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## More planes than pilots, is speeding up training risky?

By Honey Tsang

*As passenger traffic skyrockets, fleet expansions race ahead of trained pilots, forcing quick training, increasing airline safety risk, reports Honey Tsang.*



### 38,000 more planes by 2034

The explosion in passenger travel is driving the demand for larger commercial airline fleets. Around 38,000 new Boeing aircraft, valued at over US\$5.6 trillion, will be needed by the aviation market over the 20-year period from 2014. More than 40 percent, or 14,330, of those new planes are destined for carriers in the Asia Pacific region, based on Boeing projections.

The International Air Transport Association (IATA) recorded 3.3 billion air travelers across the globe in 2014. That is expected to reach 7 billion by 2034 – more than double over a 20-year track. IATA forecasts Hong Kong, by 2034, to handle 109 million air travelers – a compound annual growth rate of 4.4 percent.

Hong Kong International Airport recorded 41 million passengers in 2005. That rose 24 percent to 51 million in 2010, growing another 33 percent to 68 million in 2015.

IATA predicts that China will be the world's largest passenger market by 2029, projecting 1.19 billion passengers annually by 2034 – outstripping the United States. India will be the third, followed by the UK, Indonesia and Japan.

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### Over 0.5m new pilots needed

Over the next two decades, global airlines need 558,000 new commercial pilots to meet the worldwide expansion of commercial airline fleets. Those projections from Boeing, the world's largest jetliner manufacturer, are in its 2015 report.

By 2034, the Asia Pacific region is projected to have the greatest demand for pilots, accounting for 40.5 percent of the worldwide total. That means 226,000 new pilots – an average of about 11,000 a year over the next 20 years. Europe and North America each will require 95,000 new pilots over the same period. Other regions including the Middle East, Latin America and Africa will need 142,000 new pilots.

"Globally, the supply of qualified new pilots is not keeping pace with the increasing demand, due to continued fleet growth," said David Wright, director of Boeing's Pilot Development Program. "Boeing has recognized the need to expand its training services to meet a comprehensive profile that will address the requirements of commercial pilots."

It'll be a tough challenge for Asia to meet those pilot numbers. Boeing expects Asian markets that have relied heavily on hiring overseas pilots, to train their own pilots locally. There's a critical shortage of commercial pilots globally. Experts worry that may lead to truncated training, lowering the general skill level of commercial pilots, and risking the lives of passengers.

### Cathay pilots fatigued

Last August, Cathay Pacific pilots lodged a complaint with management, saying work schedules left them exhausted. Flying rosters, they said, are disrupted due to a persistent shortfall of pilots.

Fatigued flight deck crews are a safety hazard, the pilots warned. The complaint came amid a sustained work-to-rule by pilots, since December 2014.

James Higgin, associate professor at the University of North Dakota, stated in a research paper that the shortage of pilots poses risks of "farther reaching economic consequences." Airlines could be forced to cut their flight schedules, at a time when demand is growing, due to crew shortages.

This year, Cathay Pacific announced it was cutting expansion plans. Some new routes were postponed and planned increases in flight schedules deferred, as a direct consequence of the pilot deficit and ongoing disputes with its flight crews.

## 2012-2015 Pilots Program



CATHAY PACIFIC



DRAGONAIR

**Cadet pilot program graduates**

**76** Average per year

**23** Average per year

**Recruited pilots**

**198** Average per year

**36** Average per year

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### Pilot license expensive

On top of physical and mental toughness, getting a pilot license is time-consuming and expensive. A Commercial Pilot's License (CPL) costs about HK\$600,000.

Time and costs discourage many young aspirants, noted the International Civil Aviation Organization (ICAO), at its Second High-level Safety Conference in 2015.

ICAO suggests airlines offer grants and loans to help the next generation of youth qualify for pilots' licenses. The organization called on the industry to collaborate with local aviation authorities, to promote careers on the flight deck, to tap a larger pool of talent.

Cadet pilot programs train from scratch. Currently, there are three cadet programs for Hong Kong residents: Government Flying Service and the two regional commercial airlines – Cathay Pacific and Dragonair.

Cathay's 2015 annual report indicates 80 graduated from the its Cadet Pilot Program that year. Another 13 graduates completed the program at Dragonair.

A graduate cadet pilot enters the flight deck as a Second Officer. After 12 months, he is promoted to Junior First Officer. After that, he has to earn promotion to First Officer. At the top of the cockpit hierarchy is the Captain, who commands the jetliner.

The starting salary of First Officer is about HK\$77,000, with a monthly allowance of HK\$21,300, per Dragonair's salary scale.



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### Snap training risks safety

Aviators are now being churned out rapidly. Many observers fear pilots are being insufficiently trained – increasing risks to passenger safety.

Last year, an aviation school in India was discovered granting a flying certificate to a pupil after only 35 minutes of flying time. His certificate fraudulently credited him with 360 flying hours, according to a Bloomberg report.

The International Civil Aviation Organization (ICAO) has raised the alarm, warning that an increasing number of entry-level pilots are poorly skilled, especially at a time when air traffic in the Asia Pacific region is rising sharply.

The ill-fated AirAsia 8501, flying to Singapore from Indonesia, on Dec 28, 2014, climbed too fast, ascending from 32,000 to 37,400 feet in just 30 seconds. That was beyond the aircraft's designed capacity. The jet stalled and plunged into the Java Sea, killing all 162 people on board.

Investigators suspect that the Indonesian Captain and French First Officer may not have been sufficiently trained to recover from the stall.

ICAO's 2015 Safety Report showed that the highest percentage of commercial jet fatalities occurred in the Asia Pacific region in 2014, totaling 449 people killed, within the global death tally of 904. ICAO attributed the high Asia Pacific fatalities to two incidents – Malaysian Airlines flight MH370 that vanished en route to Beijing, on March 8, 2015, and AirAsia 8501.

### Accident Occurrence 2014

Category	Number of fatal accidents	Number of fatalities
<b>Loss of control in-flight</b>	<b>2</b>	<b>280</b>
Controlled flight into/toward terrain	1	48
System component failure	1	38
Runway safety related	1	1
<b>Unknown (MH370)</b>	<b>1</b>	<b>239</b>
<b>Other (MH17 in Ukraine)</b>	<b>1</b>	<b>298</b>



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### Local flying schools

The surging fleet expansions and need for more commercial pilots, have sparked a booming industry to train new pilots. Airways Aviation, a 30-year-old global aviation training institute which already has 16 basic training schools, plans to open 10 more throughout Asia in 2016.

"This strategy [rapid expansion in Asia] will ensure that home-grown pilots can be sourced from the regions where demand for air travel is growing the fastest," CEO of Airways Aviation, Ian Cooper, told China Daily via an e-mail.

"As an industry, we need to ensure that in our rush to fill the pilot shortage, we don't undermine high-quality training or safety," said Cooper. "By expanding our network of aviation foundation schools, we are opening up aviation to people who previously might not have considered it as a viable career option."

Nigel Leung, founder of the Aero Institute (AI-HK) and former First Officer with Dragonair, said that piloting isn't a born gift but a skill that can be learnt through hard work, practice and humility. Arrogance is one of the most common failings of cadet applicants, he adds.

So far, Aero Institute, the Hong Kong-based aviation training academy, has matriculated 49 students to the Cathay Pacific Cadet Program, plus another 17 to the Dragonair scheme.

Unlike Singapore, against which Hong Kong is always compared, there are no experienced Air Force pilots available. The natural streaming from military to civilian flying is absent, which Leung highlights as a problem in recruiting local pilots.

Chief Executive Leung Chun-ying declared in his 2016 Policy Address, that the SAR will establish a civil aviation academy and promote an aerospace financing hub.

"To further strengthen Hong Kong's edge as a major regional aviation hub, the Airport Authority will establish a civil aviation academy to nurture local and regional aviation management talent. The government is formulating measures to develop Hong Kong into a center for aerospace financing."