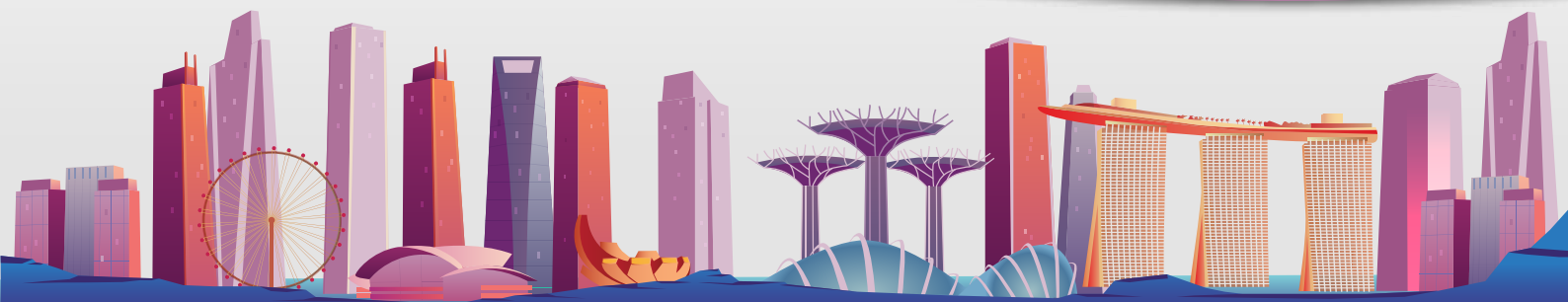


THE AVIATION ENGINEER: POWERING OUR FUTURE

An engineer is involved in designing and testing products for various parts of an aircraft such as its airframe, engines and other related aircraft equipment. Engineers are also needed for airspace development, airport design and aircraft navigation technologies.

You will discover that being an engineer in the aviation sector is more than just aircraft maintenance and repair, it also means you can be heavily involved in improving aviation technologies to support the advancement of commercial aviation, or in aerospace companies specialising in the technological advancement of aircraft parts and equipment. The engineers featured will shed more light on this diverse field.



BERNICE LEE
Production Specialist,
Safran Electronics & Defense
Services Asia Pte Ltd
4 Years in Aviation



THE HIGHLIGHTS OF MY AVIATION CAREER

Because it's only been a few years since I started, I am at the stage where I am constantly learning and improving my skills. But I must say, I find satisfaction whenever I perform my job with ease, thinking about the days back in school when I was struggling to understand some of my classes.

JOB DESCRIPTION

I conduct diagnostic procedures to determine the root cause of product failures and provide repair solutions for aircraft components. To perform my duty well, I must keep myself updated on relevant manuals, bulletins, standards, and practices. It requires diligent documentation and records for each repair. This role also requires commitment to actively support Health, Safety, Environment and Continuous Improvement Programmes.

CAREER PROGRESSION PATH

I started my career in 2017 as an NDT (Non-Destructive Testing) technician at GE Aviation Engine Services in Singapore. After two years, I decided to seek out a more proactive role, which would allow me to further develop my skills, accept more responsibilities and face new challenges. In 2019, I joined Safran Electronics & Defense Services Asia as a Production Specialist for Avionics Maintenance.

HOW I GOT INTO AVIATION

Growing up, I have always been comfortable working with tools, helping my parents fix things around the house. Following my O-Levels, I received a scholarship offer from Nilai University in Malaysia to join the Aircraft Maintenance Engineering course. As it was one of the best in this field, I enrolled and obtained my diploma. After graduation, I decided to deepen my knowledge about Aircraft Maintenance and completed my degree at the University of South Wales in the United Kingdom.

PERSONAL CHARACTERISTICS/ SKILL SETS REQUIRED

My job requires me to work independently but also offers the opportunity to collaborate with other departments such as Engineering, Supply Chain and even Sales Admin. I also have to liaise with customers directly regarding technical support. Each repair under my supervision comes with a different issue and it is my duty to find a solution for my customers. I love all aspects of my job as it is never dull and each day is different.

ANY ADVICE FOR THE FUTURE GENERATIONS LOOKING TO JOIN YOUR CAREER

Aviation is a dynamic and interesting industry with lots of passionate people. If you have the right mindset, attitude and are looking for opportunities to improve, you will definitely find a suitable role in this industry. Being the only female technician in my department, I especially hope to see more women in the future. I think we should overcome the preconceived notions about women in my job field. Indeed I am happy to say that I am always treated as an equal and always feel welcome at my workplace.

MOHD FAHMIE BIN SENEN

Operations Manager,
SIA Engineering Company Ltd
20 Years in Aviation



THE HIGHLIGHTS OF MY AVIATION CAREER

The most unforgettable experience was the first time I was nominated as a “Flight Observer”, or what some would refer to as “The Flying Spanner”, in my early years as a Licensed Aircraft Engineer. On an assigned flight to Hanoi, I was responsible for the transit maintenance check, refuelling and certification that the aircraft was fit for flight back to Singapore. However, upon landing in Hanoi, a “No Go” defect status was detected which I had to rectify in less than 2 hours. With over 200 passengers and crew waiting for their flight to be ready for take-off, I had to respond quickly under pressure, apply all my acquired knowledge and managed to rectify the defect. The adrenaline rush and sense of satisfaction got me hooked. I began to love my work even more and continued to look out for new challenges.

JOB DESCRIPTION

As an Operations Manager in SIAEC Line Maintenance Division, I monitor the daily maintenance and rectification activities to ensure high dispatch reliability of Singapore Airlines and other airline customers’ aircraft on transit and night stops. I ensure that work progresses in a timely manner, with high standards of quality and safety.

CAREER PROGRESSION PATH

Depending on where your interest lies, there are many avenues of progression available in the industry. As it was with me, you could start as a Licensed Aircraft Maintenance Engineer and progress to a management role with room for personal growth and contributions to the operations or strategic directions of the company.

HOW I GOT INTO AVIATION

I was fascinated by aviation at a very young age. Initially, I was inspired to be a pilot after watching the movie “Top Gun” in the late 80s. I even got my pilot licence and I am a certified skydiver. As I grew up, I realised that I was interested in more than just flying an aircraft. It was the aerodynamics and the whole mechanics of an object moving in the sky that intrigued me the most.

PERSONAL CHARACTERISTICS/ SKILL SETS REQUIRED

Perseverance, a sense of responsibility and accountability are very important personal characteristics. Strong troubleshooting skills is a sure advantage.

ANY ADVICE FOR THE FUTURE GENERATIONS LOOKING TO JOIN YOUR CAREER

As aviation and technology are evolving constantly, you must be agile in adapting to changes quickly and think out of the box. A willingness to take up challenges and continuously improve will stand you in good stead.

SERENE HO

**Manager,
Engineering (Services),
Singapore Aero Engine
Services Pte Ltd**
16 Years in Aviation



THE HIGHLIGHTS OF MY AVIATION CAREER

Being able to be part of the technical community to investigate a specific incident of aircraft engine failure. Eventually the root cause was identified, and rectification steps taken to ensure the aircraft was fit for flight.

JOB DESCRIPTION

I lead and support development of new methods, capabilities and technology to improve processes in Engine Overhaul (EO) production. My responsibilities include monitoring the development and identifying new technologies opportunities, assessing their value-add potential and applicability for adoption within EO and defining engineering strategies, including both technical and organisational aspects, to deploy policies to organise and commit resources to achieve its objectives.

CAREER PROGRESSION PATH

I started out as an Engineer, moving progressively to Senior Engineer, then Principal Engineer and eventually into a management role. I am proud to have come through the ranks, to be given equal opportunities throughout my time with SAESL.

HOW I GOT INTO AVIATION

I have always had an underlying passion for STEM from young and that motivated me to pursue STEM education and career pathways. I took a degree in Mechanical Engineering in NTU. My choice to specialise in Aerospace was largely driven by career opportunities facilitated by Singapore's economic position as a global aviation hub and trading nation. During my third year, my Aircraft Propulsion course Professor organised a field trip to various aircraft maintenance, repair and overhaul (MRO) shops and SAESL was one of them. It was then that I made it my career choice to enter SAESL and the rest is history.

PERSONAL CHARACTERISTICS/ SKILL SETS REQUIRED

An eye for detail. Possess analytical and technical problem-solving skills and be assertive in decision making. Good communication, organisational and project management skills.

ANY ADVICE FOR THE FUTURE GENERATIONS LOOKING TO JOIN YOUR CAREER

Grit which becomes more determined with time. A continued passion and sustained persistence to reach long-term career achievements.

AMANDA ONG

**Materials Engineer,
Civil Aerospace,
Rolls-Royce**
10 Years in Aviation



THE HIGHLIGHTS OF MY AVIATION CAREER

To lead a team providing professional testing services in Rolls-Royce. As a member of several investigation teams, I am pleased to be able to help resolve complex matters through technical know-how to add value to the business.

I also enjoy interacting and working with colleagues from various geographies and backgrounds.

JOB DESCRIPTION

As a Materials Engineer in the failure investigation team, my core responsibility is to investigate and understand the cause of damage or failure of aero engine components. I also work on collaborative projects to develop and improve techniques to aid failure investigation using automation and artificial intelligence.

CAREER PROGRESSION PATH

Depending on interest and aptitude, engineers will have the opportunity to opt for either a specialist technical role or a management role.

HOW I GOT INTO AVIATION

I started my career in aviation when I was working in Rolls-Royce as a contractor, providing metallurgical and chemical testing services. My collaborations and interactions with the Materials Capability team in Rolls-Royce sparked my interest in failure investigation. I was excited to be given the opportunity to join the failure investigation team and have been with the team for more than six years.

PERSONAL CHARACTERISTICS/ SKILL SETS REQUIRED

A hands-on person trained in materials science or engineering and enjoys working in a laboratory setting will be essential in pursuing a career in this field. Curiosity to learn and a positive attitude are also some of the important traits.

ANY ADVICE FOR THE FUTURE GENERATIONS LOOKING TO JOIN YOUR CAREER

Be open minded and curious – we should not stop at just learning what we are hired to do but look at how our skills and contributions can add value to the business and its processes.