

# CROSSING Boundaries



**M**y particular safety preoccupation these days is with that special type of human error that flows freely through the remaining gaps in our system. We have done a pretty good job trapping errors, but in a couple of places we are going to have to step up our game.

Recently, Flight Safety Foundation brought airlines, pilots, manufacturers, air traffic control (ATC) organizations, regulators and airports together for a runway safety health check (*ASW*, 3/07, p. 5). The resulting discussions made it clear that plenty of the old gaps are being filled. On runway incursions, cross-cutting runway safety action teams are being organized around the world, and so many training aids are being produced that we could hardly list them all. Things are also positive in the area of runway confusion, where the U.S. Commercial Aviation Safety Team is helping airports, ATC and pilots work together to avoid this dangerous trap.

But what is really surprising is the state of play in the age-old problem of runway excursions. These events have always accounted for a large percentage of commercial jet accidents. Everybody can help avoid this type of accident but, so far, everybody has been playing his or her role pretty much in isolation. The end result is that pilots don't get a lot of help figuring out if they can stop on the runway or not, so sometimes they don't. The good news is that with everybody now aware of this problem, we should be able to come up with an end-to-end solution.

It isn't just the old gaps we have to worry about. Lots of long-awaited ATC technologies finally are being implemented. As beneficial as

these technologies are, they can lead to new human errors and new consequences. For example, improved navigational capabilities that reduce the chance of collision due to random navigation errors can increase the risk of a collision when a human error occurs. This difficult problem looks very different, depending on which side of the microphone you are sitting on, and clearly must be mitigated end-to-end. We had better get it right because the situation will get even more complicated as we start dealing with things like automatic dependent surveillance-broadcast, airborne separation and so on.

There is hope. U.K.'s National Air Traffic Services (NATS) has shown us how to reach across an old divide to mitigate human error. They put in place systems using the Mode S transponder to tell them if a pilot has selected an altitude other than what the controller expects. NATS has spent a lot of time and money putting a system in place that helps trap an error they wouldn't even be blamed for. They didn't do it because it was their job but because it was the best way to reduce the risk of an accident. If we all follow this example, reaching across boundaries to stop human error, we can look forward to a positive and exciting future.

A large, white, handwritten signature of William R. Voss, written in a cursive style.

*William R. Voss  
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