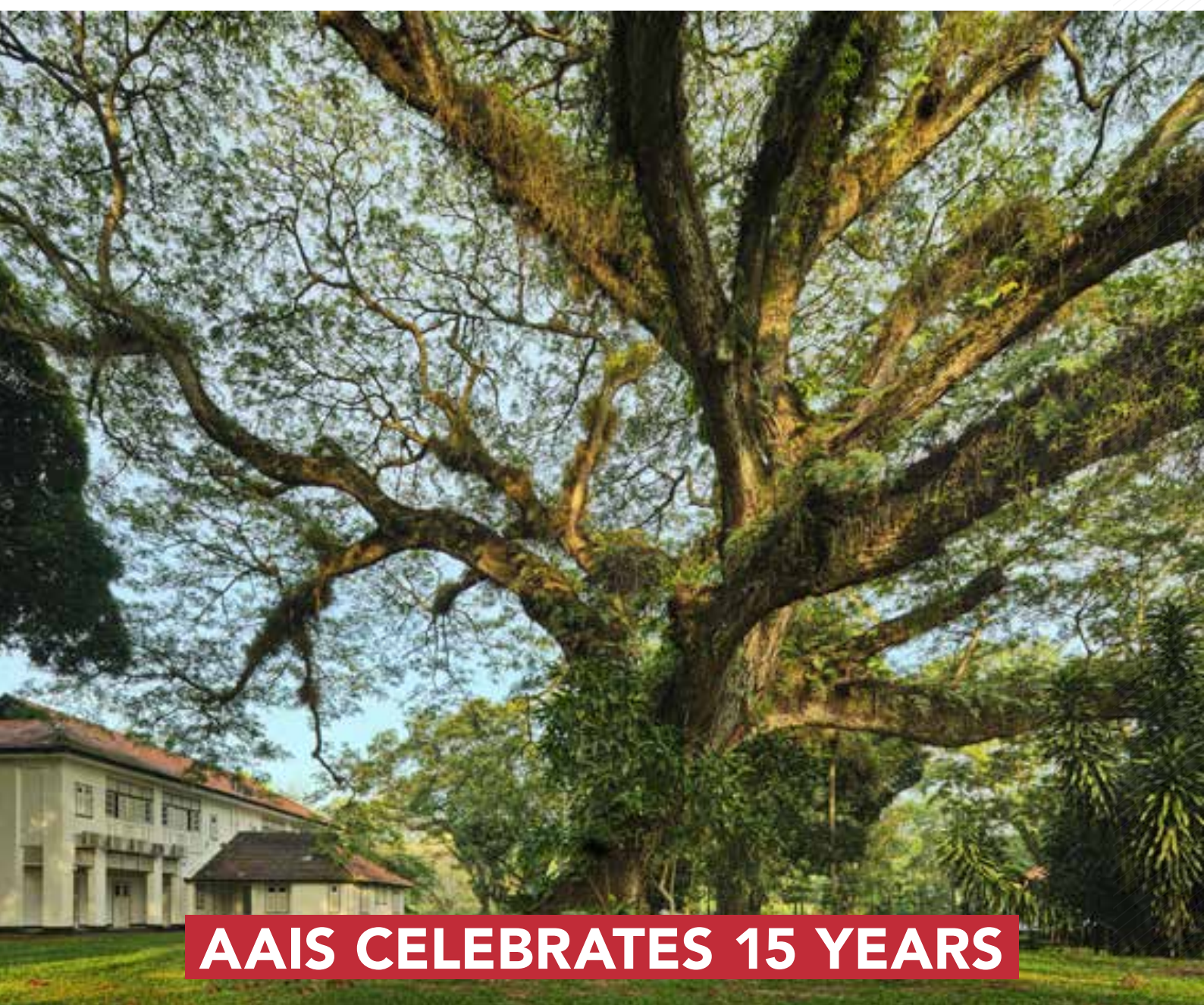


AEROSPACE

SUPPLEMENT



AAIS CELEBRATES 15 YEARS

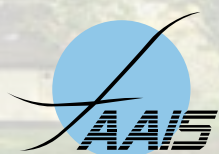
Our AAIS Journey

Speaking with the recipients of the Aviation/
Aerospace Luminary Awards 2018

Recognising our
Charter Members

This Heritage Rain Tree is found nestled amidst the unique industrial development of Seletar Aerospace Park. With its impressive crown and commanding presence, the tree stands as an icon for AAIS and the aerospace community, inspiring us to build a robust ecosystem while remaining deeply rooted and resolute against all odds.

Photographed by Richard W J Koh of Aerophotoworks



*Association of
Aerospace Industries
(Singapore)*



The **Association of Aerospace Industries (Singapore)** would like to thank the following organisations for their support in making our 15th Anniversary Gala Dinner a success:



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MR CHAN CHUN SING

Minister for Trade and Industry

MESSAGE FROM THE MINISTRY OF TRADE AND INDUSTRY

Singapore's Aerospace industry has grown from strength to strength. The industry is now a significant contributor to Singapore's economy, with a value-added of \$3.35 billion in 2016 and employing 21,000 employees. This year we celebrated several industry milestones, including the 10th anniversary of Seletar Aerospace Park and the launch of the Aerospace Industry Transformation Map (ITM), which AAIS played an instrumental role in developing.

The Asia-Pacific region is expected to become the world's largest aviation market, accounting for nearly 40% of the world's global fleet by 2020. At the same time, the industry is seeing the effects of rapid technology advancement and digitalisation. I am glad to see that AAIS is helping companies internationalise, innovate and upskill to ensure that both corporations and workers are equipped with the capabilities and skills to capture new opportunities and remain competitive.

The Government remains committed to supporting the industry's transformation. Through the Aerospace ITM, we will support investments in automation, innovation in emerging technologies and efforts to deepen capabilities and drive process improvement. By working closely with industry partners, unions and trade associations like AAIS, we expect the industry to achieve a value-added of \$4 billion and add 1,000 new jobs by 2020.

As we celebrate AAIS' 15th anniversary this year, we laud the significant achievements of the past and look forward to AAIS reaching exciting heights in time to come. Congratulations to AAIS on your 15th anniversary.



Civil Aviation Authority of Singapore

MR KEVIN SHUM

Director-General
Civil Aviation Authority of Singapore



MESSAGE FROM CIVIL AVIATION AUTHORITY OF SINGAPORE

As we celebrate the 15th anniversary of the Association of Aerospace Industries (Singapore) – AAIS, Singapore's aerospace and air transport industries are doing better than ever. In 2017, a record 62.2 million passengers passed through Changi Airport. Singapore is now Asia's leading one-stop solutions provider for aircraft MRO needs, contributing 10% to global MRO output.

The AAIS has been and will be a valued partner of the CAAS in the aviation and aerospace sector. CAAS is committed to working with the AAIS and industry to enable the sustained development and growth of our aerospace industry.

A safe aviation environment is critical. The industry's safety performance has been exemplary. To support this, robust and progressive safety regulations have been established. Some notable highlights include Singapore's State Safety Programme (SSP) that will enable us to better manage safety risks. Also, we have several bilateral agreements with other regulators such as the EASA and FAA, to reduce regulatory compliance cost and facilitate more business opportunities.

On behalf of CAAS, I wish the AAIS a happy 15th anniversary and extend our heartiest congratulations. The AAIS would not be where it is today without the strong leadership of the management committee and the dedicated work and contributions of the secretariat staff and members.

I am confident that the AAIS will continue to serve an important role in the continuing development of the aerospace industry. I wish the AAIS every success in its efforts!



MR CHNG KAI FONG

Managing Director
Singapore Economic Development Board

MESSAGE FROM SINGAPORE ECONOMIC DEVELOPMENT BOARD

On behalf of the Singapore Economic Development Board, I would like to extend our heartiest congratulations to AAIS on the occasion of its 15th anniversary.

Since its establishment in 2003, AAIS has come a long way in becoming the go-to organisation for aerospace companies, suppliers and partners. In the last 15 years, AAIS has built a strong network of members, education and research organisations, and government agencies, making it the first port of call for aerospace companies looking for an introduction to Singapore. This has not only made AAIS effective in facilitating business today, but also put AAIS in a leading position to prepare the industry for tomorrow.

AAIS has been instrumental as the voice of the industry, playing a key role in the development of Singapore's Aerospace Industry Transformation Map (ITM), as well as actively securing partnerships, convening seminars and organising learning journeys on the topic of digitalisation. As we enter the implementation stage of the ITM, we look forward to AAIS' continued leadership in the industry's journey towards improved productivity, innovation and talent development.

By 2037, the Asia-Pacific region will account for 42.5% of all new aircraft deliveries. In order to capitalise on these developments, Singapore's industry must step up to build relevant capabilities, remain competitive, and differentiate ourselves through innovation and talent. Strong partnerships and commitment from industry associations will be key to Singapore being able to capture opportunities in the region and maintain our leading position as Asia's aerospace hub.

Congratulations to AAIS on reaching this significant milestone of its 15th anniversary and we look forward to the organisation reaching greater heights in the next 15 years.

Enterprise Singapore

MR PNG CHEONG BOON

CEO

Enterprise Singapore



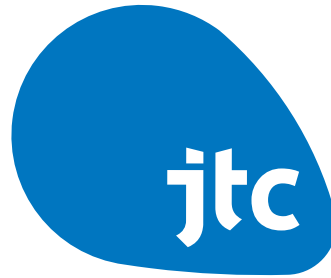
MESSAGE FROM ENTERPRISE SINGAPORE

The aerospace industry in Asia Pacific has been growing tremendously with the region benefitting from an unprecedented increase in global outsourcing activities. It is estimated that Asia Pacific's aircraft fleet will triple over the next two decades. This presents good growth opportunities for local enterprises, especially the SMEs that support the aerospace industry.

As Singapore's government agency championing enterprise development, Enterprise Singapore has been partnering the public and private sectors to upgrade aerospace SMEs to stay competitive. This includes developing niche capabilities in engineering and manufacturing services, creating innovative products and processes, and forming strategic partnerships to offer a more complete value chain of services to enter new markets.

The Association of Aerospace Industries (Singapore) has been our valued partner in developing our local supplier base to better serve the aerospace industry. Over the years, we have worked closely with AAIS to support aerospace SMEs in enhancing their capabilities to become core suppliers to major aircraft players. We have also partnered AAIS to help companies access global business opportunities through tradeshows, missions and business matching and networking sessions.

We congratulate the AAIS on its 15th anniversary and look forward to a strong and continued collaboration with AAIS to groom and support more successful home-grown aerospace enterprises.



MR NG LANG

CEO
JTC

MESSAGE FROM JTC

Our heartiest congratulations to AAIS on your 15th anniversary!

AAIS plays a critical role in promoting Singapore as the leading aerospace hub in the region. The association has been the voice of the aerospace industry, and instrumental in supporting the industry's growth and development.

AAIS and JTC have an enduring partnership. This was entrenched when AAIS moved to Seletar Aerospace Park in 2016. Beyond co-organising regular industry workshops, networking events and social activities with JTC, AAIS has been managing JTC's Business Centre and Serviced Office at Seletar Aerospace Park. AAIS's presence has enabled companies in the Park to benefit from its expansive networks and global linkages.

Earlier this year, JTC celebrated Seletar Aerospace Park's 10th anniversary with AAIS, and partnered the association and 29 aerospace companies on a series of student outreach initiatives to develop a pipeline of industry-ready talent for the fast-growing aerospace sector. With the strong support from AAIS and Institutes of Higher Learning, JTC also successfully held the inaugural Aerospace Day at Seletar Aerospace Park in April this year which saw active participation from over 800 students.

As JTC charts future developments for Seletar Aerospace Park, we look forward to further building our partnership with AAIS through various community building initiatives. This includes the Plant-a-Tree programme, as well as the development of a Heritage Trail to enhance the greenery, add vibrancy and strengthen the sense of community within the Park.

JTC treasures our friendship with AAIS, and we look forward to deepening our partnership with AAIS in the years to come. May AAIS continue to grow from strength to strength!

OUR AAIS JOURNEY

Our journey began with 23 members, from a small classroom located within the former SIAEC Skills Training Centre at Chai Chee. The Association of Aerospace Industries (Singapore) commenced operations in 2003, following a market slump after the 9/11 attacks and SARS outbreak. Its role was clear: to be the voice of industry – addressing workforce competencies, business support infrastructure, and future developments.

In the years that followed, the Association promoted industry-government engagement, advocating policies for a conducive business environment. AAIS worked to be a credible voice, commissioning manpower and competitiveness studies, launching the aerospace suppliers' and aviation industry directories, and growing our membership. Concurrently, student outreach also became a key thrust, to ensure a steady supply of skilled manpower for the industry.

Entering its second decade, new challenges surfaced. New technologies, changes in business models and the maturing of Singapore's economy were disrupting the status quo. In 2016, AAIS unveiled a refreshed mission and vision: To Promote the Development of Singapore as a Leading Aerospace Hub, and to be An Innovative Aerospace Community for a Sustainable Future.

Today, AAIS has relocated to Seletar Aerospace Park, in the heart of a thriving and growing industry hub. Here, we are building on past achievements, exploring new avenues for a vibrant and competitive industry, investing in new international partnerships for market access, and developing programmes to catalyse industry transformation.



The Memorandum of Cooperation with Korea Aerospace Industries Association is one of several international partnerships AAIS is embarking on.

TODAY

The Association has redefined itself with three roles - acting as the Voice of Industry, Facilitating Business and Engendering the Community. We are actively contributing to plans for industry transformation, and forming new partnerships with industry, educational institutions and government in order to build new capabilities. We now have a Panel of Experts to advise members, operate a Serviced Office to incubate new businesses, support professional communities like the Singapore Aerospace Quality Group, and have an active international agenda to build market channels and extend our influence abroad.

VOICE OF INDUSTRY

- Promote a conducive business environment
- Represent the Singapore aerospace industry

FACILITATING BUSINESS

- Develop market channels
- Enable adoption of new business models and technologies

ENGENDERING THE COMMUNITY

- Communities of Practice
- Student outreach
- Professional development



Since 2008, AAIS has managed the Singapore Pavilion at the biennial Singapore Airshow.



INDUSTRY TRANSFORMATION

There is a positive long-term market outlook, especially in Asia-Pacific, and Singapore's aerospace industry is well-placed to capitalise on this. However, to keep our edge, Singapore companies must adopt strategies to improve productivity and maintain a competitive edge. Now that both the Air Transport and Aerospace Transformation Maps have been launched, AAIS is developing initiatives for their implementation, encouraging operational excellence and innovation.

DIGITALISATION PROGRAMME

The AAIS Digitalisation Programme aims to facilitate the industry's digital transformation. This includes a partnership with Siemens, a leading digital solutions provider offering guidance to members on their digitalisation roadmaps. There are also Learning Journeys to smart factories like Rockwell Automation and the Model Factory at the Advanced Remanufacturing and Technology Centre.

ADDITIVE MANUFACTURING (AM)

Additive Manufacturing is primed to revolutionise certain segments of the manufacturing supply chain and to be the basis for new component repair processes. In July 2018, we called a roundtable to discuss industry collaboration on AM, with the support of our partners NAMIC, CAAS and Workforce Singapore. This has culminated in the AAIS-NAMIC Joint Industry Programme on Additive Manufacturing for Aerospace, which was officially launched at AAIS' 15th Anniversary Gala Dinner on 21 September 2018 (see Page 20-21).

A NEW CHAPTER: UNMANNED AIRCRAFT SYSTEMS (UAS)

AAIS is exploring the feasibility of forming a new chapter of membership, for the UAS sector. In August 2018, Enterprise Singapore and AAIS co-chaired a roundtable discussion involving some 30 members of the UAS community. This included drones start-ups, technology solution providers, venture capitalists, and government agencies. This discussed market opportunities, industry issues, standards development and possibilities for collective action.



Annual sporting events, like bowling, are opportunities for the aerospace community to come together, build camaraderie, and foster team spirit.



In the lead-up to the launch of the Aerospace Industry Transformation Map, AAIS facilitated a dialogue session between members of the aerospace sector and the Singapore Economic Development Board.

AVIATION / AEROSPACE LUMINARY AWARDS 2018

As the Association of Aerospace Industries (Singapore) celebrates its 15th anniversary, we are recognising individuals who have made significant contributions to the development of the industry over the last decade. The awards honour the work of **Mr Charles Chong** and **Mr Manohar Khiaṭani**, two exceptional individuals who have championed industry interests throughout their career.



MR CHARLES CHONG

You've spent your career in aerospace, starting as an aircraft maintenance engineer and rising through the ranks to become VP of Quality and Safety at SIA Engineering Company (SIAEC). What led you to join this industry?

In my time, aviation was at the frontier, something new and glamorous. I remember wanting to join the Air Force. After going through all the tests, they told me that I was a bit too tall. We had the Hawker Hunters, but due to my height, if I were to eject, I'd have injured myself. So for my own safety, I was not able to get into aviation.

But then I saw an advertisement by Qantas Airways, offering engineering

scholarships to study in Australia.

I applied for that and started my career with them, training in Australia for about 4½ to 5 years. I came back as a Qualified Aircraft Maintenance Engineer in 1973, and shortly after that, Singapore Airlines (SIA) took over my bond. Qantas was going to retrench me on Friday, and I was to start with SIA on Monday.

While still serving my probation at SIA, I was told that they were posting me to Dubai. They gave me very short notice before I had to leave. Things were not as developed then as they are now, and it was pretty tough spending about 3 years in the Middle East — first in Dubai, then Bahrain. After returning to Singapore, I had a few more postings, serving for about 9 months at the Boeing factory in Seattle, and for about 3 to 4 months at Airbus in Toulouse. Soon after this, I was inducted into politics, so I couldn't leave for a planned Europe posting.

You were AAIS' longest-serving President, from 2006 to 2015. How did you get involved with AAIS?

After (AAIS) was formed, they got Mr Oh Wee Khoo, one of the senior VPs at SIAEC, to be President. Mr Oh said he needed some support, and since I was a VP, I was asked to support him. At that time, we felt a need to have our voices heard by the policy-makers. Often, when you talked about aviation, it would be about the pilots and stewardesses. But there was a whole range of

supporting industries, and the maintenance, repair, and overhaul (MRO) providers were amongst the most critical.

Passengers don't see the engineering or the maintenance crew at work, and policy-makers tend to overlook them. You've got wonderful airports, but not enough support facilities to keep the planes flying.

The industry was short on manpower and there was talk about not relying too heavily on foreign workers. If these plans went ahead, there wouldn't be enough expertise to keep the industry going, and aviation in Singapore would be affected. We felt we had to organise ourselves. It was difficult to go to policy-makers as an individual company, but as a collective voice, we managed to get their attention. By representing the bulk of the aerospace companies, AAIS managed to arrange meetings with then Manpower Minister, Tharman Shanmugaratnam, and the Ministry of Trade and Industry. Many of the companies were fierce competitors, like SIAEC and ST Engineering Aerospace. But at AAIS, we all got together, discussed common problems, put forward our proposals, and advocated with the policy-makers on what we would like to see.

Another instance was when we wanted to transition many of our precision engineering companies to become suppliers to the aerospace sector. As aviation is a very regulated industry, companies who wanted to supply parts or services to the

industry had to get certification from the authorities. While other industries in Singapore also had high standards, they could not provide products and services to the aviation industry because they were not certified. So the government agencies appealed to these companies to get certification, so they could expand and supply the aviation industry. It was challenging for the SMEs because they already didn't have many workers. But we got incentives from the government to offer to them and eventually got more skilled people and companies to support the aviation industry. And I must say that where there was a shortage of skills, government agencies did give us grants to help provide training. We worked in close collaboration with the government and the industry, to push forward a lot of this training, to get people in.

Was there a particular contribution you are proud of?

There was no glamour associated with the image of engineering, and so someone suggested that we start a TV series. That's what we did with EDB's sponsorship. It was a Channel 8 programme starring a really handsome guy and a wonderful-looking girl. We provided the technical expertise, and persuaded SIA and a few others to allow shots of the aircraft and their flight simulator. The programme ran for a quite a while, and the polytechnics told us that enrolment after that had shot up. Suddenly, everybody wanted to pursue an aerospace career.

But the sad part of it all is that not many stayed on — about 60 to 80% went off to do other things, they didn't see a career path in aerospace. We approached the Civil Aviation Authority of Singapore (CAAS), and worked with Institutions of Higher Learning, to enable students to progress from an aerospace diploma course to a degree programme and so on. It was kind of funny promoting and glamourising the job through TV, but still, I recall it being very successful.

What about the challenges you faced when you were at AAIS?

There've always been challenges, but when the Middle Eastern airlines emerged, there was a bit of a drain on our expertise. These airlines poached people from all over the place, so we had to make sure that benefits and salaries here remained competitive.

Also, because the industry is highly regulated, authorities like the CAAS required 5 years of hands-on experience. Now, it's about 3½ years, but getting this reduced was difficult.

It is also difficult when a person comes under a long traineeship after graduating, but sees their colleagues becoming highly-paid engineers right away. Encouraging companies to pay them the market rate while they underwent training was also a challenge. Companies argued that trainees were not yet productive, and they were unable to rationalise paying them an engineer's salary. But we told them that if the trainees saw their colleagues being paid an engineer's salary, they would leave. Foreign companies could then come in to swipe our experienced people. So these were the challenges, attracting and retaining talent.

Furthermore, CAAS' view was that they didn't want to deviate too much from the international norm. If everybody has 4 to 5 years of training, and CAAS says that because our people are better educated, we can reduce ours to 3½ years, then it becomes a problem because our people will not have international recognitions. So CAAS tended to take the most stringent approach of the lot. That's the constant dialogue we have with the authorities and industry.

As a member of parliament (MP), you've raised the concerns of the aviation and aerospace industries in Parliament. Being a prominent member of the industry

in Parliament today, what has your experience been as an advocate for this sector?

As an MP, I can raise concerns directly to policy-makers and have the policies reviewed or refined to make them more beneficial to the industry. This would in turn make us more competitive. A lot of things actually happen behind-the-scenes, though if needed, I could bring them up in Parliament.

AAIS has grown to become an influential voice of the industry under your charge. Do you have a vision/wish for AAIS' and the sector for the next 15 years?

The aerospace industry remains very competitive and dynamic. Things change a lot, with technology mainly driving all this. When I first started, Singapore was a natural stopping point, you can't get planes from Australia to Europe without stopping somewhere to refuel, for maintenance. But the latest planes can now fly from point-to-point. If you're not relevant, and if they don't see a need to service their planes here, they can fly directly to their destination. We have to always keep ahead of the competition.

AAIS would need to keep up with developments in Singapore and around the world — what competitors are doing, alternative places they can go, and keep up with technology. Most of my colleagues didn't have to go back to school, but I did every few years. When a new plane came up, it was back to training. New technology always comes in and you've to go back to school to remain relevant.

Finally, AAIS has to engage policy-makers, because other than build airports, Singapore also needs resources to be allocated for the MROs. There's no mention how many hangars are needed to service those planes. This requires constant dialogue, but it is advantageous if they got the whole industry together to present a collective voice to the policy-makers.

AVIATION / AEROSPACE LUMINARY AWARDS 2018



MR MANOHAR KHIATANI

You've spent many years in Germany, as a student in Hamburg, and in various positions at the Singapore Economic Development Board (EDB). How did your time in Germany shape your outlook on the potential of Singapore's industries?

Germany did shape my thinking. Manufacturing is a very important component of the German economy, and it's also very diversified. In fact, Germany is the world's largest exporter — especially in industrial goods. This reinforced my belief that to have a strong technology-driven economy, a country needs a strong manufacturing sector. There's a misconception that manufacturing is low-value. Despite having one of the highest labour costs, Germany can sustain a strong manufacturing sector because of the high value goods it produces. Singapore must learn from this and maintain a strong manufacturing base.

Germany also places emphasis and adopts a systematic approach towards vocational training, thus enabling them to have a continuous pool of highly-qualified vocational manpower. A strong manufacturing and technology ecosystem not only need engineers, but also good technicians and craftsmen, a differentiating factor of the German industry. Similarly, Singapore must continue to promote/strengthen our vocational education system – a unique advantage that is sometimes underestimated.

At EDB, you saw huge potential for the Aerospace industry in Singapore. What were some telling signs you observed?

Air travel was already booming as the relative costs of travel came down. It was a high growth industry, particularly in Asia, given the rising affluence in the region.

It is also a high value-added industry as aerospace components are very expensive, with limited competition and not mass-produced, so prices won't drop. In EDB's lingo, Singapore is suitable for Capital, Knowledge and Innovation-intensive industries, and aerospace ticks all these boxes.

But why would Singapore be attractive for aerospace players? Aerospace is a highly-regulated industry. Reliability and intellectual property protection play a very important part. This plays to our strength, as Singapore's name commands a lot of trust. Of course, we have other unique advantages — like the world's best airport and airline, which the original equipment

manufacturers (OEMs) are keen on supplying. We also have two home-grown, leading maintenance, repair, and overhaul (MRO) companies, SIA Engineering Company and ST Engineering Aerospace, who were attractive partners for many OEMs. Furthermore, we had already established ourselves as an MRO hub of sorts in Asia.

The plan therefore was to fully capitalize on these advantages to position Singapore as the undisputed Aerospace Hub in the region. To achieve this, we had to deepen and widen our MRO capabilities, promote high-value manufacturing activities, and attract supporting service and R&D activities here. To support this vision, we had to ensure that we had the right physical infrastructure, manpower and technology programmes in place.

I believe Seletar Aerospace Park (SAP) was one of your most impactful projects. Could you talk me through the conception of SAP?

The availability of suitable physical infrastructure was crucial. Changi North was identified to host aerospace companies, but it was filling up fast as we succeeded in attracting several leading companies. So, this gave us a very strong case to push for the then under-developed Seletar to become an integrated aerospace hub – a unique infrastructure offering both runway-dependent and non-runway dependent activities to be sited within one location, allowing tremendous synergy. SAP would also enable us to get a pie of the growing

business and general aviation business in the region.

I was fortunate to be leading a great team and I told them we needed a big Queen Bee activity to catalyse SAP. Initially, it was to manufacture micro-jets which seemed to be a hot area but that fizzled out. Instead, we got a bigger and better Queen Bee — in the form of Rolls-Royce.

With all this coming together, EDB developed a compelling value proposition to get the approval for SAP, working closely with JTC, CAAS and URA.

Can you tell me more about the discussions with Rolls-Royce?

Rolls-Royce already had very successful MRO operations in Singapore. We had also developed a very strong and intimate relationship with them, ably facilitated by Jonathan Asherson, their regional Head in Singapore. So, when they had their inaugural international advisory committee meeting in Singapore, I was invited to present on Singapore's economic development strategies and the aerospace sector. It came to my attention then that they were looking to set-up a new engine manufacturing plant outside of the UK, and had shortlisted about 15 locations in the US. I requested Sir John Rose, the Group CEO, to include Singapore in the shortlist. Fortunately, they included us, and we went through a long and rigorous evaluation process, which culminated in us presenting to their senior management at their London headquarters. I made the presentation on 'Why Singapore?' and 'Why SAP?'. I remember finally getting a call from Tony Wood (former president of Aerospace, Rolls-Royce) while hosting a business dinner, and when he said: "Singapore has been chosen", I nearly jumped there.

But as luck would have it, the global financial crisis came and the project

was put on hold. When we restarted discussions, Rolls-Royce also needed a fan blade manufacturing plant. We worked hard, offered a "package deal" and secured both these extraordinary projects to be sited in SAP. After this, Rolls-Royce also brought in a lot of R&D activities into Singapore and we have now become their major location outside of Derby.

I must add that there were many contributors to this SAP, Rolls-Royce and other aerospace successes. I was extremely fortunate to have a highly capable, motivated and dedicated team in both EDB and JTC. I call them my 'dream team'.

You left EDB to head JTC in 2009 and joined Ascendas-Singbridge in 2013. What were some changes in your role that came with this shift in capacity?

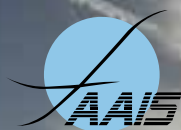
When I became CEO JTC, discussions with Rolls-Royce were nearing completion and soon after JTC signed the agreements to build the facilities for Rolls-Royce in SAP. We wanted to develop SAP into a plug-and-play environment, not only for MNCs, but also for SMEs. The idea was to develop a cluster where customers, OEMs, suppliers, and service providers, are within the same ecosystem. We created the right infrastructure for that at SAP and we received very good response with many companies establishing operations. Existing operators in Seletar also started expanding as we had given them certainty on the future of SAP. SAP became unique and we had a great product to offer to the global aerospace industry. In Ascendas-Singbridge, we have been working with companies such as Thales, Hamilton Sunstrand, Honeywell and UTC group in providing space solutions. In fact, we built the facilities for Pratt & Whitney's two plants in SAP.

As one who has been instrumental in the development of Singapore's aerospace sector, do you have a vision/wish for AAIS' and the sector for next 15 years?

My hope is that Singapore continues to focus and strengthen its position as an aerospace hub. As the industry grows and evolves, we must be cognisant of the major changes and be adaptable. First, competition is increasing, and the big aircraft customers want the suppliers to establish their MRO activities close to their operations. Second, the nature of MRO is changing. The OEMs want to have a bigger share of the MRO pie. Further, the new generation of aircraft also require less hangar time, as more activities are now done on the apron (tarmac), so that will require operational changes. Technology and innovation (T&I), particularly digitalisation and 3D-printing, will play a bigger part in the aerospace industry. Companies and policy makers will need to respond appropriately to these changes.

On AAIS, it is now doing a very good job and should continue to serve as the earpiece and mouthpiece of the industry. It can better facilitate industry-wide discussions and help crystallise and communicate critical issues to relevant stakeholders.

Looking ahead, as more global aerospace industry leaders establish substantial regional operations here, we would need stronger, more adaptable leaders to navigate the diverse markets and manage the rapid growth and pace of change in the aerospace industry. AAIS can play a bigger role in championing these leadership development platforms. If we can continuously develop a pool of international-minded, future-ready aerospace leaders, it will be a huge advantage for Singapore. If we can do all this well, I am hopeful that our aerospace industry can continue to fly high.



*Association of
Aerospace Industries
(Singapore)*



At the Association of Aerospace Industries (Singapore), we believe in the power of the collective.

It was with a common vision that our Charter Members laid a foundation for the development of the Association. Together, we continue to reaffirm that our strength comes from a shared mission to advance the Singapore aerospace hub.

As we celebrate our 15th anniversary, let us appreciate the contributions of our Charter Members who have staunchly supported the Association over the years.

Charter Members



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- Bleed (ATA 36)

Congratulations to staff and management of AAIS for your impressive and successful work during the past 15 years and best wishes for the future. Your expertise is equally recognized by your members and business partners on the island and overseas.

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LIEBHERR



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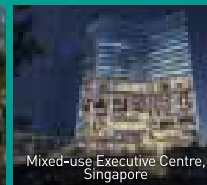
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AAIS TRAINING CALENDAR

The Professional Development arm of AAIS offers a spectrum of training and development programmes throughout the year. These programmes range from general or soft-skill courses to industry-specific certification courses.

AEROSPACE & INTERNATIONAL STANDARDS / CERTIFICATION

AEROSPACE STANDARDS

AS 9100:2016 Rev D Lead Auditor Training
10 to 14 December 2018

Understanding & Implementing AS 9100:2016 QMS
21 February 2019

AS 9100:2016 Internal Auditor Course
21 & 22 February 2019

INTERNATIONAL STANDARDS

ISO 14001:2015 Lead Auditor Training
12 to 16 November 2018
10 to 14 December 2018
14 to 18 January 2019
18 to 22 February 2019

ISO 9001:2015 Lead Auditor Training
12 to 16 November 2018
10 to 14 December 2018
14 to 18 January 2019
18 to 22 February 2019

OHSAS 18001:2007 Lead Auditor Training
19 to 23 November 2018
17 to 21 December 2018

ISO 45001:2018 Lead Auditor Training
14 to 18 January 2019
18 to 22 February 2019

ISO 14001:2015 - Internal Auditor Training
1 & 2 November 2018
3 & 4 December 2018
8 & 9 January 2019
12 & 13 February 2019

ISO 9001:2015 - Internal Auditor Training

1 & 2 November 2018
3 & 4 December 2018
10 & 11 January 2019
14 & 15 February 2019

OHSAS 18001:2007 - Internal Auditor Training
1 & 2 November 2018
3 & 4 December 2018

ISO 45001:2018 - Internal Auditor Training
8 & 9 January 2019
12 & 13 February 2019

ISO 9001:2015 + ISO 14001:2015 + ISO 45001:2018 QEHS Internal Auditor Training
7 to 9 November 2018
3 to 5 December 2018
2 to 4 January 2019
26 to 28 February 2019

NADCAP SPECIAL PROCESSES

Nadcap Checklist Review - NDT
19 & 20 November 2018

NDT Level III Responsibilities
21 November 2018

NON-DESTRUCTIVE TESTING

An Introduction to Non-Destructive Testing
28 to 30 November 2018

QUALITY TOOLS & TECHNIQUES

Failure Mode & Effect Analysis (FMEA)
12 & 13 November 2018
5 & 6 December 2018
18 & 19 February 2019

Root Cause Analysis Methodology & Implementation
15 & 16 November 2018
10 & 11 January 2019

Supplier Quality Audit (SQA)
22 & 23 November 2018
30 & 31 January 2019

Supplier Quality Management (SQM)
14 & 15 February 2019



e-ATVs may be used for training courses from 1 July 2018 to 30 June 2019.

*Information is accurate at time of printing. AAIS reserves the right to re-schedule or cancel any course due to unforeseen circumstances. Visit www.aais.org.sg/training/ for the most updated list of training courses.

For enquiries, contact Jen Ng at +65 6922 1788 or email us at training@aais.org.sg



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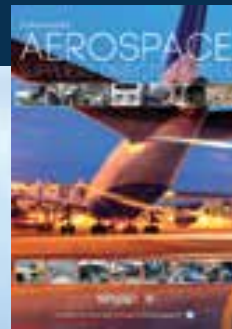
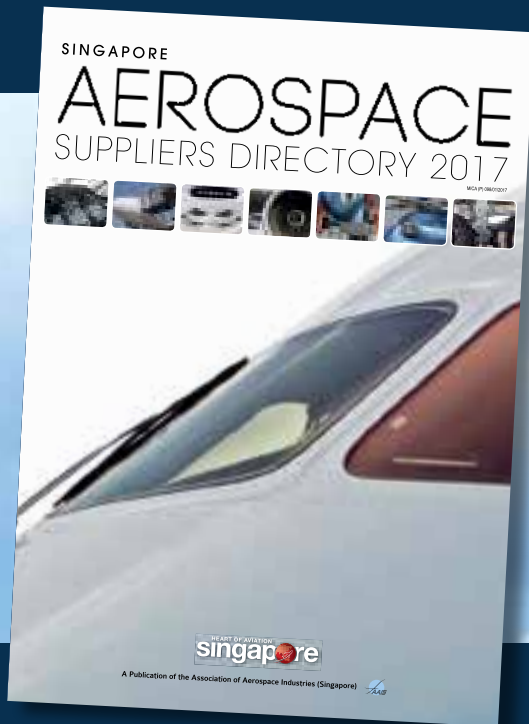
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- A biennial publication, the Singapore Aerospace Suppliers Directory (SASD) is the only Singapore publication that offers an unrivalled marketing platform for aerospace companies and aerospace related products & services suppliers.
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