**Testimony of Faye Malarkey Black**
**President and CEO**
**Regional Airline Association**

**"Finding the Right Frequency: 5G Deployment and Aviation Safety"**
**House Committee on Transportation and Infrastructure, Subcommittee on Aviation**

**February 3, 2022**

**Overview of Regional Airline Industry and Radio Altimeters**

My name is Faye Malarkey Black. I am the President and CEO of the Regional Airline Association (RAA). Regional airlines play a critical role in the U.S. air transportation system, particularly for smaller communities. The safety of our passengers, crewmembers, and the public is and will remain our top priority. This safety cannot be compromised. RAA appreciates the opportunity to testify before the Committee today and share our experiences with 5G deployment and the impact that it has had on the operation of our aircraft and on small community air service.

RAA represents 17 regional airlines, which operate 44% of the U.S. scheduled passenger departures and directly employ over 65,000 individuals. Regional airlines specialize in operating smaller aircraft that are rightsized for markets with fewer passengers traveling at once. Regional airlines carried about 73 million passengers in 2020 -- reflecting COVID-19 impacts -- and carried a more typical 165 million passengers in 2019. Regional airlines provide more than half of the air service in 30 states and more than 75% of the air service in 15 states. Most importantly, regional airlines offer the only source of scheduled, commercial air service at 66% of U.S. airports. In fact, major airlines directly operate at about 34% of US commercially served airports, while regional airlines operate at 94%. Because major airlines cannot serve smaller airports with larger, mainline aircraft, most partner with regional airlines to reach these customers. The goal of this arrangement is to bring air service connectivity and a seamless, reliable travel experience to passengers in every corner of the country. While regional airlines contribute significantly to civil aviation's overall $1.8 trillion economic footprint, air service at small communities (defined as small and non-hub airports) drove $152 billion in direct economic activity in 2019, supporting over one million jobs and $43 billion in local taxes and wages.

As this Committee knows, Radio Altimeters are critical sensors on board aircraft. This advanced technology enables and enhances numerous different safety and navigation functions throughout all phases of flight. On all types of aircraft, situational awareness of the flight crew is paramount to ensuring safe flight operations, especially flying in busy airspace, close to the ground, or in low visibility scenarios such as Instrument Meteorological Conditions (IMC). The radar altimeter plays a critical role in providing situational awareness in these operating conditions. Not only do radar altimeters provide a displayed indication of height above terrain to the flight crew, but they also form the basis of auditory

altitude callouts during terminal landing procedures. Additionally, on commercial aircraft, the radar altimeter provides input to critical aircraft safety systems including, but not limited to, Traffic Alert and Collision Avoidance Systems (TCAS), Terrain Awareness Warning Systems (TAWS) Airborne Collision Avoidance Systems (ACAS), windshear detection systems, flight control systems and autolanding functions, including auto throttle and ground lift dump and thrust reversers. This usage by a wide variety of systems onboard the aircraft leads to the possibility of specific operational impacts that go beyond a general loss of situational awareness or risk of controlled flight into terrain.

**Background – Radio Altimeter 5G Signal Interference**

This Committee has been relentless in engaging with the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC) and stakeholders in both aviation and telecommunications industry throughout the leadup to the deployment of 2.7-3.98 gigahertz (GHz) frequency band ("5G C - Band) services on January 19, 2022. We are grateful for this engagement, which has certainly helped to drive progress on this complex issue. We also appreciate the engagement of the FAA, along with the Agency's willingness to hear RAA's remaining concerns. RAA was among stakeholders who consistently warned that deployment of 5G technologies must proceed only after resolving clear and well-reasoned concerns that 5G transmissions would pose a threat to the safety and operational integrity of our aviation system, by interfering with radio altimeters.

Unfortunately, the FCC did not ensure sufficient mitigations to the root problems associated with 5G C-band interference and the FAA has concluded that interference with radio altimeters by wireless broadband operations presents an aviation safety hazard near airports. Consequently, the Agency issued an Airworthiness Directive days before the first anticipated rollout, warning that low-visibility operations would be restricted near 5G transmitters to mitigate the safety hazard. The Agency later issued an unprecedented 1,537 Notice to Air Missions (NOTAMs) specific to aerodromes, airspace, and instrument approach procedures. The FAA drew these NOTAMs according to its worst-case expectation of signal interference vulnerability and, accordingly, established a new baseline of vastly restricted operations when visibility drops below the established minimums.

The operational impact of these NOTAMs is extensive. At dozens of U.S. airports impacted by the first-tier rollout of 5G services, NOTAMs restrict operators from performing a vast array of approaches in low-visibility conditions. The primary impact of the NOTAMs serves to limit the use of the radio altimeters when flying instrument approaches in poor weather conditions. However, this is not the only operational impact as radio altimeters feed a wide range of additional, critical aircraft systems. Analysis by the aircraft manufacturers of the restrictions on the use of certain onboard systems has revealed additional landing and takeoff limitations that impact operations. The FAA acknowledges safety may also be upheld through Alternate Methods of Compliance (AMOCs), which the Agency approves when the AMOC provides an acceptable level of safety. Recognizing that some installed radio altimeters might be less impacted by 5G interference, the FAA directed aircraft original equipment manufacturers (OEMs) to submit data showing their radio altimeters are capable of functioning without interference by encroaching 5G signals to gain AMOC approval.

This process of allowing a patchwork of approvals, on a case-by-case basis, to clear some aircraft at some airports, has been tremendously challenging for the entire industry. Airlines face uncertainty over when and what clearances they might get for which aircraft at which airports, if any. The process and outcomes have been particularly troubling for regional airlines, which were initially excluded from consultation on mitigation agreements with the telecommunications industry that would make achieving AMOCs more feasible. Perhaps as a result, the narrow runway safety zones and buffer zone mitigations were not designed to protect the typical regional aircraft altimeter. Tellingly, an earlier agreement between the FAA and FCC focused exclusively on fifty so-called priority airports and ignored most regional airports altogether. When 5G was turned on January 19, most mainline aircraft had received at least partial AMOCs for their safe operation, but no regional OEM AMOCs had been issued at all.

This meant, when 5G went live, regional airlines remained restricted from operating during periods of low visibility at every airport with NOTAMs in place, even as headlines proclaimed the crisis was averted. Throughout the week, FAA continued to triage AMOC approvals according to its view of systemic impact, prioritizing regional airlines and aircraft last among commercial airlines. While the reasoning behind this prioritization may well have been aimed at relieving greater systemic pressure, we urge all stakeholders to consider that mitigating disruption at the aggregate-level does nothing for the tens of millions of passengers left vulnerable. Whether they are traveling for premium health care, to see a loved one, or just trying to get home to their families, passengers experience disruption as individuals and today's ever-changing NOTAMs and AMOCs expose regional airline passengers to more disruption. To this day, the FAA has been able to issue dramatically fewer AMOCs for regional aircraft compared with larger equipment and over half the regional fleet remains prohibited from operating in reduced visibility at dozens of key airports (See Appendix A). In many cases, the specific fleet types excluded from low visibility operations at hub airports operate more than a third of the airport's total departures. Regional airlines provide substantial support for the nation's intricate hub and spoke system; if 5G is allowed to degrade their reliable schedules then the integrity of the entire national air service network will be compromised. Put another way, the specter of "completely avoidable economic calamity" and vast disruption our major airline partners warned against last month remains very much in play for smaller communities who rely on aircraft that remain excluded from key airports in weather.

Two regional jets, the E135/145 (E145) and the E170/175/190 (E175), face particularly pronounced restrictions. The E145, a 50-seat aircraft scheduled for 31,383 departures (4.3% U.S. departures) in January, comprises 14% of the regional jet fleet and has no AMOC approved or pending for any operation that requires radio altimeters. The FAA has issued NOTAMs at 66 such airports used by regional airlines with low visibility approaches at the time of this writing, including 57 of the 189 U.S. airports the E145 serves today (Appendix B). Operating in 46 states, the E145 provides the only source of air service to 26 airports. (Appendix C). The E175 comprises 40% of the regional airline fleet, has a dual class configuration that can seat up to 76 passengers and was scheduled for 108,646 January departures (14.9% U.S. departures). Although this aircraft was granted an AMOC, that AMOC initially excluded 57 of the 69 NOTAM'd airports it serves. Overall, the E175 is used to provide air service to 167

U.S. airports, is used to provide the only source of air service to one airport (Paine Field) and supports more than 30% of the departures at 37 airports (Appendix C).

On Sunday, January 30, the FAA used a revised safety analysis model to issue new NOTAMs and AMOCs associated with current upcoming 5G deployments. Adjustments to the FAA's model brought 21 more airports into the E175 AMOC but left 33 airports excluded and newly excluded two more (JFK, ALB) for a current total of 35 excluded airports. The E145 remains excluded from all airports with NOTAMs. As more 5G towers are turned on and transmission signals are turned up and even as more high-speed internet users impact the signal, we expect even more airports to become excluded. This will almost certainly disadvantage more communities and passengers.

Despite relatively fair weather[1] in the first week of 5G deployment, regional airlines almost immediately experienced delays and cancelations due to weather that would not have restricted operations before the signal interference. Several notable examples occurred in the Pacific Northwest, including one RAA member with a total of 63 5G related cancelations or delays between the January 19 rollout and January 31st. As several members of this Committee can attest, lingering fog is a typical weather pattern in the area. When visibility drops below certain levels[2], no flights may operate. In other cases, the use of radio altimeters guides precision approaches to allow safe landings in certain categories of reduced visibility. Paine Field (PAE) in Everett, Washington, is served exclusively by the E175. Because of the proximity of the 5G tower to the runway, the E175's AMOC at the time did not cover approaches into the main runway. Because this is the runway authorized for low visibility approaches, all flights in and out of the airport were cancelled on Monday, January 24th, shutting down air service to the airport specifically and directly because of the 5G runway restrictions.

I urge this Committee not to view the disruptions in Pacific Northwest as merely pockets of pain and proof of a successful 5G roll out that has minimized disruptions; rather, they should be viewed as indicative of what awaits other parts of the country in the event of bad weather. The reality is that regional airlines operate in both large and small airports throughout the country; making considerable connections through the hubs to serve the spokes. Here are just a few a few examples of larger airports where the regional aircraft without an AMOC at the airport have a significant market presence:

- LGA has no AMOC for the E175. Of 20,293 scheduled flights in January, 7,395 were E175 aircraft equating to 36% (more than 1 of 3 flights).
- EWR has no AMOC for the E175. Of 15,764 scheduled flights in January, 2,853 were E175 aircraft equating to 18% (nearly 1 of 5 flights).
- JFK has no AMOC for the E175 or E145. Of 23,203 scheduled flights in January, 5,701 were E175 aircraft (no E145 ops) equating to 25% (1 in 4 flights).

[1] The extent of 5G cancelations associated with the 1/28-29/22 weather event in the Northeastern U.S. is not yet known.
[2] The FAA denotes qualified U.S. airports and runways for Category I (CAT I), Category II (CAT II) and Category III (CAT III) Instrument Landing System (ILS) operations.

- PHL has no AMOC for the E175 or the E145. Of 8,973 scheduled flights in January, 2,517 were E175 or E145 aircraft equating to 28% (more than 1 in 4 flights).
- RDU has no AMOC for the E175. Of 5,456 scheduled flights in January, 1,911 were E175 aircraft equating to 35% (more than 1 in 3 flights).
- IND has no AMOC for the E175 or the E145. Of 4,102 scheduled flights in January, 1,531 were E175 or E145 aircraft equating to 37%. (More than 1 in 3 flights)
- PDX has no AMOC for the E175. Of 5,039 scheduled flights in January, 822 were E175 aircraft equating to 16%.
- STL has no AMOC for the E175 or E145. Of 6,246 scheduled flights in January, 668 were E175 or E145 equating to 11%.
- MSP has no AMOC for the E175 or E145. Of 11,575 scheduled flights in January, 1,171 were E175 or E145 aircraft equating to 10%.

For smaller markets, where there are fewer total departures and a high percentage of departures on aircraft without an AMOC, the impacts carry a different type of systemic impact. With fewer flights overall, airports served by regional airlines have fewer options to recover passenger and crew disruptions when diversions, cancelations and delays occur. Here is a sampling of airports in this category, where one or both aircraft lack an AMOC for an airport have significant regional departures: CLE (32% regional) CVG (31%) JAX, (36%) RIC (35%) OKC (34%) ROC (42%), LIT (51%), GSO (43%), MDT (39%), HSV (40%), SBP (49%), STS (70%), ORH (81%).

Even at airports where service is permitted under certain AMOCs, many regional aircraft face other restrictions, such as limitations on runways. This is particularly troubling because regional airlines experience greater diversity in size, geography, weather, and runway characteristics at airports they serve, relative to other operators. One RAA member endured eight 5G interference cancelations in a single morning the week 5G went live -- not due to a snowstorm or intense thunderstorms -- but rather, wet runways at the arrival airport. In other cases, airlines are taking weight penalties to mitigate against 5G impact on systems. Another RAA member, already restricted outright from operating at multiple airports during weather, incurred weight penalties at airports it could serve. This required a real-time reduction in payload that forced the denied boarding of eight passengers across two flights. In addition to burdening those displaced passengers, even small reductions to the seating capacity of a 50 seat passenger aircraft quickly make for an unprofitable flight. Long term, such impacts threaten the viability of small community routes.

Leaving dozens of airports and millions of passengers vulnerable to sweeping disruptions is unsustainable and unacceptable. Today's patchwork of NOTAMs and airport specific AMOCs that exclude regional aircraft is creating a two-tiered national aviation system where communities that rely on regional airline service are disadvantaged and subject to more disruption, while those served exclusively by larger aircraft are less vulnerable. It must be made abundantly clear that radio-altimeters on regional aircraft aren't faulty or defective; they are operating as they should, based on current regulatory and certification standards established by the FAA. Unfortunately, these standards became

irrelevant when the FCC auctioned C-Band spectrum near the radio altimeter operating frequency without full consideration of the consequences.

**Aviation Safety**

Most importantly, FAA's extensive use of NOTAMs creates a massive differential in workload and procedures that itself introduces risk into the aviation system. Fundamentally, NOTAMs are Irregular Operations (IROPs). While the NOTAMs and their associated AMOCs are offered to protect aviation safety from the 5G hazard, we must be extremely careful that we do not trade one set of risks or another. Pilots in the airline industry are trained to a set of practices and procedures, which have changed abruptly. The introduction of more than 1,500 NOTAMs simultaneously is unprecedented. The entire industry must react, understand, and mitigate new risk each time a new set of NOTAMs and AMOCs is offered. Each NOTAM and AMOC complicates and increases the workload for aircraft dispatch professionals and pilots. Pilots performing short haul flights often fly to multiple destinations in a single day. Every approach requires the crew to determine if their aircraft is approved to utilize the approach being used currently for that airport and runway, then find and review the appropriate NOTAMs and review the AMOC listing to determine what approach minimums apply to the safely begin an approach. This workload shift will not be limited to airline crews. In cases where flights are dispatched before weather moves in, Air Traffic Control (ATC) will be required to handle significant airspace saturation associated with diversions and holdings. This in turn could spur ground stops and other systemic delays to allow ATC to safely handle the traffic flow.

One very important factor behind the extremely high level of safety the U.S. aviation system enjoys today lies with the many layers of procedures and safety tools it employs. The introduction of these NOTAMs removes one such tool, by limiting use of the radio altimeter to enhance situation awareness. In discussing these risks, RAA does not wish to alarm U.S. airline passengers. Our members have taken every step to mitigate these risks and will not compromise safety. Flights will be grounded, and unfortunately, they have been. We must find a better and more sustainable path forward.

**Comprehensive and Permanent Solutions**

Regional airlines have invested millions of dollars in advanced safety technologies like radio altimeters that allow safe and reliable air service for the traveling public during periods of poor weather. Without their use, flights will continue to be canceled, delayed and as necessary, diverted. This imposes a terrible burden on regional passengers. We should not be willing to accept two levels of reliability in this country and the FAA and FCC must not allow 5G interference to undermine and waste these investments by failing to ensure adequate protections for all aircraft. The FAA, the White House, FCC, telecommunication companies and aviation stakeholders must further commit to resolving underlying factors causing 5G C-Band interference near airports and mitigate those to protect safe operations at all airports – today and moving forward.

The FAA should continue to review its analysis and modeling of 5G interference and refine this based on updates from telecom companies related to tower location, signal strength, and positioning, to determine if aircraft can safely operate at currently excluded airports. If the FAA find that these aircraft cannot safely operate under the current mitigations, the Agency and the White House should engage directly with the telecommunication companies to pursue other mitigations to restore that safe operation. Potential tactics may include efforts that have worked well abroad, such as additional lowering of 5G C-band power levels, requiring a downward tilt on airport-proximate 5G antennas, and creating exclusion zones near airports that protect all aircraft from transmission interference if necessary. Based on the limitations associated with some current regional aircraft AMOCs, these exclusion zones may need to be larger at certain airports.

Continued and improved communications, including greater consultation of regional operators and stakeholders, will be central to the successful, safe deployment of 5G services. It is important that the FAA continue to work with the FCC and telecommunications stakeholders to ensure future communications are less hindered by Non-Disclosure Agreement-driven opacity and other factors, so that direct and clear data-sharing can expand between stakeholders. RAA also asks that the FAA improve upon its process of issuing NOTAMs and AMOCs to ensure better cohesiveness, timeliness, and predictability.

**Conclusion**

As an organization that supports air service to communities large and small, RAA believes in the power of connection. We are committed to working with all stakeholders, including this Committee, to ensure aviation safety is upheld and that an appropriate balance is struck between two important modes of connection: successful deployment of 5G services while preserving the integrity of the country's air transportation network. I thank the Committee for this opportunity to testify today and look forward to taking your questions at the conclusion of the panel.

**Appendix A – Airports with NOTAMs Excluded from AMOCs – Select Regional Airline Fleet**

*Green denotes airport excluded in first round but cleared 1/31. Orange denotes newly excluded on 1/27.*

| Airport List | Name | CAT II/III Approach | NO AMOC E175 01.27.22 | NO AMOC E175 01.31.22 | NO AMOC E145 | NO AMOC Q400 |
|---|---|---|---|---|---|---|
| AFW | Fort Worth Alliance | Yes | | | X | |
| ALB | Albany International | Yes | | X | | |
| AUS | Austin Bergstrom | Yes | | | X | |
| BDL | Bradley Windsor Locks | Yes | | | X | |
| BFI | Boeing Field | Yes | X | X | X | |
| BFL | Bakersfield | Yes | X | X | | |
| BHM | Birmingham | Yes | X | X | X | X |
| BLI | Bellingham | Yes | X | X | X | |
| BNA | Nashville | Yes | | | X | X |
| BOS | Boston Logan | Yes | | | X | |
| BUR | Burbank | Yes | | | X | |
| BWI | Baltimore | Yes | | | X | |
| CAE | Columbia | Yes | | | X | |
| CHS | Charleston SC | Yes | X | X | | |
| CLE | Cleveland | Yes | | | X | |
| CLT | Charlotte | Yes | X | | X | |
| CVG | Cincinnati | Yes | X | | X | |
| DAL | Dallas | Yes | | X | | |
| DAY | Dayton | Yes | X | X | X | |
| DFW | Dallas Fort Worth | Yes | | | X | |
| DTW | Detroit | Yes | | | X | |
| EWR | Newark | Yes | X | X | X | |
| FWA | Fort Wayne | Yes | X | | X | |
| GSO | Greensboro | Yes | X | | X | |
| GSP | Greenville Spartanburg | Yes | | | X | |
| HIO | Hillsboro OR | Yes | X | X | X | |
| HOU | Houston Hobby | Yes | X | | X | X |
| HPN | White Plains | Yes | X | X | | |
| HSV | Huntsville | Yes | | | X | |
| IAH | Houston George Bush | Yes | | | X | |
| IND | Indianapolis | Yes | X | X | X | |
| ISP | Islip | Yes | X | X | | |
| JAX | Jacksonville | Yes | X | | X | |
| JFK | New York JFK | Yes | | X | X | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LAX | Los Angeles | Yes | X | X | X | |
| LGA | La Guardia | Yes | X | X | | |
| LIT | Little Rock | Yes | X | X | X | |
| MCI | Kansas City | Yes | X | X | X | |
| MCO | Orlando | Yes | | | X | |
| MDT | Harrisburg | Yes | X | | X | |
| MEM | Memphis | Yes | X | X | X | |
| MHT | Manchester NH | Yes | X | X | | |
| MKE | Milwaukee | Yes | X | | X | |
| MOD | Modesto | Yes | | | X | |
| MRY | Monterey | Yes | | | | X |
| MSN | Madison WI | Yes | | | X | |
| MSP | Minneapolis, St. Paul | Yes | X | X | X | |
| MSY | New Orleans | Yes | X | | X | |
| OAK | Oakland | Yes | X | X | X | |
| OKC | Oklahoma City | Yes | X | X | X | |
| ORH | Worcester MA | Yes | X | X | | |
| ORD | Chicago O'Hare | Yes | X | | X | |
| PAE | Everett | Yes | X | | X | |
| PDX | Portland OR | Yes | X | X | | |
| PHL | Philadelphia | Yes | X | X | X | |
| PHX | Phoenix | Yes | | | X | |
| PIT | Pittsburgh | Yes | | | X | |
| PVD | Providence | Yes | X | X | X | |
| RDU | Raleigh Durham | Yes | X | X | X | |
| RIC | Richmond | Yes | X | X | X | |
| ROC | Rochester NY | Yes | X | X | X | |
| RST | Rochester MN | Yes | X | | X | |
| SBP | South Bend | Yes | X | X | | |
| SEA | Seattle Tacoma | Yes | | | | |
| SJC | San Jose | Yes | X | X | | |
| SLC | Salt Lake City | Yes | X | | X | |
| SNA | Orange County | Yes | X | X | | |
| STL | St Louis | Yes | X | X | X | |
| STS | Sonoma County | Yes | X | X | X | |
| SWF | Stewart NY | Yes | X | | X | X |
| SYR | Syracuse | Yes | | | X | |
| TPA | Tampa | Yes | X | X | X | |

**Appendix B – 26 Airports Served Exclusively by the ERJ145**

| Jan-22 | | ERJ 135/145 Flights | Total Flights | Other Flights | % ERJ 135/140/145 |
|---|---|---|---|---|---|
| ABI | Abilene, TX | 213 | 213 | 0 | 100.0% |
| ALO | Waterloo, IA | 58 | 58 | 0 | 100.0% |
| ART | Watertown, NY | 45 | 45 | 0 | 100.0% |
| BKW | Beckley, WV | 107 | 107 | 0 | 100.0% |
| BPT | Jack Brooks, TX | 76 | 76 | 0 | 100.0% |
| CCR | Buchanan Field, CA | 33 | 33 | 0 | 100.0% |
| CEC | Del Norte County, CA | 30 | 30 | 0 | 100.0% |
| CLL | Easterwood, TX | 193 | 193 | 0 | 100.0% |
| CMI | Willard, Il | 151 | 151 | 0 | 100.0% |
| CVN | Clovis, NM | 54 | 54 | 0 | 100.0% |
| DBQ | Dubuque, IA | 46 | 46 | 0 | 100.0% |
| DIK | Dickinson, ND | 53 | 53 | 0 | 100.0% |
| DRT | Del Rio, TX | 59 | 59 | 0 | 100.0% |
| FLO | Florence, SC | 80 | 80 | 0 | 100.0% |
| GCK | Garden City, KS | 61 | 61 | 0 | 100.0% |
| GGG | East Texas Regional, TX | 126 | 126 | 0 | 100.0% |
| GLH | Greenville, MS | 52 | 52 | 0 | 100.0% |
| LAW | Lawton, OK | 94 | 94 | 0 | 100.0% |
| MCN | Macon, GA | 54 | 54 | 0 | 100.0% |
| PGA | Page, AZ | 40 | 40 | 0 | 100.0% |
| PGV | Greenville, NC | 93 | 93 | 0 | 100.0% |
| PKB | Mid-Ohio, WV | 53 | 53 | 0 | 100.0% |
| SBY | Salisbury, MD | 119 | 119 | 0 | 100.0% |
| SPS | Wichita Falls, TX | 213 | 213 | 0 | 100.0% |
| TXK | Texarkana Regional, AR | 95 | 95 | 0 | 100.0% |
| TYR | Tyler-Pounds, TX | 211 | 211 | 0 | 100.0% |

**Appendix C: 37 Airports with 30% or More Departures by E175**

| Jan-22 | | ERJ 170/195 flights | Total flights | Other flights | % ERJ 170/195 |
|---|---|---|---|---|---|
| PAE | Paine Field, WA | 259 | 260 | 1 | 99.6% |
| ORH | Worcester Regional, MA | 121 | 149 | 28 | 81.2% |
| SUN | Friedman Memorial, ID | 203 | 260 | 57 | 78.1% |
| STS | Sonoma, CA | 302 | 432 | 130 | 69.9% |
| ACV | Humbolt County, CA | 153 | 220 | 67 | 69.5% |
| HHH | Hilton Head, SC | 64 | 95 | 31 | 67.4% |
| XNA | Northwest Arkansas, AR | 730 | 1,312 | 582 | 55.6% |
| RDM | Redmond, OR | 375 | 687 | 312 | 54.6% |
| BOI | Boise, ID | 1,149 | 2,247 | 1,098 | 51.1% |
| SBP | San Luis Obispo, CA | 218 | 443 | 225 | 49.2% |
| CMH | Columbus, OH | 1,866 | 3,873 | 2,007 | 48.2% |
| CHS | Charleston, SC | 1,037 | 2,360 | 1,323 | 43.9% |
| PIT | Pittsburgh, PA | 1,864 | 4,461 | 2,597 | 41.8% |
| MSO | Missoula, MT | 150 | 372 | 222 | 40.3% |
| ILM | Wilmington, NC | 228 | 585 | 357 | 39.0% |
| EYW | Key West, FL | 497 | 1,276 | 779 | 38.9% |
| PSC | Pasco, WA | 208 | 539 | 331 | 38.6% |
| GRK | Killeen – Fort Hood, TX | 113 | 296 | 183 | 38.2% |
| LIT | Little Rock, AR | 488 | 1,280 | 792 | 38.1% |
| ORF | Norfolk, VA | 763 | 2,073 | 1,310 | 36.8% |
| LGA | New York, LaGuardia | 7,395 | 20,293 | 12,898 | 36.4% |
| FCA | Kalispell, MT | 102 | 280 | 178 | 36.4% |
| JAX | Jacksonville, FL | 1,031 | 2,856 | 1,825 | 36.1% |
| IND | Indianapolis, IN | 1,478 | 4,102 | 2,624 | 36.0% |
| RDU | Raleigh- Durham, NC | 1,911 | 5,456 | 3,545 | 35.0% |
| HLN | Helena, MT | 52 | 154 | 102 | 33.8% |
| SAV | Savannah, GA | 525 | 1,555 | 1,030 | 33.8% |
| DCA | RR Washington National, DC | 4,743 | 14,101 | 9,358 | 33.6% |
| SDF | Louisville, KY | 731 | 2,185 | 1,454 | 33.5% |
| EUG | Eugene, OR | 301 | 919 | 618 | 32.8% |
| SGF | Springfield, MO | 261 | 797 | 536 | 32.7% |
| OKC | Oklahoma City, OK | 680 | 2,111 | 1,431 | 32.2% |
| MTJ | Montrose, CO | 137 | 428 | 291 | 32.0% |
| BOS | Boston, MA | 6,082 | 19,476 | 13,394 | 31.2% |
| PSP | Palm Springs, CA | 507 | 1,629 | 1,122 | 31.1% |
| BUF | Buffalo, NY | 628 | 2,032 | 1,404 | 30.9% |
| MFR | Medford, OR | 222 | 721 | 499 | 30.8% |