

MISSION-SPECIFIC TRAINING Is Critical to Safety

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Training is key both to mission success and safe aircraft operations. But when we think about training, we often think only of the student pilot establishing a foundation of solid skills. The next step is training for your specific make and model—not to mention the technology that comes along with the aircraft and the missions it allows crews to complete.

Recurrent training to stay proficient in aircraft is normally done on an annual basis. The step sometimes overlooked is mission-specific training, which is critical for safety and the successful outcome of any operation.

As airborne public safety units continue to evolve, so do the aircraft used to do the job. Complex technology is changing our

aerial platforms and increasing our need for training.

We are firmly established in an era of technology. We think nothing of purchasing the latest smartphone or tablet and engrossing ourselves in hours of entertainment and networking. New aircraft are not simply flying machines, they are smart machines—smart machines that require an advanced skillset to operate successfully and safely. Unlike the other high-tech devices to which we have become accustomed (if not addicted), high-tech aircraft systems cannot be learned in the leisure of the home or office.

Public safety missions have evolved with the new technology and equipment. Using modern tools in relation to a specific aircraft

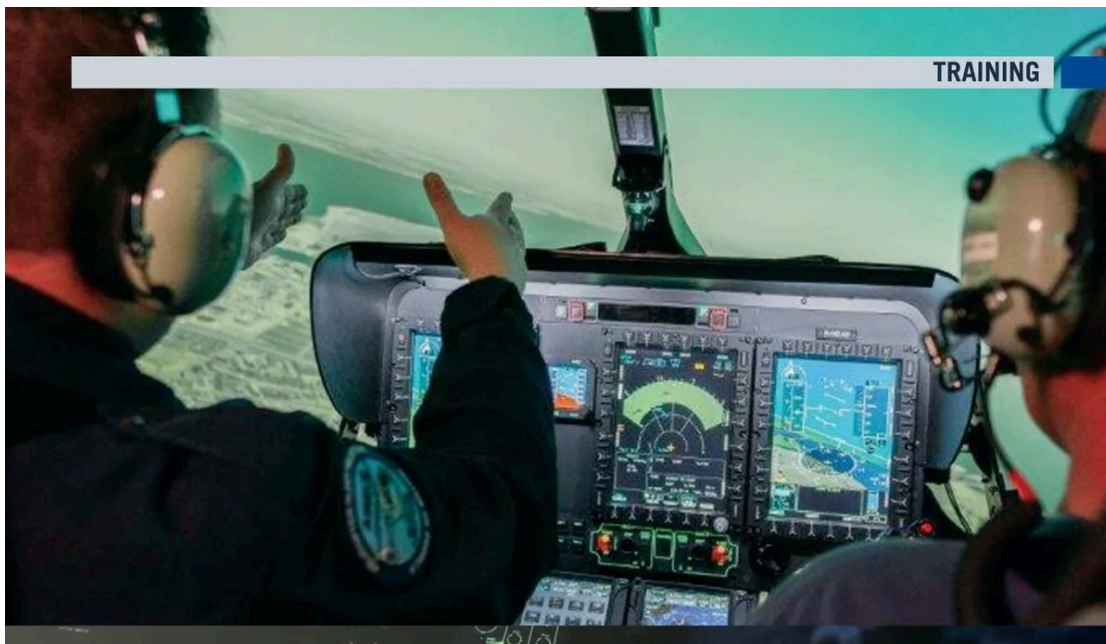
to the point where one is proficient requires a deep understanding of the technology deployed. Training and practice in mission-specific applications improve both proficiency and the teamwork required to accomplish the task.

The skills we learn as student pilots can take us through our entire career; however, many skills are perishable and must be refreshed on a regular basis. The need for refreshing some skills, such as instrument proficiency, has been widely recognized across aviation sectors for many years. Almost no other skill has been acknowledged as being perishable in the same way. But it is important to note that any skill not practiced on a regular basis is perishable over time. Additional examples of perishable skills include autorotation, hoist operation, night vision, use of advanced avionics, and flight into confined areas. Recurrent training, to be effective, should include all the perishable skills that may be needed for an operation.

Public safety aviators have numerous tools with which to accomplish their recurrent training goals. Aircraft manufacturers offer training on their specific models. And some professional training centers offer mission-specific, scenario-based training using simulators.

Simulation is playing an increasingly important role in providing the optimal envi-





ronment for learning and maintaining the skills necessary for flying demanding operations in complex aircraft. Scenario-based training puts aviators in the middle of the same missions they perform and in the exact location where they will perform them. Training for a specific type of operation in a variety of weather conditions and environments further prepares pilots to handle almost all the situations they might encounter.

In the last few years, simulation has become more widely available and is currently in use not only by manufacturers and large training providers, but also by many of the most successful aircraft operators. In the U.S., the National Transportation Safety Board issued a safety alert, SA031, stating definitively: "Use of simulators can prepare helicopter pilots for emergencies and prevent accidents." The value of simulators is now also widely recognized in Europe, Canada and Brazil.

Some professional training companies also offer mission-specific training directly in their students' aircraft. They provide training that focuses on proficiency in the aircraft, as well as flying in challenging environments like mountainous terrain and using operational equipment like hoists.

The many training options now available to public safety aviators not only help pilots develop the necessary skills to be proficient in their aircraft, but they

also make them proficient in their operations. Some training providers focus on certain mission types, such as hoist operations, or equipment, including night vision goggles and thermal imaging. Finding the correct provider for your needs is critical to your team's safety.

We are all aware that classroom presentations provide the ground school necessary to understand aircraft systems. In addition to the basics, classroom programs can offer an in-depth knowledge of specific operations. The programs draw on the history of the missions and experiences of aircrews to provide a full perspective of the potential challenges faced in both day-to-day operations and emergencies. Scenarios and case studies bring a realistic focus to mitigating potential hazards, and situational programs provide reinforcement to the skills acquired in training. They are also important to non-flying crewmembers.

Effective training and safety courses and presentations are available from multiple sources. APSA offers many such training options, including at the association's annual conference (APSCON / APSCON *Unmanned*, to be held in July this year in Houston, TX). Vertical Aviation International (formerly Helicopter Association International) offers training options at its own annual convention. The U.S. Helicopter Safety Team offers quarterly webinars on the latest safety chal-

lenges and mitigation techniques. In Europe, beneficial conferences include European Rotors, HeliOffshore and PAVCon. APSA supports and participates in some of these organizations' events.

Along with enjoying modern technology and training techniques, the aviation industry must also now set a higher standard for training its pilots and crewmembers. The same is true for our maintenance personnel. Maintenance technicians must work on the same smart flying machines that crewmembers operate, and they must do more technology-based maintenance on sophisticated equipment and tools than ever before. Airframe and engine manufacturers have enhanced their training and, in partnership with industry, are providing increasing numbers of model-specific courses.

Every airborne public safety unit must recognize its own individual training needs with respect to its required level of proficiency, the environment in which the unit flies, its specific missions, and the complexity of its aircraft. Training ensures that both crewmembers and mechanics are prepared to handle whatever situation they might encounter in the rotorcraft environment. It is the fuel that will drive the future success of our industry. ▾