

## Departures

### Opinions On Current Issues In Aviation

# Someday Soon Billions Of Passengers Will Want To Fly Again; Is The Aviation Industry Ready?

RODNEY SLATER AND GREGG LEONE

#### The vaccines have given us back the power of “someday soon.”

“Someday soon we will be able to eat in our favorite restaurant.” “Someday soon we will be able to go back to the gym.” “Someday soon we will be able to travel again.”

Someday soon, the four billion passengers worldwide who flew in 2019 presumably will want to fly again.

Now is the time for the aviation industry to think ahead—not only about the transition out of the pandemic, but other challenges to safety and resilience, such as cybersecurity risks exposed by the recent cyber hack of hundreds of organizations and federal agencies, or the tragic commercial airline crash in South Asia in January.

Currently, President Biden is predicting all Americans can get the COVID-19 vaccine by August. As the backbone of the global economy, a safe and resilient aviation system is essential to stability and growth in the U.S. and around the world. The groundwork for safety and resilience in the aviation system was laid on Dec. 7, 1944, when 52 nations came together to establish a new and growing form of transportation: commercial aviation. Established in 1947, ICAO has been the leading organization setting technical standards and recommended practices for the aviation industry worldwide for more than 70 years and now represents 193 nations.

Safety has always been the cornerstone of the aviation industry, and ICAO and its member states have led the way on standards and technology to make aviation one of the safest modes of transportation in the world. However, achieving the next level of safety will require addressing three key issues: (a) closing the safety gap between countries, (b) developing a framework that includes global health standards to protect passengers and facilitate recovery from the current and future pandemics, and (c) to improve safety as our commercial fleet grows in diversity and numbers.

Several key focus areas need to be pursued together. One is the continued promotion of “just culture” approaches, wherein the broader aviation stakeholder community can be leveraged to reach deeper understanding of incidents. Another is enabling an environment that leverages information and technological advances to incorporate global aviation data—into collaborative, non-punitive research environments. Yet another is the application of artificial intelligence and machine learning to provide faster insights into safety issues on a global scale.

The trajectory of future safety takes us to a place where sharing “what went right” is equally, if not more, important as understanding

what went wrong. To do so, a strong information-sharing bridge needs to be defined that joins a diverse community beyond aviation stakeholders to include groups like domain experts, public officials, commercial laboratories, and research networks.

As is the case with passenger safety, it is vital that the aviation system be able to withstand security threats. Like other industries, aviation is being transformed by an information technology and communication revolution.

#### “The time for implementing the next level of safety and resilience is now.”

—Rodney Slater and Gregg Leone

Air traffic control (ATC) and flight operations centers (FOC) now exchange large volumes of information with one another and with aircraft. Modern commercial aircraft generate up to 10 terabytes of data on each flight that is exchanged with ATC, FOCs and airframe/engine manufacturers. In doing so, the global aviation system is increasingly exposed to the cybersecurity risks that confront other industries. As a result, the safety and efficiency risks to the entire system due to an interruption of this information flow are increasing.

To maintain a safe, secure, efficient and prosperous aviation system, ICAO and the global aviation community must maximize their awareness of current and emerging threats through rigorous data collection and sharing; identify gaps in existing threat management frameworks and develop and implement appropriate solutions to close them; and ensure resilience against expected and unexpected threats through dynamic and adaptive measures.

As it has over the last 70 years, ICAO can play a leading role in building the required trust across industry stakeholders and convening nation states to develop and implement standards and recommend practices. As a global leader in safety and resilience, the U.S. can and should provide expertise. The time for implementing the next level of safety and resilience is now—and ICAO is the right organization to take the lead.

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