More than a century into the age of flight, we have learned a lot about aviation safety. Not only have we learned about things to do and not to do, we’ve also discovered a great deal about extracting valuable lessons from the accidents that still occasionally occur. And as the art of flying has developed and matured, lessons learned are compiled in that big book of “How Things Are Done,” or not done, if you will.

Aviation professionals are by nature a conservative lot, prone to sticking to a successful course of action until overwhelming proof is presented in favor of a different course. It is hard to argue with success, and the vast majority of aviation practices and assumptions are inarguably successful. Therefore, with each passing day it becomes more difficult to set aside what works in favor of what might work better.

In this issue of Aviation Safety World we present new ways to look at fatigue that go beyond mere hours flown or hours served, the new philosophy addressing other elements that factor into mental fatigue. Breaking another barrier, the story also questions whether considerations of fatigue should be expanded beyond the groups currently having some degree of fatigue protection — usually pilots and air traffic controllers — to include other system participants.

Pilots are certain to welcome this new look at fatigue, having argued for years that even when regulatory mandates for hours of work, duty and rest are strictly followed, there are still times when they feel brain-dead at inopportune moments. Operators, however, diligently enforcing work and duty-time limits set through decades of experience and negotiation with workers on one side and national regulators on the other, likely will need more convincing. This is how it should be; new ideas should not become part of the fabric of aviation without first the exercise of rigorous diligence in seeking validation.

The idea of extending the discussion of fatigue-related limits to new groups of aviation system participants so far has not been embraced. Although this topic is still early in the discussion process, I expected more of a response than the simple “no” I received this summer when I asked the top two officials from the European Aviation Safety Agency if, having just adopted work rules for those who fly the aircraft, EASA staff was considering such a package for those who maintain the aircraft.

There has been dramatic change in the use of the expression “pilot error,” seen as a sole causal factor much less frequently than several decades ago, when it was applied to numerous accidents without the “but why?” sort of questions that are asked today, drilling deeper in the causal search process. However, our current understanding of pilot error may not push the inquiry far enough, as a story being prepared for an upcoming issue of this publication will discuss, once again challenging long-held beliefs with a new vision.

We must allow ourselves, finally, to become persuaded by new ideas, if for no other reason than to adjust to changing circumstances and new technology. But our willingness to accept new views of the accident process and improve our ability to affect the elements in the chain of events leading to an accident must not get bogged down in satisfaction with our current state of success.