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Executive Summary

This report takes an objective look at the Proposed Oldham County Airport Report (hereafter referred to as the feasibility study). Simply stated, the facts in the study do not support the conclusions. In the report, you will find a discussion that supports the following statements:

- The feasibility study primarily uses a survey to determine the initial number and type of aircraft that might be based in Oldham County. The survey simply asks if a pilot would **consider** moving/basing his/her aircraft to Oldham County. There is absolutely no commitment from this type of survey, so there is nothing to lose by responding positively. A more accurate determination of aircraft basing would be to construct a “generic” Kentucky airport, and adjust it for Oldham County population and median family income.
- Sources of revenue—fuel sales, hangar rental, and flight training operations—are assumed to provide the bulk of the revenue to pay for the operating costs of an airport. However, market forces will dictate what can be charged for fuel, hangars, and flight instruction. The general aviation pilot is very sensitive to price changes, and will shop for the best rates. This will impact the airport’s ability to dictate fuel prices and keep its hangars at 100% occupancy.
- One of the weakest sections of this feasibility report is its business user survey. Out of 415 delivered surveys, only 5 aircraft owners (1%) said they would use an Oldham County airport. Only one said he would move his aircraft to Oldham County. All other responses in this section came from the same 5 surveys! Finally, all survey data came from businesses already in Oldham County! So, it is impossible to base any conclusions on the amount of revenue generated by corporate flying activity.
- There are several items not adequately addressed in the feasibility study, or not addressed at all. A discussion of market response to an Oldham County airport is missing. We will compete for aircraft with surrounding airports. Each relies on its customer base to hopefully cover airport operating costs. Additionally, no meaningful discussion concerning environmental impact of aircraft is attempted. You don’t need an environmental analysis to discuss these issues. Finally, the first page of the feasibility study attempts to sell the airport as a safety measure for aircraft maneuvering over Oldham County. In fact, the risk of an aircraft accident on Oldham County soil goes up considerably once an airport is built.
- Finally, there are some unfavorable trends in general aviation that must be considered before building an airport: Since 2000, there are fewer student pilots, private pilots, and commercial pilots receiving certification. From 2003 to 2006, there has been a 3.2 million hour decrease in general aviation flying, especially in single engine and multi-engine piston aircraft.

An Analysis
Of
The Proposed Oldham County Airport Report

The proposed Oldham County Airport has released an emotional outcry from thousands of residents. Yet, I believe we must objectively look at the facts being used by the Oldham County Airport Board (as supplied by the Entran Corp.) to convince us that an airport is in all of our best interests.

Before I begin, it's important to establish my credentials. I am a pilot with over 6,000 hours of flying experience. I have logged flight time as a private pilot, a commercial pilot, instructor pilot, navigator, flight engineer, and air transport pilot. I have worked in a civilian fixed base operation as a Part 135 commercial pilot and an instructor pilot. I was also an instructor pilot and flight examiner in the Air Force, and spent 6 years in aircraft accident investigation and safety-related positions. I was the Director of Safety at a Joint Air Force/Navy Undergraduate Pilot Training Base for two years. I currently fly for UPS. So, I have been intimately involved in flying for over 37 years.

I also acknowledge that it is a bit ironic for a pilot to be against the construction of an airport. But my aviation experience also provides me with a good understanding of the costs & benefits, and the risks & rewards of a community airport. So, I would like to discuss this airport proposal from three perspectives:

1. An analysis of the conclusions presented by the Oldham County Airport Board, based on the Proposed Oldham County Airport Report (hereafter referred to as the feasibility study). Simply put, the facts presented don't support the conclusions.
2. A presentation of facts contained in the feasibility study, but not discussed in the Airport Board briefing. Many of these facts don't support the conclusions presented by the airport board. Also, additional facts will be presented, that also counter the report's conclusions. These facts come from well documented reports on general aviation trends.
3. Finally, there are a number of questions that you should demand answers to, before you commit to building this airport.

I. Analysis of the Airport Feasibility Study (Why we need an airport)

1. GA Airports generate economic activity. There is no doubt that general aviation can create economic activity. However, the question that needs to be answered, **with certainty**, is whether or not general aviation will generate enough economic activity to pay all the bills associated with an airport.

The economic viability of an Oldham County airport is directly tied to the forecast based aircraft and fleet mix. To develop this forecast, it would be prudent to look at all Kentucky airports similar to what is envisioned for Oldham County. However, the feasibility study used only three airports—Standiford Field, Bowman Field, and Clark County Regional Airport—to develop a long-range forecast number of aircraft and fleet type for Oldham County. It also relied exclusively on the surveys sent to aircraft owners and businesses, to establish the **initial** fleet size and mix. To simply rely on survey data to determine whether or not you have enough aircraft to actually support a \$20 million dollar venture is a recipe for disaster. Survey data obtained was not subject to independent verification. Realize that a survey respondent makes absolutely no commitment to abide by any responses made on the survey. As a result, this method of forecasting the number and fleet mix of aircraft for Oldham County has serious flaws from the start.

It is possible to use other methods to determine the number and fleet mix of aircraft for Oldham County, one based on building a generic airport for the Commonwealth of Kentucky. The following table (table 1) shows 14 general aviation airports in Kentucky. With the exception of Bardstown, each airport has at least a 5,000 foot runway. These 14 airports lie in counties with populations from just under 100,000 down to just over 13,000. (Airports in Louisville and Lexington were intentionally omitted because their population bases are well over 2.5 times the size of Oldham County). Using known population & median household income data from county census records, and aircraft actually based at these airports, one can actually create a “generic” airport for Kentucky. Simply add up the columns and divide by 14. This becomes a baseline for further analysis. Once you have created a “generic” airport, you can further refine the information to reflect Oldham County’s population and median household income. In this study, a generic airport would have 47 aircraft, and be supported by a population base of 50,140, with a median household income of 37,406. Now, we adjust this generic airport to reflect the population and median household income in Oldham County, and we find that an Oldham County could potentially support between 52 (based on population alone) to 86 (based on median household income alone). It is my opinion that these numbers should be averaged, to arrive at an aircraft base of 69 aircraft. And, I believe that 69 aircraft is the maximum basis for any forecast of revenue generated by this airport.

General Notes:

1. Median Household income is used because it takes into account every household. Median family income takes into account homes with more than 2 people.
2. Jefferson County has more than 700,000 people, and Fayette County has more than 260,000 people. With populations this high, median family income becomes less relevant. Also, there are ongoing federal subsidies involved with these airports, making it more difficult to determine what size of general aviation airport each county could support without such subsidies.
3. There are still many airports in this study that are impacted by a major industry (Toyota), colleges, or both.
4. The “generic” airport method for determining the number and type of aircraft shows that there are other—more accurate methods than a simple survey. The data used in this table was drawn from readily available information from general aviation websites.
5. No adjustment was made for the effects of market competition in the greater Louisville Metro area, from Bowman Field or Clark County Airport.

Runway repairs, airport grounds, airport lighting operations & maintenance.

Oldham County’s cost to build a general aviation airport is currently stated at somewhere between \$400,000 and \$500,000 (2.5% of \$20 million). However, once an airport is built, there are a number of ongoing expenses. Some include replacement of airport lights, maintenance of instrument landing systems, mowing, hangar repair, runway surface repairs, re-painting of runway markings, and many other expenses. Finally, someone will have to pay for the airport manager—who will be pivotal in the success of airport operations. On this point, the old axiom is true, “You will get what you pay for.” The salary of a good airport manager will most likely be close to \$67,000 (*source: avjobs.com—low end was \$55,000*). Bottom Line: We—the taxpayer—can expect to cover the annual costs not covered by general aviation revenue. How much will that be? That my friends, is the question our magistrates must have a good answer for. Unfortunately, the FAA and the airport board have already determined that infrastructure costs associated with the airport are the responsibility of the Oldham County taxpayer. Indeed, all 14 counties mentioned in the study above have to cover infrastructure costs of their airports. But what about the daily operating costs?

Many will insist that this airport can become self sufficient—that is, pay for all the operating costs. So, let us examine the three general sources of revenue that are used to pay for airport operating costs:

Fuel Sales. It is generally assumed that pilots who relocate their aircraft to Oldham County will also buy their aviation fuel at the Oldham County airport. So, profits from this fuel will be one source of revenue. But the cost of aviation gas is remarkably expensive, and pilots **will** find the cheapest place to fill their tanks—and it doesn’t have to be in Oldham County. Just as most of us look for the cheapest gas prices before we fill up our tanks, pilots will do the same. For example, the cost of aviation gas at Bowman Field on November 28th, 2007, was \$5.30. However, the cost of aviation gas at Georgetown Scott County Airport was only \$4.24 (*source: www.airnav.com/fuel*). If you were buying 100 gallons of aviation fuel, you could save \$106 by filling up in Georgetown—less than 45 miles away. So, the actual profit from fuel sales at the

Oldham County Airport will be constantly subject to gas prices offered by other airports in the local area.

Can we somehow measure how sensitive pilots are to fuel prices? If you look at page 2-10 of the feasibility study, you will find that 80% of the aircraft owners cite fuel prices as a major factor when deciding where to base their aircraft (add response ratings 4 & 5 which indicate the upper two levels of importance).

One more factoid: In 2007, Clark County Airport has seen a 50% drop in fuel sales after they raised fuel prices, in an effort to cover mounting airport expenses. Currently, they charge \$4.89 per gallon. (*source: 11/28/07 phone conversation with Melody McNames, Clark County Airport Assistant Airport Manager*).

Hangar Rental. The hangar rental market is also subject to local market forces. So, it's important to understand what is available at Bowman Field and Clark County Airport, the closest general aviation facilities. The feasibility study states on page 2-6 that, "Many potential tenants are on a waiting list for T-hangar space at Bowman Field. . .The airport has 223 T-hangars on the field with an approximate two year waiting list. . .". On November 28th, 2007 I talked directly with Karen South, property specialist at Bowman Field. She is responsible for hangar rentals. According to Ms. South, the quote made in the report is actually misleading. There are currently 20 people awaiting hangar space at Bowman field. However, 14 of those people already have a hangar, but simply want to rent a cheaper one. Right now, Bowman Field has three different hangar types offered. An oversized hangar rents for \$342 - \$515. However, the standard T-hangar rents for only \$255. The oldest T-hangars rent for \$181. These older hangars don't have electricity or electric doors—yet they are the hangars most often requested. The feasibility study fails to mention the oldest T-hangars at all, or their rental cost of \$181 per month.

According to Melody McNames, Clark County Regional Airport currently has open hangars.

One more factoid: Bowman Field has looked into adding hangars; however, the estimated cost of a 20 hangar upgrade was nearly \$1 million. At that cost, the monthly rental for new T-hangars would have been approximately \$350 per month. They decided not to continue with the project because they would have to destroy their least expensive hangars in the renovation process. So, it is logical to expect that the rental cost of any hangar at an Oldham County Airport would have to be roughly the same—around \$350 per month. This would mean that any pilot moving his/her aircraft from Bowman Field to Oldham County would pay a \$1200 - \$1400 annual premium for hangar space in Oldham County over what can currently be offered at Bowman Field.

Is there a way to measure how sensitive pilots are to paying extra for a hangar? The airport feasibility study itself contains information that indicates an aircraft owner will probably NOT pay more money for hangar space if it's available somewhere else at a cheaper price. If you look at page 2-10 of the report, you will find that 86% of the aircraft

owners cite hangar fees as a major factor when deciding where to base their aircraft (add response ratings 4 & 5 which indicate the upper two levels of importance). So, aircraft owners are also very price sensitive when it comes to hangar rentals.

Flight Training. It would be generally expected to see a flight training center relocate to Oldham County. And, this business would have to pay rental fees, which would offset the building cost and hopefully generate some revenue to help pay for other airport costs. However, the airport can—and will also be used by flight training centers that will choose not to relocate to Oldham County. Instead, they will simply use the airspace to conduct multiple takeoffs and landings. After all, the Oldham County airport traffic pattern will offer a less congested place to practice. Remember, there are at least four general aviation airfields within 15 minutes flying time of Oldham County. So, it is just as reasonable to assume that flight training centers would not relocate to Oldham County, but simply use its airspace. From these aircraft, you will receive no revenue.

2. Aid in Recruiting New Businesses. In determining whether or not Oldham County needs an airport, the report cited that businesses would use it. However, this conclusion is not supported by the survey conducted by Entran. The survey data shows that only 5 businesses out of 415 businesses (1%) queried even owned or leased an aircraft, and only one said that he would consider relocating his aircraft to Oldham County—should an airport be built. (see page 2-11 of the feasibility study). All other data presented in this section came from the same 5 surveys! More importantly, this survey was only administered to businesses in Oldham County! (*source: Dec. 10, 2007 email response from Aaron Braswell, Entran Engineer*) So, the survey does not support the finding that an airport would aid in recruiting new businesses. In fact, survey data seems to indicate that having an airport makes no meaningful impact on a company's decision to relocate. Instead, businesses will continue to look for generous tax breaks provided by the county, as the primary motivation for moving to Oldham County. Suggestion: If you are spending money to conduct a business survey, it would seem prudent to ask them, "What is the major item you look for when choosing a site for your business?" Give them a list of things (tax breaks, schools, road network, cheap land, clean environment, airport), then ask them to prioritize the list. Bottom Line: Any forecast business revenue based on simply having an airport in Oldham County—simply isn't supported by the survey conducted.

3. Expedited movement of passengers and goods. The Airport Board would like us to believe a general aviation airport would expedite the movement of passengers and goods. Yes, this is true—for the 113 pilots, (their family and friends), who might move their personal airplanes to Oldham County. This airport will NOT bring regional commercial transportation to the thousands of citizens of Oldham County. So, we will continue to travel 45 minutes to Louisville or 1:15 minutes Cincinnati for personal air travel. To be honest, that's pretty good service. And, the overwhelming majority of our goods will continue to arrive by ground transportation. So, 113 aircraft owners—and their passengers & friends—are the primary beneficiaries of this proposed airport. Yes, there might be an occasional air taxi operation. But there is no way to forecast this, based on the current report.

4. Provide direct access for emergency services. A general aviation airport will no doubt provide direct access for services, such as emergency air and police. But, is it necessary? To answer that question, we need to assess what we have available right now. What we have, is a vast array of state-of-the art hospitals in Louisville—less than 35 minutes away by ground ambulance. These hospitals offer leading edge technology & world renowned surgeons. In fact, Jewish Hospital is rated in the top 50 U.S. hospitals for its excellence in the fields of heart, neurology, neurosurgery, and respiratory disorders. So, the vast majority of health problems that Oldham County residents might encounter can be handled in Louisville. For situations requiring a time-sensitive response, Baptist Northeast hospital in LaGrange has the capability to transport accident victims from their heliport, directly to other hospitals in Louisville—including University of Louisville—recognized for its treatment of trauma patients. Emergency helicopter services are provided by Stat Care, who operates helicopters out of Louisville and Bedford. Their dispatch time is less than 15 minutes from the time a call is received until they arrive at Baptist Northeast. They can also respond directly to accident sites throughout the county further reducing response time. An airport in Oldham County would only improve on current service and only if an emergency response helicopter would permanently relocate to this airport. According to Stat Care, they have no plans to position a helicopter in Oldham County, should an airport be built. Finally, we need to address the need for fixed-wing air ambulance service, the type that could possibly use the Oldham County airport. This service would provide long distance service, generally outside the state of Kentucky, or beyond the range of helicopter service. But, before fixed wing aircraft service is used, a patient is generally in a stabilized condition. So, where do trauma patients go to be stabilized? Which hospitals specialize in trauma care? What airports are closest to these stabilization hospitals?

5. Enhance Infrastructure.

While an airport would enhance the infrastructure, would this be a meaningful enhancement? What is the condition of the current infrastructure? Specifically, what is the condition of our primary and secondary roads—something that serves the overwhelming majority of Oldham County citizens. What is the state of our water supply system, storm drainage, or sewage treatment system? I realize that this \$20 million can't be used to take care of these problems. However, an airport will have annual expenses that will compete with other infrastructure requirements.

II. Facts Not Presented by the Airport Feasibility Study

1. Market Reaction to an Oldham County Airport. The report did not make a strong case in proving that there is major overcrowding at the local airports. So, an increase of 105 aircraft in Oldham County will come at the expense of other regional fixed base operations. The report also didn't address the reaction of businesses at Bowman Field and Clark County Regional Airports, when it forecast the based aircraft and fleet mix baseline for Oldham County. Obviously, regional fixed base operators will take steps to keep their customers right where they are.

2. Driving Distance to Airport. The airport feasibility study states that nearly 74% of the aircraft owners say that driving distance has a major impact on where they hangar their aircraft. The report also states that 100 aircraft owners said they would be interested in relocating their aircraft to Oldham County. However, only 26 of the respondents live in Oldham County (16%). So, the location of the proposed airport is critical. Remember 101 pilots (62%) of the survey respondents live in Jefferson County, where Bowman Field is located. If they live closer to Bowman Field than the selected airport site in Oldham County, then—according to the survey-- they would probably elect to stay at Bowman Field.

3. Impact of Aviation on the Oldham County Environment.

Environmental issues caused airport officials to cancel or indefinitely postpone expansion projects at 12 of the 50 busiest U.S. airports in the last 10 years [source: GAO 2000c]. The dominant concern was noise, followed by water quality and then local air quality. In the future, noise and local air quality are expected to be the most significant concerns. So, the impact to Oldham County's environment is something we must take seriously—before we build an airport. Specifically, we must address the true impact of aircraft noise and lead emissions.

Effects of Aircraft Noise. The air into which second-hand noise is emitted and on which it travels is a shared public good. It belongs to no one person or group, but to everyone. People, businesses, and organizations, therefore, do not have unlimited rights to broadcast noise as they please. On the contrary, they have an obligation to use the shared airspace in ways that are compatible with or do not detract from other uses.

The effects of general aviation noise are something that has not been adequately addressed in the current report. Regardless of the site eventually selected for an airport, there will be families who must cope with the constant sound of aircraft noise. Nighttime flights repeatedly wake neighbors. Repeatedly waking people up at night in their own homes is one of the most uncivil things people can do to each other. Moreover, sleep loss and its resulting health effects cause billions of dollars in lost productivity, thousands of car and workplace accidents, and strained family and friend relations. So, how do we avoid/mitigate the effects of noise?

In its feasibility study, ENTRAN has provided noise contour overlays for 75d and 65d day-night noise levels (DNL). The reason 65d DNL was chosen is that it is the threshold for federal funding of noise mitigation. So, the 65d DNL has to do with who pays for noise abatement initiatives. It has nothing to do with whether or not people are annoyed with the sound of aircraft noise. While federal and industry investments can be applied to reduce aircraft noise above 65d DNL, it is left up to local authorities to address noise levels below 65d DNL. So, before we build an airport, let's make a concerted effort to understand the true relationship between noise and its impact on the citizens of Oldham County.

In 1983, the FAA requested NASA Langley Research Center to review the literature on "state of the art" sleep interference research. This study was part of a larger reevaluation of nighttime noise events.

Concerning Arousal from Sleep: After lengthy study, NASA concluded the following:

1. The threshold level of a noise which will cause arousal from sleep depends on sleep stage and the age of the subject, among other things. So, noise levels which can cause sleep disturbance cover a range of 35 to 70 decibels.
2. In a normal 8-hour sleep night, more time is spent in lighter stages of sleep in the last half than in the first half. This implies that airport use restrictions limiting early morning flight from 3 a.m. to 7 a.m. are particularly important.
3. Little or no physiological adaptation to sleep interference from noise occurs.
4. Psychological annoyance from the effects of sleep interference from aircraft noise is probably more significant than the direct physiological consequences.
5. The maximum acceptable single intrusive level is 55 decibels.

[source: Aviation Noise Effects, Federal Aviation Administration, Washington D.C., Mar 85. www.nonoise.org/library/ane/ane.htm]

There have been countless studies since the NASA study that link the effects of sleep deprivation on the productivity of workers. So, if aircraft noise levels create a disruption of sleep patterns on an "ongoing" basis, then it is logical to conclude that the productivity of Oldham County residents exposed to this type of noise will be negatively impacted.

Factoid: The National Commission on Sleep Disorders estimates that sleep deprivation costs \$150 billion a year in higher stress and reduced workplace productivity.

A second opinion was given by the Noise Pollution Clearinghouse, upon examination of the FAA's Noise Abatement Policy—2000. The Noise Pollution Clearinghouse is a non-profit organization that works with communities to reduce all levels of noise in the workplace and residential areas. They concluded the following:

Night flights that wake family members impose a significant impact on citizens. The FAA has, in its Proposed Noise Abatement Policy, ignored sleep disturbance as a significant impact. Sleep disturbance is mentioned only four times in the approximately 25,000 word

document. It is, however, the most extreme and disturbing noise impact. And it is the fastest growing impact, paralleling the growth of night time flights. Sleep loss results in decreased workplace productivity, contributes to thousands of automobile accidents each year, leads to irritability and strained relations with family and friends, and lowers student performance in schools.

Single event levels greater than 45 dBA indoors significantly impact education in schools, religious services in churches, family life in homes, and worker productivity in offices. The following are typical recommended background noise levels for various facilities (also known as Room Criteria, RC):

- Private residences: 25-30 dB
- Courtrooms 25-30 dB
- Churches 25-30 dB
- Classrooms 25-30 dB

Single event levels of 45 dB are between 2 and 4 times louder than typical recommendations. Intrusions greater than 45 dBA represent a significant impact.

(source: The Noise Pollution Clearinghouse Comments to the FAA Regarding Aviation Noise Abatement Policy 2000. www.nonoise.org)

So, what does all of this mean? It is my opinion that any environmental impact study includes a noise contour analysis for each proposed site that shows a 45d and 55d DNL contour. By doing so, airport planners have the necessary tools to determine how many Oldham County residents are impacted by the type of noise levels that are relevant to a discussion about noise. Noise at the 45d & 55d are sufficient to wake a sleeping person.

Decibel Noise Equivalents:

55dDNL—conversational speech at a foot away

45d DNL— voice level used to wake a sleeping person

35d DNL—quiet conversation

(Source: Earthlink.net)

Effects of Leaded Aviation Fuel. Aviation fuel contains lead—one of the last few areas where the EPA has failed to set a mandate for unleaded gas. In 2002, general aviation emitted 125.5 annual tons, or about 88% of lead from all mobile sources. *(Source: National Emissions Inventory for Lead, U.S. EPA, 2002)*

The EPA readily admits that “lead is a very toxic element, causing a variety of effects at low dose levels.” Numerous federal agencies, including the EPA, the Occupational Safety and Health Administration, the Food and Drug Administration, and the Department of Health and Urban Development, have implemented regulations controlling lead content

and use. While the EPA has successfully mandated the phase-out of lead in gasoline for automobiles, it has been oddly reluctant to address the aviation fuel problem for the last 10 years. In fact, it has repeatedly refused to establish any timeline for the transition from leaded fuel to unleaded fuel. (Incidentally, it mandated a switch for all NASCAR vehicles by 2008). This seems odd, since there are hundreds of studies that directly link exposure to lead with health problems. So, what is the risk caused by the use of leaded fuel in general aviation aircraft?

Risk of Leaded Fuel. The use of leaded aviation gasoline results in the emission of both organic and inorganic lead-containing compounds. Organic alkyl lead compounds such as tetraethyl lead (“TEL”) are emitted into the air mostly from fueling operations. TEL decomposes fairly quickly to inorganic forms of lead once dispersed into the air, water, or soil. For example, the half-life of TEL in summer atmospheres is approximately 2 hours and is on the order of several days in winter atmospheres.

Inorganic forms of lead enter the environment from the decomposition of organic alkyl lead compounds (explained in the previous paragraph), and more significantly, as tailpipe emissions from the gasoline combustion process. Inorganic forms of lead are highly persistent in the environment. Any condensation process—rain, mist, dew--removes lead particles from the atmosphere and deposits them on soil and water surfaces. Lead emitted as emission particles may remain airborne for up to ten days and may thus be transported far from the original source.

So, the areas near airports are especially contaminated, because lead-based aviation fuel particulates can end up far from the original source, blown into surrounding fields, forests, streams and waterways. When they are deposited in farm soil, forage areas, and ponds, they expose us, without our knowledge or control, to this poison.

So, here is an example of where we all know there is a health risk associated with leaded fuel. The EPA cannot—or will not—set a level of acceptable exposure to lead, or set a timeline for the elimination of leaded fuel in general aviation aircraft. So, we must make the decision, based on all the evidence available. We can’t simply say, “Well the EPA didn’t set a limit, so it must be O.K.”.

4. Safety versus Risk. On the very first page of the airport feasibility study states, “Oldham County officials also believe a new airport in the county would improve safety in the area.” (page 1.1) This conclusion was based on the fact that air traffic exported to Oldham County would relieve the high volume of air traffic in the Greater Louisville area. And, an Oldham County airport would serve as an emergency airfield for aircraft maneuvering overhead. While that is an admirable goal, the fact is that you are actually transferring multiple levels of risk from Bowman Field to Oldham County.

Currently, general aviation activity in airspace above Oldham County consists primarily of maneuvering—which includes stalls, simulated forced landings, steep turns, and spins. In 2005, only 11.3% of all pilot related accidents occurred while aircraft were in

maneuvering flight. (*source: 2006 Nall Report*) So the risks associated with maneuvering flight remains the same, whether or not an airport is built in Oldham County.

However, if you place an airport in Oldham County, the overall level of risk increases because aircraft are now conducting more than just maneuvering flight. Aircraft are taking off, climbing, descending for approach, and landing. These are defined by the FAA as *critical phases of flight*, because inattention or preoccupation with things not related to flying the aircraft can have catastrophic results. (Other critical phases now include taxi out for takeoff and for Part 121 pilots, any flight below 10,000 feet MSL.) In 2004 and 2005, 65% of all general aviation accidents occurred in the takeoff/climb, descent, approach, and landing phases of flight—all critical phases of flight. Now, the more takeoffs and landings you make, the greater is your exposure to risk. If you recall, the feasibility study estimates that there will be 51,380 takeoffs or landings the first year alone—introducing significantly more risk exposure than what Oldham County residents currently experience.

Risk exposure also increases, based on who's doing the flying. The majority of aircraft based at an Oldham County airport would be used for personal flying. While personal flying makes up only half of all general aviation flying, they have disproportionately higher number of accidents. For 2005, here's the percentage of accidents attributed to personal flying, based on the critical phases of flight:

- 73% of all takeoff/climb accidents
- 84% of all descent/approach accidents
- 84% of all go around accidents
- 64% of all landing accidents (*Source: 2006 Nall Report*)

So, the risk of an aircraft accident in Oldham County will go up. The more takeoffs and landings made at the Oldham County airport, the more risk you incur. Concurrently, the risk of an aircraft accident around Bowman Field will go down, because there will be fewer aircraft operations in the critical phases of flight.

In summary: For each phase of flight (takeoff, climb, descent, approach, landing), a person's overall risk is based on the risk in that flight phase, coupled with the number of times you expose yourself to that flight phase. So, an airport in Oldham County actually increases the risk of an aircraft accident in the county. Let me be clear: The total number of general aviation accidents is relatively low, only 1,436 mishaps occurred in 2005. This equates to an accident rate of 7.2 mishaps for every 100,000 hours flown (*source: 2006 Nall Report*). However, it is **80** times higher than the airlines. (*source: NTSB, Air Accident Digest, Feb 6, 2007*) I don't make this comparison to show that general aviation is dangerous, I make it to demonstrate that there are higher levels of risk associated with general aviation operations. For most pilots, the risk involved with

general aviation flying is acceptable. However, many folks perceive the risk as too high. For them, perception is reality.

5. Unfavorable Trends in General Aviation. The following trends in general aviation were not addressed by the airport feasibility study. Some of these facts directly contradict findings & conclusions in the report.

- Estimated General Aviation flight hours are no longer increasing. From 2003 to 2006, flight hours have dropped by nearly 3.2 million hours. That represents a 12% decline in general aviation flying.
 - o 2001—25,431,000
 - o 2002—25,545,000
 - o 2003—25,998,000
 - o 2004—24,888,000
 - o 2005—23,168,000
 - o 2006—22,800,000

Source: NTSB Aviation Accident Statistics www.nts.gov/aviation

- As of the end of 2006, there were 597,109 active certificated pilots. This number has been declining steadily since 1980, when there were 827,000 certificated pilots. This represents a decline of 28%, or nearly 1% per year.
- Declines by type of certification:
 - o Student Pilot—93,064 to 84,866 (-8%). This is a certificate for pilots training to become private pilots. It's much like a learner's permit.
 - o Recreational Pilot—340 to 239 (-30%). Less training required, but more restricted. Limited to flight within 50 NM, carrying no more than one passenger, and restricted to day/VFR flying only.
 - o Private Pilot—251,561 to 219,233 (-13%) This certificate is critical, since it is an entry level prerequisite for all advanced certificates (commercial, ATP, or flight instructor). While 2007 data is not fully available, private pilot certification continues to decline by 5% through the first three quarters of 2007.
 - o Commercial—121,858 to 117,610 (-3%). Allows pilot to fly for compensation, in a wide variety of general aviation operations (banner tow, aerial application, sight seeing).

Source: FAA Certificated Pilots, AOPA Online, May, 2007

- From 2000 to 2003, there has been a 4% decline in the number of single engine aircraft flown. In the same time period, there has been a 13% decline in the number of multi-engine aircraft flown.

Source: U.S. Air Carrier Operations, CY 2000 – 2003, www.NTSB.gov. No later data available from NTSB).

III. Questions That Must Be Sufficiently Answered. As magistrates, you are charged with looking out for the interests of all Oldham County residents. When determining whether or not an airport is in the best interest of the county, you cannot simply rely on the report of a single working group—one whose primary interest is to prove the economic viability of an airport. You have a duty to demand answers to tough questions. You have a duty to seek out opposing views—and this may involve spending some money. However, I am here today to give you a head start—free of charge—in formulating a list of tough questions:

1. How do we determine the true economic impact of a general aviation airport? Is historical data based on Kentucky airports more predictive than a study from a different state?
2. Can we rely on simple survey data or forecast models that use Louisville's Standiford and Bowman Fields (two of the three airports modeled by Entran) to determine the number and type of aircraft based in Oldham County? Can't we create a "generic" Kentucky airport as a basis for making a more informed decision?
3. Is it logical that forecast revenues from businesses potentially moving into Oldham County are based on a study of Oldham County businesses? Would you base forecast revenue on 5 positive responses from a survey base of 415 respondents?
4. Would economic modeling be more accurate if the airports used for analysis were sited in counties more similar in size to Oldham County?
5. How do you determine whether or not the majority of citizens in Oldham County support this airport initiative? What will you do if you receive evidence that shows the majority do not support it?
6. Before you conclude that an airport will aid in luring businesses to Oldham County, wouldn't it be logical to survey businesses outside Oldham County to see what their priorities are? Have them give you a prioritized list of what's important to them so that you know.
7. Shouldn't you find out what the ongoing infrastructure costs are for an airport? These are the costs that you're going to ask the residents of Oldham County to pay. Why not ask the 14 counties that have airports similar to the size you are planning?
8. What exactly will an FAA grant pay for? Runway, navigation aids, hangars, FBO building, upgrade to access roads, grading, tree removal, etc. How will the money be paid?

9. What is the affect of fractional ownership on corporate aircraft purchases? If a corporation can purchase a share of an aircraft, yet get air support at any time, why would it purchase an aircraft?

Final Thoughts. One common theme that I have heard from many proponents of this airport—and some of the magistrates--is this: *“If we don’t spend the federal & state grant money available for this airport, someone else will”*. If we don’t need the funds, however, then we are not good stewards of the taxpayer’s money. The lesson here is one of needs versus wants. An airport for Oldham County falls in the latter. You can attempt to dress it up any way you want, but at the end of the day, an airport in Oldham County will fulfill the “wants” of a very small minority, while fulfilling the needs of no one. The facts presented in this paper provide the proof.

Other Sources:

- Report to the United States Congress, AVIATION AND THE ENVIRONMENT, A National Vision Statement, Framework for Goals and Recommended Actions. December 2004 *Prepared by:* Ian Waitz, (Director of the Massachusetts Institute of Technology), Jessica Townsend, Joel Cutcher-Gershenfeld, Edward Greitzer, and Jack Kerrebrock
- PBT National Action Plan for Alkyl-Lead, U.S. EPA Persistent, Bioaccumulative, and Toxic Pollutants (PBT) Program (June 2002) [PBT Action Plan] at 13
- Petition to the U.S. Environmental Protection Agency, Seeking Regulation of Lead Emission from General Aviation Aircraft, Filed by Friends of the Earth, October 3, 2006
- Airport Master Records & Reports, Airport IQ 5010, www.gcr1.com/5010web
- Federal Aviation Administration, State & County Inquiry, www.registry.faa.gov/aircraftinquiry/
- Airports in Kentucky, www.aircraft-charter-world.com/airports