



## **Minutes Tempe Aviation Commission November 12, 2008**

**Minutes of the Tempe Aviation Commission meeting held on November 12, 2008, 6:30 p.m., at the Public Works Conference Room, Garden Level, City Hall Complex, 31 E. Fifth Street, Tempe, Arizona.**

**(MEMBERS) Present:**

Sally Clements  
Tara Ellman  
Gary Goren  
William Justus  
Gloria Regensberg  
Curtis Ritland  
Barbara Sherman  
Alyson Star  
David Swanson (Vice Chair)  
Edwin R. Wiggington

**City Staff Present:**

Oddvar Tveit, Environmental Quality  
Specialist, Water Utilities  
Department

**(MEMBERS) Absent:**

Connie Thompson  
Duane Washkowiak (Excused)

**Citizens Present:**

Karyn Gitlis  
Troy McCraw

**Guests Present:**

Ronald Price, Principal QED Airport  
and Aviation Consultants  
Henry Young, President of Young  
Environmental Sciences, Inc., QED  
Associate

**Meeting convened at 6:32 p.m.**

In Duane's absence David Swanson called the meeting to order.

**Agenda Item 1 – Public Appearances**

There were no public appearances.

**Agenda Item 2 – Consideration of Meeting Minutes (October 7, 2008)**

Dave asked for comments to the draft October 7<sup>th</sup>, 2008 meeting minutes. Staff answered questions on what occurred under item 5 and 7, and as to when newly appointed members are considered to be bound by the duty to attend meetings. The October meeting minutes were unanimously approved.

**Agenda Item 3 – Updates From Staff**

After staff announced the presence of the 3 newly appointed members to the Commission, attending members and citizens introduced themselves. Staff presented documents included in the meeting handouts and talked about the first meeting of the new Council Transportation Committee meeting on October 28<sup>th</sup> 2008. Staff encouraged the members to review the aviation

noise, planning and safety cooperation items listed in the draft work plan for the Committee, and give staff any suggestions they might have for changes to the proposed work plan.

#### **Agenda Item 4 – QED Aviation Noise Study**

Staff explained the process that preceded the decision to hire QED to do an aircraft noise analysis for the City that started with a recommendation from TAVCO to independent noise monitoring, and so far has resulted in numerical data being provided to the QED, including noise measurement data made available by Troy McCraw. Ron and Henry introduced themselves talking about their background, their expertise, and long experience in the field of noise, airspace and air traffic analytical work, and the objectivity they could bring to the table taking on the task of examining the PHX airport noise monitoring system in Tempe to find out if it fulfills its intended purpose. They emphasized the importance of starting the study by listening to the members concerns, comments and questions. Henry briefly addressed the policy change that happened with the Airport Noise and Capacity Act (ANCA) of 1990, which prohibited airports from using restrictions to achieve their environmental goals. The act did in his opinion significantly reduce the ability of local communities to get to constructive agreements on airport noise. Their opening remarks resulted in several questions from members:

*Has science determined a maximum noise levels human beings can live with?*

Henry explained that the question could be answered in several ways, by pointing to numerical standards that reflect average responses to noise, and sensitivity standards for land use compatibility that were established in the 1970's, or by pointing to individual reactions humans have to noise as an acoustical, but also a visual and emotional event. The emotional event could be dealt with by "offering a fair hand shake" as to what was the best that could be done to achieve improvement through an orderly process that was built on confidence between parties.

*Is your study worth the expense when the partners on the other side of the airport fence are the only ones with power to do anything about the noise?*

Ron gave hypothetical examples of initiatives that could be taken by the City of Tempe pending the conclusions and recommendations the study could produce.

*What are the criteria for determining the adequate number and positioning of noise monitors in Tempe?*

Henry answered that it would be premature to fully answer that question before a study was done, but for a system that had been in place for some time, to distinguish noise from aircraft that have changed to become more quiet, would typically lead to the assumption that some monitors currently were located too far out or in places where aviation noise no longer represented a problem.

*Are you checking that the system works properly?*

Ron stated that noise monitoring in the field were not included in the scope for the study. They would be examining data the system had collected over the years. Henry emphasized how the positioning of the monitors was important for the ability of the system to determine aircraft noise events. If a noise event did not rise fast enough to high energy levels or last long enough, it would not be counted as an aircraft noise event.

*Why do you think the noise environment has shrunk?*

Ron and Henry answered by explaining how aircraft propulsion technology had changed significantly over the years since the system was installed, and also about physical limits to what can be accomplished on noise reduction at the source.

*Are you going to look at time above metrics to supplement the old compatibility standard mentioned earlier?*

Henry talked about how the level of background noise impacted the perception of annoyance levels, and how A-weighting of noise energy was the traditional way to model impact contour lines, and replied that the study would not include the use of noise metrics. Noise monitoring to ensure enforcement of flight procedure designs was one way a monitoring system could be used another way was to monitor what actually was going on, which airport proprietors typically do. Ron talked about flight procedure options to reduce noise depending on what could be accomplished locally, and Henry commented that the study would not directly deal with how well flight procedures were enforced. What the study could produce was potential suggestions for improvements to the system, by e.g. making changes to the positioning of monitors to make the system more conducive to enforcement.

*Is there an optimal distance relative to the runway to measure noise?*

Henry explained about the points where noise measurements were taken in the different phases of flight when the FAA would test new aircraft for noise certification.

*How much effect does temperature and humidity changes have on the noise impact?*

Henry addressed meteorological effects on the propagation of noise, and stated that compared to all the noise energy that aircraft generate the effect was relatively small in numerical terms.

*How long will the study take?*

Ron estimated that they could have a draft ready in about 2 months.

*Do you have any signals from Phoenix that they will consider any recommendations from this study?*

Ron replied that no such signals existed, but on the other hand recommendations might not mean great costs for the airport. Henry stated that airports typically are interested in information that could help them achieve the objectives of their noise compatibility programs, and the airport would be doing a new Part 150 study at some point in the future.

*What about turning some of the monitors into portable monitors?*

Henry replied that portable noise monitoring was a pretty straight forward thing to do, but the key was to understand what the data means, and what your options are when you know.

*Are you going to do a noise area assessment?*

Henry explained about the Area Equivalent Method, which was a spread sheet derivative of the Integrated Noise Model. They planned to use the AEM method to determine if the total area enclosed in various noise contours had changed. Compared to 1990, airport noise contour footprints on average had shrunk to about 1/3 of their original size. However, this did not give the complete picture, air traffic volumes had grown and aircraft operation occurred in bursts. Contours show averages, not high noise energy marks.

The answering of questions was followed by members discussing what the study potentially could accomplish.

**Agenda Item 5 – Noise Sensitivity Map for Tempe**

Staff did a recap on the background and what had been done to come up with a noise sensitivity map based on older mapping information being transferred to GIS format. A new map was presented that displayed educational facilities, schools, campuses and adjacent out-door sports areas. The members discussed what criteria should be used, and a motion was made to direct staff to update the map to include residential areas in addition to areas for educational activities and other appropriate layers and for the map to be sent to the Transportation Council Committee and the Mayor for review and further deliberations with the PHX ATCT Manager as to what is relevant considering its intended use. The motion was amended to direct staff to send the map to the Mayor's office only. The motion was seconded and accepted with one dissenting vote.

**Agenda Item 6 – Commissioners' Business (topics for future discussion)**

The following items were suggested:

1. Have someone from city planning come and address how the City deals with noise and technical standards for new structures.
2. Have a presentation and discussion of where national law is on aviation noise, and how national law affects citizens.
3. Have ADOT Aeronautics come and talk about the state programs for aviation.
4. Have the airport come and talk about airport finances and how they see the future for Sky Harbor.

**Agenda Item 7 – Schedule Next TAVCO Meeting**

The next meeting was scheduled to December 9, 2008.

**Agenda Item 8 – Adjournment**

The meeting was adjourned at 9:02 p.m.

Prepared by: Oddvar Tveit

Reviewed by: Don Hawkes

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Authorized Signature  
Water Utilities Department Manager