

Deer Valley Airport Area Study Report

Results of the Deer Valley Airport Land Use Study Group

DVT PHOENIX DEER VALLEY AIRPORT



RESOLUTION 20442

A RESOLUTION ADOPTING THE DEER VALLEY AIRPORT AREA STUDY REPORT; AND DECLARING AN EMERGENCY.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF PHOENIX as

follows:

SECTION 1. The Deer Valley Airport Area Study Report is hereby adopted, a copy of which accompanies and is annexed to this resolution, and declared a part hereof.

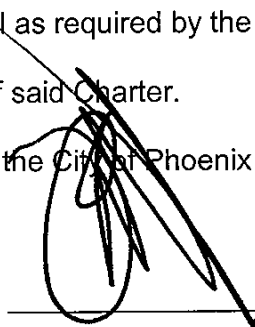
SECTION 2. WHEREAS, the immediate operation of the provisions of this resolution is necessary for the preservation of the public peace, health, and safety, an EMERGENCY is hereby declared to exist, and this resolution shall be in full force and effect from and after its passage by the Council as required by the City Charter and is hereby exempted from the referendum clause of said Charter.

PASSED by the Council of the City of Phoenix this 29th day of November, 2006.



ATTEST:

Mario Paniagua City Clerk



MAYOR

CITY CLERK DEPT.
2006 NOV 28 PM 4:19
33

APPROVED AS TO FORM:

William Beck Acting City Attorney

REVIEWED BY:
Frank Banks City Manager

BBO:tk/671235
11/29/06 agenda/ Item No. 6; CM 42

[Handwritten initials]

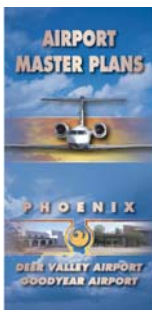
This report was developed as a result of the Deer Valley Airport Area Study Group. This group consisted of a property owner representative, aviation enthusiasts, an aviation advisory board member, two village planning committee members and Aviation Department staff. This group was put together by the Planning Department to look at the issues of land use around the Deer Valley Airport. They reviewed the land uses around the facility and the long-term expectations of the airport. The study group provided feedback to staff as to the issues of airport operations, property owner expectations in the area, and general opinions on staff proposed use restrictions, boundaries and technical elements. The following is an overview of the issues identified as key to the long-term relationship between the airport and the surrounding community, as well as the group's overall consensus on which steps the city should take to address these identified issues.

DEER VALLEY AIRPORT BACKGROUND

Deer Valley Municipal Airport was built in 1960 as a private airfield with a single runway. This simple facility had no control tower and very limited amenities. In 1971, the City of Phoenix purchased the 482 acre site. Operations began inauspiciously, with a temporary air traffic control tower sitting atop a four foot mound of dirt. Locals joked that the mobile unit looked more like a hot dog stand. They were not too far off the mark. The aging piece of equipment was actually being used as a hothouse for growing tomatoes before being called back into service for the airport.



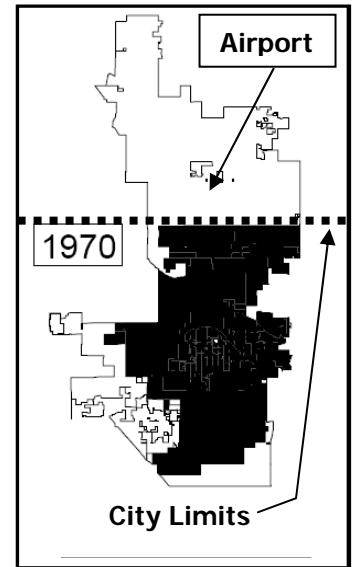
In 1975, a new terminal was constructed and the FAA began directing air traffic. Moving into a modern control tower, the FAA replaced Deer Valley's four hard working radio operators with 26 air traffic controllers. The airport also became home to the Phoenix Police Department who utilize a 12,000 square foot hangar for their citywide helicopter operations.



Today, as a designated reliever for the Sky Harbor Airport, Deer Valley is one of the busiest General Aviation (GA) airports in the country and one of the top 25 busiest airports in the country, with over 1,200 based aircraft and 320,000 operations per year. Aircraft types operating from the facility include single-engine piston, multi-engine piston, turboprop, turbojet, rotorcraft, and other types which includes aircraft such as gliders. Operations by single-engine aircraft currently represent the majority of the operations and will continue to be the dominant aircraft type operating at the airport based on forecasts prepared for the 2005 DVA Master Plan. Annual operations are forecast to grow from 340,894 in 2004, to 628,000 by 2025.



Back when purchased, the airport was several miles north of the city, well away from the growing suburban areas to the south. Land uses, if any; where typically large-lot single family homes and small businesses that could utilize wells and septic systems out in the “far north valley”. The 1972 City of Phoenix 1990 Plan identified the areas south of the airport for general industrial uses, but did not address the areas north of the airport, as these were well beyond the growth areas envisioned at the time.



Reflecting the growth northward and well beyond the airport area, the current General Plan has addressed the airport and its impacts by identifying the area as appropriate for industrial and commerce park uses. Commercial and industrial users are less sensitive to the noise and overflights that are prevalent around any airport, while some users actually desire proximity to the airport for their business. Much of the recent developments near the airport has followed this pattern, with many new industrial and commercial businesses locating in the Deer Valley Airport area.

However, no comprehensive review of the city policies regarding the Deer Valley Airport has occurred. While the General Plan provides guidance in the big picture sense, addressing the land uses around the airport has generally occurred on an incremental, project by project basis. This approach has caused irregularities with new development around the airport.



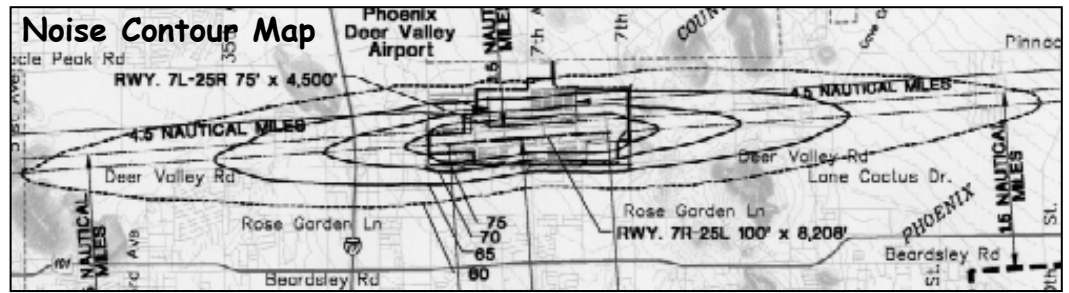
STUDY GROUP CONCERNS

The issues of airports and its surrounding neighbors are not new; they have existed since the dawn of flight. The Deer Valley Airport Area Study Group identified four critical issues and worked to develop solutions to these issues. The four issues are noise, protection of airspace, understanding of airport operations and promotion of compatible development. These issues are most critical to the long-term airport viability and are further discussed below along with the goals and policy recommendations.

Concern #1: Noise

Noise is the most common problem with airports. While often enjoyed by aviation enthusiasts, neighbors may not appreciate the noise generated by flight operations, and then, over time, begin to complain about the sounds from aircraft operations. The issue of noise is broken into two elements, the **direct** physical impact of sound (such as hearing loss) and the **annoyance** factor (such as being bothered).

For **direct** impacts, the main determinant is the noise level. The airport has maps showing approximate noise contours, illustrating the



estimated location of noise “bands” around the airport. These range from a high of 75 db (ringing alarm clock) to a low of 60 db (a low conversation). Researchers typically define anything between 60 and 80 db as very loud. Once levels exceed 65 db, constant exposure can become very intrusive, disturbing sleep, conversations at normal levels, as well as, over the long term, mental health.

Based on this knowledge, the Federal Aviation Administration (FAA) recommends limiting land uses within the 65 and higher db bands to non-residential uses. If residences are permitted, the FAA recommends mitigation to ensure that the residents are exposed to lower levels of noise while within structures.

The Deer Valley Airport has some residences within the 65 db noise band. While not ideal, this is still acceptable from a livability standpoint. With modern building methods, insulation and energy code standards, most of these homes are able to maintain lower sound levels in the interior. Within the 70 and higher db noise bands, residences are very rare. On the east side of the airport the land is vacant. On the west the land uses are typically well established industrial and commercial operations. Currently, few people are exposed to the higher levels of noise in a residential setting that could lead to hearing problems. Ensuring that this limited exposure remains the case is important to protect the health of the public.

The **annoyance** factor is a side effect of aviation activities that relates to noise, but is not necessarily related directly to physical health concerns, like hearing damage. Usually, the annoyance factor is the cause of many complaints from residents about airport activities. Examples provided by airport operators included the observation that a predominant number of the complaints were received from people several miles away from the airport.

Even with notification, complaints are always an issue with an airport. Minimizing these complaints and the strain on relations with neighboring property owners is essential to keeping the airport viable. Trying to address the operational characteristics of the airport is severely limited. Night-time curfews are banned under the Federal Airport Noise and Capacity Act of 1990 and limiting runway lengths are not permissible under state law (A.R.S. § 28-8479). Attempts to

resolve issues with airport operational noise after the establishment of non-compatible surrounding land uses is extremely difficult.

GOALS:

Goal 1A: Minimize the potential for the establishment of land uses that could lead to dangerous sound level exposure in louder (higher db) areas.

Recommendation 1.A: Modification to the Building Code - Simple building standards can make a noticeable difference in the sound levels within structures. While complying with modern energy codes and the utilization of current materials, the additional expense for a developer to meet specific sound expectations is minimal.

Proposal: Implement modifications to the building code to provide standards to reduce noise within a residential structure to 45 db for all property located in the 65 db noise contour.

This proposal requires that the Development Services Department, working in cooperation with the Aviation Department, prepare a modification to the building code to require sound mitigation for all new residential construction in the 65 db contour, as defined on the latest Airport Disclosure Map. The exact language is to be determined, but will be similar to what is already utilized for new homes in the Sky Harbor Airport 65 db area.

Goal 1.B: Limit residential neighbors to reduce airport operation related complaints.

Recommendation: Implement Land Use Controls – Place restriction of any new homes in the areas (in incompatible districts) immediately around the airport via an overlay. This specifically can address a discrepancy between General Plan Land Use Map Categories and the underlying zoning classification. Possible use of industrial zoned land within the overlay for residential purposes would be curtailed.

Proposal: Adopt the Deer Valley Airport Overlay (DVAO) District to the Zoning Ordinance and Zoning Map.

This proposal requires that the city process and approve case TA-23-05 and Z-138-06 to add the DVAO language to

the Zoning Ordinance and map as shown. Planning Department staff will be responsible to process these cases.

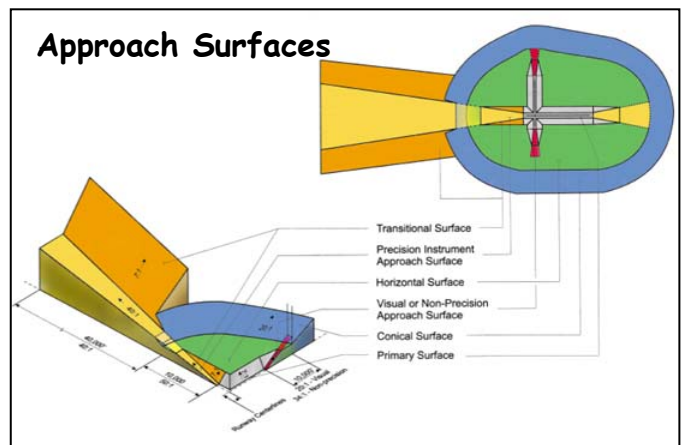
Policy statement: long range planning for the area around the airport is focused on the provision of more compatible industrial, commercial or similar employment uses. this is documented in the general plan land use map, as well as via the actual zoning approved in the immediate area, these uses are what should be encouraged and supported around the facility. the city supports the land uses that are compatible with the airport. residential uses of any type are discouraged near the airport where the zoning does not already permit them as a “by right” land use. vacant or underdeveloped properties currently zoned for residential uses are encouraged, where appropriate, to apply to rezone to a more compatible employment uses.

Concern #2: Protection of Airspace

Protection of the runway departure area is important to ensure the airport remains viable for long-term use. Structures encroaching into the area that needs to remain clear for safe operation of aircraft can severely limit the operation of the facility, limiting its expansion, capacity or viability. Additionally, lack of height and hazard zoning, as found in Federal Aviation Regulation (FAR) Part 77, can be grounds for the loss of federal airport funding.

Arizona Revised Statutes (ARS) authorizes cities to “comply with laws and regulations of the United States for the expenditure of federal monies” in 28-8413.A.2. Since the FAA can’t regulate building heights, they prepare a model zoning ordinance for cities and towns to use as a way to implement the FAA Part 77 Standards. Compliance with Part 77 requires the introduction of height limits to protect the approach surfaces.

There are also obvious safety issues related to the allowance of structures in the navigatable airspace, particularly at the ends of the runways. The State of Arizona has identified the “establishment of an air hazard” (any obstruction to safe flight) to be “public nuisance and a public injury to the community” and that the “prevention of the creation or establishment of an airport hazard” is a “public purpose” to which land use restrictions, such as restrictions on use and height, are expressly permitted (A.R.S. § 28-8464).



GOAL:

Goal 2: Protect the approach surfaces (airspace) for both runways from encroachment.

Recommendation: Establish Height Limits – The use of an overlay to restrict the amount of height would protect the runway ends from encroachment. The development of height restrictions should be the minimum needed to ensure public safety and to prevent the establishment of an airport hazard. Also, any proposal will require compliance with A.R.S. § 28-8468, which sets the criteria for an airport related height ordinances.

Proposal: Include in the Deer Valley Airport Overlay (DVAO) District a set of height limitations at the east and west ends of the runways based on FAA approach surfaces standards.

This proposal requires the establishment of the minimum safe approach surfaces for the Deer Valley Airport and definition of the height limits appropriate to prevent future buildings from encroaching into these areas. The Aviation Department would be responsible for identification of the approach surfaces and the height limits necessary, taking into account the natural existing grade around the airport. The Planning Department would include appropriate language into the DVAO Overlay District.

Policy: Height is a potential threat to safe operations of the airport. any process that requires action, approval or other city decision shall take into account the impact of any heights beyond fifty six feet around the airport. This does not exclude the introduction of additional height where appropriate in the deer valley airport area; however careful consideration shall be given to such proposals. Requests for additional height that are under direct take off and landing operations areas will be subject to the strictest FAA and city scrutiny.

Concern #3: Ensure Understanding Of Airport Operational Characteristics

While individuals are notified of the presence of the airport in the development process, sometimes that notice is insufficient. Ensuring that property owners are notified properly of the airport and that of the operational characteristics helps reduce complaints later.

There are some existing requirements for notification in state law, with the requirement for the filing of a “Public Airport Disclosure Map” with the Arizona Department of Real Estate pursuant to A.R.S. § 28-8486. Currently, for subdivisions and commercial projects exceeding 2,000 square feet, the Development Services Department requires the owner record an acknowledgement of the Public Airport Disclosure Map. Providing stronger notification, such as via a recorded notice, may reduce future neighbor conflicts. Another advantage of thorough notification is a reduction of complaint legitimacy in future litigation brought due to airport operations.

GOAL:

Goal 3: Ensure proper notification of property owners to minimize future complaints.

Recommendation: Notification Area Expansion - The notification area that is required under A.R.S. § 28-8486 currently provides a disclosure area defined around the flight operation characteristics of the south runway. Widening the disclosure map to reflect future north runway usage provides a simple method of notification about what will occur in the future. This notice update is accomplished via recordation of an updated map by the Aviation Department.

Proposal: Adopt, via resolution, the Deer Valley Airport Area Study Report.

Recommendation: Policy Statement – Ensure that, via clear adopted city policy, that the Aviation, Planning and the Development Services departments establish and maintain notification policies, notification forms/templates and that all departments ensure updating of these forms and policies as necessary.

Proposal: Add language to the Deer Valley Area Overlay Zoning district that requires more stringent notification to parcels directly within the overflight areas.

Policy: Notification of property owners is a key component to educating the public of the Deer Valley Airport operations and to reducing friction between aircraft and residents on the ground. The proposed language is included in TA-23-05.

Concern #4: Promote Compatible Development Around the Airport

Many of the above issues are reduced substantially by surrounding the airport with compatible land uses that are not as noise sensitive as residential dwellings.

Much of the past planning for the area around the airport reflects this policy, with the General Plan's emphasis on Commerce Park and industrial land uses around the airport. Much of the existing zoning supports this direction as well. However, there are conditions under which unforeseen residential land uses can be introduced into the area.

One example is the allowance of residential land uses in industrial (A-1) and commercial (C-1, 2 & 3) districts either "by-right" or with a use permit. By allowing via the underlying zoning a land use that is not compatible with airport operations, the intent of the General Plan is undermined. Changing market conditions have made residential land uses economically viable in places not thought of prior as residential areas. Future conflict between both the airport and surrounding industrial enterprises is a possible result.

GOAL:

Goal 4: Permit new development only when compatible with the airport.

Recommendation 4.A: Implement Land Use Controls – As noted above, this approach will provide for a tailored list of land uses that are more compatible with an airport and its operations as proposed in TA-23-05-1,2,3.

Recommendation 4.B: Policy Statements – Policy should be adopted that clarifies the city's desire to not see incompatible uses near the airport. Rezoning applications, variance requests, use permits and similar functions requiring decision of City Council, city staff or city officials should assume that incompatible land uses are not to be approved without extreme scrutiny.

Proposal 4: Include strong statements in the Deer Valley Airport Land-Use Policy Statement regarding desired and undesired land uses.

The policy statement will include references to desired and undesired land use, as well as the expectation of extreme scrutiny of deviation from those intended land uses.

Policy: Desired land uses around the Deer Valley Airport are industrial, employment or commercial, as illustrated on the General Plan land use map. Residential uses are discouraged as these are not compatible with airport operations. Any proposal that may be a non-compatible land use will be subject to extreme scrutiny by the city and applicants will need to prove that all of the issues, goals and

recommendations in this report have been satisfactory addressed.

CONCLUSION

The Deer Valley Airport Area Study Group completed a comprehensive analysis of issues that could impact the long-term viability of the Deer Valley Airport as a general aviation facility. The proposed goals, recommendations and implementation strategies provide the necessary policy direction along with the associated regulatory framework from the related text amendment and zoning overlay to protect Deer Valley Airport. Collectively they will minimize residential encroachment, protect airspace needed for safe flight operations, clearly notifying property purchasers in the area of the airport's operations, and provide guidance to the public regarding the city's expectation of compatible land uses.