

Closing the Communication Gap:

THE RIGHT PEOPLE, USING THE RIGHT WORDS, AT THE RIGHT TIME

George Bernard Shaw, the 19th century Nobel Prize and Oscar-winning journalist, playwright and social commentator often remarked that “The problem with communication...is the illusion that it has been accomplished.” Even the most knowledgeable, experienced and articulate among us can fail to communicate important information to the very audiences that have the greatest need to know and understand it. Unfortunately, this disconnect, or “gap”, between the messenger and recipient makes it increasingly difficult to communicate with the public on the environmental impacts of airport operations, especially when talking about risks to human health. Recognizing these different languages of risk communication makes it easier to define this challenge and construct a remedy.

Public Perceptions

With greenhouse gases (GHG) and climate change emerging as leading environmental threats world-wide, the Environmental Protection Agency (EPA) tightening environmental regulations at a record pace, and the economic and technological roller coaster moving full speed, it’s understandable that society can approve of the aviation industry in one moment and oppose it the next. Although aviation reportedly represents only two to three percent of man-made GHGs globally, and even less of the EPA “criteria” pollutants locally, airports are now plainly visible on community “radars” as a potentially significant (and growing) menace to the public’s health and welfare.

It is also becoming clear that many residents are getting more concerned about whether their proximity to commercial and general aviation airports are resulting in elevated exposures to airborne contaminants. The writing on the wall, as shown in the following newspaper headlines, is ominous:

- *Study Uncovers Harmful Air Around Teterboro Airport*, New Jersey Star-Ledger, Feb. 12, 2008.

- *Life Under the Flight Path Is More Toxic*, Minneapolis-St. Paul Star Tribune, Nov. 19, 2008.
- *People Who Live Near the Santa Monica Airport Exposed to Unusually High Levels of Air Pollution*, Santa Monica Daily Press, Nov. 19, 2009.

Think of Will Rogers’ (also an early social commentator and aviator) self-admonition that “All’s he knew was what he read in the newspaper.” It is then easy to understand the public’s growing unease with aviation’s footprint on the environment as well as their own health and welfare.

Languages of Risk Communication

Basically, there are two distinct languages used to describe health and environmental risks: (i.) the scientific and statistical language of the “experts” on the one hand and (ii.) the intuitively-grounded language of the public on the other. The so-called “experts” bring their specialized training, knowledge and terminology pertaining to atmospheric science, environmental toxicology and statistical probability. In contrast, the public’s assessments of risk are based largely on their everyday experiences.

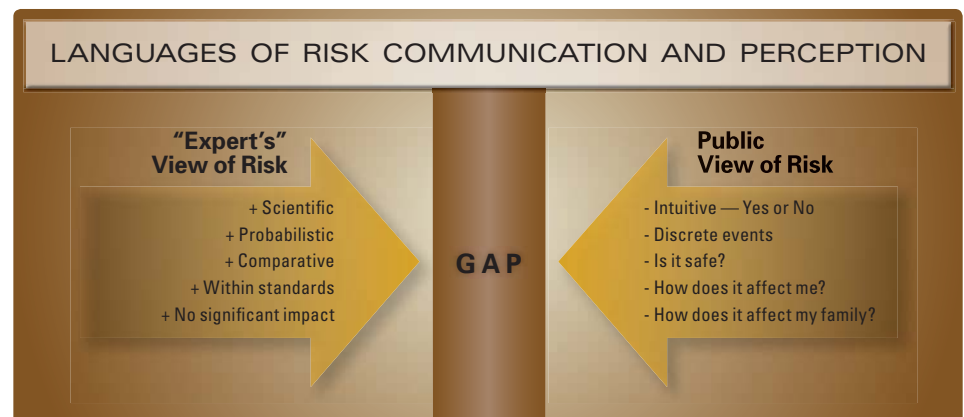
The “expert” presents multi-dimensional graphs and cites the Federal Register; the citizen sees and hears aircraft arriving and departing the airport above their head. In another example, the “expert” might say... “A lifetime 70-year exposure to formaldehyde from aircraft exhaust

at a concentration of 20 parts per billion yields an estimated excess carcinogenic risk to the exposed population of one in a million.” By comparison, the public citizen might say... “Will my children be safe?”

This is certainly not a case of trying to establish one side being right and the other wrong. Both languages are necessary in communicating risks, and the work cannot be conducted with either one alone. Good risk management is to break down these barriers, reduce the communication “gap” and facilitate the productive exchanges between the two.

Three Propositions on Communicating Risk

- › The aviation industry is failing to implement good risk communication.
- › This failure is due to a gap between how “experts” and citizens perceive risk and which words they choose to discuss it.
- › We can shrink this gap by having the right people use the right words at the right time.





“WHAT WE HAVE
HERE IS A FAILURE TO
COMMUNICATE...”

— Paul Newman
Cool Hand Luke



Closing the Gap

When it comes to managing their health and welfare, the public (like nature) abhors a vacuum. Often, information and data is limited or confusing, making it hard to deliver a credible explanation. As a result, a vacuum (or gap) is created and then filled with inferences, emotions and gossip.

The challenge is how to go beyond simply presenting the data and move toward communication that is meaningful to the public and reduce the gap. Make no mistake, this is not about developing a better “spin” on telling the public what we think they ought to know. Only the most cynical and shortsighted manager would emphasize spin over substance. It is also not about “dumbing-it-down” to their level. Citizens give little credibility to a condescending or patronizing presenter and will little tolerate risk unless they understand it. This understanding must come on their terms and from a trustworthy source.

In the case of the Santa Monica Airport study from the headline above, higher than normal

concentrations of ultrafine particles (<0.1 microns or 0.00004 inches in diameter) were detected well into nearby residential neighborhoods. Separate health studies show that particles of this size are the most damaging to the human respiratory system, especially in high concentrations and over extended time periods. The intersection of this new information resulted in an outpouring of public alarm, community rallies and other residential campaigns intended to expose the problem and, eventually, close the airport.

In response, the “expert” will likely point out that the EPA has no air quality standards or benchmarks for ultra-fine particles. Without these standards, the health risk is indefinable from regulatory and legal standpoints. The issue of exposure, and what it means to the airport’s neighbors, is further complicated by recognizing that these small particles also originate from motor vehicles, trains and ships. While both of these claims are true, they fail to answer the resident’s fundamental question — “How does this affect me, my children, my neighbors?”

An “expert” could reduce this communication gap by (i.) conceding that just because there are no regulatory standards for ultrafine particles, it does not mean there is no risk; (ii.) accept the probability that most particles are originating from the airport, given its proximity; but also (iii.) clarify the significant roles of dose (e.g., varying concentrations) and exposure (e.g., discontinuous time periods) when assessing the health risk. With this approach, the community’s concerns are both acknowledged and tempered by the science and reality. As a result, the risks are placed in reasonable context.

Right People, Right Words, Right Time

All industries (including aviation) are obliged to communicate effectively about the potential impacts and risks of their actions on the natural and human environments. This doesn’t mean touting the superiority of their own technical expertise or assessments, but making an

honest effort to understand public perception and develop constructive ways to reduce the communication gap. In most cases, the gap will not be closed completely, or in other cases even appreciably, but the effort must be made.

Making this effort successful often requires three important factors coming together:

- **RIGHT PEOPLE** Even the most accomplished expert or the savviest spokesperson can stumble and fall when at a public meeting. Unfortunately, most people tend to judge the messenger before the message, especially when angry or anxious. As a result, the right person should be prepared to respond to criticism about the information they present and how they present it. Instrumental to this is recognizing that individuals are going to filter whatever message they hear with their own knowledge and experience.
- **RIGHT WORDS** A spokesperson who communicates risk well gauges the appropriateness and impact of the words used. For example, are words like “toxic,” “cancer risk” and “one in a million” necessary when more accurate, less dramatic words like “potentially hazardous,” “health effects” and “low probability” are better?
- **RIGHT TIME** The right time for risk communication is best characterized as a two-way street between the various stakeholders. Both parties should listen and speak in a way that doesn’t reduce the other’s ability to do the same. If you hear yourself describing risk to the general public out loud, and it’s the first time, it’s too late.

The key ingredients of persuasive communication do not come to most people naturally and cannot be manufactured with technique alone; it must be demonstrated with deeds and done so consistently by the right people, using the right words, at the right time. ✈

Keys to Better Risk Communication

- Know what the public audience already knows.
- Use everyday language — avoid acronyms and technical jargon.
- Make the message simple, brief and clear.
- Place the risk in appropriate context.
- State the limits of the information and the existence of uncertainty.
- Don’t trivialize people’s concerns. Banish the “no-risk” message.