**ISSUE 7**

# KEEPING IN TOP FORM

**Sharpening the skills of the air traffic control officers (ATCOs) is an essential on-going process. The Civil Aviation Authority of Singapore (CAAS) takes a holistic development approach in ensuring that all its ATCOs can cope with the ever-changing air traffic management landscape.**

Singapore's reputation for safe skies is predicated on creating a comprehensive system of regulations, operational guidelines, technology and human expertise. A big part of this reputation rests on the shoulders of ATCOs, who are trained to think and operate on their feet. With the dynamic environment that the ATCOs operate in, CAAS ensures that ATCOs remain well-informed and strengthen their competency through different platforms.

## HAZARDS IDENTIFICATION

Hazards identification is an acquired skill as an ATCO. "Sometimes people don't realise that an everyday thing is already a hazard. For instance, you know that there's a knife in the drawer and that it is a dangerous weapon. You know it's there, and you know how to avoid it subconsciously as you open the drawer daily. However, all it takes is one oversight for a serious accident to occur. This is the same in air traffic control. Recognising the hazards, building a database of them and then sharing it creates an open awareness of potential threats and in doing so, is the first step towards building a safer operational environment." explained Ng Tee Chiou, Director (Air Traffic Services) at CAAS.

This information database is also shared among various groups through training. "We do true assessment awareness where various aspects such as best practices and hazard reporting are discussed." noted Ng.

## TREND ANALYSIS

A trend analysis is conducted at different times against variables like weather conditions as well as types and frequency of abnormal aircraft occurrences. "During operations, we take note of instances when an aircraft pulls back or goes round because they couldn't see the runway for landing under certain weather conditions. Such information is then shared with other ATCOs to alert them to the possibility of such occurrences." explained Ng. This data then becomes safety alerts that are circulated among ATCOs and pertinent personnel who may need the information to perform their duties and to ensure that mistakes are not repeated. "Safety is our business and the only way we can strengthen this is if we have a work

environment that welcomes information sharing," said Ng. This two-punch system of identifying and reporting hazards as well as charting abnormal occurrences keeps ATCOs prepared at all times especially at critical situations.

**COMPETENCY DEVELOPMENT**

Competency development at CAAS involves both advanced training in high-tech information systems and instruments as well as constant contact with various groups and learning from their experiences. All too often, ATCOs are called upon to make split-second decisions, which require a training system that emphasises independent thinking and initiative.

"ATCOs have a saying," Ng said. "You better not have a Plan B, but a Plan C. And not just a Plan C, but a Plan D. This essentially means that we have contingency plans within contingency plans." In the heat of the situation, ATCOs are trained to deal with the problem in record time. "For ATCOs, problem-solving becomes second nature." In addition, CAAS' team of ATCOs are well-trained to ensure that aircraft can land and depart safely at all hours of the day or night. They also need to be adept at airspace planning and search and rescue. Such specialised skills take years to develop.

"In the old days, it took us 10 years to train an ATCO — that's longer than it takes to train a doctor," said Ng. "While we have more specialised programmes for ATCOs today, the old guard has something the young people don't have and that is valuable experience, which we share through direct contact." This 'mentorship' is complemented by a culture of hazard reporting.

"In some countries, ATCOs won't report errors for fear of getting fired and the information would be lost," Ng said. "CAAS has created an environment where, if an error was made, then corrected, we encourage that it be reported so others can learn from it." Such experiential learning combined with formal training results in a comprehensive education that allows new ATCOs to hit the ground running.