

Investment by airlines in voluntary structural changes over the past few years has ratcheted up the knowledge, skills and self-confidence of tens of thousands of cabin safety professionals, several airline and regulatory specialists said in April. They told sessions of the World Aviation Training Conference and Tradeshow (WATS 2012) in Orlando, Florida, U.S., that a high priority has been crewmember competence that would last between training events.

The International Civil Aviation Organization (ICAO) has stepped up its involvement in cabin safety issues, compared with recent years, and has a significant amount of relevant guidance material in development, said Martin Maurino, safety and efficiency support

officer, ICAO. “Our main focus right now is developing competency-based cabin crew training,” he said, briefing WATS 2012 attendees on the latest draft. “Competency refers to a combination of skills, knowledge and attitudes to perform a task according to a standard.”

ICAO’s current guidance manual — Doc 7192, Part E-1, *Cabin Attendants’ Safety Training* — dates from January 1996, he said. “Our overarching initiative will raise awareness internationally about the importance of cabin crew safety training, and then, in the actual material, we want to provide detailed guidance,” Maurino said. “We’re developing the framework for cabin crew competencies and rewriting this manual to fit that framework. We would like to see

[ICAO’s] baseline competencies set the bar internationally. We’re not going to dictate the aircraft-specific procedures; it will be up to each operator to prove to their civil aviation authority that their crews are competent. ... Today’s cabin crewmember’s role is everyday safety, not just responding when things go horribly wrong. Cabin crews are there to prevent accidents and incidents.”

### Advanced Qualification

In the United States, the Federal Aviation Administration (FAA) offers airlines the option to voluntarily participate in its advanced qualification program (AQP) for flight attendant training in place of conventional training, said Doug Farrow, FAA AQP program

In scenario-based training to proficiency, airlines burnish flight attendants’ skills as risk managers.

# GUARANTEED COMPETENCE

BY WAYNE ROSENKRANS | FROM ORLANDO



manager, and Maria Teresa Cook, in-flight training AQP manager for United Airlines. There are now 45 AQP programs for flight attendants and pilots at about 30 U.S. airlines.

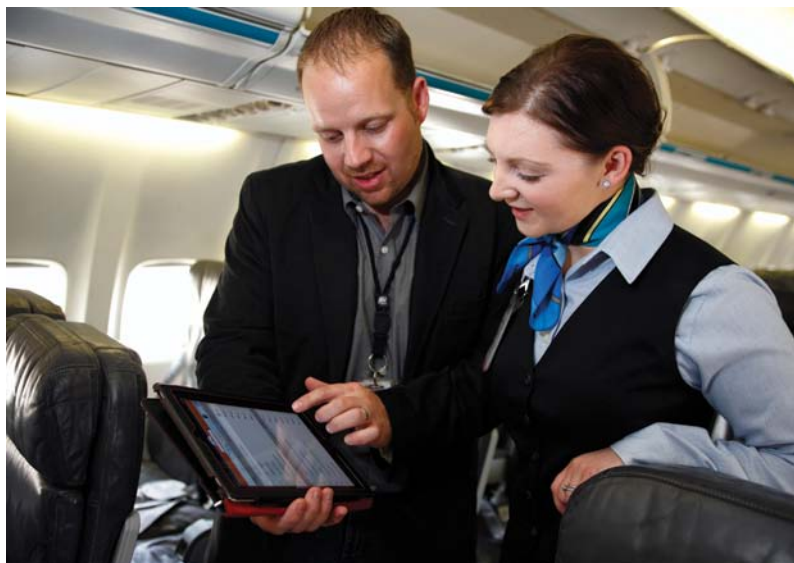
Farrow and Cook cited the United Airlines and Continental Airlines merger. “Subsidiary United flight attendants had to undergo regulatory training prior to being able to serve as crewmembers on the Continental [air operator] certificate,” Cook said. “The problem was that traditional regulatory requirements provide little allowance for flight attendants’ previous experience.” AQP contains provisions for the analysis of entry-level workforce qualifications that consider demographic information, including past experience.

Because these companies had no immediate plans for United flight attendants to begin flying on Continental aircraft, there was “a perfect opportunity to utilize AQP,” Cook said. “AQP really allows customization and innovation ... training that is particular to the work group and to the needs of workers ... already qualified on more than one aircraft type.”

AQP quickly has become the “new normal” for both pilots and flight attendants, the FAA’s Farrow said. “About 75 percent of [U.S. flight attendants] are either training under AQP now in their recurrent courses or [their airlines] are in the application process and will use AQP training relatively soon,” he said. Operational data will tell the FAA if the airlines have targeted the training at the areas of highest risk.

### Training Per Audits

Even after exercising great care in designing conventional or AQP-based training, actual line operations periodically reveal performance shortcomings, said Kris Hutchings, manager in-flight safety, WestJet. “In Phase 3 of our SMS in 2007, we developed our cabin operations safety audit program ... a proactive way to identify hazards aboard the aircraft and to look for opportunities for continuous improvement,” Hutchings said. These audits tie into the quality control elements of operational quality assurance, where the focus is safety processes and procedures rather than individual people, he said.



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WestJet performs open audits, closed audits and combinations. Transport Canada reviews the audit results to assess the SMS. Details of the process are available to any company crewmember via the airline’s website. Results now go to the audited aircraft crew about a week after the audit.

Comparison of audit results with safety reports on issues such as door operating errors, errors in oxygen acceptance and handling of dangerous goods also aid the corrective process, he said. “Audit analysis ties into our fatigue risk management program,” Hutchings said. “We had some issues a few years ago with doors being opened in the armed mode [although] we never had an inadvertent slide deployment. ... The majority were happening on single-leg days or one-day pairings, which went against everything we had been thinking. Those flight attendants might not be thinking ahead [as they would for a trip with] four or five legs.”

One WestJet corrective action plan addressed audit results indicating that galley equipment sometimes was not stowed and secured per procedure when not in use, causing injuries (Table 1, p. 44).

### Settling Scores

Emphasis on proving competence during training and maintaining proficiency long after training has made a huge impact on flight operations, said Myrna Andrews, manager in-flight AQP,



WestJets’ Kris Hutchings (top, left) and Angeline Ljungberg, auditor in-flight safety, rely on Apple iPad-based software (below) to consistently capture predefined parameters and narrative observations during in-flight audits.

**Cabin Operations Safety Audit: Securing the Galley**

**Short-Term Corrective Action Plan**

Increase flight attendants’ awareness of why the aircraft galleys must be secured when not in use.

Action	Responsible person	Time for completion
Include this topic in the flight attendant briefing sheet on the flight release.	Manager, in-flight operations	30 days
Engage the onboard operations team and onboard training groups through a monthly meeting to generate online awareness.	Manager, onboard operations	30 days
Issue a safety alert to all flight attendants.	Manager, in-flight safety	30 days

**Long-Term Corrective Action Plan**

Update the 2012 training program to include a re-education element on the importance of securing the galley.

Action for this training program	Responsible person	Time for completion
Add a discussion topic to the third day of the cabin service portion of the program to increase understanding of the term <i>secure</i> and the potential consequences of an unsecured galley.	Manager, cabin services	30 days
Include an evacuation drill scenario with an unsecured galley.	Manager, in-flight instructional design	90 days

**Supplemental actions**

Research video options to depict incidents involving unsecured galleys for the 2013 training program.	Manager, in-flight instructional design	90 days
Develop a poster campaign to increase issue awareness.	Manager, in-flight safety	60 days
Review and amend, as needed, the flight attendant manual sections related to securing the galley.	Manager, in-flight standards and procedures	90 days
Establish a line check procedure to increase accountability and timely feedback about procedural noncompliance.	Director, in-flight operations	180 days

**Note:** The audit and follow-up process includes audit-finding forms showing missed elements, root cause analysis (human factors/organizational factors) and a bi-annual check of effectiveness of the corrective action plans.

Source: Adapted from WestJet

**Table 1**

SkyWest Airlines. Before AQP, the airline was not “really testing the flight attendants’ proficiency level, we were testing their ability to mimic. As a ground instructor, [I would ask myself,] ‘Why am I showing this person how to do this? I will not be on the aircraft if this person needs to do this.’”

Outdated practices sometimes prove to be detrimental to building real competence, some airlines have concluded. “For the test on every drill, we used to give flight attendants a practice

opportunity beforehand,” said Megan Hallenberg, manager in-flight curriculum development, SkyWest Airlines. “We would show them how to do it, let them practice and then do the testing. With AQP [today, before a training session begins,] we want flight attendants to come in and demonstrate their proficiency.”

The airline’s four-point grading scale and associated *reason codes* are essential to data-driven assessment of individuals and programs. “The data help us pinpoint where we need to train,” Andrews added. Grading also accommodates threat and error management. “Maybe the flight attendants made some errors, for example, but they corrected these in a timely manner, or they momentarily deviated from the qualification standard, but they came back to the standard,” she said. Grading now reflects that their skills were clearly effective.

Previously, any deviation from standard practice, even a small error, forced instructor-evaluators to make trainees repeat the drill or event, Hallenberg said. “Today, if they recover, they pass,” she said. “That is a better learning environment for everybody, and it’s making flight attendants more proficient overall.”

**Merging Cabin Expertise**

Integrating cabin crewmembers during the merger of Southwest Airlines and AirTran Airways began by placing a conceptual partition between the two groups, then laying requirements for members of both groups to cross it only under specified conditions. In March, the FAA authorized operation of both airlines under the Southwest air operating certificate.

“One of the issues was new aircraft types: The Boeing 737-800 from the Southwest side being introduced in the AirTran fleet and the 717 being introduced across the partition into the Southwest fleet,” said Larry Parrigin, manager of curriculum and program development, Southwest Airlines. “Extended overwater flights and international operations were something new for Southwest Airlines.”

“The basic operational language also was different ... such as *forward entry door* versus



*L1 door*,” said Paul Kirkley, manager in-flight training, AirTran Airways. Some differences thought to be simple, such as different cabin lighting settings, also took unexpected effort to adopt, he said.

Some issues did not become apparent until the merging of flight attendant manuals. “It will take about 2 1/2 years to get everyone moved over from the AirTran side to the Southwest side,” Kirkley said. So AirTran gradually has been incorporating Southwest material into its manual revision cycle.

For AirTran flight attendants, “we are reducing our initial training program down to the essentials,” Parrigin said. “We are looking at the transition training as an extended recurrent training course for them.” Essentially, procedures for in-flight emergency situations such as fire fighting, cabin decompression and turbulence were found to have relatively few differences. “The major differences are in our [normal] daily operational details,” he said.

One example of a change with safety implications has been the introduction of cart service aboard Southwest 737-800s, which involves specific risks for the cart-inexperienced Southwest flight attendants and different risks for AirTran flight attendants who have extensive cart experience — but not aboard this aircraft type.

In the merger of US Airways and America West, the US Airways SMS had not been implemented fully when the company followed its processes to mitigate anticipated risks of the changes involved, said Stephen Howell, director in-flight services training, US Airways.

An SMS better enables airlines to make hard choices about jettisoning familiar safety procedures while integrating disparate cabin crews. “Airlines can try to [either subjectively select] or to dig

very deeply from a [safety] data perspective to determine which procedures would be most effective, and would be able to help to successfully merge operations,” Howell said. “Once we establish which policies and procedures to choose, we have to mitigate the risks associated with them. For example, [proposing] carts on the 737-800 [implies willingness to] mitigate the risks of doing so.”

US Airways SMS processes were applied, for example, prior to the decision to introduce a red strap aboard the company’s Airbus fleet as a visual deterrent to flight attendants who might inadvertently grab the door control handle instead of the arming lever, which is in close proximity. In 2011, after this initiative was put in place, only one of eight inadvertent slide deployments occurred aboard this Airbus fleet, and that event involved an overwing exit, not a main cabin door.

### Grab Your Flashlight

The flexibility of AQP also enhanced safety during the Delta Air Lines–Northwest Airlines merger, said Michelle Farkas, general manager, advanced qualification program, Delta Air Lines. She credits AQP for the new opportunity to divide associated training into separate parts called *integration qualification* and *aircraft qualification*. On May 1, 20,000 flight attendants from both pre-merger airlines were scheduled to begin flying together under one set of work rules.

Techniques to smooth this integration included gap analysis and reverse gap analysis in comparing all cabin safety policies and procedures, and an “adopt-and-go” methodology of choosing, wherever safe and feasible, either an entire Delta procedure or an entire Northwest procedure instead of creating hybrid procedures.

One challenging hybrid procedure emerged from a disconnect between the two flight attendant groups. “The pre-merger Delta philosophy was that, when it is time to conduct an evacuation, [and after activating] the emergency light switch, automatically grab your flashlight,” Farkas said. “The pre-merger Northwest philosophy was ‘Be situationally aware — that is, if you need the flashlight, grab it and go.’” This difference became apparent in an AQP data analysis showing an unusually large percentage of procedural deviation codes among pre-merger Northwest flight attendants when they performed evacuation drills.

“So things taught in initial training are not so obvious when conducting a merger,” Farkas recalled. “During our merger, we were looking at current policies and procedures [focusing on issues such as cabin] door and window operations,” she said. During the ensuing debate over flashlights, mini-evacuation demonstrations were conducted on three Northwest aircraft types — before their transfer to the Delta air operating certificate — and the Delta cabin safety specialists noted how retrieving flashlights could consume seconds of the nominal 15-second timeframe to open 50 percent of the floor-level exits and have 50 percent of the exit slides ready for use, especially when deploying the upper deck slide of a 747.

Policy, procedures and training specialists from Delta, the FAA and Northwest concurred on a policy basing flashlight retrieval on situational awareness, but with no one penalized during performance demonstrations either for automatically grabbing the flashlight or for not grabbing the flashlight. ➔

To read an enhanced version of this story, go to [flightsafety.org/aerosafety-world-magazine/may-2012/wats2012-cabin](http://flightsafety.org/aerosafety-world-magazine/may-2012/wats2012-cabin).