With the support of local partners, PolyU and The Boeing Company will establish an advanced aviation services research centre, deepening the University’s commitment to the rapidly growing aviation industry.

In this story, a Boeing and PolyU partnership is highlighted, focusing on growing the local aviation industry. The collaboration aims to enhance the University’s commitment to this dynamic sector.

The deliberate combination of innovation and application is the cornerstone of PolyU’s success, and deeply embedded into each new initiative it undertakes. Such was certainly the case recently, when it combined with Boeing and three local partners to establish Hong Kong’s first Aviation Services Research Centre (ASRC).

Speaking at the signing of a Memorandum of Understanding (MOU) to establish the ASRC on 10 November, PolyU President Prof. Timothy W. Tang noted that it would further enhance Hong Kong’s leading position as a world-class service provider of MRO (maintenance, repair and overhaul) and steer the development of aviation-related industries in Hong Kong and the South China region.
Helping the aviation industry to soar

Explaining the importance of aviation not only to Hong Kong but to the whole nation, Dr Wu revealed that "China is one of the world’s fastest-growing aviation markets. With a forecast of 1.5 billion passenger traffic in the country by 2030, Beijing has estimated the need for 3,200 new airplanes in China by 2031 and that China will need 99,000 maintenance technicians to service this growing fleet". Indeed, the central government included aeronautics as one of the seven "strategic industries" in its "12th Five-Year Plan".

Prof. Tong commented that the ASRC was specifically established to "capture the opportunities of the blooming aviation market in China through leveraging the strengths of PolyU". The University was, he said, "a place where scientific discovery meets innovation and we aspire to make use of our discoveries innovatively in this centre to raise the standard of maintenance, repair and overhaul service in the aviation sector".

The main PolyU-Boeing partnership will be critical to that endeavor. Prof. Tong noted that the ASRC resulted from 20 months of discussion and six visits to PolyU by Boeing representatives. He also drew parallels between the two organisations, highlighting their very similar cultures, visions and missions. "We are both built on a foundation of innovation and aspiration," he said, "and are levering on our strengths and opening up new frontiers." From Boeing’s perspective, cooperation with PolyU is appealing given what Dr Wu described as the University’s "strong focus on application-oriented R&D and its track record of developing innovative solutions for industries". Voicing her company’s enthusiasm about the agreement, Dr Wu said that "we are very excited about this opportunity of partnering with PolyU and other industry partners to jointly develop technologies and enhance capabilities that will support the sustainable growth of the aviation industry in China."

President Dr Wu Dong-yang recently visited the ASRC and discussed the centre’s future development with Prof. Tong.

In the context of sustained growth in the aviation industry, the ASRC will be a valuable asset for PolyU and its industry partners to jointly develop technologies and enhance capabilities that will support the sustainable growth of the aviation industry in China.

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We look forward to our continued cooperation with PolyU and other industry partners to jointly develop technologies and enhance capabilities that will support the sustainable growth of the aviation industry in China.

Dr Wu Dong-yang, President, Boeing Research and Technology, China, Boeing (China) Co. Ltd
"Other key industry players supporting the establishment of the ASRC included Cathay Pacific Airways, China Aircraft Services Limited (CASL), Hong Kong Aerospace Engineering Services Limited (HAESL) and the Hong Kong Aircraft Engineering Company Limited (HAECO),” said PolyU Vice President (Research Development) Prof. Alexander Wai. 

All are world class MRO providers that have collaborated with PolyU over the long term and that have shown further confidence in the University by being involved in the ASRC.

Dr Angus Cheung, Chief Executive Officer of CASL, said the company had long been cooperating with PolyU in the provision of aircraft maintenance and related training for students and young professionals.

Mr John Siosar, Chief Executive Officer of Cathay Pacific Airways, said that “it is fantastic to see the University partner with Boeing to open this new centre. This further reinforces the importance of Hong Kong as a premier aviation hub.” He was particularly pleased that “these kinds of efforts being undertaken here locally.”

Mr Augustus Tang, Chief Executive Officer of HAECO, said that “as a leading MRO provider, our company fully supports the establishment of Hong Kong’s first Aviation Services Research Centre, which will further strengthen and expand the capabilities of the industry, especially with the advent of state-of-the-art technologies in the manufacturing of aircraft engines.”

Mr Richard Kendall, Director and General Manager of HAESL, added that his company was delighted to be participating in the ASRC’s establishment. He commented that “HAESL has a longstanding history of partnership with PolyU on training and through the provision of scholarships for its students.” All significant was that the company had for many years been working with PolyU’s Industrial Centre “on the design and manufacture of innovative machinery and tools to support the development of large fan jet engine maintenance in Hong Kong, and the repair of engine components”. By joining this collaboration, he explained, “we have the opportunity to bring this existing collaboration to an even higher level.”

Building on experience

The Industrial Centre’s participation is a key element in the establishment of the ASRC. Boeing is particularly keen to leverage the Centre’s experience in aeronautical engineering. Dr Wu praised the Industrial Centre’s “impressive multidisciplinary engineering capabilities and facilities” and how it “has also demonstrated successful applications of these capabilities to solve industry problems.” Aside from its work with CASL, HAECO and HAESL, locally, the Centre has been influential both nationally and internationally. It supports space tool making for China’s lunar exploration programme, and has made tools for the Russian and European space agencies.

Yet even when taking that experience in hand, the ASRC will be a major extension of the Centre’s involvement in aerospace projects. Dr Stephen O’Brien, Director of the Industrial Centre, said that it is “only too pleased to have taken part in the preparation and discussions with the participating parties for the setting up of the ASRC with Boeing”. He was aware there was much more still to do, and continued: “We look forward to our future collaboration and hope that our best efforts can contribute and help the aviation industry in Hong Kong and China.”

As Ms Marie-Joie Yang pointed out, aviation is heavily linked to other areas vital to Hong Kong’s economic growth, such as hospitality and tourism, mechanical engineering, design, and even textiles and materials science. Just to name a few. The potential for flow-on effects from the establishment of the ASRC is huge, but Ms Yang noted that “a ‘human resource supply chain’ would be necessary to ensure the maximum benefit.” Along this supply chain, she said, there would need to be created “many quality jobs, from technical support to design engineers.”

The establishment of the ASRC marks the beginning of accelerated efforts to create that supply chain, and will help to establish Hong Kong as an aviation education and research centre. This will be particularly important as Hong Kong’s aviation industry becomes even more heavily intertwined with global markets and demand for aviation-related services.

Speaking of his company’s participation in the ASRC, Mr Augustus Tang, Chief Executive Officer of HAECO, said that the Centre would definitely help to “enhance the profile and appeal of the industry for the younger generation to become aircraft engineering professionals.”

This MOU on establishing an Aviation Services Research Centre is a groundbreaking initiative that will support our city’s development and progress on several fronts.

Financial Secretary John Tsang

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Looking to the Future
To give just one example of an industry development that will have broad repercussions for young engineering hopefuls, Financial Secretary John Tsang said that the Hong Kong government has ambitious plans to increase the capacity of the Hong Kong International Airport to meet anticipated demand for passenger and cargo services. That expansion will create an abundance of opportunities for skilled personnel, especially in the maintenance, repair and overhaul of aircraft and equipment.

The ASRC will help to define the career possibilities of those personnel and others like them. It would, as Ms Yang put it, “provide careers for our young people that are not just a way to make a living but to make a difference.”

Prof. Timothy W. Tong indicated that PolyU is certainly keen to develop programmes in the areas of aeronautics. The University currently offers a Master of Science in Mechanical Engineering (Aeronautical Engineering) and a Master of Science in Mechanical Engineering (Aviation). These programmes cover elements of engineering and aeronautical engineering ranging from aircraft structure and design through to operations research in aviation.

Each PolyU initiative to expand the scope of its support for aviation services is another step toward fulfilling its mission of advancing knowledge and the frontiers of technology as society changes. With the increasing significance of the aviation industry to Hong Kong and mainland China’s economic wellbeing, the ASRC is set to play an important role in shaping the extent of these changes. PolyU, Boeing and their industry partners have signed a landmark agreement that will have distinct repercussions for future generations. Ms Yang likened the new centre to an American Indian dream catcher, noting that it would “focus our young practical dreamers so that they can dream and make it happen.” All achievement begins with a carefully shaped foundation of excellence.

展望将来

航空业的迅速发展对年轻一代的工程师影响深远。财政司司长曾俊华先生表示：香港政府正积极计划增加香港国际机场的容量，以满足未来和短途航班的预期需求，将为有专长技能的人才创造大量机会。

航空服务业研究中心将为他们提供了很多发展事业的机会。曾司长表示：“为我们提供了提供发展事业的机会，不是只是谋生，而且还可以为社会带来改变。”

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展望未来

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