

October 12, 2004

David B. Elder
City of Worthington
6550 North High Street
P.O. Box 480
Worthington, Ohio 43085

Re: City of Worthington: Proposed Expansion/ Ohio State University Airport

Dear Mr. Elder:

The City of Worthington has requested our opinion on the validity of the Draft Environmental Assessment prepared by Ohio State University Airport in connection with a proposed extension of Runway 9L/18R.

It is our opinion that the proposed extension would have a significant impact on the environment, and that therefore a full Environmental Impact Statement (EIS) ought to be prepared in accordance with the National Environmental Policy Act ("NEPA").

This opinion is based on the analysis performed by our retained consultants, and in particular, the noise analysis, prepared by Jack C. Freytag, Charles Salter & Assoc., San Francisco, CA. I will summarize his findings and opinions below, then spell out the legal standard applicable to this issue.

The assessment compared the Baseline CY03 and Scenario 4, RW Extension/South Side Hangar "Preferred Scenario" (CY08) data. There are three primary reasons why the report is inadequate, and why a full environmental impact report is required.

This report is inadequate because:

1. It fails in several areas to reflect the full noise impact of future operations. These areas are:

- a) predicting retirement of current serviceable and noisy aircraft,
- b) failing to show any use of several noisy based aircraft, and
- c) exaggerating the actual climb profiles of aircraft by failing to consider ATC restrictions.

There is an undocumented and unsubstantiated assumption that the following will be retired:

- a) 100% of the Citation 3 fleet.
- b) 100% of the Canadair 600 fleet.
- c) 100% of the Citation 500 fleet.
- d) 98% of the Citation 55B fleet.
- e) 100% of the Gulfstream IV fleet.
- f) 100% of the Gulfstream V fleet.
- g) 83% of the Learjet 25 fleet.

The sweeping assumption of forecast retirement of these older and noisier aircraft singularly results in the reduced noise impact. This retirement more than offsets the DNL increase from the lengthened runway and the increase in day and nighttime traffic volumes. This retirement assumption is false, and no such retirement has been realized at U.S. airports. Due to the high cost of aircraft and the demand for aircraft use, executive jet aircraft are very slow to retire. These older aircraft are attractive to many users, both for affordable flight training and for affordable transportation. There is no reason to assume that these aircraft, which have been in operation for 20 years, would suddenly retire within the next few years. There has been no mandate to retire aircraft below 75,000 lbs MTOW as there was from the ANCA for heavier aircraft, nor has any such retirement been proposed. Executive jet aircraft live long lives.

If the fleet mix were to remain unchanged and the volume increased from the current 101,832 ops/yr to the forecast 136,168 ops/yr without the runway extension, the increase in the 65 DNL contour would be 1.3 dB -- nearly the 1.5 dB necessary to require an EIS. The runway extension would certainly increase this contour over the 1.5 dB threshold in the immediately impacted residential areas.

Based jet aircraft missing entirely from the forecast operations include:

- a) Beechjet 400
- b) 525 Cessna Jet
- c) Citation 2
- d) Falcon 50
- e) Falcon 200
- f) Hawker Siddeley 800
- g) Learjet 31

These are noisy jet aircraft whose operation must be included in the noise model. Failure to include these aircraft understates the noise impact.

2. The Compound Annual Growth Rate assumed by OSU's consultants does not reasonably represent the likely growth scenario of the Airport Operations. There are three elements shown for growth in Airport operations for Scenario 4 from CY03 to CY08:

- a) A 2.2 compound annual growth rate (CAGR)
- b) An additional 22,000 operations from construction of the hangars
- c) 450 additional operations from lengthening of the RW

The worst-case condition should consider aggressive growth of jet operations. Instead, the study averages the Compound Annual Growth Rate (CAGR) over the past few years to develop a 2-percent rate. The CAGR over the past seven years has varied from -17 percent to +19 percent. While the 2.2 percent rate may be a reasonable estimate, it is not the worst-case required by the NEPA. We believe that a ten percent annual growth rate is more appropriate. It appears that the CAGR is artificially low to keep the DNL contours from growing by 1.5 dB and triggering the necessity of an EIS by FAA Order 1050.1D. Even a 3.6% CAGR with the same fleet mix and the forecast hanger and RW extension growth would cause a 1.5 dB contour increase everywhere, and a higher increase for the 3000 ft extension of RW 9L/27R.

Further, the effect of lengthening RW 9L/27R is claimed to add only 450 new operations over five years. This is ridiculously low and would not justify the expense to add 3,000 ft of runway.

3. The altitude assumptions profiled by the Noise Consultants fail to reflect the actual profiles.

The local air traffic control center frequently limits the altitude of aircraft departing OSU for a period of time to allow transiting traffic to proceed above. Due to air traffic in the area over OSU, aircraft are routinely held to lower altitudes by the local air traffic controllers. This is necessary to allow for adequate airspace separation for other aircraft transiting the area overhead. Therefore, many aircraft departures use more shallow climb profiles to attain their assigned altitudes comfortably and fuel-efficiently. The INM model fails to reflect the shallower climbs which keep aircraft lower to the ground. The result of this oversight is an understatement of the noise exposure contours from the model. Pilots often relax their rate of climb to save fuel, thereby remaining closer the ground and creating more noise to the communities below than is modeled.

The attached spreadsheet compares the volume of average daily operations by aircraft type for the two scenarios. The study states that the operational data was developed principally from 8-1/2 days of ATC records. This sample may be inadequate since it omits 8 types of based jet aircraft of the 22 types included, or 36 percent.

The above analysis makes it clear that there are three fatal flaws in the proposal, any one of which would cause the proposed improvements to exceed the 1.5 dB threshold. Taken together, the three flaws have a dramatic impact on the noise impacts of the proposed improvements.

If OSU submits the EA "as is" to the FAA, it would necessarily be required to include Public Comment. If, after reviewing the Public Comment and the OSU analysis, the FAA chose to make a "Finding of No Significant Impact" (FONSI), any "interested party" could file a legal challenge. I will now explain the legal standards which a Court must follow in analyzing a challenge to a FONSI.

When considering a challenge to a FONSI or mitigated FONSI, a court will consider the following four factors:

- (1) whether the agency gave a proposal and its potential impacts a "hard look";
- (2) whether the agency identified relevant areas of environmental concern;
- (3) whether the agency made a convincing case that the impact was insignificant;
and
- (4) whether the agency convincingly established that changes or mitigation measures sufficiently reduced significant impacts to a minimum.

(See e.g. *Protect Key West, Inc. v. Cheney*, unreported, 1992 WL 219999 (S.D.Fla. Aug 13, 1992) (NO. 92-10043-CIV-KING)). Ohio has taken a comparable approach, holding that although the agency's judgment should not be substituted by the court's, the court has a duty to ascertain whether the agency has in fact adequately studied the issue and take a 'hard look' at the environmental consequences of the issue at hand. (See e.g. *Crouse Corp. v. Interstate Commerce Comm'n* (6th Cir. 1986), 781 F.2d 1176, 1193). Additionally, federal courts have stated that the applicable standard is that EA must provide a realistic evaluation of total impacts, and cannot merely review the project in a vacuum. (See e.g. *Grand Canyon Trust v. FAA* (D.C.Cir. 2002), 290 F.3d 339, 340-41).¹

¹ It should also be noted that under the new FAA Order 1050.1e, the opportunity to mandate an EIS be performed on the basis of community opposition no longer exists. The only permissible basis under the new FAA Order 1050.1e is when the controversy is based upon environmental concerns.

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In conclusion, it is our opinion that the Draft EA contains at least three fatal flaws which, if properly addressed, would result in a finding that the improvements will have a significant impact on the environment. Therefore it is our opinion that the City of Worthington should continue to request that OSU perform a full Environmental Impact Study on the proposed project.

In the event that the EA is submitted as currently written, it is our opinion that either the FAA or a court of competent jurisdiction would reject the EA, and require that an EIS be performed.

Sincerely,

David W. Zoll

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Enc.

cc: Dennis M. Hughes, Hughes and Associates
John Freytag, Charles M. Salter Associates, Inc.