How Singapore aviation can find its second wind

BY KOH PAK KENG

SINGAPORE'S aviation industry has consistently done well in the last two decades, expanding at an annual compounded growth rate of 10 per cent. But the growth and successes of this industry did not happen by chance, especially when the domestic market is non-existent. Singapore is a relatively small nation in the region, we need to think beyond the next decade and seek out new growth opportunities. We need to move up the industry's value chain.

Last year, the industry generated a contribution of S$4.7 billion, making it one of the pillars of the economy. The Civil Aviation Authority of Singapore (CAAS) initiatives to open-up Singapore's aviation market has reaped more than 10 “open skies” agreements, which have allowed airlines to fly more routes in the region. The industry has soared to 324,700 in 2012. It has inevitably translated into the manufacturing, repair and overhaul (MRO) market.

With the recent development of the 120ha Seletar Aerospace Park, the industry is poised to transform the region, in the near and mid-term future. However, we need to move away from our dependency on MRO-related work, as the cost-intensive aviation industry seeks cheaper MRO alternatives overseas, such as in Malaysia. Developing capabilities in three key areas – aeronautics, technology, manpower and small and medium-sized enterprises (SME) support – should be explored.

A 2010 study commissioned by the Association of Aerospace Industries Singapore indicated that 10 per cent of the industry’s revenue was from MRO work, with the remaining 90 per cent garnered from the production of new original equipment manufacturer (OEM) components. The proportion of OEM activity is projected to increase to 90 per cent by 2015. Significant progress has been made to bring in OEM firms such as aircraft engine manufacturers Rolls-Royce to sign and advanced manufacturing facilities in Singapore.

Technology capability

PRODUCING aviation components usually involves a series of “special processes” such as anodising, heat treatment, care-deposit coating, thermal spray coating and welding. These very technical processes require highly-skilled workers.

Nalpac (Natural Aeronautics and Defence Contractors Accreditation Programme) is one of the non-operational accreditation programmes which certifies whether an organization meets the stringent requirements to perform one or more of these special processes.

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A SAR-21 organisation is authorised by CAAS to design and modify aircraft components and introduces new repair processes. The company must demonstrate their ability to carry out design and sound quality assurance system for certification, ST Aerospace, which does passenger-to-freight aircraft conversion for FedEx and DHL, is an example of an SAR-21-approved organisation.

SME development

The Economic Development Board has given a great push at transforming the Institute of Aeronautics, Defence and Space Company in Eurocopter to heli-technicians, which is intended to cement Singapore's position as the region's aviation hub.

The technology and human resource development is reinforced as Asia's future air traffic growth is expected to outstrip that of the rest of the world and Singapore is well positioned and equipped to capture the business opportunities arising from this trend.

There is an urgent need for the relevant government agencies to work with local SMEs to develop high-value technical services that can support these global aviation companies. SMEs such as JEP Precision Engineering and Web Line Engineering are examples of local companies which can fabricate high-precision aviation components.

However, there needs to be a national strategic push by the CAAS, supported by Spring Singapore, to identifying and addressing this capability shortfall, which is comprised by a lack of readily available specialised technical training.

A one-stop solution for all aviation-related business could see Singapore strengthening its industry’s value in the region. Productivity can also improve if we have more SMEs capable of delivering their high-value technical services.

The local aviation industry has done remarkably well to stay ahead of the competition in the past few years. A lot of that was due to our policymakers' foresight over the past decades. It is time to deliver on the promise to the business community. For more information, you can visit: [CAAS website] [SME development website]