

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Amendment of the Commission's Rules to Promote Aviation Safety*, WT Docket No. 19-140; *WiMAX Forum Petition to Adopt Service Rules for the Aeronautical Mobile Airport Communications System (AeroMACS)*, RM-11793; *Petition of Sierra Nevada Corporation for Amendment of the Commission's Rules to Allow for Enhanced Flight Vision System Radar under Part 87*, RM-11799; *Petition of Aviation Spectrum Resources, Inc. for Amendment of Sections 87.173(b) and 87.263(a) of the FCC's Rules to Allow Use of the Lower 136 MHz Band by Aeronautical Enroute Stations*, RM-11818; *Petition of Airports Council International-North America Regarding Aeronautical Utility Mobile Stations*, RM-11832

The legend of Amelia Earhart still captivates. She was responsible for so many aviation firsts. She was the first woman to fly solo across the Atlantic Ocean and the first person to fly solo from the Hawaiian Islands to the continental United States. But despite all this, she is best known for how she disappeared—while on a record-setting flight circumnavigating the globe, she vanished over the Pacific Ocean. The wreckage from her plane was never found.

There's something haunting about flights that disappear and there is something very human about our desire to do something about it. But that urge is not limited to the legend of Amelia Earhart, it burns with every new report of a downed plane. Like ten years ago, when an Air France flight was lost in the Atlantic Ocean or five years ago when Malaysia Airlines Flight 370 disappeared or more recently, when an Indian Air Force plane was lost for good somewhere over the Bay of Bengal.

In our always-on and connected world it seems impossible that we still lose track of flights. But the reality is that over international waters, air traffic controllers have no real-time knowledge of where planes are located. Instead, they rely on flight plans, radio contact with pilots, and a system called ACARS that provides something like text-message communications between planes and ground stations. But a jet cruising at 500 knots an hour that disappears between 15-minute communications intervals creates a potential search zone of roughly 65,637 miles. That's as big as the state of Florida. That's a lot of territory to cover.

To address this problem, the Federal Aviation Administration mandated that all United States aircraft must use a tracking system called Automatic Dependent Surveillance-Broadcast, or ADS-B. As a result, by 2021, aircraft will broadcast their Global Positioning System location each second. A network of ground stations across the country will collect this information and provide it to air traffic controllers.

This is good—but there is one big problem. Those ground receivers need to be within 172 miles of aircraft to catch any signal. That means flights far out over the ocean are still vulnerable because there is a knowledge gap between the planes and the air traffic controllers they cannot reach.

I think this agency can help—if we get creative. And creativity here comes from above, not below.

Let me explain. In 2015, following the disappearance of Malaysia Airlines Flight 370, countries around the world came together. At the World Radiocommunication Conference, they harmonized the 1087.7-1092.3 MHz band for something called space-based ADS-B. The idea is

simple: when our ground stations drop off, satellites can pick up. New payloads on satellites can be designed to detect ADS-B signals wherever they are broadcast, whether over the ocean or on a mountain range, finally providing continuous tracking of aircraft anywhere on earth. In fact, some companies are already starting to test this idea.

Today's rulemaking features a range of ideas to modernize aviation radio, from allocating spectrum for Enhanced Flight Vision System radar to updating the audible alerts that pilots hear in the cockpit to enabling broadband communications to support airport operations and accommodate next-generation aviation systems. At my request, it now also includes a discussion about the possibilities for space-based ADS-B. I think they're big. So I want to thank my colleagues for agreeing to this discussion. Likewise, I want to thank the Chairman for agreeing to my request to start a proceeding within six months to implement the WRC outcome from 2015. I hope that by doing so we can make mysterious flight disappearances a thing of the past.