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THE  
**ASSET**  
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ASSET MANAGEMENT COUNCIL

MAINTENANCE DELIVERY  
FOR ASSET MANAGEMENT

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Strategies and Planning –  
Integration of Criticality and  
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Reinstating Commercial  
Value in Maintenance  
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Improvement

Minimise replacement  
Downtime using Parallel  
Process Mapping and  
Activity Externalising

AMPEAK19 SUPPLEMENT

# STAR PROFILE – Sammar Abbas CPAM,

## Life-Cycle Engineer, ASC



Sammar Abbas is a professional engineer with 23 years of experience encompassing Maritime, Oil & Gas and Power Generation industries. Sammar also holds a certificate of competency as Class 1 Marine Engineer Officer, issued by Australian Maritime Safety Authority (AMSA), and is also an AMSA-Accredited Marine Surveyor for domestic commercial vessels. Sammar is currently the Chair for the WA Section of the Royal Institute of Naval Architects (RINA), and works sustaining the Collins Class Submarines for ASC as a Submarine Life Cycle Engineer.

### 1. Why Asset Management?

I believe that asset management is embedded in human instinct. In our daily life we all are driven by our needs and wants and make our choices based on balancing cost, risks and benefits. An asset management approach ensures that our needs and wants are aligned with the values we want to achieve. One of the expectations of our society for engineers is that they should make this world a better place. The role of engineering in our society is

therefore expanding with every day passing. Asset management provides a platform where people's expectations for sustainability and improvements are transformed and integrated via a through-life approach to asset-related decisions.

At ASC, we exist to sustain and upgrade the Collins Class submarine fleet well into the 2030s and beyond. They are among the most complex vessels ever built in Australia and our formal Asset Management approach guides continued performance improvement, cost reduction and innovation. ASC was the first Australian defence company to be certified with the international Asset Management standard for a naval platform - last year for the Collins Class fleet.

ASC's dedicated Life Cycle Management Office assigns a Life Cycle Engineer to each of the six Collins Class submarines, irrespective of whether the submarine is operational or currently undergoing maintenance, ensuring the best interests of the submarine are met at all times.

### 2. How long have you been working in the asset management sector?

After learning about the subjects and competency frameworks that define Asset Management as a specialised area of practice, I began working in the sector in 1997, when I set off in my career as a seagoing marine engineer in the Merchant Navy.

My 23-year engineering career encompasses maritime, power generation and downstream

oil and gas industries, during which I undertook a variety of engineering management roles related to asset management. In the past two years I have worked in a formal asset management role as "Submarine Life Cycle Engineer" with ASC.

### 3. What is your speciality?

After graduating with a Bachelor of Maritime Studies majoring in Ship Technology, I also earned a Master degree in Petroleum Technology in 2005 and I am about to complete my second Master degree, in Maritime Engineering, later in this year at the University of Tasmania – Australian Maritime College.

Although my career is blended with power generation and downstream oil and gas, my core speciality is maritime engineering, predominantly in the commercial sector. My workplaces have been exciting and stimulating, including deep ocean-going ships, power plants and marine terminals for refined fuel products, storage and transportation, where I have managed the operation and maintenance of the assets. In the domain of maritime engineering I also hold 'Marine Engineer Class 1' certificate of competency and certification as 'Accredited Marine Surveyor' for domestic commercial vessels. Both the qualifications were issued by the Australian Maritime Safety Authority (AMSA) and are highly competitive to achieve within the commercial maritime industry. I also proudly qualified as Certified Asset Management Assessor (CAMA) and Certified

Asset Management Practitioner (CPAM) recently.

There is a vast ocean of knowledge and opportunities for professional development in the realm of Asset Management for myself and others at ASC.

#### **4. What drew you to explore more about this particular area?**

My awareness of asset management started in 2007 when I joined the 'Maintenance Engineering Society of Australia (MESA)', which now has transformed into the Asset Management Council.

It was MESA, via its publications, which first revealed to me that the maintenance function was just a part of the puzzle and not the whole picture in asset management. Thereafter, I have always tried to look with a broader vision from an asset management perspective.

My job at ASC is the most exciting out of my whole career, as I am making best use of my maritime skills to manage Australia's most strategic and complex defence maritime assets – the Collins Class submarine fleet. It makes me feel proud every day, using my skills and experience to benefit Australia's national maritime strategy and security.

It is also a matter of great pride for me that ASC is the first Australian defence company recognised with international certification for asset management (ISO55001) for defence assets – awarded by BSI International in April 2018.

A number of training programs provided by ASC have also enabled me to explore new horizons in asset management; programs which will also benefit the Collins Class program in the longer term.

#### **5. What's the best career advice you've ever received and who gave it to you and what do you think makes a great asset manager?**

Career guidance and mentorship are important for anyone to excel in any career. However, I strongly believe that the driving force in one's career journey is their passion. If someone has passion for their career, it is only then when any career guidance and/or mentorship could be effective for that person. There were times when I had to navigate my career in uncharted waters but eventually managed to get back on track through my passion and support from my professional peers. I have been very lucky to work with some best-in-class engineering professionals throughout my career. In regards to my current assignment, my line manager, Andrei Ezergailis, is an ex-submariner and a Chartered Marine Engineer who is a great source of learning and motivation for me to establish a knowledge base in this specialised area of submarine asset management.

Asset Management requires of its engineers diversity and versatility in their skill set and competencies. For this reason, people from a range of different education and training backgrounds have proved themselves to be very

successful asset managers.

However, one element which is very common in all successful asset managers is that they are an expert, in one or more areas of practice, through previous formal education, further training and/or professional experience, yet this is blended with diversified professional experience.

#### **6. What is the most exciting trend that you've noticed in asset management today?**

The concept of driving an asset management system by the values an organisation wants to achieve has brought about a significant change in industry's mindset.

Strategic thinkers are recognising the benefits a well-established asset management system can offer to their organisations and businesses.

'Shipbuilding 4.0' is an emerging trend, which will change the landscape of design, manufacturing, operation, supply chain and maritime asset management. This 'fourth industrial revolution' makes extensive use of the latest digital technologies like the internet of things, artificial intelligence, virtual and augmented reality, block chain, digital threads and digital twins.

ASC is actively looking at further innovations it can roll-out under the umbrella of "Digital Transformation," which promises to create a further step change in improved operational efficiency and outcomes.

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### **7. What are the biggest challenge facing up-and-coming asset managers today and what advice would you give to them?**

I believe that the biggest challenge for today's asset managers is to embrace organisational cultural change as an opportunity, to ensure that everyone in an organisation is aware of what asset management means and how they are contributing to, and aligning their efforts, to achieve asset management values. This requires a lot of hard work on a number of fronts. A committed leadership, effective stakeholder engagement and raising awareness at every level across the business, are the key success factors. Another challenge for today's asset managers is to demonstrate the value realisation in every initiative and decision they make. Balancing cost, risk and benefit does not work on the basis of a single model which fits in all scenarios. Every scenario comes with its own dynamics and challenges; trading off one decision criteria for another to get the best possible optimisation, is one of the core skills of an asset manager.

Today's asset managers will have to stay abreast of emerging digital technologies, as discussed earlier, and should explore how each of those technologies could change the way they are doing asset management. They should also plan well ahead, for data management, if they convince their businesses to adopt any of these technologies.

### **8. What is the biggest challenge facing the asset management sector today?**

My particular field is maritime asset management. Defence maritime asset management, within this category, has its own set of challenges. As with other industries, the adoption and implementation of asset management philosophies and methodologies within the defence maritime sector is continually evolving and we have a long way to go in order to reach maturity. The skill sets required for maritime asset management are unique from other industry sectors, and hence it becomes a challenge to find the right people with the right skills, experience and motivation who are prepared to divert their existing career to the field of asset management.

Another challenge in the defence maritime industry is the acquisition of the data necessary to develop a data-driven decision making framework for cost, risk and benefit. Due to highly specific administrative requirements involved in the defence industry, it can require multiple steps to access the available data in a timely manner.

### **9. What is your proudest career achievement?**

I don't measure my career achievements by what I have achieved individually but how my achievements can influence others around me, which includes my family, professional peers, employers and society in general. Being a passionate maritime engineer throughout my career, the proudest moment for me was when my daughter, Hadiqa Khan, chose to follow my career and joined the University of Tasmania's Australian Maritime College in Launceston, to start her degree in Naval Architecture

in 2017. She was followed by her younger brother, Waris Khan, who is also on his way to start the same degree course next year. I believe that my 'persistent passion' for my profession as maritime engineer is the proudest achievement of my career, which influenced my next generation to follow in my footsteps.

### **10. What is next for you?**

I want to explore how we can define, establish and evolve 'Maritime Asset Management' as a specialised area of practice within the realm of asset management. I believe there is a great untapped potential in the maritime area and I intend to work towards contributing my part to excellence for maritime asset management both at ASC and further afield.

### **11. When you're not busy at work, what do you enjoy doing to unwind?**

Spending maximum time with my family and friends is the first choice for me after my work and some volunteering activities, including serving my professional institution, currently as Chairman of Royal Institution of Naval Architecture for its Western Australia Section. I also love to provide counselling and motivation to people around me who may need direction and guidance to make the right choices for their career and/or to bring change in their lives.

Sammar recently achieved his Certified Practitioner of Asset Management (CPAM). To find out more about our internationally recognised certification scheme, visit [www.amcouncil.com.au/certification](http://www.amcouncil.com.au/certification)