



Nicholas E. Calio
President and CEO

June 17, 2022

Billy Nolen
Acting Administrator
Federal Aviation Administration
800 Independence Ave., SW
Washington, D.C. 20591

Dear Acting Administrator Nolen,

Your letter of June 14th admonishing stakeholders to act with haste to install radio frequency filters in radio altimeters throughout the fleet has been received by our member airlines and, as you know, picked up by social media. We have serious concerns that the Federal Aviation Administration (FAA) has placed the burden on the aviation industry to act in a way that would previously be considered, by the FAA itself, to be reckless in the context of design changes to safety-critical avionics.

We remind the FAA that the 5G vs. Radio Altimeter issue has arisen from a stark lack of critical cooperation, information sharing and development of interagency consensus on appropriate limitations leading up to the 2021 spectrum auction. That auction awarded the 5G providers with access at radio frequencies up to a 220 MHz buffer from the Radio Altimeter band, at such high power that significant bleed-over to the radio altimeter band is inevitable. It has been widely reported that the Federal Communications Commission (FCC) engineers disagree. Clearly, the FAA does believe in this threat.

Airlines always hold safety as their paramount and uncompromising standard, and service to the public as their mission. Both are jeopardized by the rushed approach to avionics modifications amid pressure from the telecommunications companies as described in your letter. Further schedule acceleration as outlined by the FAA in the Roundtable meeting earlier today reinforces our concern. Radio altimeters are a critical system for navigation in the low-altitude airport environment. As the FAA has recognized through a series of model-specific Airworthiness Directives (AD), other critical systems directly affecting controllability depend on radio altimetry for precise information.

Although serious efforts are clearly underway to accede to the demands of the telecommunications companies which you noted, it is imperative to remember that changes affecting avionics performance have always relied upon well-considered industry consensus standards, exhaustive testing and critical FAA certification oversight, often measured in years. Safety-critical systems demand a level of reliability on the order of one-in-a-billion chance of fatal outcomes. This precision has led directly to the extraordinary safety record of commercial aviation. Any compromise in this area demands careful consideration and rejection of haste.

At today's FAA roundtable we were told that the vast majority of our fleet (approximately 4800 aircraft) would need to be retrofitted by July 2023. Given that the FAA has not even approved

solutions nor have manufacturers manufactured these products for most of this fleet, it is not at all clear that carriers can meet what appears to be an arbitrary deadline. Should the telecommunications companies raise the bar before aviation entities can responsibly be ready, we know that the FAA will enforce its safety mandate - which we support - and the public will be exposed to further disruptions in airline service. The FAA, FCC, telecommunications companies and airlines will all bear the brunt of the inevitable public outcry, but the culpability is surely unequal amid this failure of intra-governmental cooperation.

We are left with the following questions which beg for fulsome answers:

1. What assurances can you give that the necessary time will be allowed for realistic (but urgent) schedules for Radio Altimeter resilience to be achieved through retrofits and upgrades before deploying in currently protected areas?
2. What are the telecommunications companies' specific plans for deployment that will degrade the current status quo? Power level increases? Additional locations at risk?
3. On what schedule does the FAA intend to roll out a replacement or a new national AD regarding 5G that will assume C-Band 5G is in the proximity of all airports - as mentioned in the roundtable discussions - replacing the notice to air mission (NOTAM)/alternative method of compliance (AMOC) system currently in place?
4. When will the FAA provide adequate standards or guidance to facilitate high-confidence Radio Altimeter modifications from which compliance can be measured, and durable for the long term? Can they be referenced? How will compliance with a new AD be determined in the absence of immediately available standards, or will the new AD be delayed until standards are complete (in late 2023)?
5. Does the FAA contemplate multiple ADs over time that will escalate requirements and drive a second or even third modification cycle? Given that carriers' current radio altimeters meet all current standards, what responsibility does the federal government have to ensure that retrofits are not required again in three to five years?

We appreciate the work the FAA has done to forestall a July 5th meltdown, but we underscore that the FAA must act responsibly both to its safety mission and accountability for the public good by assuring that unreasonable haste in this situation does not do more harm than good. Airlines, original equipment manufacturers (OEMs) and avionics manufacturers will do their part, but we urge FAA to forcefully advocate for rational 5G deployment schedules.

Sincerely,



Nicholas E. Calio

cc: The Honorable Pete Buttigieg, Secretary US Department of Transportation
The Honorable Polly Trottenberg, Deputy Secretary US Department of Transportation
The Honorable Carol A. Petsonk, Principal Deputy Assistant Secretary for Aviation and International Affairs, US Department of Transportation