching a civil aviation master planning (CAMP) training program to be offered across the region. The joint project will provide quality and competency-based training opportunities to participants nominated by Member States to help the region better recover from the pandemic and build a more resilient aviation system.

Master planning of the aviation system is critical to ensuring a State [nation] is ready to revitalize the sector post-COVID, the UN aviation agency said. "It is fundamental for States to develop a CAMP to provide their governments with the prospects for civil aviation within their States," ICAO said. "To meet the needs of Member States for developing or updating their master plans for aviation in the wake of the COVID-19 pandemic, the South-South Cooperation Assistance Fund of China has provided ICAO with a voluntary contribution to develop and deliver the ICAO Training Package (ITP) on Civil Aviation Master Planning."

China announced creation of the fund to support South-South cooperation and assist developing countries in implementing their agendas at the United Nations Sustainable Development Summit held in September 2015. In 2017, it committed to a replenishment of US\$1 billion for the South-South Cooperation Assistance Fund at a Belt and Road Forum for International Cooperation.

By the end of that year, China had signed cooperation agreements with 15 international organizations, including the World Food Programme, the United Nations Development Programme and the World Health Organization, and had implemented hundreds of development cooperation projects in 27 countries and regions in Asia, Africa and Latin America. The programs covered food safety, post-disaster

reconstruction, refugee relief, medical treatment and public health, maternal and child health, poverty alleviation, education and training, and trade and investment facilitation.

Aviation in developing countries, particularly after the pandemic, has become a critical element of the recovery. ICAO said "globalization, communications and markets have expanded around the world thanks to aviation. By spurring tourism and trade as it continues to grow, aviation contributes to increasing consumer benefits and choices, creating jobs and generating numerous socio-economic spin-offs for States".

"The increased connectivity aviation delivers should lead States to further reinvest in this sector, thus creating a healthy cycle of aviation development and economic prosperity in States and regions which set out suitable planning and investment commitments." It said as the industry continues to recover from the pandemic, training on CAMP will effectively support developing States in their efforts.

ICAO's Asia-Pacific Office organized the first Regional Sessions of the Civil Aviation Master Planning (CAMP) Training Courses in Kathmandu and Bangkok in October last year. The courses were delivered to nominated participants from ICAO Asia-Pacific States under the auspices of the ICAO Global Aviation Training (GAT) CAMP Scholarship Program.

Funded by China to the tune of \$1.62 million, ICAO initiated a dedicated project in 2021 to develop and deliver the new ITP CAMP training course.

It addresses the critical needs of managing States' civil aviation master plans and integrating the civil aviation sector into national development plans. It also provides senior and middle managers of the State's Civil Aviation Authorities with the competencies required to develop, implement and update a CAMP, including the recovery from COVID-19. Various ICAO Regional Offices will deliver CAMP courses throughout this year. ■



# BORN AGAIN AIR INDIA

In mid-2018, India's government was without a single bidder for its indebted flag carrier, Air India. The once prestigious Maharaja's reputation was in tatters. Nearly five years later and back in its founder's fold, it is hell bent on returning to its former glory as a top ranked global airline. Associate editor and chief correspondent, Tom Ballantyne, reports.



It is the biggest order in aviation history - 250 new jets from Airbus and 220 from Boeing. But Air India's New Zealand-born managing director and CEO, Campbell Wilson, insists the fleet commitment does not amount to order overkill. "You might think 470 aircraft is a lot, but when we look at the scale, the potential and opportunity of India, you can put it into context," he told Orient Aviation last month.

The order includes 70 wide-bodies and, as Wilson points out, India has fewer than 50 wide-bodies in 2023. "There are many countries around the world much smaller in size and in population that have multiples of that," he said.

"So the opportunity is there. When you look at population, at demography, at the diaspora. When you look at geography and at supply chain reconfiguration around the world, there is every reason to expect India will rise up the ranks, not just economic rankings, but aviation rankings. The investments we are making in Air India will power that and catalyze this whole industry."

Nine decades after the Air India (AI) story began, with J.R.D.Tata piloting the first commercial flight in the country, the airline was officially bought by the Tata Group – India's government took it over in 1953 – in January last year for US\$2.4 billion. The carrier was a mess. It had accumulated around \$9.5 billion in losses. Fortunately, as the government was the airline's owner, the terms of Tata's purchase and debt were less onerous for the buyer than in the normal space of airline financing.

At times in past decades AI was regarded as an equal among the best airlines in the world, Wilson said. "It also spent time facing some challenges. But with AI back in the Tata fold, the significant ambition of India and Tata's and the ambition of AI itself means we are very much embarked on a transformation journey to return to the top tier of international aviation. It is not just an ambition with respect to size. It is not just an ambition with respect to quality. It is an ambition to be back to world class," Campbell said.

In cricketing parlance, Wilson said AI's transformation program is a Test Match, not a T20, with many milestones along the way. "There have been quite some years of under-investment across the business. We are working at full steam to repair and restore that. It will take time. We are fixing all of these areas - IT processes, service, product, people issues – they all require attention," he said.



**In Sanskrit Vihaan.AI means the dawn of a new era and it really is a dawn of a new era for AI," Wilson said. "This is an opportunity for India to take back control of its aviation destiny with an airline that is of significant scale, is growing fast and is serving non-stop to all of the key metros around the world"**

**Campbell Wilson**  
Air India CEO

"Probably the most urgent need is IT. Most processes were manual. As a consequence, they required a lot of people. Information is not readily available and the ability to ascertain where things are in a process is not so easy.

"It is why there is so much effort and so much money being put into improving the IT platform to have data and visibility, the capability to track and the ability to measure [performance] against targets to assess if there is improvement."

The transformation agenda is being pursued under a five-year plan, Vihaan.AI, launched in October last year. "This is a pivotal change in India's aviation timeline," Campbell said.

There is little doubt the transformation is being driven hard. Twelve months after Tata's took control, AI's operating fleet has expanded by 27% to 100 aircraft. Average daily flights have increased by 30% and weekly international services by 63%. Average daily passengers carried have jumped by 72% and average daily revenue has doubled. AI's call centre manpower also has been doubled, reducing average wait time by nearly 90%. On time performance has improved from 70% in December 2021 to nearly 90% at press time.

Apart from the aircraft order - first deliveries will begin late this year but the bulk of the new fleet will begin arriving in Delhi from 2025 - the carrier has hired 285 pilots and 1,900 cabin crew since April 2022. In 2023, it wants 4,200 cabin crew and 900 pilots on the payroll.

## The massive order – with more comm

**From Airbus:** Firm order for 250 jets. These are 140 A320neo and 70 A321neo single-aisle and 34 A350-1000 and six A350-900 wide-bodies.

**From Boeing:** Firm order for 220 jets. These are 190 B737 MAX single aisle, 20 B787 Dreamliner wide-bodies and 10 B777X, the newest version of its wide-body now going through the certification process.

Deliveries will commence late this year, but the bulk of the aircraft ordered will be arriving from 2025. Asked if he





It is leasing new aircraft with new product to accelerate growth and is hastening the deployment of better products than AI previously offered, explained Wilson. “We have been restoring our fleet. Many of them were grounded for some years because of the absence of resources, parts and the like,” he said.

“More than 20 airplanes have been returned to service. It has allowed us to spread our wings a little further than in the past. Sixteen new destinations have been announced or launched in the last 12 months and frequency has increased on nine others.

“We have committed US\$400 million to completely refurbish all our wide-bodies with new seats and inflight entertainment. The process is well underway from a regulatory and design perspective. We should see these aircraft in service from mid next year.”

Leased in aircraft, with new product, are operating to North America from Delhi, Mumbai and Bangalore. “With existing aircraft we are refurbishing, or at least tidying up, the product,” Wilson said.

“The seat product on these aircraft is more than a decade old. Because the planes are out of service, in some cases we have challenges in securing spare parts for them. We have resorted to manufacturing some parts ourselves in partnership with others in the group such as Tata Technologies. It is a stop-gap solution.

“When you take into account aircraft we are leasing in, first deliveries we are receiving from the new aircraft order and the aircraft we are refurbishing, by the end of 2024, certainly on the wide-body fleet, more often than not you will be flying on a brand new product.”

In the midst of this, the management team is integrating sister carriers in the Air India and Tata Group. Air India, a Star Alliance member, is full service Air India and LCC Air India Express. “We have acquired and subsidiarized AirAsia India in which Tata held equity. It is being merged with Air India Express into a LCC,” said Wilson.

“In parallel, we are seeking regulatory approval to merge Vistara, a joint venture between Tata’s and SIA (Singapore Airlines) into Air India. It is awaiting clearance but preparations, should the application be granted, are well in train.”

Given Wilson’s own career history with SIA and the Singapore carrier’s investment in Vistara, how much input is SIA having in AI’s transformation? “At this point. not much.

In fact, nothing because they are a shareholder in Vistara and clearly their contribution is to Vistara,” Wilson said.

“Once we go through the regulatory process, we can talk more fully. If that is approved they become a shareholder. Clearly the path will be more open to do it. However, we have modelled a lot of Air India’s transformation on the systems and practices of Vistara. Vistara itself is modeled a lot of the systems and practices of its shareholder SIA. There is a warm relationship. At this point it is friendly but removed.”

“In terms of the fixes, we have spent significant effort, time and money in addressing foundational problems. More than \$200 million has been invested in the last year to completely re-platform the airline for specific technologies such as reservation systems, rostering systems and other back-end type functionalities. They will be used by our employees. Microsoft Office, Teams, all of these systems that are quite commonplace for private sector organizations, were not so much so in the erstwhile AI,” Wilson said.

Other areas of IT investment are very much focused on the customer, he said. “New website. New App notification systems and much improved customer experience interfaces,” he said. Some of it is still a work in progress. “For example, the App and the website are only at version 0.5. We are working on what will replace it to transform the proposition,” Wilson said. AI also is establishing a dedicated Information Technology centre in Kochi as part of its IT upgrade.

His single largest challenge is manpower, Wilson told Orient Aviation. “There has not been a national champion airline in India to build an airline pipeline. It would normally be the national carrier, but Air India in its previous guise was a shrinking airline,” he said. We really have to catalyze this industry, not just for the airline. It is why we are investing in a very significant training academy to develop pilots locally, to grow cabin crew and engineers and other professionals from within India.” he said.

“East Asia, North America, Europe, Southwest Pacific, Africa are all regions within our reach and all of them are in our sights.”

“In fact, there is probably no better place in the world to pursue a career than Air India right now given the scale and ambition of our growth. This is probably the biggest challenge, building the talent pipeline. The training academy will go a long way to resolving that.”

For years a significant amount of India’s air traffic has

## Investments in the pipeline

has concerns about delivery delays, which both plane makers are experiencing, Air India CEO, Campbell Wilson, said no as the early aircraft to arrive “already exist”.

He declined to discuss details of more options Air India has with the two plane makers, saying he wants the focus to be on the firm orders and not be carried away by additional possibilities. However, Orient Aviation understands the airline has options and purchase rights on another 200 Airbus and 170 Boeing planes.





## Relishing “the Everest” of turnarounds

*Born in Christchurch, New Zealand in 1971, Campbell Wilson began his aviation career in 1996 as a management trainee with Singapore Airlines (SIA) in Auckland after completing a Master of Commerce (Honours) in Business Administration at the University of Canterbury in Christchurch. He was appointed vice-president of SIA's operations in Canada in 2006, becoming general manager of Hong Kong two years later and then head of Japan operations in 2010.*

*He was a founding member of SIA's LCC Scoot, in 2011, and then moved back to SIA in 2016 as its acting senior vice president of sales and marketing. During that year he completed the Global Strategic Management course at the Harvard Business School. He returned to Scoot as its chief executive in April 2020, leaving that role in June 2022 to run Air India.*

*“I think this is probably the most exciting role in aviation today,” Campbell said. “We should not underestimate the challenge. It has been described as the Everest of corporate turnarounds and when you mirror that with two concurrent airline integrations, I am sure you will appreciate the magnitude of what we are trying to do. But it is for a good cause. It is for a national mission and we are very excited by it.”*



been syphoned off by foreign carriers, particularly the major Gulf airlines. Building AI's international network is a priority. “The opportunity for Indian aviation and Air India is significant,” Wilson told Orient Aviation.

“We have purchased a very large number of aircraft and that really reflects the fact we see opportunities in all parts of the world. India's geography is such that we can serve virtually all the world.”

AI also wants to fly internationally from multiple India hubs. “Delhi clearly is the political capital and the northern most major metro so that accords some geographical advantages in where you want to fly. It is a very sizeable market,” Wilson said.

“Mumbai is the commercial capital and from an Air India perspective is underserved. And we think southern India, from a geographic as well as a market opportunity perspective deserves and needs a significant hub.

“These are going to be the three areas of principal focus. Everyone will want air service from their city. I fully understand it. We will be augmenting those hubs with other services. But there is a network effect that comes from aggregating in a few key points. We will be doing a combination of both.

“If you look at the size of India's population, favourable demography, economic growth and then you look at the size of the diaspora, 37 million people who are often the wealthiest diaspora of any country in which they are resident, people

want to fly non-stop point-to-point.

“It is inconvenient to lay over for four, five, six, seven or eight hours at an intermediate point. So, Air India, with our growth plans and with our intention to operate not just from one hub in India, but multiple hubs can serve more people with a product they have long been wanting but have not been receiving.

“This is clearly a key part of AI's future: to do it reliably, to do it at good value, to do it with good service and modern aircraft. Why would you choose to inconvenience yourself with a long layover?”

Wilson points out that besides the airline the other principle stakeholder is the airport. “The airport needs to have the capacity. It needs to have the experience. To be a hub it needs to have seamless transit functionality without bottlenecks. It needs to have speed of throughput, whether that is physical layout, staffing levels on service counters and others and the deployment of technology to facilitate the passenger experience,” he said.

“A lot of things have to come on line if India is going to be a world hub, but there is absolutely the capability to do it.”

While international operations are a priority, AI will not be ignoring local India. “The domestic market is certainly important in its own right and also in providing feed and de-feed to international operations,” Wilson said.

“We have publicly stated our intention to achieve a 30% market share in the first phase of our transformation process. We have increased it from about 8% to what will be 23% or 24% should the acquisition of Vistara be approved. Beyond that, we will see what the opportunity is in respect to the economics as well as the strategic drivers.”

With respect to the path to profitability, Campbell is very confident there is one. “There is a huge amount of low hanging fruit for Air India in cost efficiency, revenue volume and revenue quality. There is a lot of work to be done to realize this: The investment in technology, in aircraft, in pricing and revenue management systems. Having the data to run the business with full knowledge of what's going on,” he said.

“We are not putting a timeline to it. We certainly have an internal timeline. We are very happy with the progress being made. We are very confident this will not just be a successful business in terms of scale, it will be one of quality and financial returns.”

And what about AI's iconic mascot, the Maharaja, unveiled in 1946 and a key icon in promoting Air India's brand and services around the world. “As befits a 90-year-old airline there is a lot of heritage and history in Air India,” Wilson said.

“The Maharaja is certainly one very powerful component of that. It is very well known, very beloved in India and amongst the Indian diaspora. It is not necessarily fully understood beyond that. We are definitely going to keep it. How we keep it so we respect the past but also have a brand that looks to the future is a work in progress.” ■



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# Ab initio and desk top training programs essential to meet cockpit crew demand

Boeing and Airbus do not agree on everything, but when it comes to pilot training they are definitely in tune. After the pandemic hiatus, commercial aviation is in full recovery mode and heading for renewed growth. Associate editor and chief correspondent, Tom Ballantyne, reports.

**W**atch this space. That's the message from Airbus head of training services, Maia Kuilenberg. While coy about the detail, she made it clear to Orient Aviation there will be announcements soon about the establishment of more pilot training facilities in the Asia-Pacific.

Kuilenberg explained Airbus, which operates ab initio flying academies in France and Mexico, has a clear intention to expand that network worldwide in the next five to ten years. "Nothing I can reveal today, but ab initio growth of our network is critical and will definitely happen. The Asia-Pacific is the next region we are looking at in that respect. We will see growth in India and we will support that in one way or another that you will discover soon," she said.

Boeing too has an eye on expanding its training facilities in the region. "We are committed to serving our customers in the Asia-Pacific," Commercial Training Solutions for Boeing



Global Services vice president, Chris Broom, told Orient Aviation. "We are always evaluating needs and trends to see how we can best support our customers.

"With an estimated 31,000 pilots and 26,000 mechanics needed to support growing demand in South Asia, we anticipate strong training demand in India and are considering how best to serve our customers through a variety of means."

Kuilenberg said Airbus intends to confirm its commitment to supporting the region and local authorities in expanding ab initio training. In February, the OEM signed a Memorandum of Understanding



(MoU) with the Civil Aviation Flight University of China (CAFUC), the largest ab initio flight training institution globally, to jointly develop the first ab initio flight training standard in China. The initiative is a response to new flight training requirements issued by the Civil Aviation Administration of China (CAAC).

"Expanding its flight training footprint in China not only reflects the Airbus commitment to supporting the efficient and safe operation of all its aircraft, it also enables us to accompany our airline customers by anticipating and preparing for the future," Airbus executive vice president and chief executive of Airbus

China, Geroge Xu, said. In 2020, the CAAC launched a 10-year flight training reform program, Pilot Professionalism Lifecycle Management System (PLM), based on the Competency Based Training and Assessment (CBTA). This innovative training approach places a greater emphasis on a pilot's ability to handle unexpected events. It integrates a deeper focus on non-technical skills compared with traditional flight training methods.

Under the MoU, Airbus will integrate its advanced training curriculum with the CBTA program alongside the CAFUC's training experience and knowledge of China's civil aviation operating conditions.

In 2022, Airbus successfully collaborated with Chinese airlines in an Evidence Based Training (EBT) program, devised from the CBTA concept, and has received positive feedback about it.

Broom said "Boeing continues to partner with customers, governments and educational institutions to ensure the market is prepared to meet the unprecedented training demand predicted for the next two decades".

"We anticipate demand to be 240,000 pilots, nearly 250,000 technicians and more than 345,000 cabin crew in this period. We are focused on how best to train in the early careers and ab initio spaces. We are implementing competency-based training and assessment in our curricula to enable our customers and others to provide high-quality early career training. Engraving CBTA in early career training will create a foundation of behavior competency to support professional training for those pursuing careers in all segments: commercial, business and rotorcraft. Third party pilot provisioning (contingent staffing) also continues to be a supplementary resource for



carriers to maintain adequate staffing levels," Broom said.

Both big plane makers have extensive training facilities across the Asia-Pacific. Boeing manages and operates five global training campuses, including training campuses in Singapore and Shanghai. It also has several airline training affiliations to serve customer needs, specifically in India and Korea.

Airbus has a simulator centre in Singapore, a joint venture with Singapore Airlines. It is the largest training campus in its global network. In February last year, it installed a fourth A350 simulator at the centre. It also has world class pilot and maintenance training centres in Delhi and Bangalore in India and in Beijing. Since 2018, it has had a training centre embedded in an aviation academy in Ho Chi Minh City in Vietnam and flight instructor services with Korean Air.

As for the recovery in the

training market post-pandemic, both manufacturers have identified optimistic signs for the sector. "We have observed a very good recovery in the region so far with training needs expected to increase from 2024," Kuilenberg said. "This year, I would say is a year of transition so we expect growth from 2024.

"The future demand for pilots in the region will approach 42% to 45% of global demand in the next 20 years. That naturally leads to higher requests for processing of new pilots and training.

"When we look at the workload in our training centres, we clearly have seen a decrease in the COVID years, probably about 23% to 25% in 2020. But we are almost back to pre-COVID times and will definitely be back in 2024. Already this year, our training centres are approaching 90% of occupancy [compared with pre-COVID]."

Broom said since the removal

of regional travel restrictions the company is seeing an increase in demand for pilot and maintenance training in the Asia-Pacific and beyond. "It is important to remember we never stopped training during the pandemic," he said.

"There was a decrease because of global travel restrictions, but our customers had to ensure pilots and technical staff were current with their training."

Boeing Shanghai Training Campus general manager, Shawn Huang, added there has been a "moderate increase" in pilot training at the Shanghai campus.

Boeing Commercial Training Solutions senior manager Singapore & India, Pat Curtin, said since the pandemic eased there has been a steady increase in students training at Asia-Pacific campuses.

"In the region in 2022, we trained about 50% of students instructed at our campuses in 2019, which equals almost 1,500 students. As the aviation industry in Southeast Asia prioritizes recovery and growth, airlines in the region need to ensure they have adequate numbers of qualified pilots to fly their routes," he said.

"We are witnessing a near-term increase in training services demand in Southeast Asia as crew

transition to new aircraft types, maintain certification and return from pandemic-related pauses in active service."

Clearly, the OEMs and other training providers will have to go all out to increase the cockpit crew population as the Asia-Pacific returns to the top of the global airline market in passengers carried. In Boeing's 2022 Pilot and Technician Outlook, it analysed long-term market demand, fleet expansion, aircraft utilization, attrition rates and regional differences in crewing specific to aircraft type.

With the widespread warnings of pilot shortages, can training providers meet future demand? "We are preparing to do so," Kuilenberg said. "The demand in the region, as we said earlier, will be about 42% to 45% of global demand so we are talking more than 150,000 pilots in the region in coming years.

"This is definitely a challenge. With all the existing capacity we have plus the growth of the ab initio network - because ab initio is definitely supporting future pilots - and the work we have launched in India where we want to accompany the growth of the country, I think it will be there in the years to come. All of this makes me quite confident we will be able to meet the demand." ■



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