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Strengthening Safety Management Collaboration with Our Airside Community

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Since the Civil Aviation Authority of Singapore (CAAS) mandated that the aerodrome operator – Changi Airport Group (CAG) implement an operating safety management system (SMS) in 2005, CAG's SMS has evolved tremendously over the past 17 years. With the operating environment getting busier and more complex, SMS has become increasingly important within the airside community for collaboration and sharing of safety data. Improving SMS is now more crucial than ever.

To this end, CAAS has been working with CAG and the airside community to push for stronger SMS interfaces between the organisations involved in airside operations.

CAAS-Industry Collaboration

Since 2014, CAAS and CAG senior management have been co-chairing the Joint Committee on Airside Safety (JCAS). JCAS features participation from various airside stakeholders such as airlines, ground handling service providers, the air traffic service provider and worker unions. JCAS has enabled both CAAS and the industry to co-create and design solutions and projects addressing key safety risks at the airside.

One such solution involved the accelerated development of an airside sandbox, in which new technologies such as autonomous vehicles can be trialled in a simulated "live" environment. JCAS also worked extensively to ensure the safe ramp up of airside operations after the recent period of low air traffic volume during the COVID-19 pandemic.

In addition to JCAS, CAAS also organises the annual Aviation Safety Forum (ASF) to gather the local aviation community to discuss various aviation safety issues. At the ASF in 2019, CAG and airlines shared their approaches to safety management to deepen situational awareness within the aviation community. CAAS also launched the "Charter for a Strong and Positive Safety Culture in Singapore" in early 2022 to foster a shared commitment to strengthen aviation safety culture.

Moving forward, such regulator-industry collaboration will only increase in importance. Innovation and technological advancements such as digitalisation, artificial intelligence, and unmanned capabilities will require closer partnership among key stakeholders to reap optimal benefits for the airside community as a whole.



Sharing of Safety Data

The sharing of safety information among airside stakeholders assists both in the validation of existing safety risks, as well as the early detection of safety issues that would otherwise not be uncovered. This, in turn, facilitates effective and timely resolution of safety concerns. Towards this goal, CAAS prioritises the sharing of airside safety information at every JCAS meeting and members regularly share their safety measures and lessons learnt from incidents.

In support of the objectives of the Singapore State Safety Programme, CAAS and CAG have also inked a Memorandum of Understanding (MoU) on the sharing of de-identified aerodrome safety data from voluntary sources. Crucially, this MoU allows CAAS to corroborate our findings and observations from the ground with CAG.

In addition, CAAS has enacted legislation to enhance the protection of safety information received through *Tell Sarah*, Singapore's voluntary reporting system.

This builds trust and confidence to encourage stakeholders to share potentially sensitive information through the system.



Continual Improvement of SMS

As a safety regulator, CAAS places strong emphasis on the effectiveness of SMS as implemented by its approved aviation organisations. For example, an effective SMS would provide evidence of a positive organisational culture that promotes good safety management policies and practices from the boardroom to operations. Other crucial evidence would include the demonstration of safety leadership when organisations weigh safety priorities over operational or commercial considerations, against the backdrop of business and competitive challenges.

As an organisation's SMS matures, CAAS seeks to support continual improvement by assessing the maturity of each SMS element and offering recommendations for improvement. To this end, CAAS adopts a methodology which sets out expectations for each SMS element. Based on ICAO's guidance materials and industry best practices, this methodology serves as a guide in CAAS' assessment of the maturity level of each element.

As a goal, organisations with a fully operating SMS would have SMS principles permeating through all their functions so that operations can be carried out smoothly and safely. Most significantly, CAAS hopes that a mature SMS encourages and empowers airside workers to strengthen their safety mindset, which in turn translates to safe actions and behaviour on the ground.



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