

Land Use Concerns Handout

Noise

Aircraft noise can impact local communities by causing annoyance, house vibration, learning difficulty, non-auditory health effects, and sleep disturbance. The image to the right shows considerable residential development near an airport. Residential land uses are one of the most susceptible to aircraft noise as it can interrupt daily life for residents, from interrupting conversations to interrupting sleep.



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Tall Structures

When thinking about land use characteristics that can be hazards to flight, the first thing likely to come to mind is tall structures. It is obvious that a high-rise building would pose a major problem if located at the end of a runway. Less obvious are tall buildings adjacent to a runway or ones located farther from the runway ends. Even structures not near an airport can be hazards to flight if they are tall enough. It is important to recognize that not just buildings and other structures pose potential concerns—trees, high terrain, power lines, temporary objects such as construction cranes, and mobile objects such as vehicles on a road can also be hazards in some situations. The image to the left is an example of a tall structure that can be hazardous to flight if constructed near airport environs.

Visual Obstructions

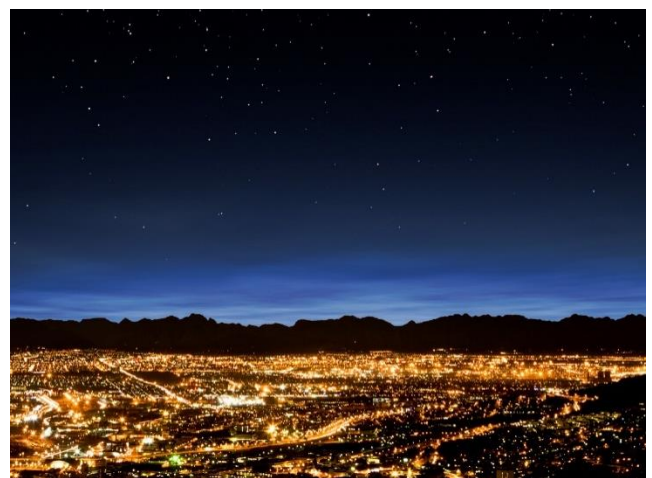
Although not a physical obstruction in the same sense that structures are, visual obstructions can also pose hazards to flight. Maintaining an unobstructed view for pilots is an important element in creating land use compatibility. Since many aircraft operations take place without navigational aids, clear visibility of the area around airports is essential. Land uses that obscure pilot visibility should be limited to ensure safe air navigation. Visibility can be obscured in various ways, including: dust, glare, light emissions, smoke, steam, and smog. Each of these should be managed when feasible, to limit its impact on aircraft and airport operations. The images below illustrate dust, glare, and light emissions that can impact pilot visibility.



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Wildlife Attractants

Aircraft collisions with wildlife are a threat to human health and safety and are steadily increasing. Wildlife attractants are defined in FAA AC 150/5200-33B as any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's Airport Operations Area (AOA). These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands. The image to the right shows the threat of wildlife to aircraft operations.



Source: www.istockphoto.com

Concentrations of People

The land use characteristic tied most closely to the consequences of aircraft accidents is the number of people concentrated in the accident area. Establishment of criteria limiting the maximum number of dwellings or people in areas close to the airport is the most direct method of reducing the potential severity of an aircraft accident. The image to the right shows a land use that attracts a high concentration of people, which should not be developed near an airport.



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