



Airport Expansion

Controversy, Disputes & Answers By: Augustine F. Ubaldi, PE

Nationally there is an ongoing struggle between airports and the property owners surrounding airports. The nature of the struggle is over land, airports wishing to accommodate larger, modern aircraft are scrambling to build longer runways with larger safety areas, while local property owners are reluctant to sell their property.

These disputes between airports and property owners commonly result in litigation, which often requires the involvement of an expert in airport engineering. In this document, our resident airport engineer, Gus Ubaldi, P.E., provides an introduction to some of the common issues that arise in these disputes along with insight from his decades of experience.

Airport Expansion Controversy

Airports sometimes need to expand. Increased traffic might require more space for ramps, terminals, hangars, even parking. New aircraft or longer flights of existing aircraft may require longer runways. For safety, airports need imaginary safety areas surrounding the runway. FAA regulations require that the airport “has control” over the land for these safety areas. An enlarged airport will require larger safety areas.

Common Questions: What is proper interpretation of the FAA’s requirement to “have control”?

Definitions

- **Range** – the distance an aircraft can fly with a full load of fuel.
- **Instrument Approach** – series of predetermined maneuvers for aircraft under instrument meteorological conditions (weather conditions that require pilots to fly primarily by reference to instruments) to land at an airport.

Airport Expansion & Runway Length

Determining the required runway length to accommodate a specific aircraft requires more consideration than simply looking at a competing airport; runway length is a factor of the highest average temperature, airport elevation, and aircraft weight. The higher the temperature, elevation or weight, the longer a runway must be for any given aircraft. The weight of the aircraft is affected by the number of passengers and the amount of fuel on board. Surrounding residents and property owners are often concerned that airport expansion will generate increased noise, especially from larger aircraft.

Common Questions: Do the aircraft/routes that regularly fly from the airport need to fly with full tanks? Is the extended runway length required for the aircraft that typically use the airport? Will a longer runway increase the noise or aircraft traffic in the surrounding community?

Safety Areas

Airports are protected by imaginary surfaces that surround the runway and the approaches to the runway. The size of these areas depends on a number of factors, including the size and speed of aircraft that regularly use the airport and the precision of any instrument approaches. FAA requires that an airport have “sufficient property interest” to exercise control over the land in these safety areas.

Common Questions: Are the size of the areas consistent with FAA requirements? Would an easement be a “sufficient property interest” instead of outright purchase?

Obstruction Removal

Often, airports need to remove obstructions to flight paths in order to expand. This requires not only the purchase of land, but the removal of obstructions, ranging from trees to roads or houses.

Robson Forensic

Obstruction Removal (continued)

Common Questions: Are the obstructions to be removed consistent with FAA requirements? Is the proposed action (removal versus marking) reasonable?

Sometimes airports expand under the field of dreams philosophy, "if we build it, they will come." Rationally, longer runways that can accommodate modern aircraft are more likely to attract air traffic and support airport revenue streams. In some scenarios this approach is reasonable and justifies expansion, in others it is less reasonable and is met with just resistance from the neighboring community.

Airport expansion is a complicated subject that is often met with resistance. These conflicts can be resolved by involving an airport engineer to review expansion plans, including land acquisition and obstruction removal.

Aviation Investigations

From complex crash reconstruction to maintenance practices to component failure, Robson Forensic aviation experts have in depth knowledge of how aircraft and aircrew work, regulations affecting aircraft operation, airport design and component/material failures as they apply to both fixed and rotor-wing aircraft.

Providing opinions on:

- Aeronautical Decision Making
- Experimental Aircraft
- Aircraft Crash Reconstruction
- Night Vision Devices
- Avionics
- Composite Materials
- Material Failure Analysis
- Turbine Engine Materials
- Thermal Barrier Coatings
- Airport Design & Operations
- Airport Injuries
- Air Traffic Control Structure
- Aircraft Maintenance
- Aeronautical Engineering
- Component Failure

Call today to speak with one of our aviation experts for a case evaluation.

Airport Engineering Solutions

Sometimes airports expand under the field of dreams philosophy, "if we build it, they will come." Rationally, longer runways that can accommodate modern aircraft are more likely to attract air traffic and support airport revenue streams. In some scenarios this approach is reasonable and justifies expansion, in others it is less reasonable and is met with just resistance from the neighboring community.

Airport expansion is a complicated subject that is often met with resistance. These conflicts can be resolved by involving an airport engineer to review expansion plans, including land acquisition and obstruction removal.

About the Author:

Augustine F. Ubaldi, P.E.

AugustineF.Ubaldi@robsonforensic.com



Gus has more than 20 years experience as an airport engineer specializing in design and construction. Gus provided technical supervision and project administration on more than 150 projects; he led design and engineering teams in a variety of projects including airport planning, runway and taxiway construction, and airport lighting. Gus is a P.E. in nine states and the District of Columbia. He holds a private pilot's license for single-engine aircraft and is a member of the American Society of Civil Engineers and the Civil Air Patrol.