



# Valuation of Avigation Easements

**When it comes to rights and restrictions, even the sky has its limits.**

**BY GARY DAVID STRAUSS**

It is always preferable for an airport to be surrounded by a buffer of vacant property. However, when adjacent property has already been developed, the Federal Aviation Administration (FAA) may conclude that an avigation easement is appropriate to control any future land use that might be hazardous to flight and protect the airspace from obstructions. When public airports receive federal funds for improvement projects, the airport must agree to abide by FAA regulations. Certain regulations require the acquisition of sufficient property rights that will protect both pilots and the people on the ground.

## **Rights and Restrictions**

An avigation easement is a property right acquired from a landowner which protects the use of airspace above a specified height, and imposes limitations on use of the land subject to the easement. Generally, uses that attract birds or interfere with pilot visibility and instrumentation are prohibited. Whether or not existing uses and structures are permitted to remain often is a function of the distance from the runway. Any manmade structures or natural growth which penetrates the specified heights must be removed.

A typical avigation easement not only describes the rights acquired and restrictions on the use of the property, it will also include a document called Exhibit X, which provides a graphic depiction of the elevations and dimensions of the easement. Exhibit X may also identify trees or other obstructions which penetrate the elevations of the easement. The slope and dimensions of the

easement are determined by FAA standards based on the most precise existing or planned approach for the runway end.

The restrictions and rights contained in an avigation easement fall into three general categories. These include the restrictions on the use of the property, the right of pilots using the airport to create incidental effects, such as noise, and the height restrictions on natural and manmade structures.

## **Valuation of Trees**

One of the most basic components of damage related to avigation easements involves trees and the value they add to a piece of property. Typically, the easement conveys the right to trim or remove natural growth “which now extend, or which may at any time in the future extend, above those heights” depicted on Exhibit X. Although the easement does not grant the right to clear cut every tree on the property, the assumption is often made is that nearly every tree might ultimately encroach the easement and should be considered. Depending on the elevations and species of the trees, this may or may not be a true assumption.

The appraiser’s task is to determine the contributory value of trees and other landscaping to the entire property. A landscape professional such as an arborist or forester often assists real estate appraisers in making this determination. A landscape expert typically uses the “trunk formula method” to determine the value of individual trees based on size, species, condition and location. The trunk method often strikes a fair balance with regard to

the value of trees that are subject to removal, despite the fact that their actual contributory value is not usually reflected in comparable sales. This component of just compensation usually equals the values indicated by this methodology. However, this method is not always a clear indication of how much a property is worth with or without the trees.

A few recent cases involved heavily treed residential and undeveloped commercial parcels. The appraiser's market research indicated very little, if any, positive effect in the residential market for those lots with trees and a lower value for heavily treed vacant commercial sites. However, the trees were noted to provide a substantial buffer from the runway. Even when appraisers can locate sales of properties encumbered by an avigation easement, it is difficult to distill the contributory value of the trees. In the end, appraisers must determine just compensation for the owner's loss under the unique circumstances of each particular case.

### The Effect of Land Use Restrictions

Most avigation easements preclude property uses that attract birds or otherwise would be incompatible with the use of the airport, such as a fireworks testing facility or an outdoor rifle range. The typical easement language specifically precludes landfills, open dumps, waste disposal sites, storm water retention ponds, creation of new wetlands, crops that would attract or sustain hazard bird movements, or any use that would be incompatible with the maintenance and operation of the airport.

In a recent case, an owner claimed that the specific prohibition against retention ponds in the easement language also precluded above-ground detention ponds, because detention ponds might also attract birds. As a result of this theory, the owner claimed \$250,000 in cost-to-cure damages associated with construction of an underground storm water management system. While the specific prohibition against retention ponds would appear to conclusively imply that detention ponds were permitted, the issue was resolved by amending the easement to clarify that detention ponds would in fact be permitted.

Another case involved a pre-existing avigation easement that contained a blanket restriction against uses that are incompatible with the airport use. The owners' highest and best use was based, in part, on a manmade lake they proposed to excavate at the foot of the runway in order to create numerous lakefront residential lots. In order to substantiate this highest and best use, the owner's appraiser made assumptions concerning the time and money associated with obtaining necessary permits, excavation of gravel to create the lake, marketing of the gravel, developing infrastructure for the residential subdivision, creation of residential lots, marketing approximately 200 home sites and calculating a present value for each lot. It is doubtful that a rational market participant would rely on an analysis with so many contingencies projected to occur over such a long period of time. In fact, one of the owners' experts (inadvertently) testified during his deposition that he estimated it would take

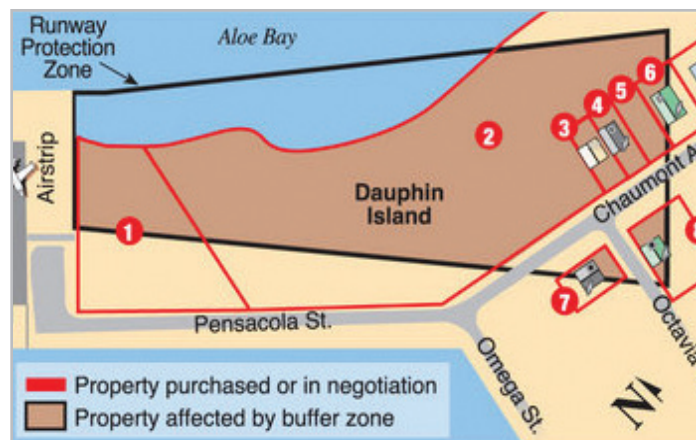
between seven to nine years to excavate the gravel. Ultimately, the judge ruled that the pre-existing easement sufficiently precluded creating a welcome center for geese adjacent to the runway end, and he excluded the appraisal.

### Land Use Restriction in the Runway Protection Zone

A portion of an airport-adjacent property may be located in an area called the Runway Protection Zone (RPZ). As defined by FAA standards, the RPZ is a ground level trapezoidal area located 200 feet from the end of a runway. The purpose of the RPZ is to protect people and property on the ground. If applicable, the RPZ will be designated on the Exhibit X document. Land use restrictions for the RPZ preclude most development, including "the construction of new residences, fuel handling and storage facilities, smoke-generating activities, or places of public assembly, such as churches, schools, office buildings, shopping centers and stadiums."

In cases where existing houses are located within an RPZ, owners may argue that the houses must be acquired. On its face, the language prohibiting new residences would appear to permit the existing residences. The easement itself does not provide support for demanding that the existing residence be acquired, so the owners may claim that FAA regulations require that the houses be purchased. To this end, owners may rely on language in FAA advisory circulars that describe residences as incompatible land uses, which are strongly recommended to be removed from the RPZ.

While language in advisory circulars does strongly encourage fee acquisition of property in the RPZ, the circulars also provide that, if fee acquisition is determined to be infeasible, an avigation easement may provide appropriate protection. Any reliance on advisory circulars as a means of legally compelling the airport to acquire more property than is required is suspect. Advisory circulars do not amount to a statute or law with specific requirements. If the FAA requires an airport to comply with any recommendations in an advisory circular, it is solely the result of



The Runway Protection Zone is designed to protect people and property. Land use restrictions prevent most development and may require existing residences to be acquired.



Avigation easements may include height restrictions for trees. If removal is necessary, the appraiser must determine the contributory value to the entire property.

It is important to recognize that avigation easements are acquired to clear airspace of obstructions in order to maximize the opportunity of recovery in the event of an accident. The elevations of the easement have no bearing on where a pilot flies. It is doubtful that any pilot would even know whether an airport has acquired easements or not. Further, if a pilot flew at the lowest elevation of any easement, there is a very slim chance that he would successfully land on the runway. Additionally, a local airport has no legal authority to dictate where pilots fly. The federal government has “exclusive sovereignty of airspace of the United States” and gives United States citizens “a public right of transit through navigable airspace.”

Similarly, attorneys might argue that a house’s location in the RPZ has increased the chances that an airplane might crash into it. This is like claiming that, because your house has been designated as a high crime area has increased the crime rate. A classification merely describes a condition – it does not create it. In reality, the odds of an airplane actually hitting a house are far less likely than being struck by lightning.

Avigation easements also typically restrict the property owners from “creating electrical interference with radio communications ...making it difficult for pilots to distinguish between airport lights and others [and] causing glare or impairing visibility in the eyes of pilots [or] any use that would otherwise endanger the landing, taking-off or maneuvering of aircraft.” Appraisers may claim that the loss of such rights has a measurable impact on the value of a house that was built adjacent to an airport. However, common sense tells us that most of us would not be interested in taking steps that might disorient a pilot flying near our home. Depending on the property involved, certain restrictions might have a measurable impact on the property value if the damage claim is based on something tangible. However, since it is impossible to specifically define any potential future or present use that might endanger flight, owners may argue the value of the property is affected because a purchaser would not have any certainty over what he could do in the house. Attorneys have even stated that a purchaser would have no assurance that he could use the latest computer technologies, apparently because the Federal Communications Commission and other government agencies have licensed consumer electronics that have the ability to paralyze air traffic.

On a practical level, if there are no pilot complaints, then there is no problem. But, if a pilot does complain, it doesn’t matter whether you are within an easement or not. If you are notified that you are interfering with flight and persist in doing so, there are federal criminal statutes which address that conduct. I am fairly certain that you cannot escape liability by insisting that the government must acquire an easement.

the contract between the airport and the FAA. As a condition of receiving federal grant money, the airport obligates itself to adhere to FAA standards. These contractual obligations are known as “grant assurances.”

First, FAA standards and recommendations are developed and enforced exclusively by the FAA. The airport does not have the authority to decide if it is in compliance. Federal law specifically states that the Secretary of Transportation is responsible for ensuring compliance with grant assurances. Therefore, it appears to be incongruous to argue that an airport has violated a regulation when it has no authority to rule on its own compliance.

Second, property owners are not a party to the contract with the FAA, nor are they third party beneficiaries. The airport’s obligations are solely a product of its contract with the FAA. In fact, Congress has afforded any person “directly and substantially affected” by an airport sponsor’s alleged noncompliance with a grant assurance to file a formal complaint with the FAA. An entire federal statutory scheme is devoted to this process. In short, if an owner believes the airport should have taken more property, the only legitimate means of reaching that goal is to file a complaint with the FAA, the only agency with the authority to make the decision. Otherwise, it is the effect of the property actually acquired that must be considered – not the property the owner believes the airport should have taken.

### **Pilot Flight Patterns**

Some landowners have asserted that, by acquiring an avigation easement, their local airport would have the right to fly airplanes at the lowest elevations of the easement, which may be very close to their houses. This claim is premised on easement language which states that the easement is being acquired “for the benefit of the general public at large... for the free, unobstructed passage of aircraft, by whomsoever owned or operated, in and through the air space over [the property].”

## Incidental Effects

Avigation easements contain language which grants the airport the right to use the airspace “to create such noise, vibration, fumes, dust and fuel particulates, as may be inherent in the operation of aircraft.” Depending on the jurisdiction, damages that are suffered in varying degrees by the general public are not compensable in a condemnation case. These damages often are referred to as “damnum absque injuria.” This is defined by Black’s Law Dictionary as “a loss or injury which does not give rise to an action for damages against the person causing it.”

Generally, flights over private land do not constitute a taking of property, unless they are so low and so frequent as to directly interfere with the use of the land. In *United States v. Causby*, the Supreme Court considered when the effects of air traffic might result in an unconstitutional taking of property. The Court held that a taking occurred where low flying military planes regularly flew in formation so low over the property that around 150 chickens died, some “by flying into the walls from fright.” Where small public airports are concerned, it is doubtful that the effects are so pronounced – and besides, the owner specifically chose to purchase property near an airport. An addition to the runway and acquisition of an avigation easement generally does not have a substantial impact on the incidental effects of living by an airport. Nevertheless, I am patiently waiting for a claim that a single engine plane caused a child to run headlong into a bedroom wall as a result of increased noise resulting from an avigation easement.

An addition to the runway and acquiring an avigation easement generally does not have a substantial impact on the incidental effects of living by an airport. Arguments have been made however, that the easement precludes the owners from filing a lawsuit if a pilot accidentally dumps gas or objects on a roof or if a family is rendered unconscious from fumes. Unfortunately, it does not seem legally plausible for an avigation easement to provide immunity to unknown third parties for negligence.

## Conclusion

For anyone involved with acquiring an avigation easement, being aware of some of the potential issues is essential. The restrictions and rights can include parameters on the use of the property, the right of pilots using the airport to create incidental effects and the height restrictions on natural and manmade structures.

When a portion of property is acquired by eminent domain, the difference between the condemnor’s and landowner’s estimates of just compensation is often so great that it is sometimes necessary to make sure the same property is being valued. Many times the disparity results from differing highest and best uses, damage to an existing business, the impact of the taking on future development of the property or costs-to-cure.

Whenever an avigation easement is acquired, there are a host of issues and theories that should be addressed proactively. Because when it comes to damage claims in easement cases, even the sky has its limits.

## Recent Ruling:

Gary recently won his second interlocutory appeal of five cases involving the Lenawee County Airport in Michigan. In its 2007 decision, the Michigan Court of Appeals reversed the trial court’s ruling that “Federal Aviation Administration regulations required the removal of Defendants’ home as a result of its location in a Runway Protection Zone [RPZ]” and that the County had to acquire the parcels in fee. (*Lenawee Co v Wagley*, unpublished opinion per curiam of the Court of Appeals, issued March 22, 2007.)

After the cases were returned to the trial court, the owners produced appraisals which were premised on the proposition that the County must acquire the residences due to FAA regulations prohibiting residences in the RPZ. The trial court denied the County’s motion “to preclude defendants from introducing any evidence that residential use of their property after the taking is prohibited based upon FAA regulations that prohibit residences within the Runway Protection Zone.” In the second appeal, the Court of Appeals reversed the trial court’s denial of the County’s motion based on the doctrine of the law of the case. The Court further held that “Our ruling effectively bars admission of [the] appraisal that was predicated on the assumption that FAA regulations prohibit residential use.” (*Lenawee Co v Wagley*, unpublished opinion per curiam of the Court of Appeals, issued December 20, 2011.)

## References

Federal Aviation Administration website ([www.faa.gov](http://www.faa.gov)).

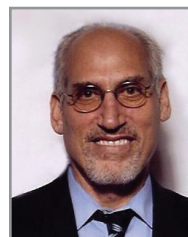
FAA Advisory Circular 150/5300-13. The RPZ formerly was referred to as the “Clear Zone.”

FAA Order 1320.46C, issued on May 31, 2002, explains that the Advisory Circular System does “not create or change a regulatory requirement.”

FAA Order 5190.6B, ¶ 14.3 states that the “FAA, not the sponsor [Airport ], is the authority to approve or disapprove aeronautical restrictions based on safety and/or efficiency at federally obligated airports”(emphasis in original).

Rules of Practice for Federally-Assisted Airport Enforcement Proceedings (14 Code of Federal Regulations (CFR) Part 16); 14 C.F.R. § 16.23(a); 49 U.S.C.A. 40103(a)(1), (2); 328 U.S. 256 (1946)

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