

PROGRESSING AVIATION @ WORK

As the world considers solutions for safer, more efficient and greener air transport, Singapore's participation in various forward-looking agendas is driving and contributing to progressing aviation.

Three key issues stand out in the aviation sector as air transport continues to grow across the globe today: Streamlining operations, ensuring flight safety and mitigating climate change. By pooling resources and exchanging valuable information and expertise, countries can make a concerted effort for a more sustainable aviation sector.

While Singapore's active participation in the work of the International Civil Aviation Organization (ICAO) has since given the country a reputation as a role model for aviation safety and efficiency, it understands the need to carry on contributing to the global aviation community. In fact, the country continues to break new ground on pertinent aviation causes through the Civil Aviation Authority of Singapore's (CAAS) contributions in various international and regional aviation platforms.

GREENER SKIES WITH ASPIRE



Ng Tee Chiou, Director (Air Traffic Services),
CAAS

As global warming and climate change are changing the way we live, cutting down carbon emissions becomes an important global effort. The aviation industry has pitched in to do its share, continuing to look for ways to lower carbon emissions and promote greener aviation practices, even if it is known to be responsible for only two per cent of total carbon emissions – approximately 600-700 million tonnes is emitted annually.

In doing its part for the environment, CAAS has joined the Asia and Pacific Initiative to Reduce Emissions (ASPIRE). ASPIRE aims to reduce aviation carbon emissions by saving on global fuel usage through accelerating the development and implementation of air traffic management (ATM) procedures, capitalising on technologies and best practices, and facilitating ATM harmonisation on key Asia Pacific routes. Under this initiative, governments, air navigation service providers (ANSPs) and airlines work closely together to implement these environmentally-friendly practices. Established in 2008, there are currently four other partners

in ASPIRE: the Federal Aviation Administration, Airservices Australia, Airways New Zealand and Japan Civil Aviation Bureau.

Within ASPIRE, CAAS is currently working on a number of green initiatives, one of which involves conducting eco-friendly flight demonstrations using best practice procedures to promote gate-to-gate fuel savings and emission reductions. In the first ASPIRE multi-stop demonstration flight, Singapore Airlines flight SQ11 flew from Los Angeles to Singapore via Tokyo capitalising on industry best practices.

Ng Tee Chiou, Director (Air Traffic Service), CAAS, explained the processes involved in the green demonstration. “For the purpose of this exercise, the flight was given priority clearance from air traffic control and the shortest route from the parking bay to the runway; and was allowed to take off without speed or aircraft level restrictions. Close communication between the pilot and respective air traffic control officers (ATCOs) ensured that it could use the prevailing wind patterns to adjust its flight path and shorten flight time to achieve greater flight efficiency,” he said. The results were encouraging: flight time was reduced by 30 minutes, 10,686 kg of fuel was saved and carbon emissions were cut by 33,769 kg.

PROMOTING HARMONISATION WITH CANSO



The establishment of the Civil Air Navigation Services Organisation’s (CANSO) Asia Pacific Office in Singapore in 2008 was a significant milestone as it marked not only the beginning of CANSO’s engagement in the Asia Pacific region, but also Singapore’s role as the regional headquarters of the global association of Air Navigation Service Providers (ANSPs).

CANSO represents the interests of its ANSP members on the international stage and works closely with its members to improve the safety and efficiency of air navigation services. “ICAO is about regulatory compliance or what needs to be done, whereas CANSO as the global organisation of ANSPs is about implementation of industry best practices to achieve

compliance, that is, how to implement what needs to be done,” explained Chiang Hai Eng, Director Asia Pacific Affairs, CANSO. The CANSO Asia Pacific Office started off in 2008 with the organisation of an annual high level ANSP conference to facilitate the exchange of information and to provide a platform for collaboration among regional ANSP leaders. In addition, it is working with IATA to promote the use of a new surveillance technology (ADS-B) in the region, which will significantly improve airspace capacity and flight efficiency.

Chiang also touched on CAAS' involvement with this international organisation. As a member of CANSO, CAAS participates actively in CANSO's committees and work groups, which perform an important role in "harmonising practices among ANSPs and delivering practical solutions to common problems." He added that the key objective here is really working together and improving together in support of the global aviation system.

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"CAAS' support of CANSO globally and in the region demonstrates CAAS' clear understanding of the interdependent nature of ATM. In a world where flights cross international boundaries all the time, safety and efficiency can only be achieved if ANSPs work together for the common good. As air traffic continues to grow in this region, collaborating among neighbouring ANSPs will become even more crucial," explained Chiang.

FLY SAFELY WITH COSCAP-SEA

With recent emergencies such as the Icelandic volcanic eruption and how the massive amount of ash released grounded flights worldwide, safety and the ability to react to such urgent situations continue to be aviation's top priority. To help enhance flight safety in the region, CAAS joined the Cooperative Development of Operational Safety and Continuing Airworthiness Programme-South-East Asia (COSCAP-SEA) in 2001.

The organisation, which comprises 13 states namely Singapore, Brunei, Cambodia, Hong Kong China, Indonesia, Lao PDR, Macau China, Malaysia, Myanmar, Philippines, Thailand, Timor Leste and Vietnam, will see Singapore take the chair in 2012.

According to Lawrence Lau, Deputy Head Airworthiness Engineering (Aircraft), CAAS' active support of COSCAP-SEA with regard to the shaping of aviation policies and standards is in line with the country's own aims to enhance regional safety capabilities. CAAS has committed to participate in COSCAP-SEA Phase II, which focuses on resolving safety deficiencies and accident prevention, by contributing US\$45,000 annually. Of this, US\$20,000 may be in the form of "contribution-in-kind", such as secondment of CAAS personnel to help in COSCAP-SEA programmes which include on-site training and audits. In addition, fellowships are offered to ICAO developing states and COSCAP members for selected Singapore Aviation Academy (SAA) safety-related training programmes.

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Lau believes that the collaborative arrangement with COSCAP-SEA allows Singapore to contribute to this useful platform by sharing its experience and expertise in the area of safety oversight as COSCAP-SEA continues to look towards CAAS to provide technical assistance

under the programme. Besides building Singapore's ties with fellow COSCAP-SEA members, participating in COSCAP-SEA initiatives also provides international exposure for the country's technical experts.

"Singapore is a city that connects the world and aviation safety is very important. As a responsible member of the international aviation community, we have an important role to play in aviation safety in the region. COSCAP-SEA provides a platform where Singapore and other members can share and learn from one another in enhancing aviation safety," says Lau. This is especially important as Singapore continues to grow as a global air hub. Adds Lau: "Many aircraft fly in and out of Singapore. It requires everyone's efforts to ensure that aviation safety is maintained at a high level and air transport continues to operate safely in the region."