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## Opening Perspective

Aircraft noise is an ongoing topic of concern for most airports and the communities they serve. At some airports, noise complaints are on the rise even though regulatory requirements, mitigation programs and technological improvements to aircraft have greatly reduced actual noise impacts nationwide. There are many reasons for this, including the implementation of Air Traffic Control System improvements provided by NextGen technology, changes in aircraft fleets and perhaps most notably, the changes in the perception of aircraft noise by affected communities.

In this issue of *Aviation Insight*, you will hear about the experiences and observations of three aviation professionals who have similar but different points of view: a noise policy expert from Airports Council International - North America, an airport director and an airport environmental manager. They all provide valuable insight with a common theme of the value of effective communication with airport stakeholders and the community.

My experience as an airport environmental specialist early in my career gives me great appreciation and recognition of these insights and the importance of our industry's attention to this topic. I hope that you find the perspectives of these professionals equally valuable as you work to address noise issues in your own communities.

*Laddie E. Irion*

## Love Field loves being the source of information

**Airport's open communication policy increases goodwill, reduces complaints and improves perceptions**

In 1917, the U.S. Army built an airfield 6 miles outside of Dallas. The facility was designed as a camp to train pilots for World War I. That airfield, largely isolated, now is Love Field, a major airport, surrounded by neighborhoods and serving the ninth largest city in the United States and the seventh-largest metropolitan area in the country.

Thanks to our proximity to residential areas, we have a strong general aviation business, totaling 35 percent of our takeoffs and landings. We've also seen an increase in commercial service with the expiration of the 1979 Wright Amendment, which limited nonstop flights from Love Field to locations in Texas and eight other states. After the amendment expired in 2014, Love Field went from serving 4.2 million passengers in 2013 to serving 7.9 million in 2017.

Unfortunately, as operations increased, so did complaints of aircraft noise.



**MARK DUEBNER**  
Director of Aviation  
> City of Dallas

*“Our proactive approach has generated goodwill and reduced the number of inquiries we receive.”*

## Leveraging technology and federal programs

Being the middleman between the aircraft, the pilots, the air traffic control tower and the citizens can be challenging. We strive to operate in a manner that allows us to fulfill our vital role of attracting business to north Texas, while protecting and preserving the quality of life in surrounding neighborhoods.

To strike a balance between those competing demands, we deploy the latest technology and participate in federal and local noise reduction programs. The North Texas Metroplex Plan and Area Navigation are federal programs designed to make airspace more efficient, conserve flight distance and reduce congestion, among other benefits. Locally, under Love Field’s voluntary noise abatement program, pilots of aircraft over 12,500 pounds are encouraged to use our western runway after 9 p.m. In 2017, more than 13,500 flights participated in the program.

Love Field also recently invested in cutting-edge noise monitoring systems that will allow us to quickly identify those flights not complying with the program and to educate the operators.

## Inviting transparency and open dialogue

Noise monitoring technology and noise reduction programs are essential parts of a noise mitigation strategy. But our first line of defense — and our most powerful initiative — is our comprehensive public outreach program.

Beginning in 2011, an engagement plan was developed that focused on working with our neighbors as community partners, in hopes of establishing relationships with them, so Love Field could become the trusted source for information about airport operations. Since then, our goal has been to stay ahead of misinformation and anticipate concerns with upfront, continuous, two-way communication. Our proactive approach has generated goodwill and reduced the number of inquiries we receive. Perceptions are more favorable, and complaints are down from 2,503 in 2015 to 837 complaints in 2017.

Following are our most effective outreach tools:



■ **A weekly newsletter dedicated to noise.** Distributing a newsletter to surrounding neighbors has been one of our most effective tactics. Although it has generated a larger number of questions from recipients, we choose to see that as a positive outcome. Direct engagement with neighborhoods affected by aircraft noise gives us the opportunity to provide accurate data and the ability to more quickly correct false information.

Each week, 350 subscribers receive news about the next Love Field Environmental Advisory Committee meeting, Dallas’ weather forecast, arrivals and departures per runway during preferential hours, the previous week’s departures and arrivals, runway closures, directions for reporting noise complaints and an airport diagram.

Separate emails may include announcements about special events at the airport or notices of excessive after-hours noise. For example, after a day of flight delays due to bad weather, we may send an email, informing residents that they will hear commercial flights taking off well past midnight. These notices are a common courtesy. In a sense, we are acknowledging we live in their neighborhood and that we directly impact their daily lives.



■ **The Good Neighbor Plan.** Striving to be the best partner possible, we held a series of planning meetings in 2012, and another series in 2015, inviting our neighbors to tell us what they liked about Love Field and what they didn’t. Based on their feedback, we’ve spent the past few years improving landscaping, adding sidewalks and replacing chain-link and barbed-wire fencing with a more aesthetic option. The plan has helped people feel better about living close to an airport.

Today, we continue to hold quarterly neighborhood meetings, informing residents of current events and upcoming projects at the airport.



■ **Accessibility.** We are making it easier for citizens to contact us and access data. In 2013 we opened the Airport Communications Center. The center is staffed 24 hours a day to field and address all concerns, including noise. Citizens also can register a noise concern by completing a form on our website, commenting on social media or sending an email to our dedicated noise-complaint email address.

Noise Lab, an online tool, allows residents to run reports about flight statistics, see the number of flights using optimal departure procedures, automatically generate charts and graphs and view departure and arrival routes as well as flight track concentrations and noise contours.

We also are upgrading our online portal, expected to be operational by early 2019. It will allow users to track flights and log noise concerns. The portal quickly will disseminate flight tracking and noise data in Spanish and English. It also will allow users to file complaints with their smartphones. Our new noise monitoring system will send data directly to the portal, allowing users to access it at the same time we do.

Together, these tools promote transparency and conversation, positioning Love Field as the go-to source of airport information.

## Considering fact and opinion

So, how are we doing when it comes to noise mitigation? It depends on who you ask. Although complaints are at a five-year low, some of our neighbors will say they’ve lived near Love Field for 30 years, and this is the noisiest the airport has ever been. But empirical data shows that is not true. Aircraft noise has shrunk since the 1970s.

When fact and perception clash, perception almost always wins. Performance measurement then becomes a soft science that considers both fact and opinion. That’s why a public information campaign is critical. It helps manage perceptions and misinformation.

It is frustrating for citizens to learn the airport operator has very little to do with the movement of aircraft once they leave the ground. However, when we invite everyone to the table and dispense information proactively, citizens understand we are aware of their concerns. At the end of the day, more information and more access always yield a better result.

### ABOUT THE AUTHOR

**Mark Duebner** is director of aviation for the City of Dallas. He manages Dallas Love Field, Dallas Executive Airport and the city’s Downtown Vertiport. Since his appointment in 2011, Duebner has overseen the construction of a new terminal, a dramatic increase in activity with the expiration of the Wright Amendment and the development of a 5,000-space parking facility. Contact him at (214) 670-6077 or mark.duebner@dallascityhall.com.

# Building meaningful relationships with the community

## San Diego County Regional Airport Authority promotes understanding through roles as advocate, communicator and facilitator

The San Diego County Regional Airport Authority is an independent agency that manages the day-to-day operations of San Diego International Airport and addresses the region's long-term air transportation needs. Part of our mission is to partner with the public to mitigate aircraft noise when possible and promote understanding when mitigation is not possible.

Developing meaningful relationships with the public has been the most effective tool we have for promoting understanding. With a topic as sensitive as aircraft noise, consensus, while optimal, is not always achievable, which is why we define "meaningful" as achieving understanding in the absence of consensus.

As aircraft noise mitigation becomes more complicated, we must evolve our position as intermediary to strike a balance between the valuable transportation service we provide, and environmental concerns. We have found broadening our role to include advocate, communicator and facilitator increases the public's understanding, a necessary ingredient for building meaningful relationships with local stakeholders.



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### **Advocate** -

We act on behalf of citizens to affect positive change in their communities.

### **Communicator** -

When we cannot affect change, we explain why.

### **Facilitator** -

When our explanations do not resonate with residents, we connect them directly to the experts.

The following are some examples of how we put those roles into action:

## Being an advocate

Our Quieter Home Program, one of the largest remaining airport residential sound insulation programs in the country, is one way the Airport Authority serves as an advocate for residents.

Many of the homes in our 65 decibel CNEL contour are locally or nationally designated historic structures. Because one home may require replacing 88 windows and 14 french doors, we can't bundle multiple types of homes into one project as many airports have done. Instead, we must

group historic homes and create a unique design for each one. Further, we manage all the work and coordinate all the players while keeping the homeowners informed and closely involved.

Because of our efforts to sound attenuate homes in a manner that preserves their historic nature, our Quieter Homes Program has won local and state awards and earned a national commendation. Honors are nice, but the greatest reward is having a platform that allows us to act on our neighbors' behalf.

Another way we advocate for citizens is by updating the Airport Authority's CFR Part 150 – Noise and Land Use Compatibility Study. Complaints, at an all-time high, are originating from 5 to 10 miles outside the 65 decibel contour, where aircraft are at altitudes of 10,000 feet or higher. There are no federal regulations to address problems outside the 65 dB contour, but that doesn't exclude these residents from being affected, and it doesn't give us permission to ignore their complaints.

In April 2018, we implemented an Airport Authority funded flight procedure analysis to identify potential changes that might reduce noise in outlying neighborhoods. We have narrowed 36 flight procedure recommendations to six that may be feasible. Our next step is to conduct analyses to ensure we aren't simply shifting noise from one community to another.

Proposing flight procedure changes is a difficult process, and we can't guarantee the FAA and the airlines will comply. However, part of building meaningful relationships is making a genuine effort on the public's behalf, regardless of the outcome.

The Airport Authority also advocates for residents by restricting aircraft operations to certain times of day and levying penalties against violators. Collected fines helps offset the costs of maintaining the state-mandated airport noise mitigation office.

Finally, our Fly Quiet Program encourages commercial operators to operate as quietly as possible in the San Diego area. The program creates a participatory atmosphere, where operators work with the airport and community to actively reduce noise and reach noise-abatement goals.

The Fly Quiet Program scores commercial operators on the three most commonly voiced concerns from residents surrounding the airport: curfew violations, noise exceedance and fleet noise quality. The higher the score, the quieter the operator is flying in and out of SAN. Each participant's performance and scores are available to the public.

## Being a communicator

We spend most of our time communicating with the public about why noise has increased or will increase. For example, we anticipate another spike in noise complaints as we embark on the Airport Development Plan, which envisions the replacement of Terminal 1 with a modern, efficient structure, featuring up to 30 gates. Some members of the public are under the impression that the project will induce a growth in flights, and, therefore, increase noise. In reality, the plan is intended to accommodate growth in flight activity that is coming as a result of a strengthening economy and increasing business and tourism opportunities in the San Diego region. This growth in flight activity will happen regardless of whether we build the new terminal. We are in the midst of conducting an outreach program to inform the public about this fact.

We also are communicating with the public about how the airport's growth is affecting noise. San Diego International Airport is conveniently located near the city's urban core, which includes numerous homes and businesses. Even though the location is convenient, it creates some inherent challenges for those who live and work near the airport.

The most frequent noise comment I receive is, “Something has changed – airplanes have gotten louder.” My response is, “Yes, something has changed.” And, I proceed to explain that over the past two years, the airport has experienced exponential growth. To accommodate higher load volumes, airlines have replaced their smaller turbo prop aircraft with larger, narrow-body planes and larger-capacity regional jets. These airplanes create more noise, but their use is necessary to accommodate demand, which is vital to sustaining San Diego’s economy.

## Being a facilitator

No matter how grounded in fact our explanations may be, they sometimes fall short of satisfying the public. For example, when La Jolla, California, residents wanted aircraft arrivals to be at higher altitudes to reduce noise, my team first shifted into advocate mode to investigate the plausibility of their request, and then transitioned to communicator mode to explain why it wasn’t possible. Our explanation didn’t appease them, so we shifted into a third role, one of facilitator.

At a recent meeting with community members and the airlines, an airline pilot explained, based on winglet and engine configurations, that the new, efficient, quieter aircraft couldn’t land if they were flying at a higher altitude. There was an “ah-ha!” moment followed by the realization, “Oh, that means there is not much you can do.” The message residents heard from us suddenly carried more credibility because it came directly from the airlines. In my opinion, “involved” public discourse — where the Airport Authority acts as facilitator — has been the most effective way to build meaningful relationships and communicate our message.

## No magic bullet

There is no magic bullet for aircraft noise mitigation. And, unfortunately, as noise abatement professionals, we are limited in how much we can do. Success often is measured in minor, incremental modifications. Those modifications may be physical changes to nearby residences or they may be changes in the public’s understanding of how airports and aircrafts operate. Expanding our role to include advocate, communicator and facilitator helps the Airport Authority appropriately engage with local communities to create meaningful relationships and understanding.

### ABOUT THE AUTHOR

**Sjohnna Knack** is the program manager for the planning and environmental affairs department at the San Diego County Regional Airport Authority. She oversees all aspects of aircraft noise related to San Diego International Airport. Knack is responsible for oversight of the Quieter Home Program. She also provides technical support for the Airport Noise Advisory Committee and Curfew Violation Review Panel. Knack ensures adherence to many regulatory requirements, manages a team that conducts analysis with the airport’s noise and operations monitoring system and works closely with industry stakeholders. Contact her at (619) 400-2639 or sknack@san.org.

*“However, part of building meaningful relationships is making a genuine effort on the public’s behalf, regardless of the outcome.”*

# Striking a balance

## How ACI-NA members are managing the competing demands of air travel and community noise

Airport owners and operators face a never-ending supply of challenges. One of these topics is aircraft noise. For Airports Council International - North America members, aircraft noise continually ranks as one of their top responsibilities and challenges. It’s not that noise has necessarily gotten worse - at least not as measured by single-event levels of decibels - but, it has changed since U.S. aircraft noise policy was set in the 1970s.

Mitigation tools, Federal Aviation Administration and International Civil Aviation Organization regulations and improvements in airframe and engine technology creating quieter aircraft allowed noise to take a backseat to other industry challenges for several years. However, recent developments have brought aircraft noise back to the forefront of the public’s attention:

- Aviation traffic has increased.
- The Next Generation Air Transportation System’s modernization of U.S. airspace changed air traffic patterns. Performance-based navigation reduced the number of people affected by aircraft noise directly overhead when it narrowed flight paths. However, people living and working under those narrower routes hear aircraft more frequently.
- People are more sensitive to noise. Social media and the “complaint button” smartphone app have made it much easier for citizens to interact with airports about the impact of aircraft noise.

## Be transparent, responsive and collaborative

ACI-NA’s Noise Working group provides members with an opportunity to share information on challenges, techniques and lessons learned. At the 2018 ACI-NA/AAAE Noise Conference, staff from the Minneapolis Airport Commission presented findings from its Airport Noise Management Benchmarking Study that surveyed U.S. and Canadian airports to identify best practices in airport noise management. The study results showed the top three goals of noise management measures are to increase transparency, responsiveness and collaboration.

- 1. Transparency.** In the study, transparency was defined as conducting activities such as holding quarterly listening sessions, proactively reporting data and having interactive, up-to-date noise websites.

Transparency is important as it promotes education and openness, and invites feedback and dialogue. When people understand and feel like they have a voice in airport operations and noise mitigation, it makes a significant difference as opposed to having aircraft operations happen to them.

- 2. Responsiveness.** Contacting citizens quickly when they first reach out and addressing their concerns is another effective practice in noise management. Each morning, the noise office staff at one of our member airports review all noise complaints received in the past 24 hours. They identify new concerns and call those citizens to explain the origin of the noise and what the citizen’s expectations should be moving forward.



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*“Being aware of all perceptions and opinions in the room will ease tensions and promote a productive dialogue.”*

While this may not be feasible for all airports, depending on staffing levels and resources, making a phone call or sending a prompt email is a remarkably simple, but effective strategy to keep issues from escalating and misinformation from spreading.

**3. Collaboration.** Noise management professionals continue to work on how they might work with FAA staff and air traffic controllers about the impact of noise. Partnering with stakeholders – airlines, the FAA procedure developers, as well as FAA’s air traffic control and the business community – will help plan for short- and long-term operational needs and how they might change the current noise levels. Airports also work with their local jurisdictions concerning noise mitigation and land use. Encroachment as land is developed near airports is a continued concern, especially if it brings new noise-sensitive activities to areas that experience frequent aircraft noise. Established airport noise overlay zones also can be very valuable.

One outreach method that many airports use in their efforts to achieve transparency, responsiveness and collaboration are community noise advisory committees or roundtables. These groups can be an effective tool when organized correctly. For other airports considering similar efforts to help address noise issues, our members have found these groups work best when they follow these guidelines:

- Elect an independent chair with clear assignments
- Encourage participation of all stakeholders, including regulators, elected representatives and noise action groups
- Separate the emotional discussions and decision-making from the technical discussions and decision-making. Noise is a complicated subject. Some professionals at the table will admit they like the smell of jet fuel and being awakened in the morning by aircraft noise. Other participants, when asked the same questions, may become angry. Being aware of and sensitive to all perceptions and opinions in the room will ease tensions and promote a productive dialogue
- Have an ombudsman present in case of escalation

### Get involved. Stay informed.

ACI-NA works with our airport members, airlines and regulators to develop effective solutions for mitigating aircraft noise.

For example, we work with the FAA on regulatory approaches and to educate air traffic controllers about noise and community needs. There are a number of provisions in the FAA Reauthorization Act of 2018 related to noise that we will be paying close attention to, and working to provide insight and suggestions to FAA staff as they develop the required work products. For example, Section 187 of the 2018 FAA Reauthorization Act requires the administration to complete ongoing review of the relationship between aircraft noise exposure and its effect on communities within two years. Another provision requires the FAA to revise its Part 150 land-use compatibility guidelines. ACI-NA will be closely monitoring those activities, coordinating with the FAA and reporting our findings and progress to our members.

Aircraft noise continues to be a challenge for airports and their communities, and it will likely remain an issue for years to come. However, being transparent with information, responsive to complaints, working collaboratively with stakeholders and staying involved with ACI-NA will help airports balance the competing demands of air travel and aircraft noise.

#### ABOUT THE AUTHOR

**Melinda Pagliarello** is senior director, environmental affairs at ACI-NA. She is responsible for ACI-NA’s activities in aviation environmental matters and sustainability. She monitors and reports on international and federal agency actions, programs, requirements, research and regulations affecting environmental matters for airports and aviation at North American airports. Contact her at (202) 293-8500 or mpagliarello@aci-na.org.

## Resource Center

### Other helpful websites:

#### Airport Consultants Council

acconline.org

This international trade association represents airport consultants and related businesses.

#### American Association of Airport Executives

aaae.org

AAAE is the world’s largest professional organization for airport executives, representing thousands of airport management personnel at public-use airports nationwide.

#### Airports Council International - North America

aci-na.org

The ACI-NA represents local, regional and state governing bodies that own and operate commercial airports in the United States and Canada.

#### TRB Airport Cooperative Research Program

trb.org

The Cooperative Research Programs Division of the TRB, led by Director Christopher Hedges, administers a number of major research programs sponsored by other organizations.

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