



## **Airport & Aviation Appraisals, Inc.**

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### **Avigation Easements: Unreal Estate**

- Avigation easements are one of the more important elements of an airport's property acquisition program, and one of the least understood.
- Intensive and sophisticated land uses around airports predictably make avigation easement acquisitions more expensive and more difficult than rural land uses.
- When an avigation easement specifies that adjacent property be subject to height limitations which are "unreasonable", it is probably more cost effective to buy the property outright.
- The advances in Global Positioning System (GPS) based instrument approaches may spur an explosion in avigation easement acquisitions.
- If the "integrity (i.e. reliability) of GPS can be perfected, airports may be able to have precision approach systems for every runway, but the terrain and airspace may make minimums worse than VFR.

Although the advent of the skyscraper moved the real estate business firmly into the third dimension, airports and their land use considerations take the concept of "air rights" into even more unique and challenging areas. Essentially, the Dictionary of Real Estate Appraisal published by the Appraisal Institute, defines avigation easement as "The right, granted by the owner of land adjacent to an airport, to the use of the air space above a specific height for the flight of aircraft; may prohibit the property owner from using the land for structures, trees, signs or stacks higher than the altitude specified; the degree of restriction as dictated by the glide angle necessary for the safe use of the airfield's runway."

Like other easements, an avigation easement interest in real property conveys use, but not ownership. When an airport becomes the beneficiary of airport improvement related grants, the facility is obligated to begin a program to conform with the provisions of Part 77. Basically, Part 77 seeks to protect the safety of the air space surrounding an airport's runway.

Predictably, the more developed the land around an airport is, the more complex an avigation easement appraisal and acquisition mostly becomes. While airports are located in areas which are removed from the urban core areas, there are airports (notably San Diego's Lindbergh Field) where high rise buildings are very close to active runways. High rise buildings embody the complexities that vertical property rights impose on the marketplace, and the appraiser. In New York City, the unused air rights which may exist above one building, can be transferred to another building



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based on the income producing potential of the air rights in question.

Fortunately, most airports have been positively affected by zoning ordinances which restrict not only the height, but the type of development which surround airport properties. The general standard which is applied nationally when analyzing whether an aviation easement adversely effects the value of the land beneath it is whether the height restriction is "unreasonable". Like other elements of the law, "unreasonable" heights vary from state to state, and there is no one standard which can be applied. The general consensus is that anything above thirty feet makes successful development difficult. If a height restriction is too low, the most cost effective approach is to buy the property outright rather than haggle over the value of an easement that restricts building height to below three feet.

It is generally recognized that the perfection of the satellite based Global Positioning System (GPS) will have amazing capabilities for not only point-to-point navigation, but for a precision approach system based on GPS technology. The implementation of this system will allow one GPS ground station to potentially provide precision approach information for a number of smaller airports which may exist in its vicinity. These smaller airports will be in a position where appropriate aviation easements will have to be acquired in order to maintain safe approaches. Additionally, larger airports which may upgrade from a Category I Approach to a more sophisticated approach CAT II and CAT III designation may have to acquire even more aviation easements due to increased capacity for aircraft to approach at even lower minimums.

Airports where an ILS is not practical and cost efficient would be equipped with CAT I type and perhaps even higher precision approach capability. Additionally, it may be possible to take multi-runway environments where an ILS may exist on only one or two approaches and develop a precision approach for every runway at the airport. These advances will go hand in hand with the need to protect the new usable elements of the airspace which are created.

The downside for this is that it depends on the ultimate integrity of the GPS system, in other words, how will the users know if a satellite is sending out bad information. This can be approached in several ways, and is currently under evaluation by the FAA.