Item 21

CITY COUNCIL REPORT

Meeting Date: May 21, 2019
General Plan Element: ***Neighborhoods***
General Plan Goal: ***Enhance and protect neighborhoods***

ACTION

Subject statement. Consider approval of **Resolution No. 11499** to authorize the Mayor to submit comments on behalf of the City to the Federal Aviation Administration (FAA) regarding issues arising from the FAA's having redirected Sky Harbor air traffic in ways that have detrimentally affected Scottsdale residents.

BACKGROUND

In September, 2014 the FAA made changes to a number of flight routes for Sky Harbor air traffic. Concerns about vastly increased air traffic near their homes were raised by a number of Scottsdale residents, as a result of which the City contracted with the Covington & Burling law firm, which has extensive experience in dealing with federal regulatory matters, and specifically with the FAA, and with JDA Aviation Technology Solutions, a nationally recognized expert in aviation issues, to help the City find a way to assist its citizens in dealing with their concerns.

An opportunity has now arisen for the City to provide some input to the FAA regarding possible changes to the flight paths that, if implemented, could help alleviate some of the citizens' concerns. The FAA in April of this year held a series of three workshops at which it provided information on some changes to Sky Harbor flight paths that had already been made, and at which it solicited comments from the public on any concerns about the current flight paths. It is also accepting public comments either through an on-line portal it has created for that purpose or, since the size of submissions that can be made using the portal is limited to 7,500 characters, by mail. The time period for submitting comments will end on May 23rd.

At the workshops the FAA presented what it described as "concepts" for changing some of the flight paths for Sky Harbor air traffic. The FAA emphasized that these were only concepts, that there was no commitment to implement them, and that it would wait until after the public had had a chance to comment on the concepts before deciding whether to take any further action. The two slides showing the concepts are Attachment 2 to this Report.

The concepts presented by the FAA would, if implemented, provide some relief to a number of Scottsdale residents. The City has worked with JDA and with Covington & Burling to develop a proposal to the FAA that builds on the concepts it has put forth but which, in the opinion of JDA, would be substantially more beneficial to the City's citizens. The City's proposed modifications, shown in Attachment 3 to this report, would route much of the departing traffic further to the east

and would reduce the channelization of the flights that occurred as a result of the changes made by the FAA in 2014. There are two proposed modifications provided by the City, with the preferred modification moving the departure traffic almost entirely out of Scottsdale, and with the second modification moving it not as far east but over less populated areas of the city.

The City has worked with SCANA, a citizens group that was formed for the purpose of addressing the issues arising in Scottsdale from the 2014 flight path changes, and believes many SCANA members will be providing comments to the FAA in support of the City's proposal. Staff has also conferred with representatives of the Salt River Pima Maricopa Indian Community and is hoping to have the City's proposal viewed favorably by the Community as well.

The action the Council is being asked to take tonight is to authorize the Mayor to submit to the FAA on behalf of the City a finalized JDA report and supporting white paper by Covington and Burling presenting these proposed modifications on behalf of the City.

ANALYSIS & ASSESSMENT

Recent Staff Action

Staff has worked JDA, Covington & Burling and SCANA to develop these proposals.

RESOURCE IMPACTS

There will be no resource impacts from the approval of this item.

OPTIONS & STAFF RECOMMENDATION

Recommended Approach

Approve Resolution No. 11499 authorizing the Mayor to submit modified flight path proposals to the FAA.

Description of Option B

Do not approve Resolution No. 11499 and the City will not present any comments to the FAA.

RESPONSIBLE DEPARTMENT

Government Relations

STAFF CONTACT(S)

Bruce Washburn, City Attorney, bwashburn@scottsdaleaz.gov

Brad Lundahl, Government Relations Director, Blundahl@ScottsdaleAZ.gov

APPROVED BY

5-16-19

Brad Lundahl, Government Relations Director
(480) 312-2683, Blundahl@ScottsdaleAZ.gov

Date

May 16, 2019

Bruce Washburn, City Attorney
(480) 312-2405, BWashburn@ScottsdaleAZ.gov

Date

ATTACHMENTS

1. Resolution No. 11499
2. FAA concepts
3. City's proposed alternatives

RESOLUTION NO. 11499

A RESOLUTION OF THE COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, APPROVING SCOTTSDALE'S PREFERRED MODIFICATION AND ACCEPTABLE MODIFICATION TO THE FEDERAL AVIATION ADMINISTRATION'S SKY HARBOR FLIGHT PATHS AND AUTHORIZING THE MAYOR TO OFFICIALY SUBMIT THE CITY'S PROPOSAL TO THE FEDERAL AVIATION ADMINISTRATION ALONG WITH JDA'S TECHNICAL REPORT AND THE SUPPORTING WHITE PAPER.

WHEREAS, the Federal Aviation Administration (FAA) has imposed flight path corridor changes out of Sky Harbor Airport that unfairly burden and negatively impact the City of Scottsdale and its citizens;

WHEREAS, the City retained the law firm of Covington & Burling, L.L.P., ("Covington") and the technical consultant JDA to provide a detailed analysis and recommendations to the City in an effort to seek relief for its citizens;

WHEREAS, FAA held workshops to address citizen concerns and accept comments, which included a potential modification to departing flights flying east, which the FAA called Concept 1;

WHEREAS, JDA has studied Concept 1 and recommended that Scottsdale seek to modify it further by shifting the flights further east as depicted in the attached Exhibit 1. The proposed modifications are referred to as Scottsdale's Preferred Modification to FAA Concept 1 and Scottsdale's Acceptable Modification to FAA Concept 1;

WHEREAS, it is in the best interest of the City to officially adopt and submit the City's recommended modifications and proposals to the FAA .

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Scottsdale, Maricopa County, Arizona, as follows:

Section 1. The City hereby officially adopts the recommendations and proposals JDA developed, which are referred to as Scottsdale's Preferred Modification to FAA Concept 1 and Scottsdale's Acceptable Modification to FAA Concept 1, and further authorizes and directs the Mayor to work with the City Attorney to officially submit the City's recommendations and proposals to the FAA on behalf of the City of Scottsdale by May 23, 2019.

PASSED AND ADOPTED by the City Council of the City of Scottsdale, Maricopa County, Arizona this ____ day of _____, 2019.

CITY OF SCOTTSDALE, an Arizona municipal corporation

ATTEST:

_____
W.J. "Jim" Lane, Mayor

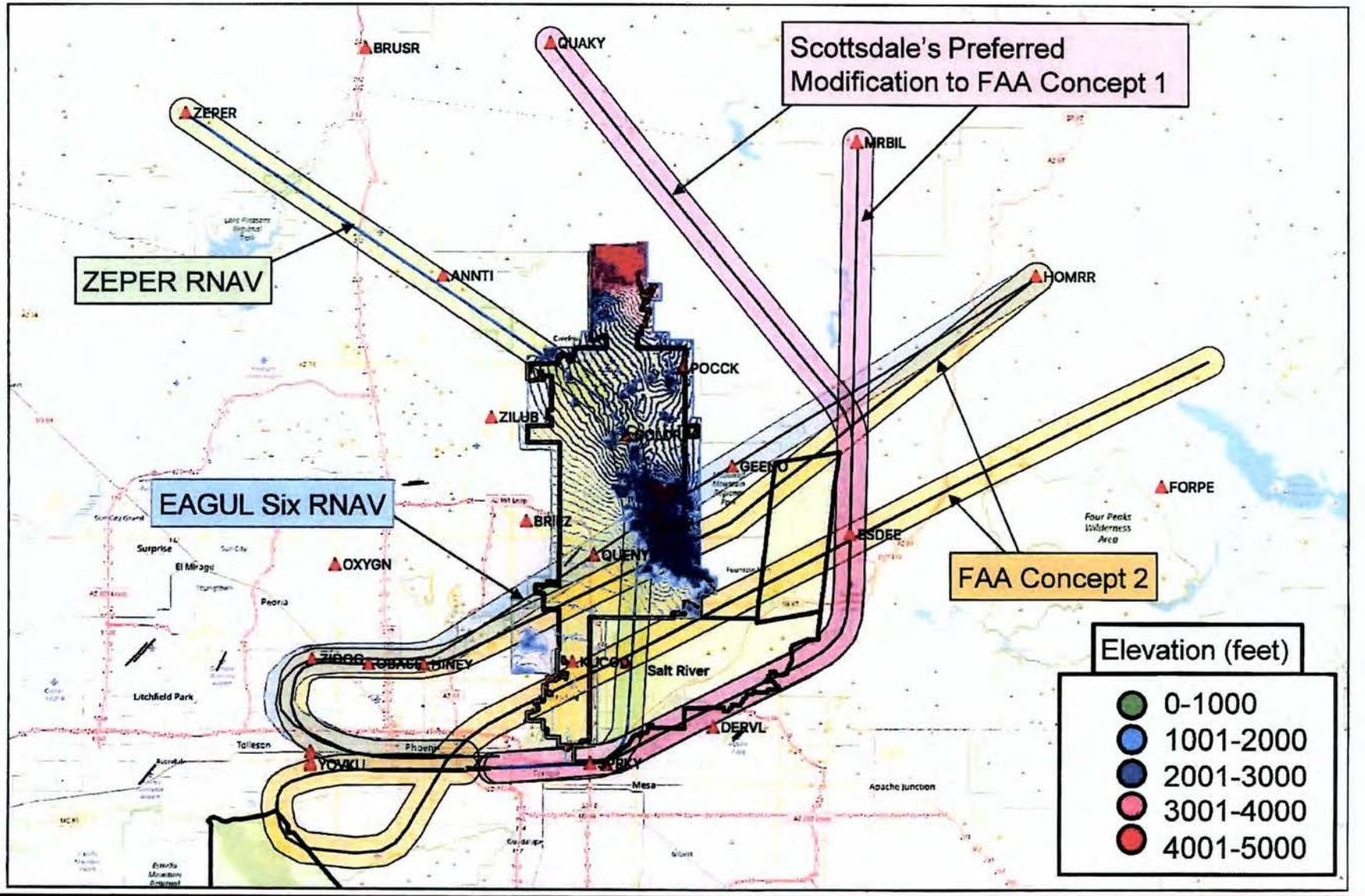
_____
Carolyn Jagger, City Clerk

APPROVED AS TO FORM:

_____
Bruce Washburn, City Attorney

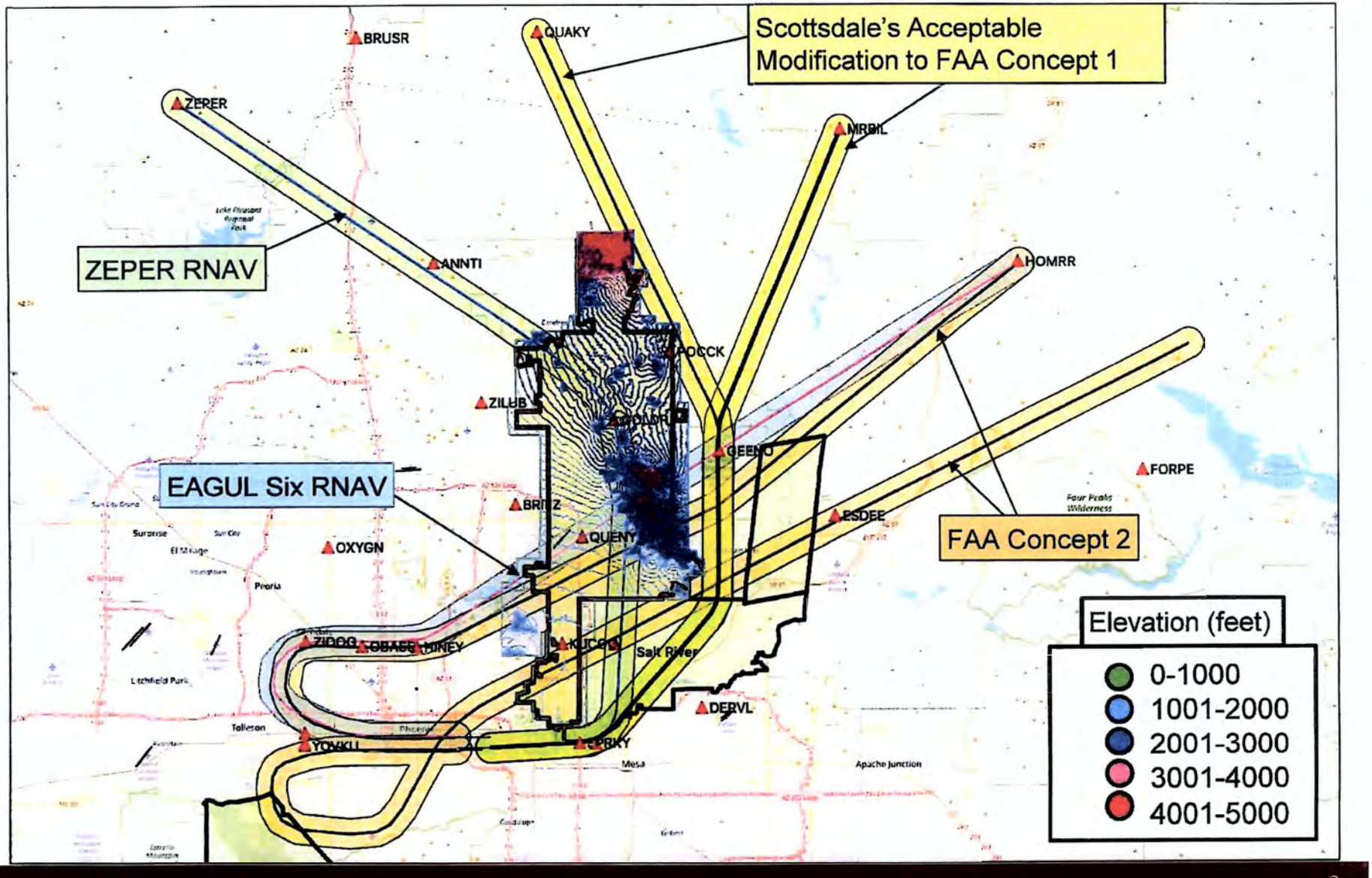
JDA
Aviation Technology Solutions

Scottsdale's Preferred Modification to FAA Concept 1

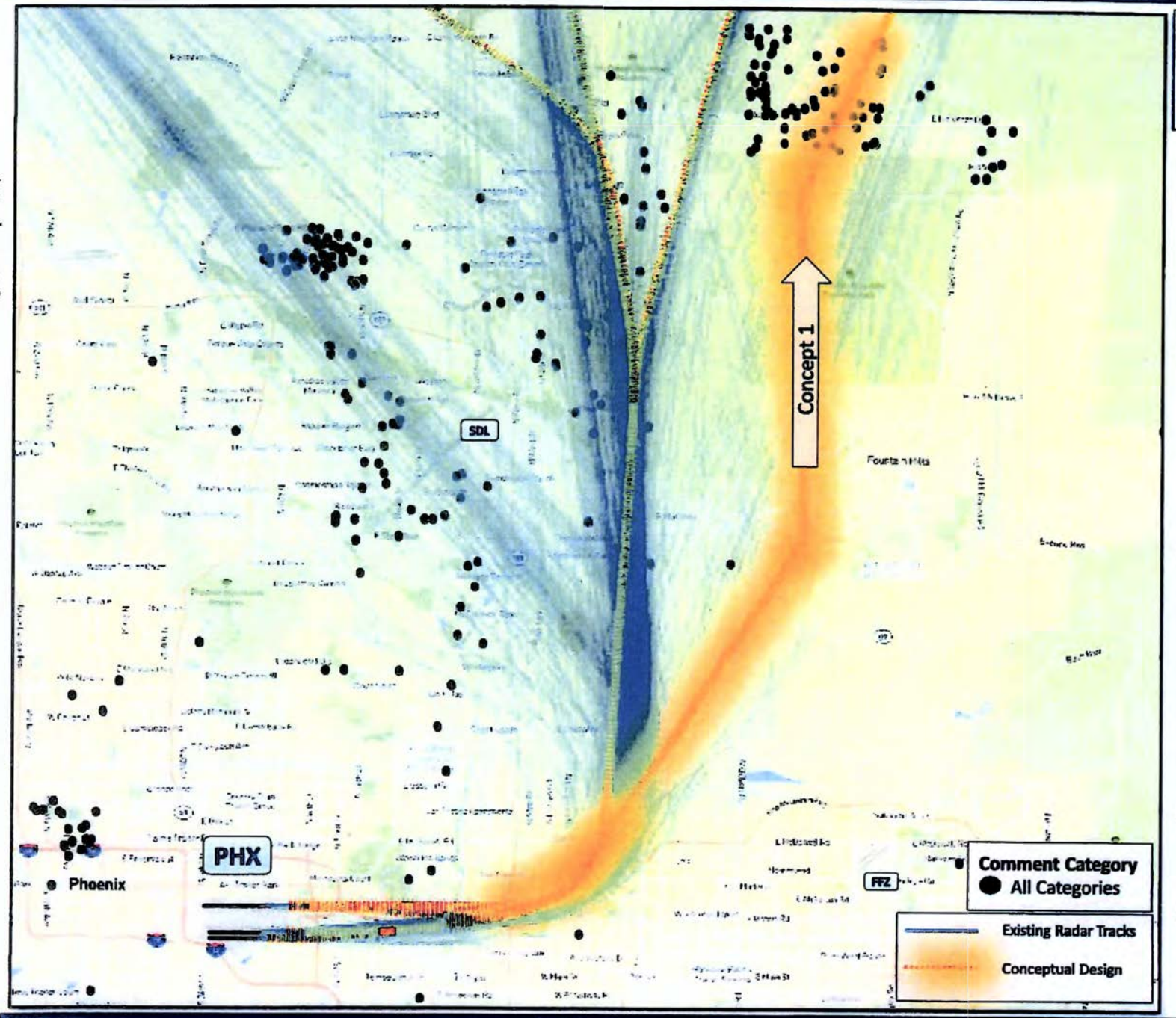


JDA
Aviation Technology Solutions

Scottsdale's Acceptable Modification to FAA Concept 1



Concept 1 – Supplemental Northeast Bound Departures During East Flow



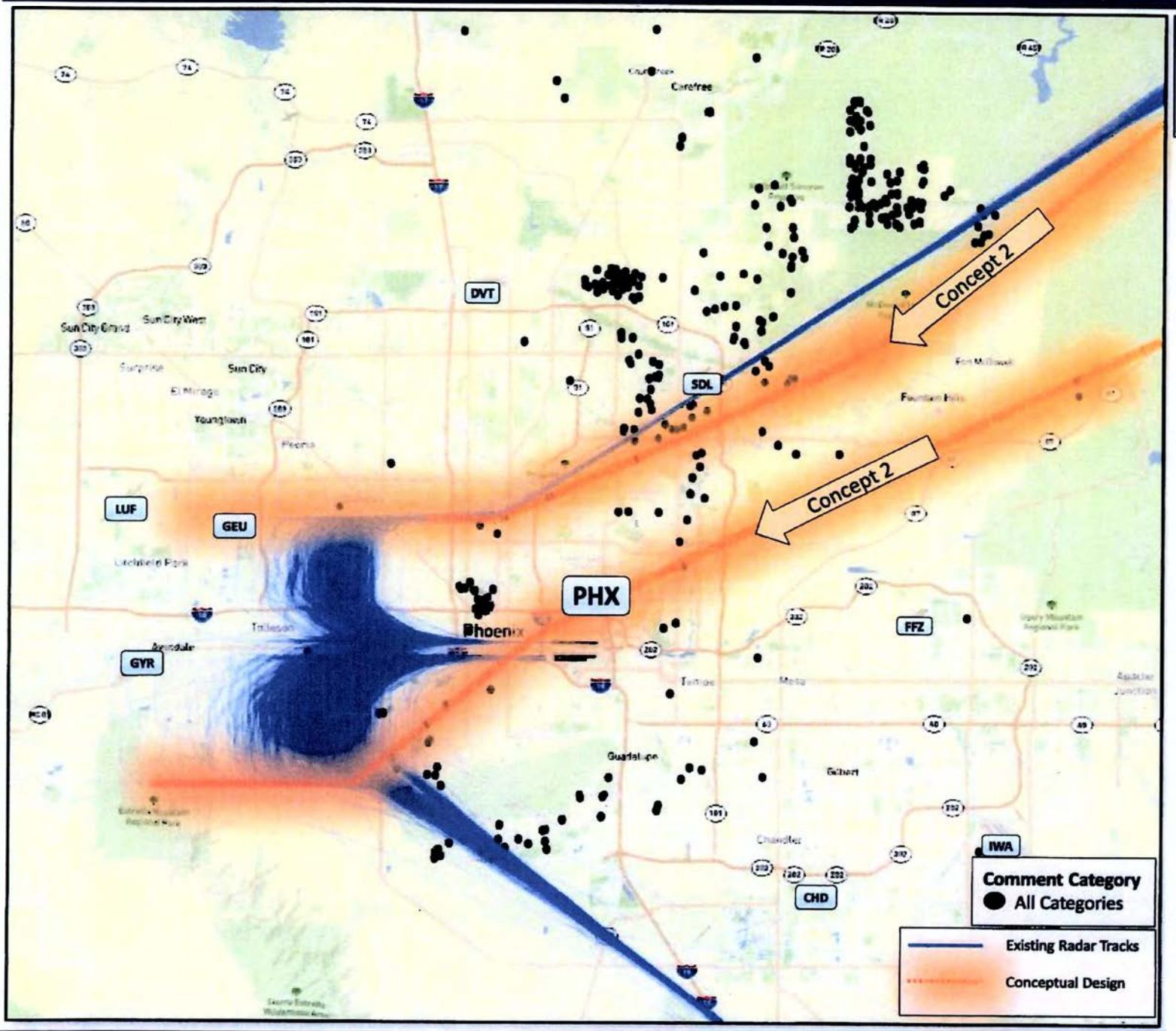
PHX

Phoenix Sky Harbor International Airport

Concept 1
Departures East Flow

- Existing flight tracks and conceptual design that would affect the departures during east flow operations at PHX that turn to the north an northeast.
- Concept 1 would supplement existing east flow northbound procedures. This would allow roughly 30% of the aircraft to be moved to the east (Concept 1).
- The orange dashed lines represent an approximation of the conceptual design. The width of the orange dashed lines and the shaded edges are not intended to depict a flight corridor or boundary.
- There were 493 comments received for Step Two.
- *Note – Comment location dots in close proximity may overlap.*

Concept 2 – Supplemental Route for Arrivals from the Northeast During East Flow Operations



PHX

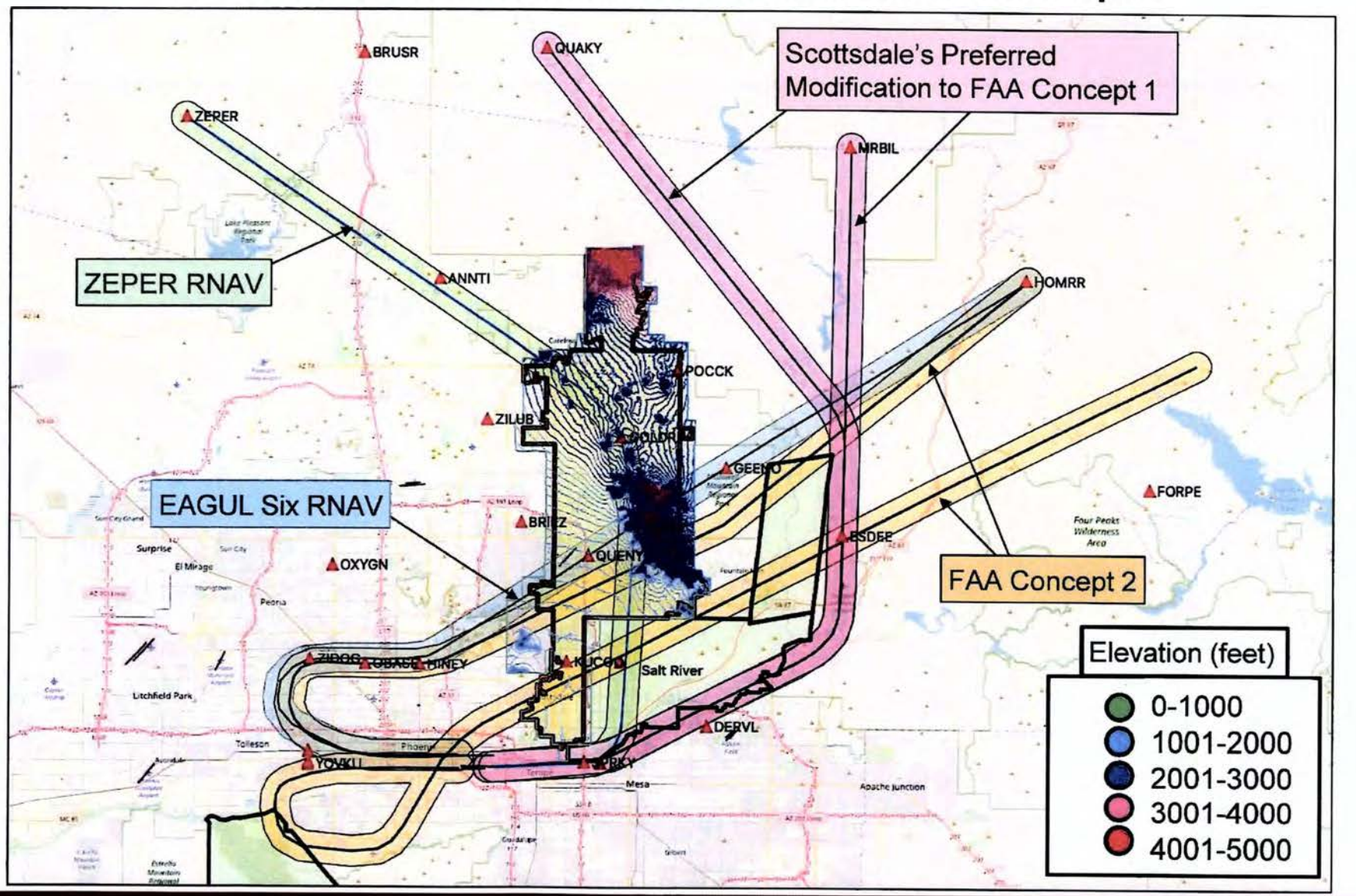
Phoenix Sky Harbor International Airport

Conceptual Design 2
Arrivals East Flow

- Existing flight tracks and a conceptual design that would affect the arrivals during east flow operations at PHX from the northeast.
- The EAGUL arrival route would be replaced by two new arrival routes. This would allow roughly 30 % of the aircraft currently on the EAGUL route to be moved to the southern most routing.
- The route to the north would be located south of the current EAGUL route prior to the final approach for PHX.
- The route to the south would over-fly just west of PHX before turning north and then east for landing.
- The orange lines are approximations of the conceptual designs. The lines, and their widths, are not intended to depict precise flight corridors or boundaries.
- There were 493 comments received for Step Two.
- *Note – Comment location dots in close proximity may overlap.*

JDA
Aviation Technology Solutions

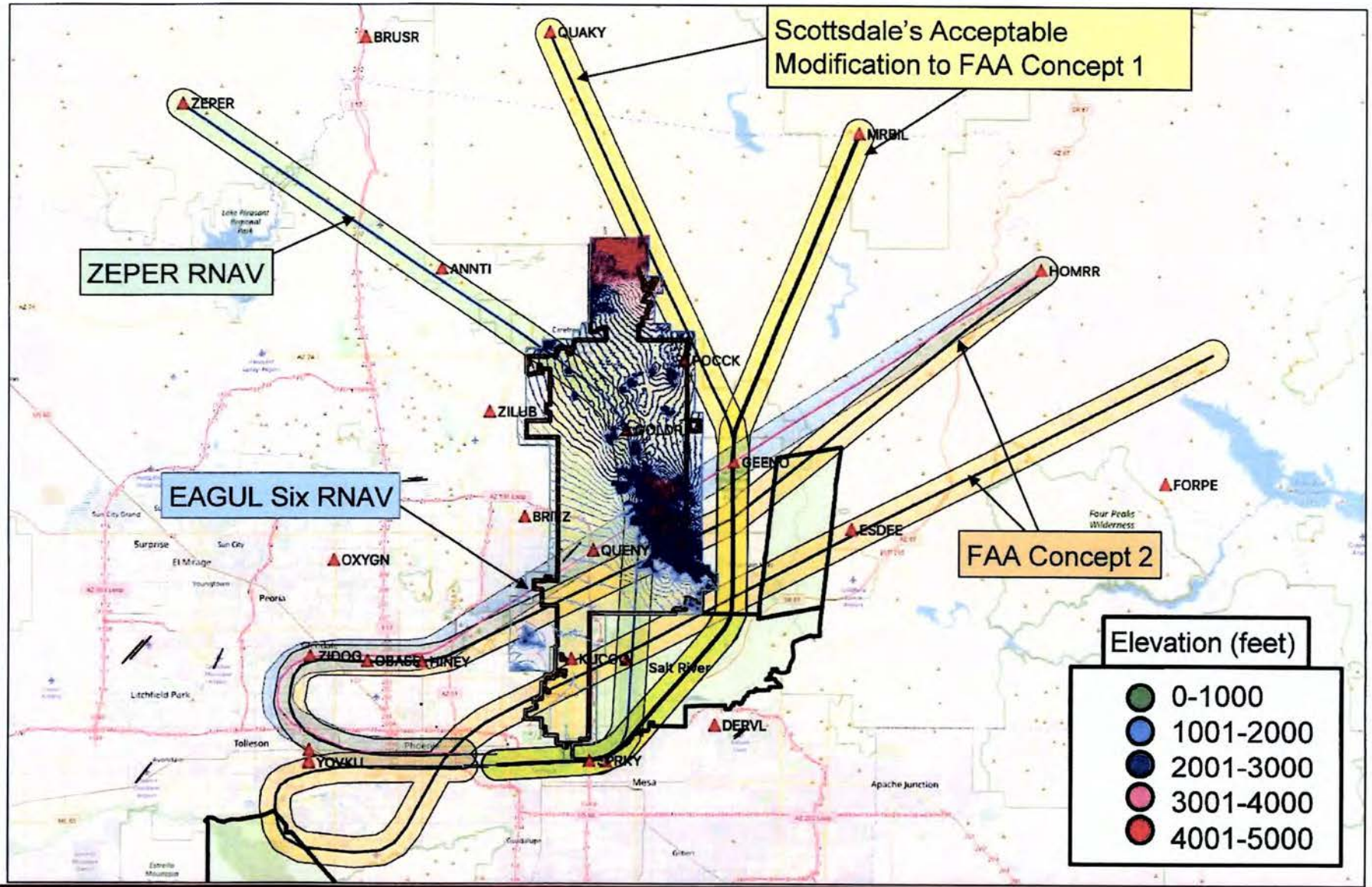
Scottsdale's Preferred Modification to FAA Concept 1



Attachment 3
Page 1 of 2

JDA
Aviation Technology Solutions

Scottsdale's Acceptable Modification to FAA Concept 1



Attachment 3
Page 2 of 2

Scottsdale Community
Phoenix Sky Harbor International Airport
Departure Procedure Study

JDA Aviation Technology Solutions
5936 Maplewood Park Place
Bethesda, MD 20814
301-941-1460
info@jdasolutions.aero

May 17, 2019

Contents

FIGURES

Tables

I. Executive Summary

The City of Scottsdale urges the FAA's consideration of modifications to the Phoenix Sky Harbor International Airport (PHX) east flow departure PBN RNAV procedures to address the disproportionate noise impacts to Scottsdale residents. Scottsdale is impacted by one arrival and three departure procedures in east flow and one arrival and two departure procedures in west flow. Out of an average of 1,200 daily PHX operations, an excess of 400 aircraft traverse Scottsdale each day. Additionally, approximately 500 Scottsdale Airport and 1,000 Deer Valley Airport aircraft are operating in the same airspace each day.

Scottsdale's consultant JDA Aviation Technology Solutions (JDA) has done extensive research to identify win/win modifications to FAA proposed Concept 1. These changes address the disproportionate impact on Scottsdale while respecting the goals of safety and efficiency balanced against environmental impacts and quality of life of citizens that the airlines, airports and FAA are here to serve.

FAA Concept 1 decreases the impacts of only MIRBL departures on the total population by 3% and on the Scottsdale population by 27% for the four combined east flow departure routes studied. Scottsdale's preferred solution modifies FAA Concept 1 by directing all east flow MIRBL and QUAKY departure aircraft taking off to the east to fly further to the northeast past the DERVL waypoint and turn north toward ESDEE on their way to MRBIL and QUAKY. This solution follows a low population corridor with minimal additions in track length. This modification decreases the impacts of MIRBL and QUAKY departures on the total population by 14% and decreases the impacts on the Scottsdale population by 61% for the four combined east flow departure routes studied.

Scottsdale's preferred option leaves a reasonable noise impact burden of one departure and one arrival procedure in east flow and one arrival and two departure and procedures in west flow that will all still fly over Scottsdale. Additionally, Scottsdale's preferred solution provides relief to multiple areas that have similar noise impact and frequency concerns as Scottsdale.

Scottsdale looks forward to continuing the discussion with the FAA to modify east flow departures and reverse the environmental injustice that resulted from the introduction of the new PBN RNAV routes concentrating acute noise corridors over too many Scottsdale residents without any prior community involvement.

II. Introduction

The following report has been prepared for the City of Scottsdale and serves as a formal submission of the city's comments for the FAA to consider in Step Two of the agreement the agency entered into with the City of Phoenix and certain historic neighborhood associations following the decision in *City of Phoenix, Arizona v. Huerta*, 869 F.3d 963 (D.C. Circuit 2017).

Two excerpts from the FAA's community involvement PHX webpage describe Step One and Two below:

> *"The Federal Aviation Administration (FAA) on May 24, 2018 implemented Step One of a two-step plan set forth in the agreement the agency entered into with the City of Phoenix and certain historic neighborhood associations following the decision in* City of Phoenix, Arizona v. Huerta*, 869 F.3d 963 (D.C. Circuit 2017). Step One modified the west-flow departure procedures at Phoenix Sky Harbor International Airport. After the review and analysis of the flight track data for aircraft utilizing the Step One procedures, the FAA has determined that it has successfully met the requirement of approximating the western departure routes that were in place before September 2014.*
>
> *Under Step Two, the FAA agreed to consider feedback on procedures throughout the Phoenix area — not just on the westerly departure routes. The FAA is currently considering comments received in February during three public workshops and the 15-day public comment period, along with the input from Phoenix air traffic control facilities and the users of the Phoenix airspace. Any further action taken under Step Two is at the discretion of the FAA and will be considered a new federal action subject to its own environmental review and procedural design process as required under FAA Order 1050.1* Environmental Impacts: Policies and Procedures *and FAA Order 7100.41* Performance Based Navigation Implementation Process*. This process could take up to two years to complete.*
>
> *As part of the community involvement process, the FAA, in partnership and collaboration with the City of Phoenix, is planning to hold public workshops in February/March[1] 2019 for Step Two. The FAA recognizes the importance and value of public input and will give meaningful consideration to comments received in conjunction with the upcoming workshops. We ask that you continue to monitor this webpage for updates on the dates and locations of the workshops."*
>
> *"The FAA reviewed and analyzed the previously received comments and has begun considering potential airspace changes not addressed by the implementation of west*

[1] The workshops subsequently were moved to April 22-24th of 2019.

flow departures routes under Step One. Additionally, the FAA will review and analyze comments received at the April workshops and during the comment period, as well as those previously received. Based on the comments and other factors such as operational safety and efficiency, the FAA may initiate new airspace changes and complete an environmental review in accordance with applicable federal laws and FAA orders. The FAA recognizes the importance and value of public input and will consider comments received. However, the FAA is not committing to make changes as a result of this input. The decision to implement potential airspace or route changes during Step Two will be at the FAA's sole discretion."

TABLE 2: HIGH-LEVEL STEP TWO FAA PROCESS FOR LONG-TERM PERFORMANCE-BASED NAVIGATION ROUTES AND PROCEDURES

Estimated start: May 2018

Step/Task	Expected Time
Phase 1 - Preliminary Activities	1-2 months
Consider Step One input and determine Step Two scope	
Notify public of Step Two scope and responses to comments from Step One	
Phase 2 - Design Activities	12-18 months
FAA route and procedure design process --City and Historic Neighborhood participation --Safety Risk Management and environmental reviews	
FAA public meetings and engagement regarding scope of alternatives	
Phase 3 - Development and Operational Preparation	12-18 months
FAA environmental analysis process	
Notification of community involvement meetings in local newspapers, outreach to contact list, City of Phoenix website, and FAA website	
Release draft environmental assessment for public comment	
Public meetings and engagement regarding scope of alternatives	
Consultation and coordination with SHPO, CHPO, Tribal representatives and other governments	
Finalize environmental assessment and determine final action	
Phase 4: Implementation of New Routes/Procedures	1-2 months
Public engagement and information consistent with Community Involvement Manual	
Phase 5: Post-implementation Monitoring and Evaluation	1-2 months
Public engagement and information consistent with Community Involvement Manual	

Figure 1 High Level Step Two FAA Process

(source; Appendix A Memorandum Regarding Implementation of the Court Order)

III. FAA Workshops April 22nd, 23rd & 24th 2019

At the April 22nd, 23rd and 24th workshops, the FAA presented several information boards. Two of the boards presented are shown in Figures 1 and 2 below illustrate comments received for Step Two during Step One workshops.

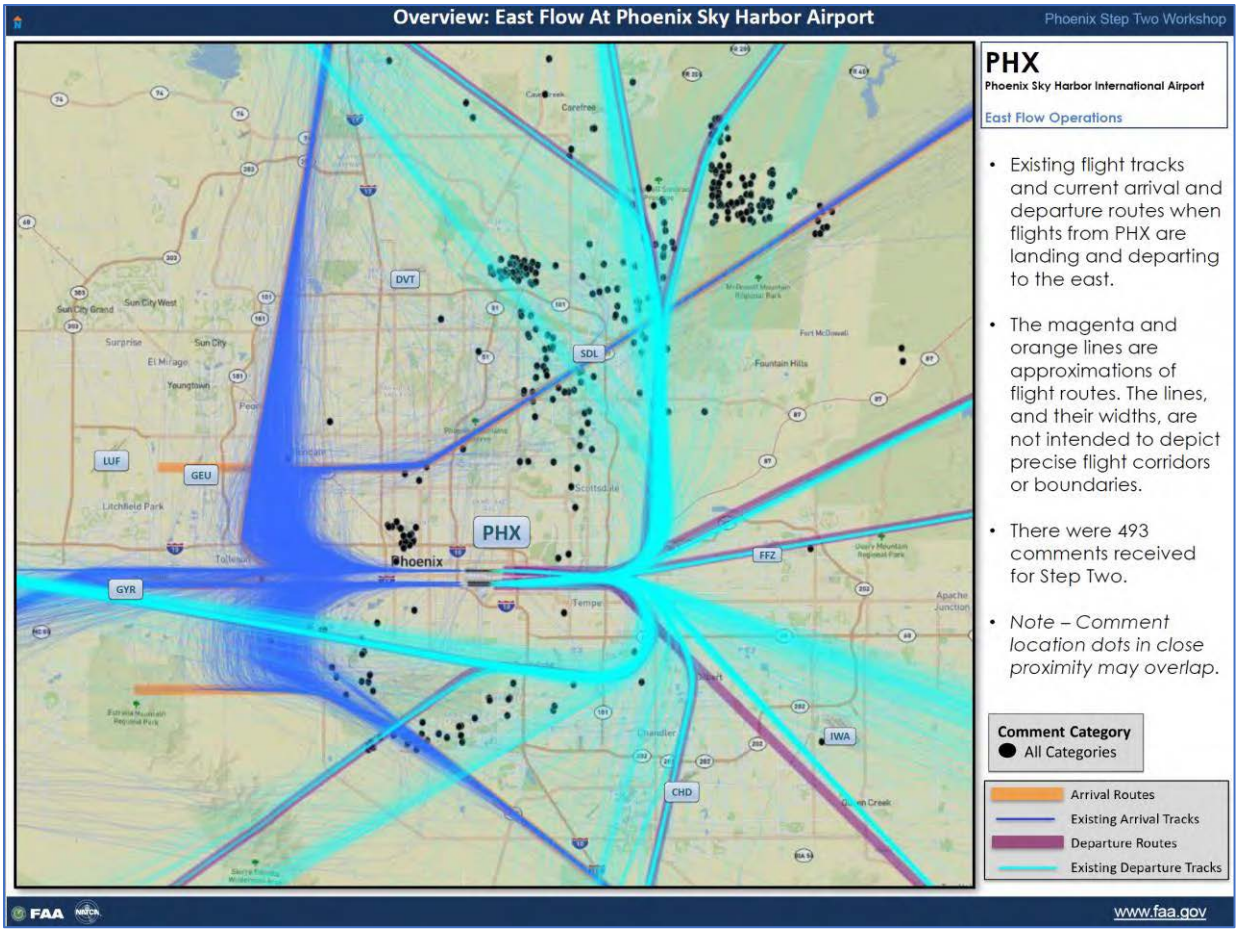


Figure 2 FAA Overview East Flow PHX Existing Flight Tracks, Routes and Step 2 Comments

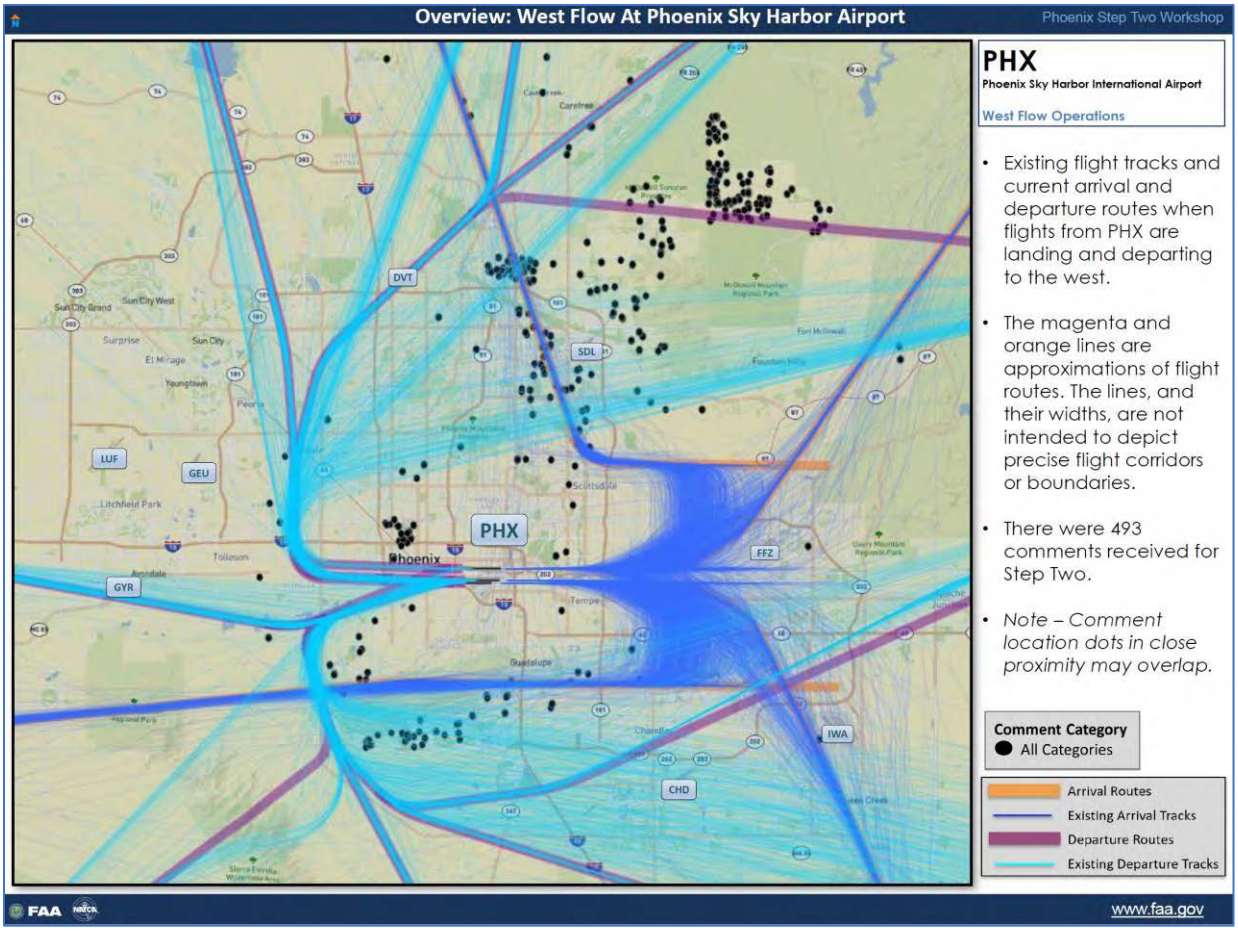


Figure 3 FAA Overview West Flow PHX Existing Flight Tracks, Routes and Step 2 Comments

Figures 1 and 2 illustrate comment clusters in areas impacted by multiple departure and or arrival streams, especially those impacted in both west and east flow.

The FAA presented two concepts based on comments received in Step One that are under consideration.

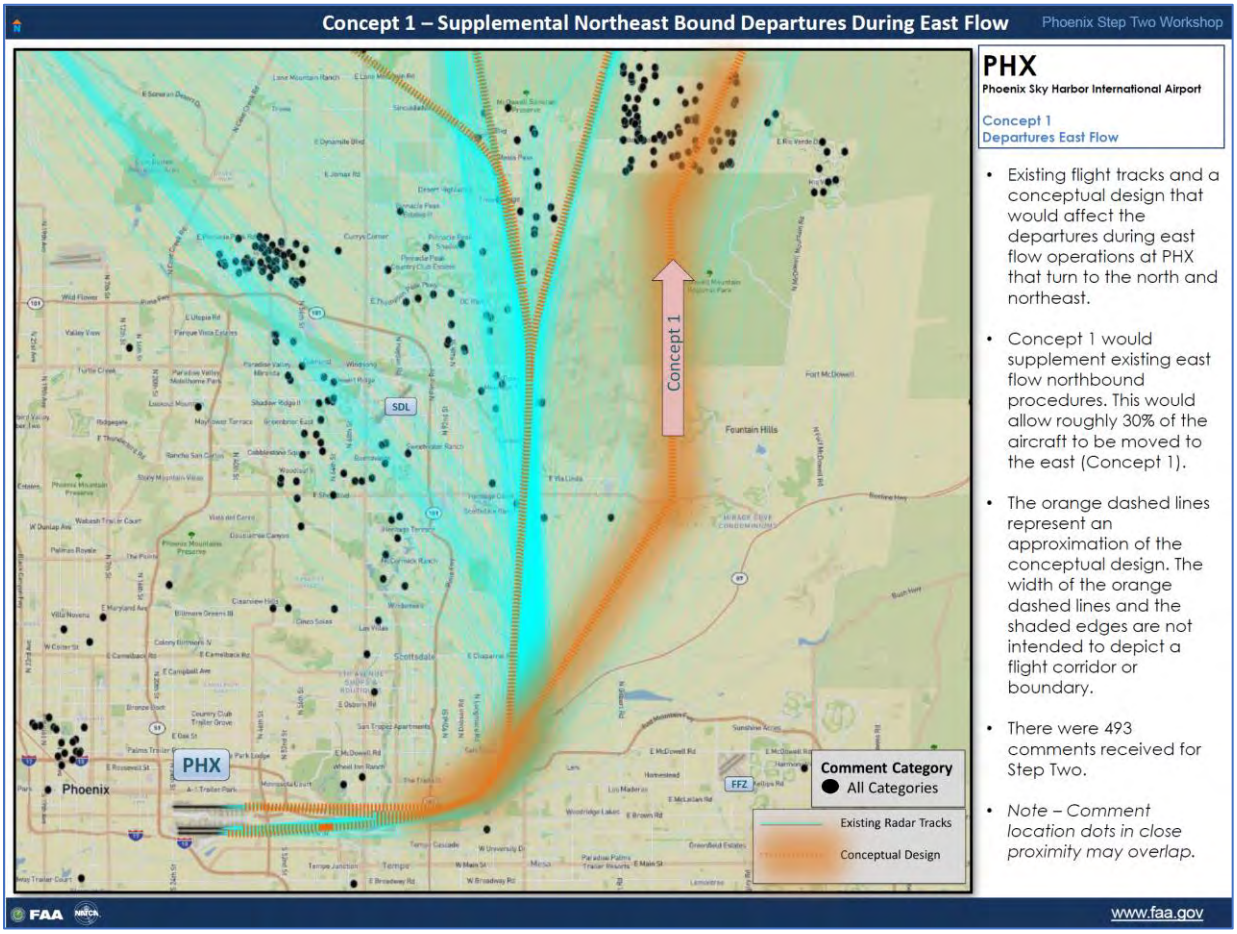


Figure 4 FAA Concept 1 Supplemental NE Bound Departures During East Flow

FAA Concept 1 Pros:

- Reduces cumulative impact that Scottsdale experiences from operations into/out of PHX, SDL, and DVT
- Reduces cumulative impact on historic landmarks, churches, and schools
- Reduces number of PHX departures over Scottsdale by approximately 1/3
- No change in departure flight track length to MIRBL
- Works with FAA Concept Two
- Shows FAA initiative to review comments and propose solutions
- Moves arrival crossing location east allowing PHX MIRBL departures to start climbing earlier
- Number of Scottsdale houses/population impacted improved by ~3,000/7,000
- PHX departures may cross Fountain Hills and McDowell Mountain Regional Park at higher altitudes due to increased number of miles between PHX and Fountain Hills

FAA Concept 1 Cons:

- Primary East Flow PHX departure routes (QUAKY and ZEPER) remain over Scottsdale
- Insignificant improvement in number of Scottsdale houses/population affected
- Moves approximately 1/3 of East Flow PHX departures over Salt River Reservation, Fountain Hills, and McDowell Mountain Regional Park
- Adds one new crossing point with current EAGUL STAR
- Adds two new crossing points with FAA Concept Two
- ZEPER and QUAKY traffic still restricted below EAGUL STAR over Scottsdale
- ZEPER and QUAKY traffic still restricted below FAA Concept Two STAR over Scottsdale
- Adds miles over Salt River Reservation for PHX MIRBL departures

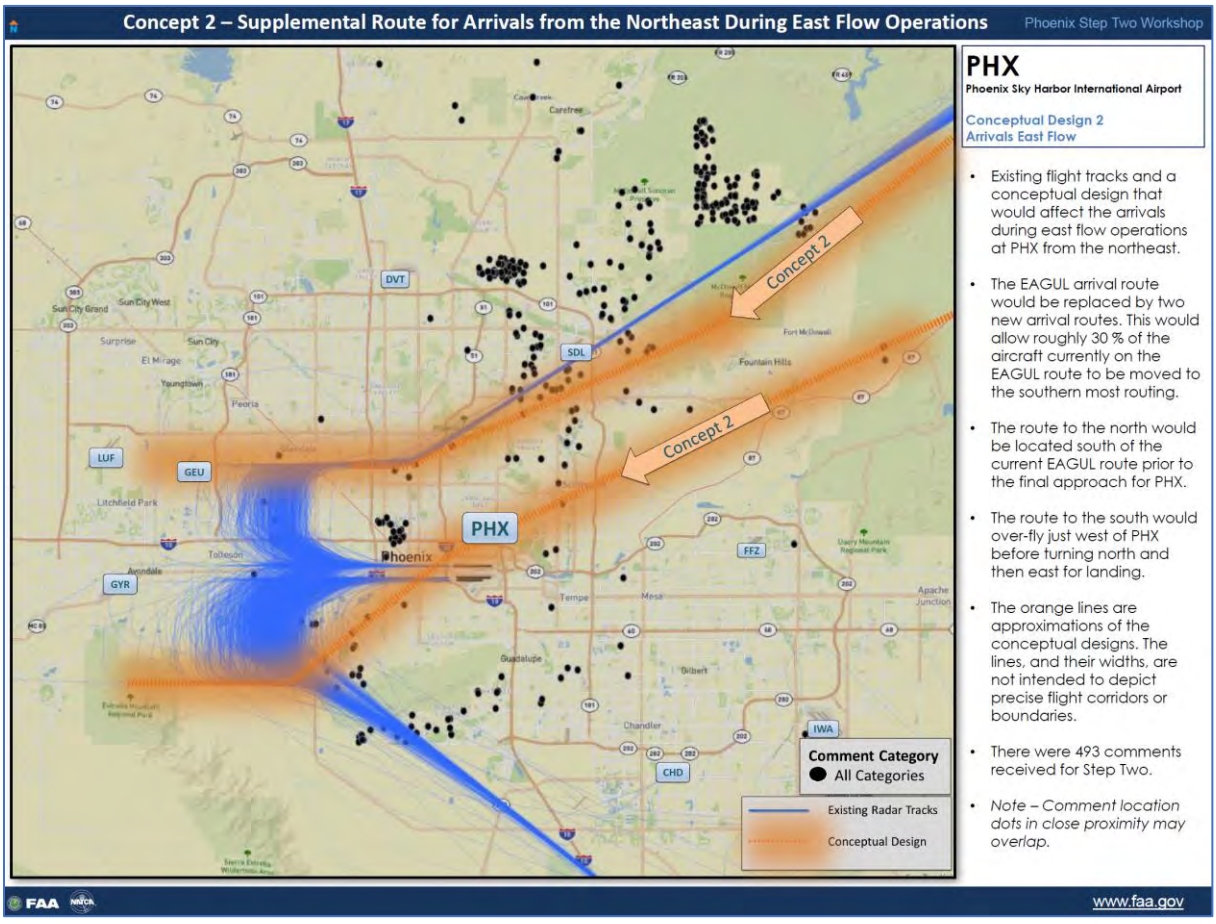


Figure 5 FAA Concept 2 Supplemental Route for Arrivals from the NE During East Flow

FAA Concept 2 Pros:

- Reduces cumulative impact that Scottsdale experiences from EAGUL 6 STAR and other operations into/out of PHX, SDL, and DVT

- Moves arrival traffic currently on EAGUL 6 STAR away from Step 1 Workshop comment clusters
- Potentially offloads approximately 30% of EAGUL traffic to a southern proposed route
- Provides for better management of arrival traffic inbound from the east/northeast
- Shows no apparent increase in arrival track length
- Works with FAA Concept 1
- Shows FAA initiative to review comments and look for solutions

FAA Concept 2 Cons:

- Appears to be an incomplete proposal as it does not address EAGUL arrivals to West Flow Runways
- Northbound East Flow PHX departures restricted lower for longer below two arrival streams
- Creates two RNAV arrival streams that both overfly Scottsdale and surrounding communities
- Negatively impacts 560,132 Total population, an increase of 215,564
- Negatively impacts 78, 310 Scottsdale population, an increase of 48,005
- Introduces a new RNAV “rail” to Scottsdale, Salt Creek Reservation, Fountain Hills, and communities to north/northeast of PHX
- Creates new noise concerns where few to none existed
- May offload more than 30% of PHX arrivals from east/northeast as demand meets capacity made available by two arrival streams
- Adds one new crossing point for existing PHX East Flow departures (ZEPER, QUAKY, MIRBL)
- Adds two new crossing points for FAA Concept 1 PHX East Flow departures (ZEPER, QUAKY, MIRBL)

IV. Statement of the Problem

Since the implementation of new Phoenix Performance Based Navigation (PBN) Area Navigation Routes (RNAV) arrival and departure procedures, the city of Scottsdale has experienced disproportionate impacts of concentrated flight paths related to the new procedures. In addition to PHX airport operations, Scottsdale Airport, Deer Valley Airport and Falcon Field Airport operations create cumulative impacts to the same populations as the procedures serving PHX.

Aircraft noise is now impacting all of Scottsdale. North Scottsdale has been particularly hard hit. As figures 2 and 3 above demonstrate, a disproportionate number of comments come from the citizens living in North Scottsdale. Most of North Scottsdale is designated by Ordinance as environmentally sensitive lands and Scottsdale citizens are

very protective of the natural character of the desert and rural areas. Scottsdale officials were not consulted at all by the FAA when the new routes were published.

The efficiencies of fuel, time and emission savings were given priority over the public and environmental impact of the route changes. The FAA and the airlines have a duty to the public to revisit the public and environmental impacts and adjust to remove disproportionate and excessive environmental and quality of life impacts.

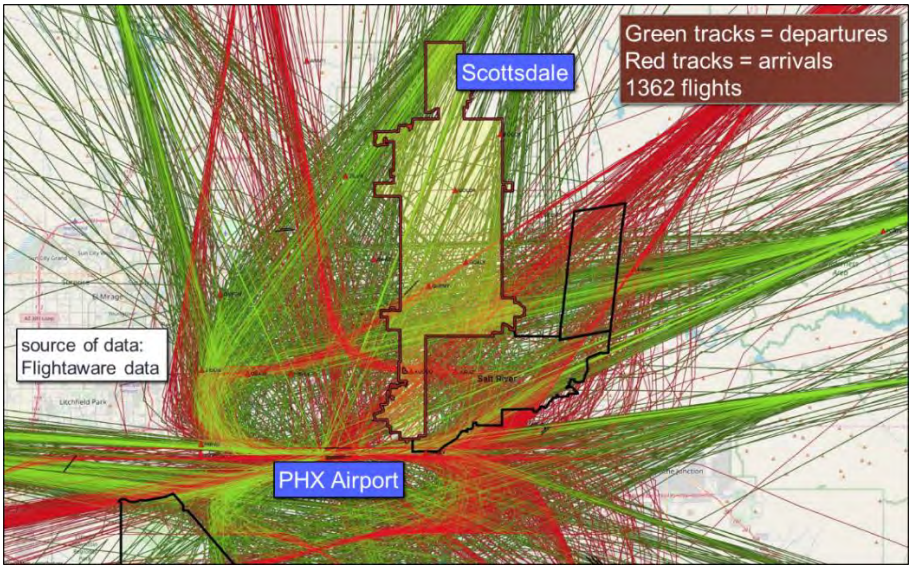


Figure 6 PHX Arrival and Departure Flight Tracks May 5 & 6, 2014

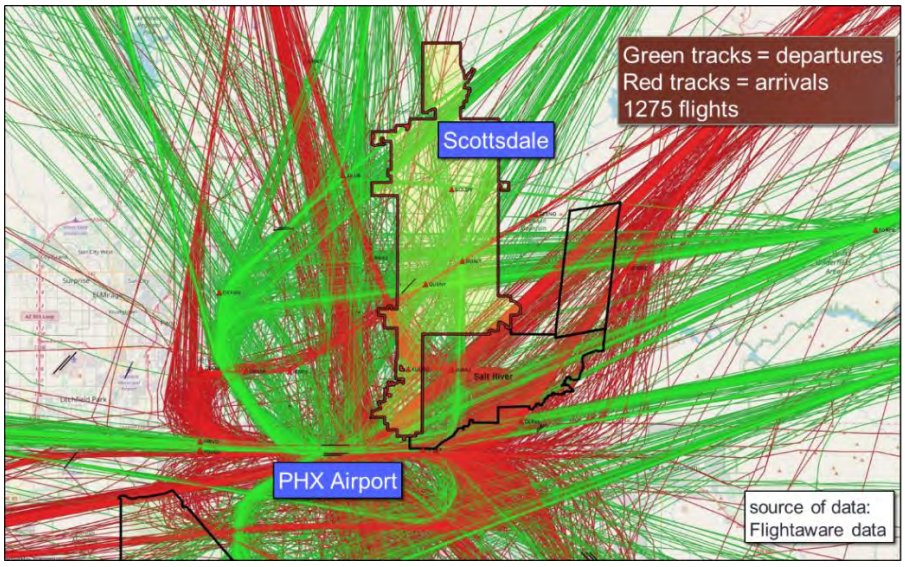


Figure 7 PHX Arrival and Departure Flight Tracks March 15 & 16, 2018

The JDA team assigned to evaluate the problem and identify alternatives to address the problem includes Dr. Antonio Trani, Professor of Civil Engineering at Virginia Tech and Co-Director of National Center of Excellence for Aviation Operations Research (NEXTOR), Patty Daniel, FAA Northern California Metroplex Project Manager (retired),

Rob Voss FAA Scottsdale Air Traffic Control Tower Manager (retired) and Cynthia Schultz, JDA Vice President of Airports.

Dr. Antonio Trani served as senior analyst on this project. Dr. Trani is a go to problem solver and trusted resource of the FAA. Dr. Trani's Runway Design Interactive Model that he developed for the FAA is used to account for taxi times in runway and ground flow modeling analysis. Dr. Trani also recently completed a wake turbulence study for the FAA to determine safe separation distances between aircraft at the nation's largest airports.

For this study, Dr. Trani collected and analyzed 16 days of flight track data each from 2013 and 2018 to assist the team in understanding the problem and defining reasonable alternatives to address the problem.

Scottsdale and the JDA team will present rational win/win alternatives for the FAA's consideration that fairly distribute noise impacts related to PBN RNAV procedures safely and efficiently.

V. Procedures Studied

Four departure procedures and two arrival procedures were analyzed:

- PHX Departure Procedures Analyzed:
  - QUAKY One RNAV East Flow
  - MIRBL One RNAV East Flow
  - ZEPER One RNAV East Flow
  - FORPE One RNAV West Flow
- PHX Arrival Procedures Analyzed:
  - EAGUL Six RNAV East Flow
  - BRUSR One RNAV West Flow

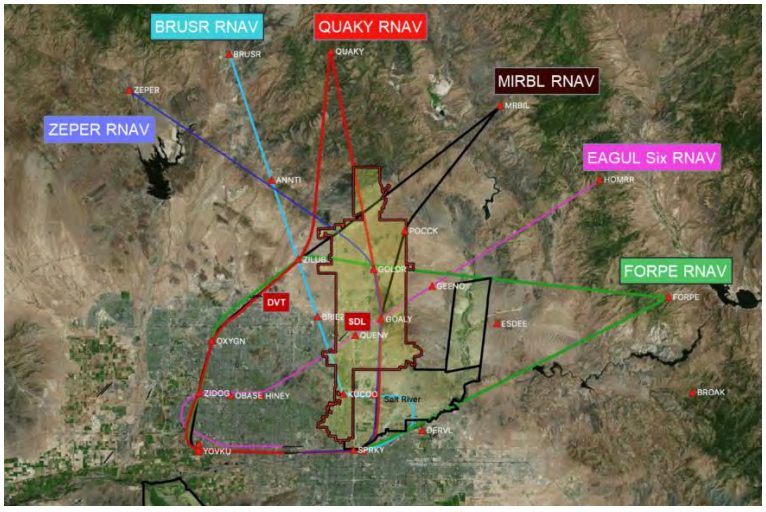


Figure 8 RNAV Departure and Arrival Procedures Affecting Scottsdale

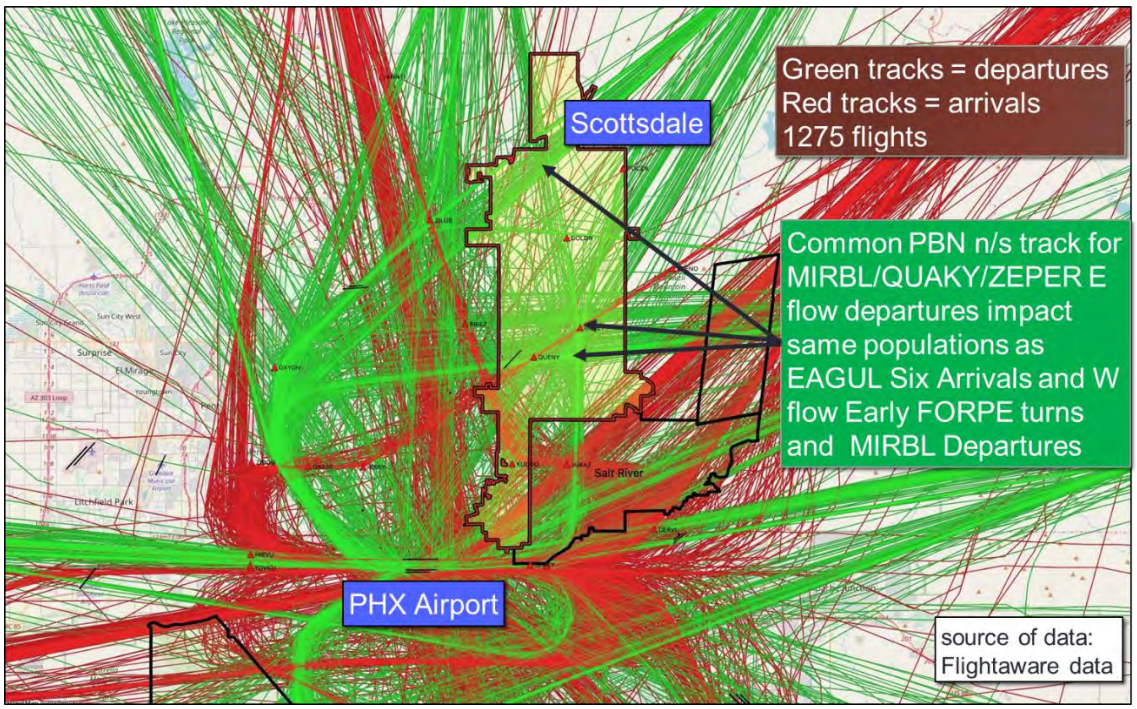


Figure 9 PHX PBN Cumulative Impacts of Multiple Departure and Arrival Flight Tracks in E and W Flow

VI. Known Issues About the Problem

Several areas of Scottsdale are impacted by four departure and two arrival procedures in both east and west flow. Scottsdale procured this study to evaluate the impacts of departure procedures ZEPER One, QUAKY One, MIRBL One and FORPE One, to Scottsdale residents and identify alternatives to more fairly distribute the burden of PHX flight operations. Subsequently, the FAA proposed Concept 2 modifying arrival procedure EAGUL Six, which was added to the study.

Overconcentration of PBN flight operations over narrow corridors on the ground are problematic nationwide. New noise (especially new noise in rural areas) has created higher levels of annoyance at much lower decibel levels. The current set of tools to deal with noise impacts on the ground utilize metrics and thresholds of significance that were designed for dispersed flight activity. Aircraft operation frequency fatigue that used to be isolated much closer to the runway thresholds has now migrated out well beyond the traditional airport influence area.

Flight procedures are designed with mean sea level (MSL) altitudes. Table 1 below demonstrates above ground level (AGL) altitude of procedures studied.

Table 1 Current Departure Traffic Over Scottsdale

Procedure	Average Entry Altitude (ft)	Terrain Elevation (ft)	Fly Over Altitude Above Ground (feet)	Fly Over Entry Reference Point	Exit Altitude (ft)	Terrain Elevation (ft)	Fly Over Altitude Above Ground (feet)	Fly Over Exit Reference Point
QUAKY East Flow	8350	1400	6950	Stonegate	12250	3650	8600	Continental Mountain
MIRBL East Flow	8350	1400	6950	Stonegate	12900	2650	10250	Granite Mountain
MIRBL West Flow	13200	2000	11200	Northridge Community Church	14760	2900	11860	Mirabel Golf Club
FORPE West Flow	13100	1500	11600	Reach 11 Recreation Area	14800	2450	12350	McDowell Peak
FORPE Early Turns	13,000	1550	11450	Variable locations	14,800	2450	12,350	McDowell Peak
ZEPER East Flow	8350	1400	6950	Stonegate	12600	2250	10350	Terravita Marketplace

All four departure streams studied cross two arrival streams. Departures are often held under the arrivals to maintain safe separation of aircraft. The east flow departure procedures MIRBL, QUAKY and ZEPER over Scottsdale require departures to stay below 9,000' MSL until they pass GOALY which is at approximately 2,400 MSL. So, the aircraft are approximately 6,500 AGL at GOALY and apply thrust to climb unrestricted creating more noise over rising terrain to the northern Scottsdale border.

Table 2 Current Arrival Traffic Over Scottsdale

Procedure	Average Entry Altitude (ft)	Terrain Elevation (ft)	Fly Over Altitude Above Ground (feet)	Fly Over Entry Reference Point	Exit Altitude (ft)	Terrain Elevation (ft)	Fly Over Altitude Above Ground (feet)	Fly Over Exit Reference Point
EAGUL East Flow	11200	2600	8600	East End Mountain	9500	1500	8000	Scottsdale Airport
BRUSR West Flow	7450	1450	6000	Sequoya Elementary School	6200	1400	4800	Agua Linda Park

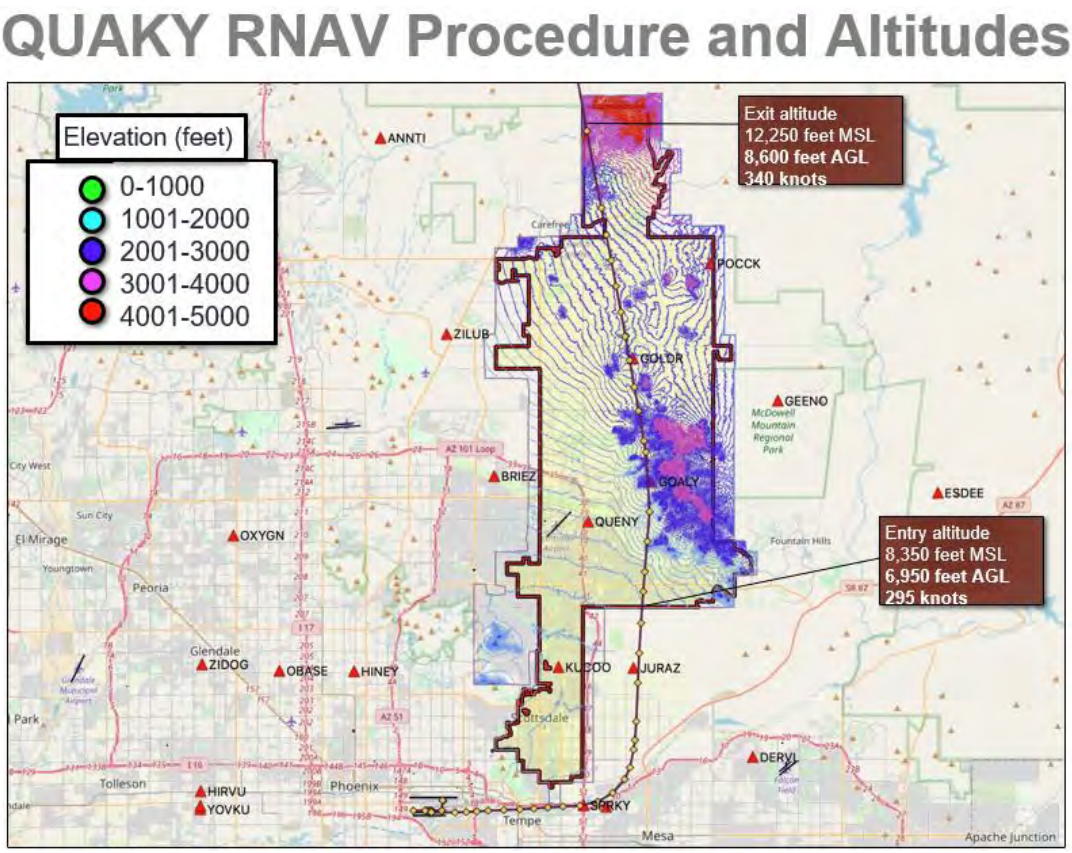
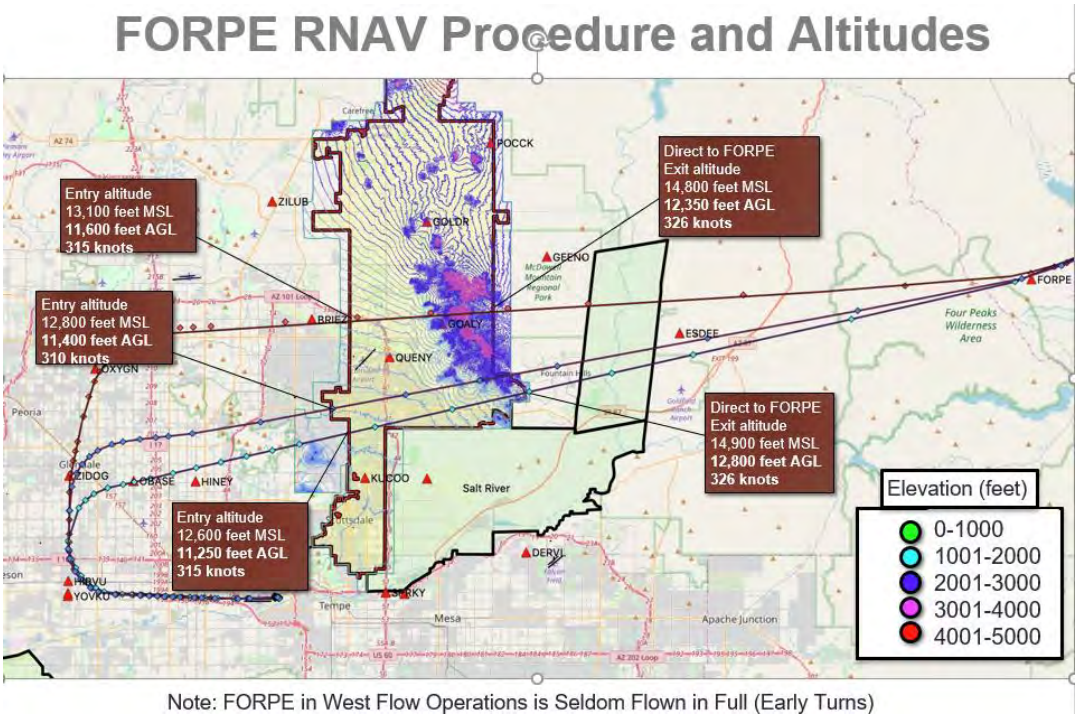


Figure 10 QUAKY Departures Held Below 9,000' MSL to GOALY (or ~ 6,500 AGL at GOALY)



Note: FORPE in West Flow Operations is Seldom Flown in Full (Early Turns)

Figure 11 FORPE Early Turn Departures

FORPE west flow departures fly over arrivals crossing Scottsdale at higher altitudes and are more dispersed. Because these operations cause the least impacts to Scottsdale the study team focused on ZEPER, MIRBL and QUAKY departure procedures.

A. Cumulative Impacts on Scottsdale

In addition to impactful PHX overflights, other aviation activities in the area can contribute to an adverse environmental load, likely perceived by many Scottsdale residents as a nuisance. Though independently minor, intermittent and difficult to quantify, aviation activity over Scottsdale can combine to cause annoyance beyond that normally expected at greater distances and DNL impacts from the major airport (PHX).

Examples of other impacts affecting Scottsdale residents may include common low-flying helicopters and activity involving adjacent general aviation airports- including Scottsdale (SDL), Deer Valley (DVT) and Mesa/Falcon Field (FFT)

Itinerant military flights and activity from Luke Air Force Base in the west valley occasionally produce sustained, extremely loud jet noise, welcomed by most but adding to the cumulative load of the regular PHX traffic flying over or nearby, with many citizens unaware whether loud noise sources are military, civilian or commercial.

While the City of Scottsdale proactively manages its own airport noise abatement efforts, Federal law limits noise reduction initiatives to voluntary compliance by pilots and aircraft owners. The affluence of the Scottsdale community, along with growing proliferation of private and fractional ownership of business jets, has led to continual increases in small jet activity at Scottsdale Airport, causing increases in neighborhood flyovers, particularly in the winter and spring. Keeping these aircraft beneath PHX traffic routed over Scottsdale compounds the nuisance. Flight paths used to separate traffic from nearby Deer Valley Airport can place the SDL jets over the same Scottsdale communities exposed to PHX departure traffic directly above. The sound propagation appears to be intensified by the higher elevations of North Scottsdale (less dense air), typical light wind gradients and notably, the rocky, mountainous terrain, which can create a significant topographical effect amplifying the volume and duration of aircraft noise[2].

At the nearby Deer Valley Airport (DVT), flight training generates an unusually high volume of low-altitude flights traversing Scottsdale, enroute to train at Scottsdale Airport or Mesa's Falcon Field (FFT). Though these aircraft are typically single-engine, propeller driven, their engines are unmuffled and can create noticeable noise at the lower altitudes they commonly use. Some areas are also affected by repetitive practice maneuvers, such as stalls, spins, turns about-a-point and aerobatics. These are

[2] https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19780009880.pdf

commonly conducted over far North Scottsdale (Desert Mountain, Mirabel, Legend Trail), as well as over nearby communities such as the Rio Verde horse farms.

B. Historical Impacts

Further, many of the areas impacted by cumulative aircraft noise are rural and/or have historical significance, including the Frank Lloyd Wright Taliesin West, a National Historic Landmark (close to GOALY Waypoint). Taliesin West was added to the National Register of Historic Places on February 12, 1974, and was designated as a National Historic Landmark on May 20, 1982.

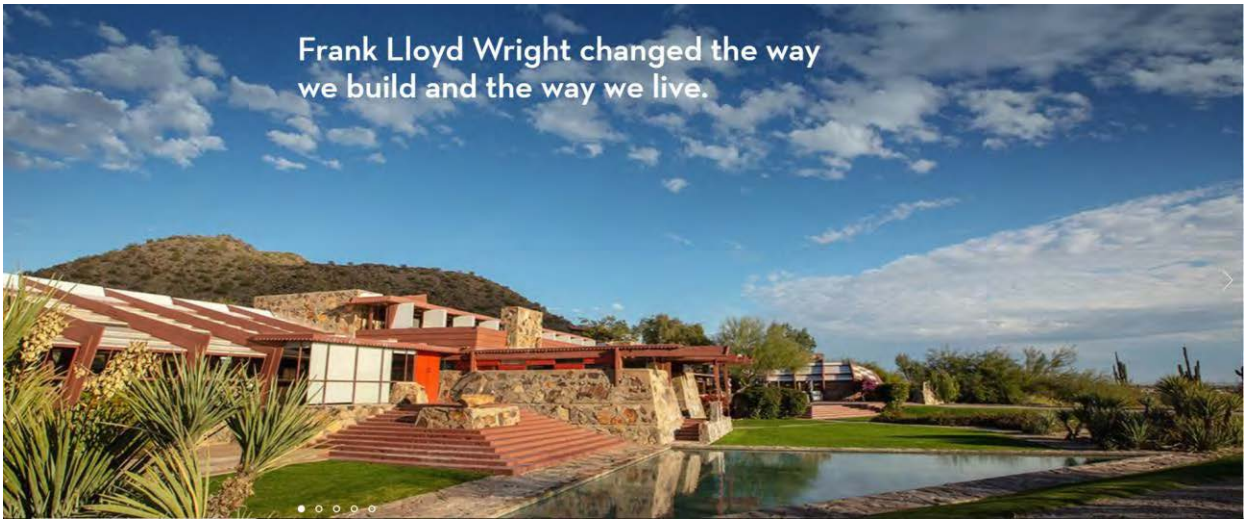


Figure 12 Frank Lloyd Wright Taliesin West National Historic Landmark

This area hosts affluent retirement communities and extensive recreation areas valued for their serenity including McDowell Sonoran Preserve (the largest municipally owned park or preserve in the country) located just east of GOALY. Clearly, most areas of Scottsdale were carefully designed and developed to take advantage of the area's peacefulness and natural beauty. Any action or changes adding to adverse cumulative aviation noise impacts should be avoided and remedied, if reasonably efficient alternatives exist.

C. Noise Sensitive Facilities

The common north bound track between SPRKY and GOLDR concentrates flight activity over approximately 24 schools and churches as illustrated in Figure 13 below

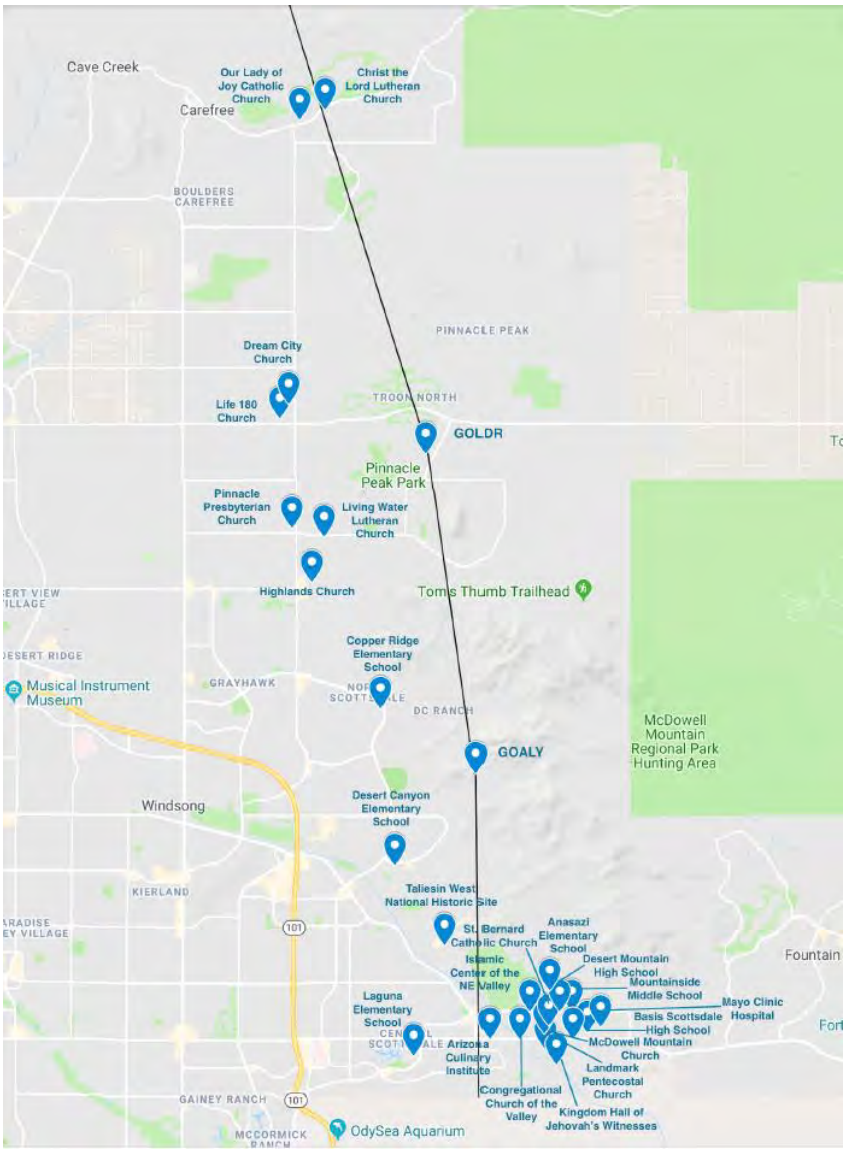


Figure 13 Noise Sensitive Facilities Along QUAKY Flight Path Backbone

VII. Aircraft Noise Impacts

The FAA evaluates noise impacts based on the requirements established in the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] §§ 4321-4335). NEPA established the basic national charter for protecting the environment.

FAA Order 1050.1F provides the FAA's policies and procedures to ensure agency compliance with NEPA, the requirements set forth in the Council on Environmental Quality (CEQ), Title 40, Code of Federal Regulations (CFR), parts 1500-1508, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (CEQ Regulations), and Department of Transportation (DOT) Order 5610.1C, Procedures for Considering Environmental Impacts. The CEQ Regulations establish procedures for complying with NEPA. In accordance with 40 CFR § 1507.3 of the CEQ

Regulations, this Order contains the FAA's implementing procedures, which supplement those regulations.

The FAA utilizes thresholds of significance described in FAA Order 1050.1F Exhibit 4-1 in Appendix 1 to assess 21 environmental impact areas including noise impacts of aircraft operations. Figure 14 includes the Noise and Noise Compatible Land Use content of Exhibit 4-1.

Noise and Noise-Compatible Land Use	*The action would increase noise by DNL[7] 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.* For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.	Special consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within Section 4(f) properties (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the DNL 65 dB threshold does not adequately address the impacts of noise on visitors to areas within a national park or national wildlife and waterfowl refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.

[7] Day-Night Average Sound Level (DNL). The 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. The symbol for DNL is L_{dn} (See 14 CFR § 150.7).

Figure 14 Noise and Noise Compatible Land Use Thresholds of Significance FAA Order 1050.1F

The day-night average sound level (DNL) noise metric is used to reflect a person's cumulative exposure to sound over a 24-hour period, expressed as the noise level for the average day of the year on the basis of annual aircraft operations. The DNL noise metric provides a mechanism to describe the effects of environmental noise in a simple and uniform way. DNL is the standard noise metric used for all FAA studies of aviation noise exposure in airport communities.

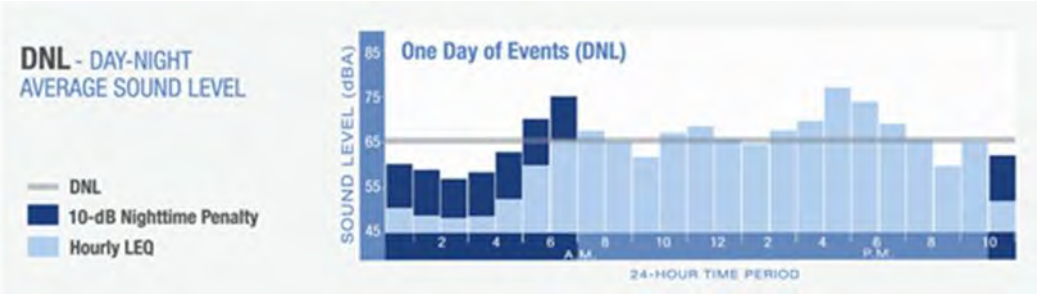


Figure 15 Day Night Average Sound Level (DNL)

The currently defined thresholds of significance are proving to be a poor indicator of annoyance caused by noise related to the implementation of PBN RNAV procedures. PBN procedures focus the aircraft flight activity over a much smaller area resulting in much higher frequency of flights that have proven to cause annoyance at lower DNL levels resulting in community opposition to implemented PBN procedures nationwide. With PBN implementation, population density and DNL metrics that have historically been effective tools to predict noise annoyance have become inadequate. The PBN implementation process has demonstrated that the acceptable noise level threshold expectation decreases with population density. Before PBN, the high concentration of flight activity over an acute path was present only within just a few miles of the airport. PBN RNAV routes have now concentrated high frequency flight activity over narrow corridors over less dense suburban and rural areas to waypoints 30 miles or more from the airport.

VIII. Departure and Arrival Procedure Population Impacts

To assess population impacts, we created a one nautical mile buffer on either side of the core flight tracks to compile population impacts on the ground. The buffer size was established by analyzing typical DNL levels around the airport.

Figure 16 AEDT Modeled PHX 55 DNL Contour

Population and houses impacted were calculated under the buffer utilizing 2010 US Census data. All population and house impact data in this report are approximate values.

Houses impacted = 39,659
Population impacted = 76,794
Scottsdale population impacted = 30,603

Figure 17 Example of Population Impact Buffer QUAKY

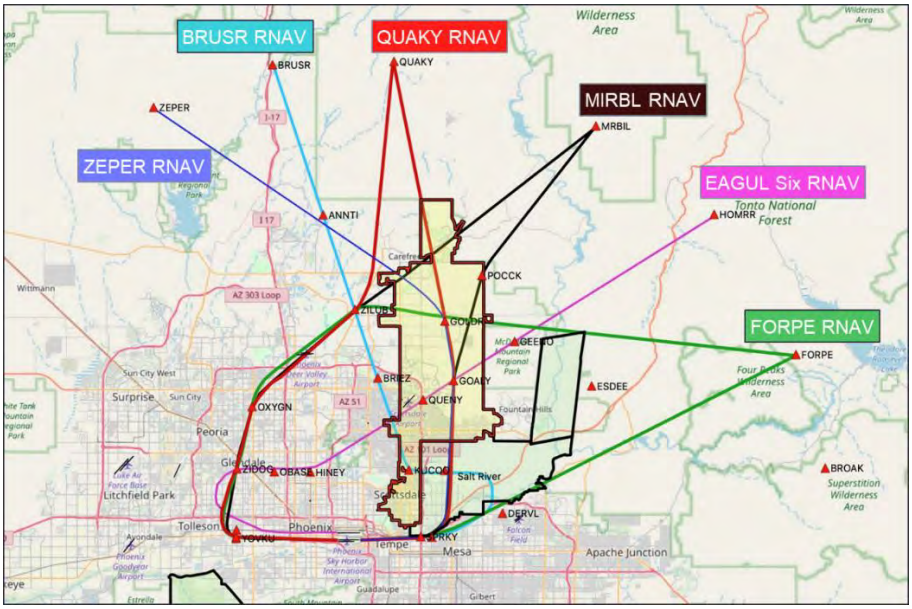


Figure 18 Flight Procedure Back Bones Over Census Data

A. RNAV Departure Population Impacts

Table 3 Total Population and Scottsdale Population Impacts from Current RNAV Procedures

Alternative	Total Population within 2 nautical mile buffer	Scottsdale Population within 2 nautical mile buffer
QUAKY (East)	76,794	33,063
ZEPER (East)	82,259	37,754
MIRBL (East)	64,427	26,370
EAGUL Six (East)	345,568	30,305
FORPE (West)	280,345	10,236
Early Turns to FORPE (West)	266,298	37,716
MIRBL (West)	157,212	10,479
BRUSR (West)	169,704	30,848

Table 4 Scottsdale Houses and Population Impacts from Current RNAV Procedures

Procedure	Scottsdale Houses within 2 nm Envelope	Scottsdale Population within 2 nm Envelope	Remarks
QUAKY	18,438	33,063	East flow departures using QUAKY fly over Scottsdale and moderate altitudes (8000 to 10,000 feet)
FORPE	5,441	10,236	Departures to the West fly over Scottsdale at altitudes above 10,000 feet
ZEPER	20,761	37,754	East flow departures fly over Scottsdale at moderate altitudes
MIRBL	7,182 13,301	10,479 26,370	West flow departures East flow departures
Early Turns to FORPE	21,759	37,716	West flow departures
EAGUL Six RNAV Arrival	16,091	30,305	Existing RNAV Arrival. Flies over Scottsdale.

B. FAA Concept 1 Population Impacts

FAA concept 1 moves the departure procedure for east bound MIRBL departures to the east.

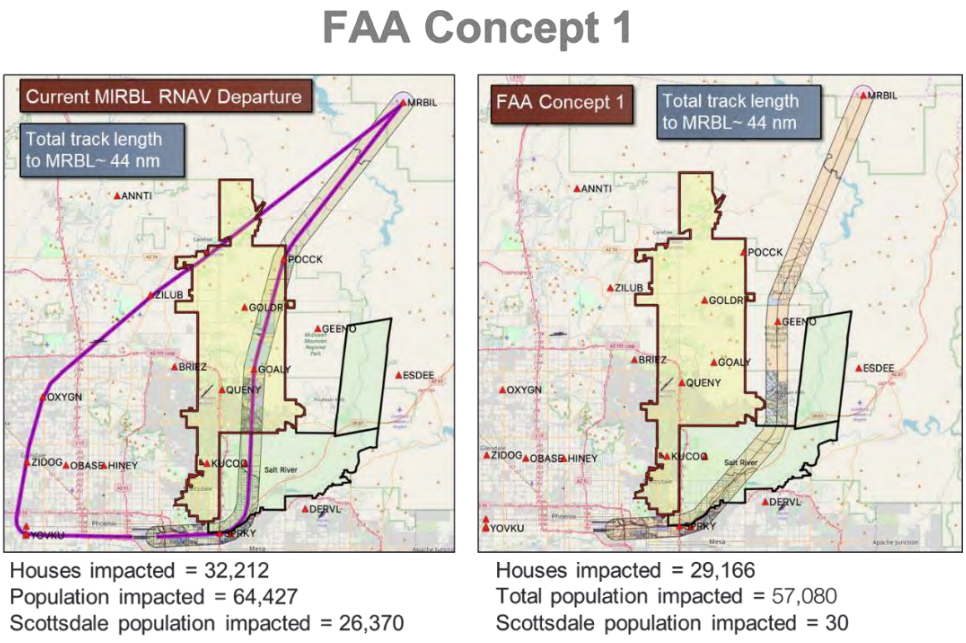


Figure 19 Existing and FAA Concept 1 Population Impacts

C. FAA Concept 2 Population Impacts

FAA Concept 2 splits EAGUL Six arrivals to two charted tracks to the south of existing EAGUL Six arrivals.

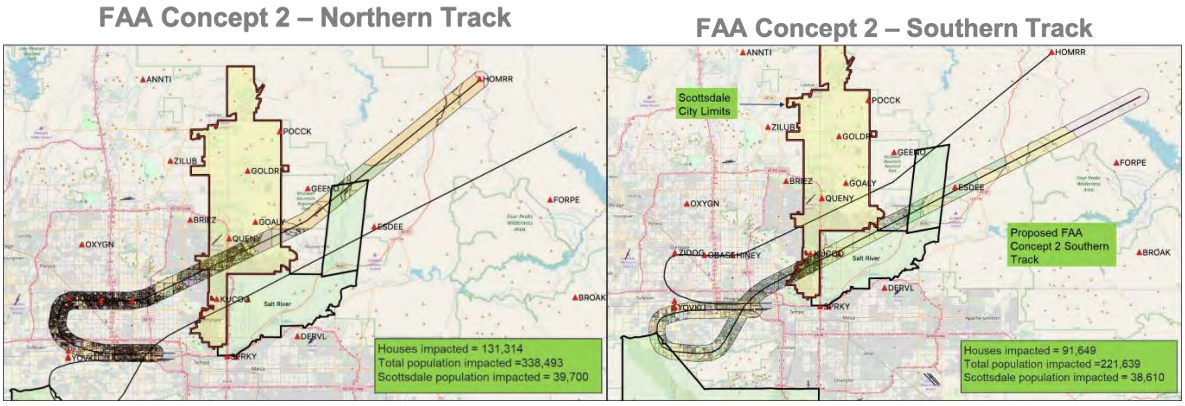


Figure 20 FAA Concept 2 Population Impacts

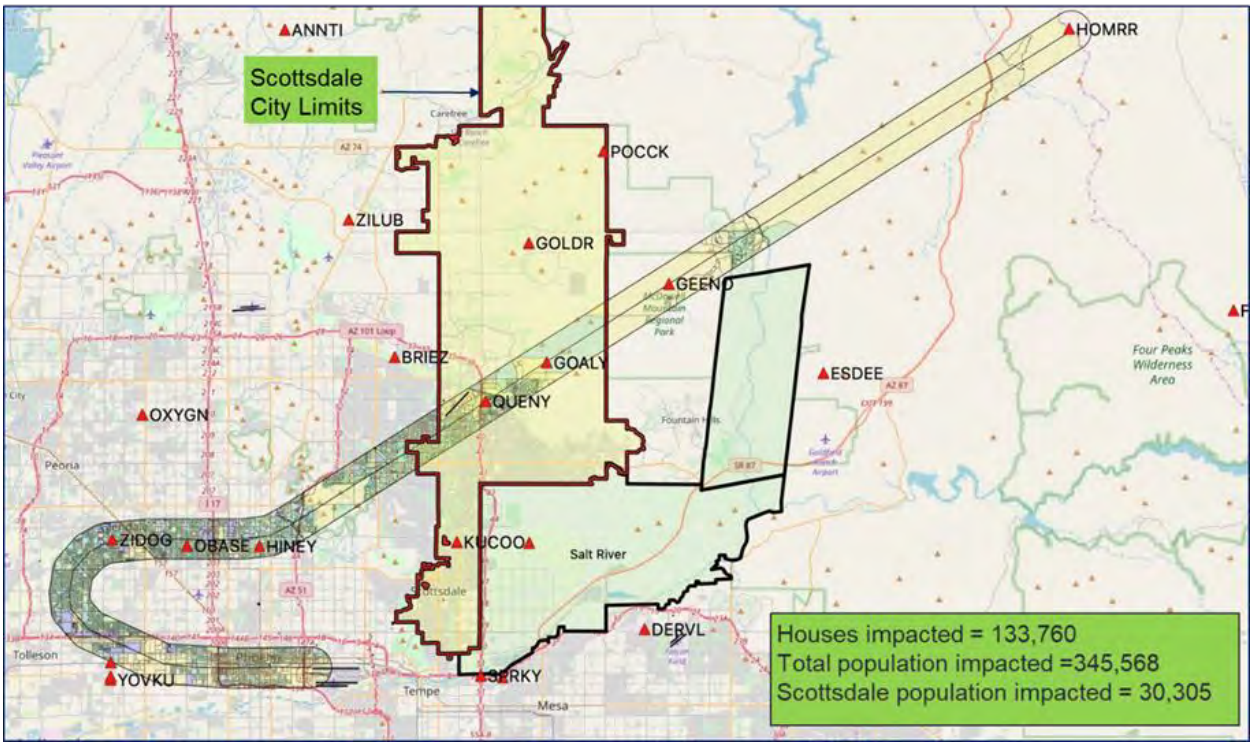


Figure 21 Existing EAGUL Six RNAV Arrival Population Impacts

FAA Concept 2 was unexpected since the focus of the court proceedings was departures. The concept of splitting EAGUL into two southern tracks was presented in the original OAPM report for the Phoenix Metroplex. FAA Concept 2 almost doubles the EAGUL Six population impact to Scottsdale. The ultimate outcome of FAA Concept 2 appears to be an attempt to increase capacity and peak arrival management rather than an attempt to provide noise relief.

FAA Concept 2 increases Scottsdale impacts on a different population. Scottsdale recognizes that it is the FAA's intent to improve capacity and peak arrival management with FAA Concept 2. Scottsdale also believes that the additional impact to Scottdale residents should merit serious consideration of Scottsdale's preferred alternative by the FAA and involvement of Scottsdale in any process to consider FAA Concept 2.

Table 5 FAA Concept 1 and 2 Population Impacts

Alternative	Total Population within 2 nm buffer	Scottsdale Population within 2 nm buffer	Remarks
FAA Concept 1	50,080	30	Create a new MIRBL RNAV departure track to fly over McDowell Mountain Regional Park
FAA Concept 2 Northern Track	338,493	39,700	Create a new RNAV track South of the EAGUL Six
FAA Concept 2 Southern Track	221,639	38,610	Create a new RNAV track South of the Northern RNAV and further South of EAGUL Six

IX. Scottsdale Aircraft Fly Over Operations Impacts

Table 6 Arrivals and Departures Flying Over Scottsdale (Current Procedures)

Day	Fly Over Arrivals	Fly Over Departures	Total Daily Traffic	Total Fly Over Arrivals	Total Fly Over Departures
KPHX_2018-01-26 _2018-01-26	121 (BRUSR) 64 (HOMMR)	60 (MIRBL) 4 (QUAKY) 56 (FORPE)	1175	185	120
KPHX_2018-11-24 _2018-11-24	57 (BRUSR) 98 (HOMMR)	40 (MIRBL) 27 (QUAKY) 24 (ZEPER) 71 (FORPE)	1019	255	162
KPHX_2018-11-13 _2018-11-14	230 (HOMMR) 83 (BRUSR)	61 (MIRBL) 57 (QUAKY) 66 (ZEPER) 83 (FORPE)	1334	313	267
KPHX_2018-10-31 _2018-10-31	120 (BRUSR)	52 (MIRBL) 82 (FORPE)	1114	120	134
KPHX_2017-12-21 _2017-12-22	143 (HOMMR) 151 (BRUSR)	72 (MIRBL) 45 (QUAKY) 36 (ZEPER) 115 (FORPE)	1473	294	268
Averages			1223	233	190

Scottsdale residents are regularly impacted by up to 61 MIRBL, 57 QUAKY, and 66 ZEPER departures on a common north bound track from SPRKY to GOLDR. Some of the same residents are also impacted by 83 FORPE west flow departures or 230 EAGUL Six (HOMMR) east flow arrivals. These residents are disproportionately impacted by the changed routes and concentrated flight tracks created with the 2014 PHX RNAV procedures in both East and West flow. Approximately one third of PHX daily operations impact Scottsdale residents and in many cases affect the same populations. Compounding the impact to Scottsdale, MIRBL, QUAKY and ZEPER departures are limited to 9,000' MSL (~6,500 AGL at GOALY) until they pass GOALY at which point they climb (creating more noise).

Alternatives were identified to mitigate excessive Scottsdale population impacts. Ten alternatives were studied. Pros and Cons of each alternative were discussed and evaluated based on the following factors:

- Populations affected (looking for fair distribution of impact to all communities that benefit from PHX)
- Safety (loss of separation etc.)
- Controller Operations (workload)
- Frequency Issues (congestion, missed radio transmissions)
- Operational Efficiency (track length)
- Cost to Airlines and Users
- The Need/Benefit/Justification

The ten alternatives were considered in conjunction with FAA Concept 1 and FAA Concept 2. The JDA team provided recommendations to the City of Scottsdale and with their review and direction determined the best alternatives to fairly distribute noise impacts.

X. Recommended Modifications to FAA Concept 1

After evaluation of the FAA proposed concepts 1 and 2 and the 10 alternatives studied by the JDA team, the following alternatives are recommended by Scottsdale and JDA for consideration by the FAA.

A. Scottsdale's Preferred Modification to FAA Concept 1

Moves QUAKY and MIRBL to follow the Salt River along the southern border of the Salt River Reservation and then north through ESDEE along the east border of the Yavapai Nation Reservation.

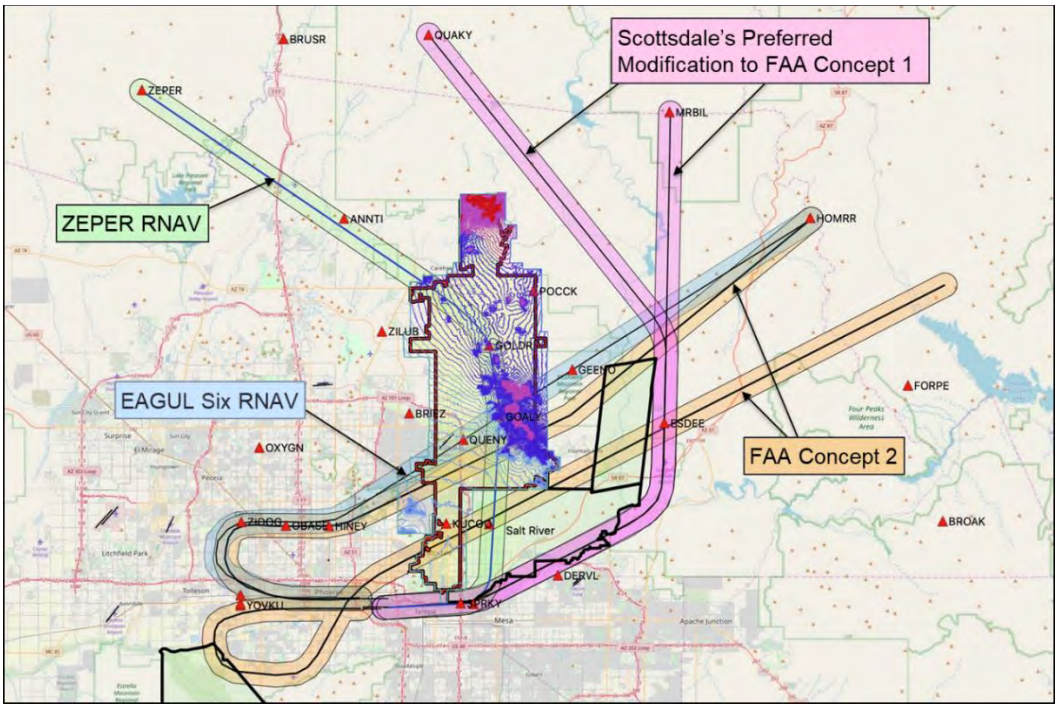


Figure 22 Scottsdale's Preferred Modification to FAA Concept 1

Scottsdale's Preferred Modification to FAA Concept 1 Pros:

- Reduces cumulative impact that Scottsdale experiences from operations into/out of PHX, SDL, and DVT
- Reduces impacts on historic landmarks, churches, and schools
- Reduces number of departures over Scottsdale by approximately 2/3
- Replaces two RNAV SIDs with one RNAV SID
- Does not adversely impact Fountain Hills, Salt River Reservation, or McDowell Mountain Regional Park
- Moves approximately 2/3 of PHX departure traffic away from all metropolitan and residential areas of Scottsdale, Fountain Hills, Salt River Reservation and McDowell Sonoran Preserve to unpopulated areas.
- Moves arrival crossing location east allowing PHX QUAKY/MIRBL departures to climb higher sooner

- Distributes PHX departure traffic between Scottsdale (ZEPER SID) and largely unpopulated areas
- Moves traffic away from many Step 1 Workshop comment clusters
- No increase in track miles to MIRBL
- Decreases total population impact by 23,287 (QUAKY) and 8,808 (MIRBL)
- Decreases Scottsdale population impacted by 33,033 (QUAKY) and 26, 340 (MIRBL)
- Works with FAA Concept Two

Scottsdale's Preferred Modification to FAA Concept 1 Cons:

- PHX East Flow ZEPER traffic remains over Scottsdale
- 13 mile increase in track length to QUAKY
- Adds one new crossing point with current EAGUL STAR
- Adds two new crossing points with FAA Concept Two
- ZEPER traffic still restricted below EAGUL STAR over Scottsdale
- ZEPER traffic still restricted below FAA Concept Two STAR over Scottsdale

B. Scottsdale's Acceptable Modification to FAA Concept 1

Utilize similar track to FAA Concept 1 for both QUAKY and MIRBL departures moving 2/3s of the departures to the East significantly decreasing population and houses impacted.

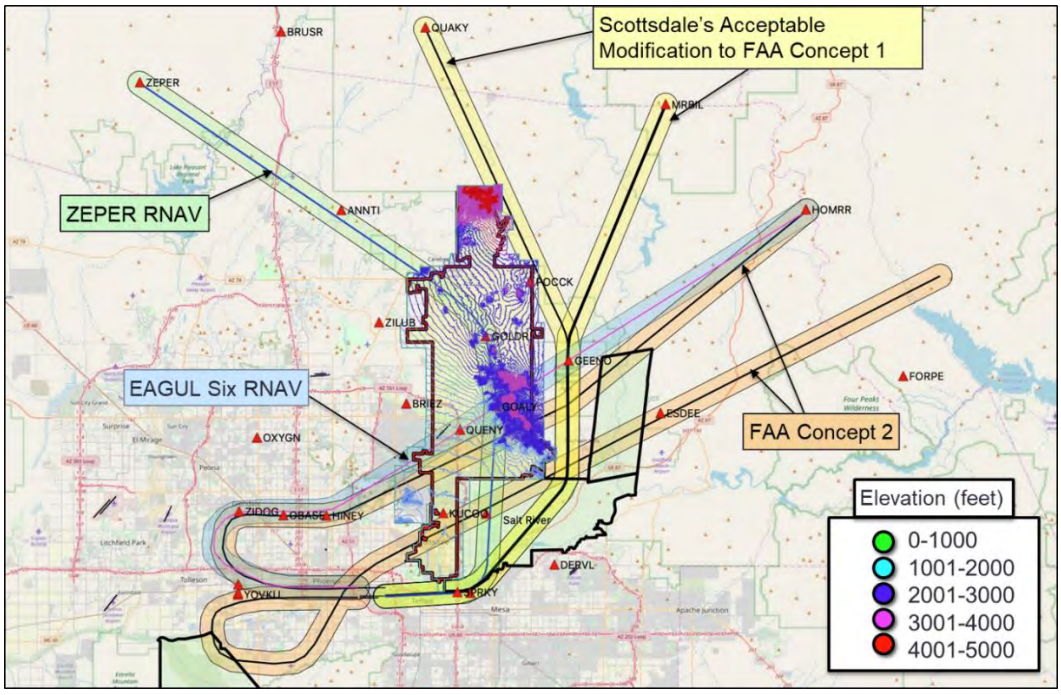


Figure 23 Scottsdale's Acceptable Modification to FAA Concept 1

Scottsdale's Acceptable Modification to FAA Concept 1 Pros:

- Reduces cumulative impact that Scottsdale experiences from operations into/out of PHX, SDL, and DVT
- Reduces cumulative impact on historic landmarks, churches, and schools
- Reduces number of departures over Scottsdale by approximately 2/3
- Improves upon FAA's Concept 1
- Replaces two RNAV SIDs with one RNAV SID
- Distributes PHX departure traffic burden between Scottsdale (ZEPER SID) and Salt River Reservation, Fountain Hills, and Rio Verde Estates
- Decreases total population impact by 18,248 (QUAKY) and 7,347 (MIRBL)
- Decreases Scottsdale population impacted by 32,312 (QUAKY) and 26, 340 (MIRBL)
- Works with FAA Concept Two
- Moves arrival crossing location east allowing PHX QUAKY/MIRBL departures to climb higher sooner
- No increase in track miles to MIRBL
- PHX departures may cross Fountain Hills and McDowell Mountain Regional Park at higher altitudes due to increased number of miles between PHX and Fountain Hills

Scottsdale's Acceptable Modification to FAA Concept 1 Cons:

- Moves approximately 2/3 PHX East Flow departure traffic over Salt River Reservation, Fountain Hills, and McDowell Mountain Regional Park
- 11 mile Increase in track length to QUAKY
- Adds one new crossing point with current EAGUL STAR
- Adds two new crossing points with FAA Concept Two
- ZEPER traffic still restricted below EAGUL STAR over Scottsdale
- ZEPER traffic still restricted below FAA Concept Two STAR over Scottsdale

C. Justification for the Scottsdale Modifications to FAA Concept 1

Table 7 demonstrates existing and modified east flow departure population impacts. Scottsdale's Preferred Modification to FAA Concept 1 reestablishes an appropriate share of the aircraft burden on Scottsdale. Scottsdale is left with the highest impact departure procedure ZEPER, SDL traffic and DVT flyovers to their training area without pushing that burden on Fountain Hills, McDowell Mountain Regional Park and Salt River Reservation.

Table 7 Existing and Modified East Flow Departure Population Impacts

Alternative	Total Population within 2 NM buffer	Scottsdale Population within 2 NM buffer	% Decrease Total Population Impacts w/in 2 NM	% Decrease Scottsdale Population Impacts w/in 2 NM
Existing Departure Impacts TOTAL IMPACT	64,427 (MIRBL) 76,794(QUAKY) 82,259 (ZEPER) 223,480	26,370 (MIRBL) 33,063(QUAKY) 37,754 (ZEPER) 97,187		
FAA Concept 1 TOTAL IMPACT	57,080 (New MIRBL) 76,794(QUAKY) 82,259 (ZEPER) 216,133	30 (New MIRBL) 33,063 (QUAKY) 37,754 (ZEPER) 70,847	3%	27%
Scottsdales Preferred Modification to FAA Concept 1 TOTAL IMPACT	55,619 (New E MIRBL) 53,507 (New E QUAKY) 82,259 (ZEPER) 191,385	30 (New E MIRBL) 30 (New E QUAKY) 37,754 (ZEPER) 37,814	14%	61%
Scottsdales Acceptable Modification to FAA Concept 1 TOTAL IMPACT	57,080 (New MIRBL) 58,546(New QUAKY) 82,259 (ZEPER) 197,885	30 (New MIRBL) 751 (New QUAKY) 37,754 (ZEPER) 38,535	11%	60%

D. Business Case for Scottsdale Preferred Departure Procedures

The FAA should study and consider Scottsdale's preferred modified FAA Concept 1 for implementation because Scottsdale's preferred modified FAA Concept 1 delivers the FAA and the public the most benefits including but not limited to:

- Provides the greatest decrease to population impacts
- Provides the most relief to multiple comment cluster groups affected by east flow departures
- Provides the most relief to environmentally sensitive areas
- Protects two reservations' culturally sensitive areas
- Reduces impacts to historic register properties
- Reduces impacts to churches and schools
- Moves noise to unpopulated areas rather than to a new community
- Reduces cumulative impacts for Scottsdale and other communities impacted by SDL, DVT and FFT
- Maintains the number of crossing points as compared to FAA Concept 1
- Restores a fair balance of noise impacts across fewer people

Scottsdale and JDA stand ready to work with the FAA to mitigate disproportionate PHX flight procedure impacts on our community. Dr. Trani has developed a database that includes census track data, terrain data that is consistent with best practices in noise evaluation and flight procedure analysis. We look forward to restoring environmental and quality of life priorities in the flight procedure adjustment process.

Appendix 1: FAA Order 1050.1F Exhibit 4-1. Significance Determination for FAA Actions.

Environmental Impact Category	Significance Threshold	Factors to Consider
Air Quality	*The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the Environmental Protection Agency under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations*.	
Biological Resources (including fish, wildlife, and plants)	*The U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat.* The FAA has not established a significance threshold for non-listed species.	The action would have the potential for: • A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport); • Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats; • Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or • Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

Environmental Impact Category	Significance Threshold	Factors to Consider
Climate[5]	The FAA has not established a significance threshold for Climate.	
Coastal Resources	The FAA has not established a significance threshold for Coastal Resources.	The action would have the potential to: • Be inconsistent with the relevant state coastal zone management plan(s); • Impact a coastal barrier resources system unit (and the degree to which the resource would be impacted); • Pose an impact to coral reef ecosystems (and the degree to which the ecosystem would be affected); • Cause an unacceptable risk to human safety or property; or • Cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.

[5] Please refer to the 1050.1F Desk Reference for the most up-to-date methodology for examining impacts

associated with climate change.

Environmental Impact Category	Significance Threshold	Factors to Consider
Department of Transportation Act, Section 4(f)	*The action involves more than a minimal physical use of a Section 4(f) resource or constitutes a "constructive use" based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource.*[6] Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished.	
Farmlands	*The total combined score on Form AD-1006, "Farmland Conversion Impact Rating," ranges between 200 and 260 points.*	The action would have the potential to convert important farmlands to non- agricultural uses. Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land.

[6] A "minimal physical use" is part of the FAA's significance threshold that has been continued from FAA Order 1050.1E. It is not the same as a *de minimis* impact determination established in Section 6009 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETY-LU). A *de minimis* impact determination is described in Appendix B, B-2.2.3.

Environmental Impact Category	Significance Threshold	Factors to Consider
Hazardous Materials, Solid Waste, and Pollution Prevention	The FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention.	The action would have the potential to: • Violate applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management; • Involve a contaminated site (including but not limited to a site listed on the National Priorities List). Contaminated sites may encompass relatively large areas. However, not all of the grounds within the boundaries of a contaminated site are contaminated, which leaves space for siting a facility on non-contaminated land within the boundaries of a contaminated site. An EIS is not necessarily required. Paragraph 6-2.3.a of this Order allows for mitigating impacts below significant levels (e.g., modifying an action to site it on non-contaminated grounds within a contaminated site). Therefore, if appropriately mitigated, actions within the boundaries of a contaminated site would not have significant impacts; • Produce an appreciably different quantity or type of hazardous waste; • Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or • Adversely affect human health and the environment.

Environmental Impact Category	Significance Threshold	Factors to Consider
Historical, Architectural, Archeological and Cultural Resources	The FAA has not established a significance threshold for Historical, Architectural, Archeological, and Cultural Resources.	The action would result in a finding of *Adverse Effect* through the Section 106 process. However, an adverse effect finding does not automatically trigger preparation of an EIS (i.e., a significant impact).
Land Use	The FAA has not established a significance threshold for Land Use.	There are no specific independent factors to consider for Land Use. The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts.
Natural Resources and Energy Supply	The FAA has not established a significance threshold for Natural Resources and Energy Supply.	The action would have the potential to cause demand to exceed available or future supplies of these resources.
Noise and Noise-Compatible Land Use	*The action would increase noise by DNL[7] 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe*. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.	Special consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within Section 4(f) properties (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the DNL 65 dB threshold does not adequately address the impacts of noise on visitors to areas within a national park or national wildlife and waterfowl refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.

[7] Day-Night Average Sound Level (DNL). The 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. The symbol for DNL is L_{dn} (See 14 CFR § 150.7).

Environmental Impact Category	Significance Threshold	Factors to Consider
Socioeconomics, Environmental Justice, and Children's Health and Safety Risks		
Socioeconomics	The FAA has not established a significance threshold for Socioeconomics.	The action would have the potential to: • Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area); • Disrupt or divide the physical arrangement of an established community; • Cause extensive relocation when sufficient replacement housing is unavailable; • Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities; • Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or • Produce a substantial change in the community tax base.
Environmental Justice	The FAA has not established a significance threshold for Environmental Justice.	The action would have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, i.e., a low-income or minority population, due to: • Significant impacts in other environmental impact categories; or • Impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population.
Children's Environmental Health and Safety Risks	The FAA has not established a significance threshold for Children's Environmental Health and Safety Risks.	The action would have the potential to lead to a disproportionate health or safety risk to children.

Environmental Impact Category	Significance Threshold	Factors to Consider
Visual Effects		
Light Emissions	The FAA has not established a significance threshold for Light Emissions.	The degree to which the action would have the potential to: • Create annoyance or interfere with normal activities from light emissions; and • Affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources.
Visual Resources / Visual Character	The FAA has not established a significance threshold for Visual Resources / Visual Character.	The extent the action would have the potential to: • Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources; • Contrast with the visual resources and/or visual character in the study area; and • Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

Environmental Impact Category	Significance Threshold	Factors to Consider
Water Resources (including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)		
Wetlands	*The action would:* 1. *Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;* 2. *Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;* 3. *Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public);* 4. *Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands;* 5. *Promote development of secondary activities or services that would cause the circumstances listed above to occur; or* 6. *Be inconsistent with applicable state wetland strategies.*	
Floodplains	*The action would cause notable adverse impacts on natural and beneficial floodplain values.* Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, *Floodplain Management and Protection*.	

Environmental Impact Category	Significance Threshold	Factors to Consider
Surface Waters	*The action would:* *Exceed water quality standards established by Federal, state, local, and tribal regulatory agencies; or* *Contaminate public drinking water supply such that public health may be adversely affected.*	The action would have the potential to: • Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values; • Adversely affect surface waters such that the beneficial uses and values of such waters are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or • Present difficulties based on water quality impacts when obtaining a permit or authorization.
Groundwater	*The action would:* *Exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or* *Contaminate an aquifer used for public water supply such that public health may be adversely affected.*	The action would have the potential to: • Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values; • Adversely affect groundwater quantities such that the beneficial uses and values of such groundwater are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or • Present difficulties based on water quality impacts when obtaining a permit or authorization.

Environmental Impact Category	Significance Threshold	Factors to Consider
Wild and Scenic Rivers	The FAA has not established a significance threshold for Wild and Scenic Rivers.	The action would have an adverse impact on the values for which a river was designated (or considered for designation) through: • Destroying or altering a river's free- flowing nature; • A direct and adverse effect on the values for which a river was designated (or under study for designation); • Introducing a visual, audible, or other type of intrusion that is out of character with the river or would alter outstanding features of the river's setting; • Causing the river's water quality to deteriorate; • Allowing the transfer or sale of property interests without restrictions needed to protect the river or the river corridor (which cannot exceed an average of 320 acres per mile which, if applied uniformly along the entire designated segment, is one-quarter of a mile on each side of the river); or • Any of the above impacts preventing a river on the Nationwide Rivers Inventory (NRI) or a Section 5(d) river that is not included in the NRI from being included in the Wild and Scenic River System or causing a downgrade in its classification (e.g., from wild to recreational).

Appendix 2: Phoenix International Aiport Operations

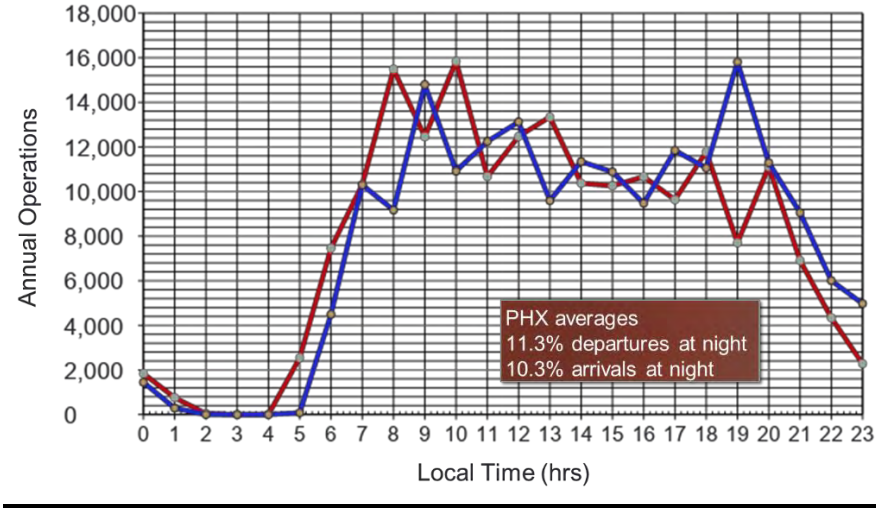


Figure 24 2018 PHX Aircraft Operations vs Time of Day

The ratio of nighttime versus daytime PHX aircraft operations is trending up like many other busy airports in the US. 11.3% of arrivals and 10.3 % of departures occur during nighttime hours from 10:00 PM to 7:00 AM.

Nighttime noise operations are multiplied by 10 during noise modeling to capture the increase of annoyance (studies suggest people are affected ten-fold at night) of night time aircraft operations in the development of noise contours.

PHX may benefit from a night time noise mitigation program.

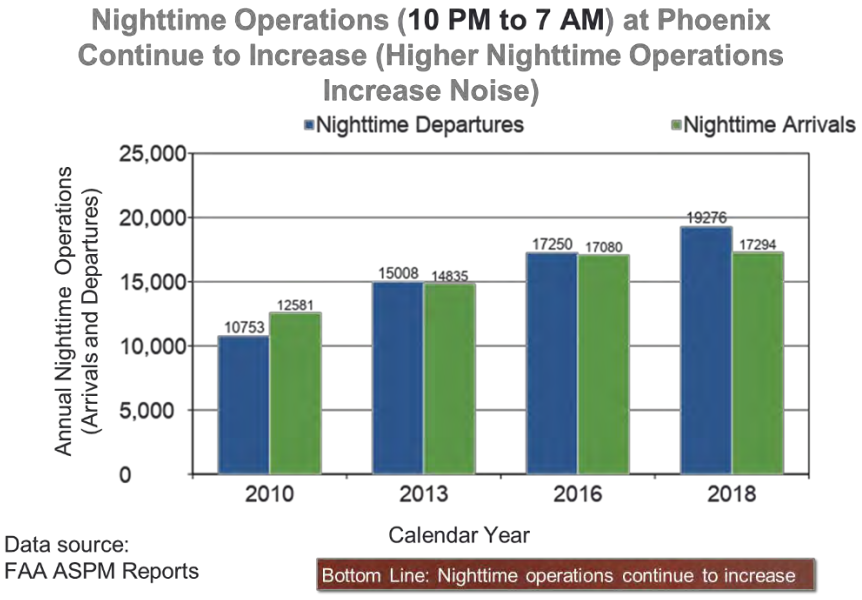
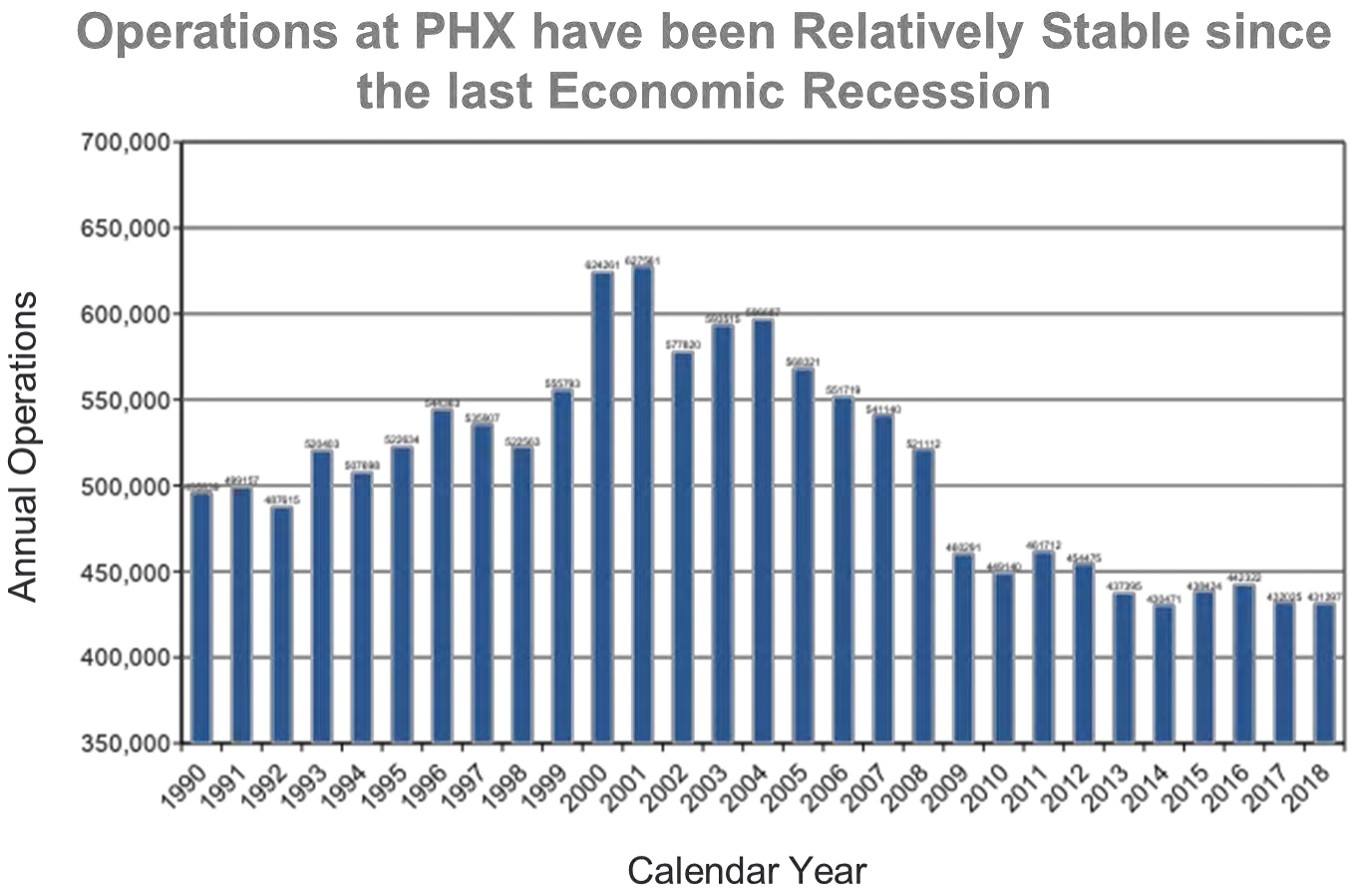


Figure 25 PHX Nighttime Operations 2010 to 2018



Data source: Federal Aviation Administration Terminal Area Forecast (2019)

Figure 26 PHX Aircraft Operations 1990 to 2018

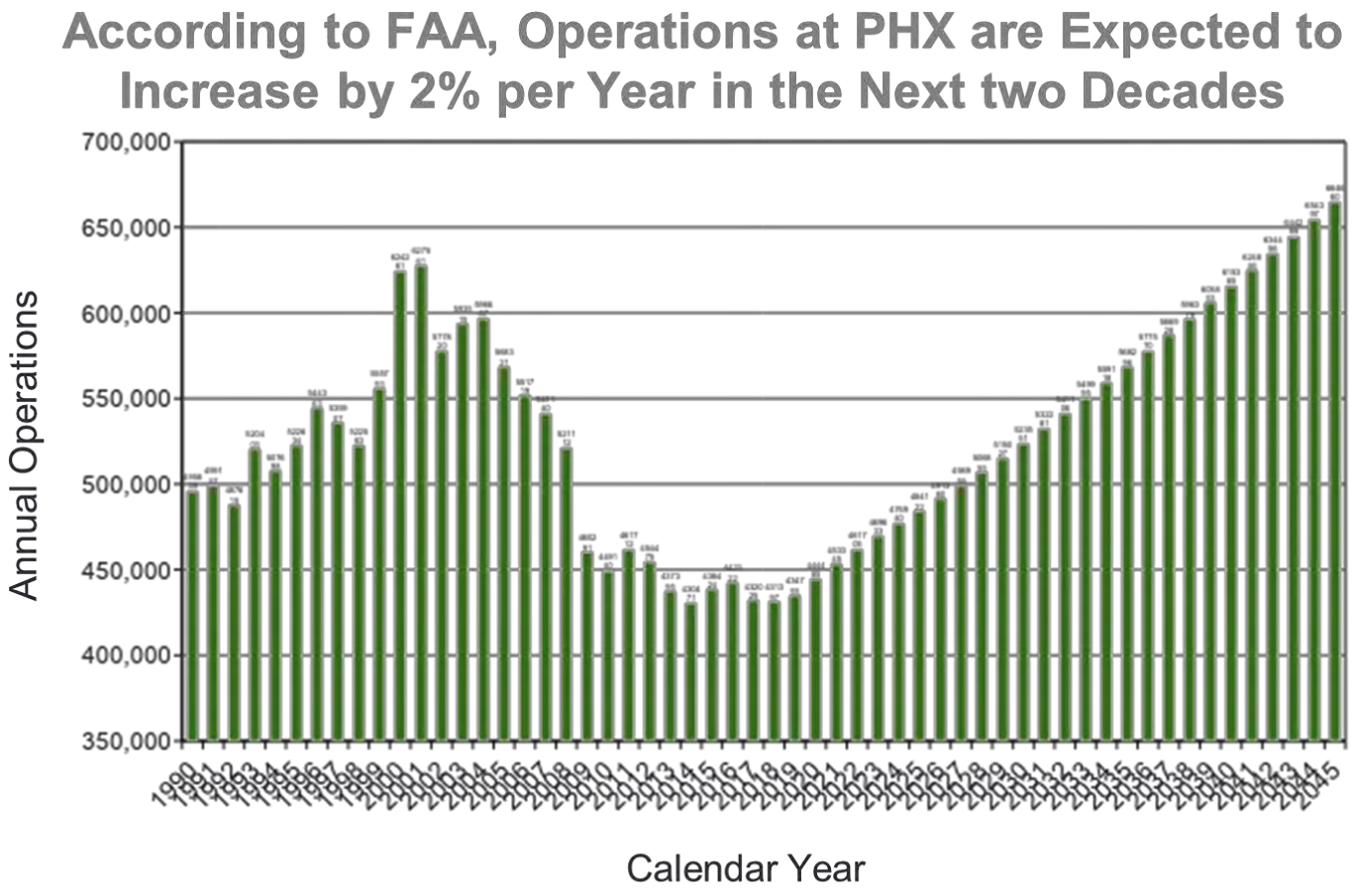


Figure 27 FAA Terminal Area Forecast PHX 2019

Appendix 3: General information about RNAV Standard Instrument Departures (SIDS) and Standard Terminal Arrivals (STARs)

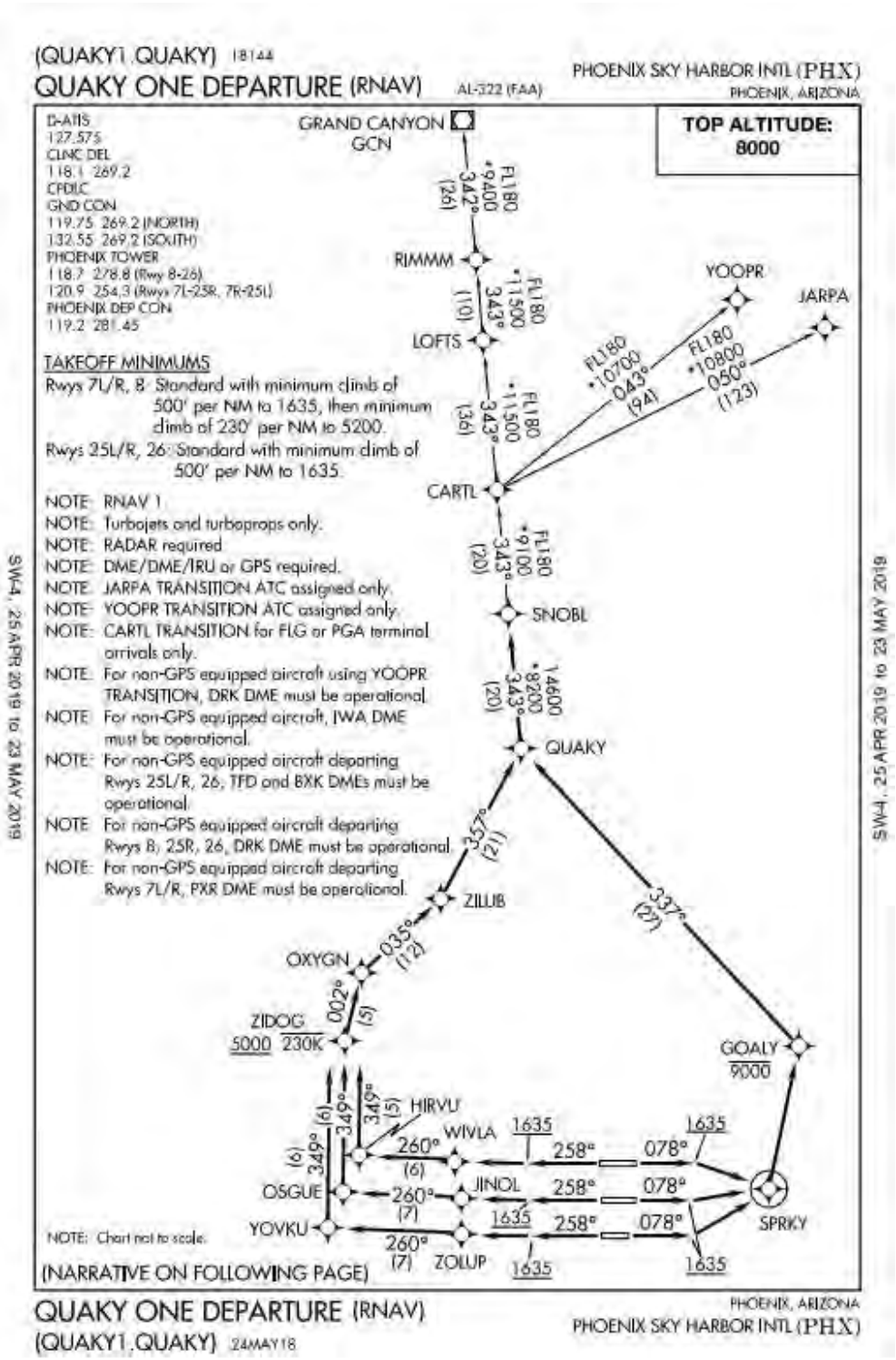
RNAV Departure SIDs and STARS can be likened to city streets and freeways. Freeways were installed to provide safer, easier navigation and reduce congestion caused by both commercial and personal transportation on city and neighborhood streets. Freeways had the same impact by creating major thoroughfares where none previously existed. The response to noise complaints was to build sound walls and insulate windows. The impact was less traffic on residential and city streets benefitting many neighborhoods, but some portions of the population were more adversely affected by the sound of faster moving cars and trucks.

RNAV routes do the same thing but in three dimensions rather than two. RNAV routes:

- Reliably, routinely and safely manage air traffic into and out of airports
- Allow reduced separation of aircraft thereby increasing more capacity
- Make use of satellite navigation, which is more reliable than ground based navigation systems
- Make use of advanced navigation systems in aircraft (Flight Management Systems) enabling computer driven navigation
- Remove both pilot and controller technique from air traffic control environment
- Reduce aircraft flight hours and associated maintenance intervals.
- Standardize routes, altitudes, and speeds so that all aircraft are climbing or descending in similar fashion
- Reduce need for human interaction to separate aircraft in congested skies
- Reduce noise impacts on a higher number of the population (fewer people affected but those affected are impacted more severely)
- RNAV arrivals reduce emissions by allowing the aircraft to descend on a profile that requires less power and less fuel (descend at near idle thrust on an optimized profile descent)

Appendix 4: PHX Flight Procedures

QUAKY One Departure



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7L/R, 8: Climb heading 078° to 1635, then direct SPRKY, then left turn direct to cross GOALY at/below 9000, then on track 337° to QUAKY, thence . . . .

TAKEOFF RUNWAY 25L: Climb heading 258° to 1635, then direct ZOLUP, then on track 260° to YOVKU, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 357° to QUAKY, thence . . . .

TAKEOFF RUNWAY 25R: Climb heading 258° to 1635, then direct JINOL, then on track 260° to OSGUE, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 357° to QUAKY, thence . . . .

TAKEOFF RUNWAY 26: Climb heading 258° to 1635, then direct WIVLA, then on track 260° to HIRVU, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 357° to QUAKY, thence . . . .

. . . . on track 343° to SNOBL, then on (transition). Maintain 8000, expect higher altitude 3 minutes after departure.

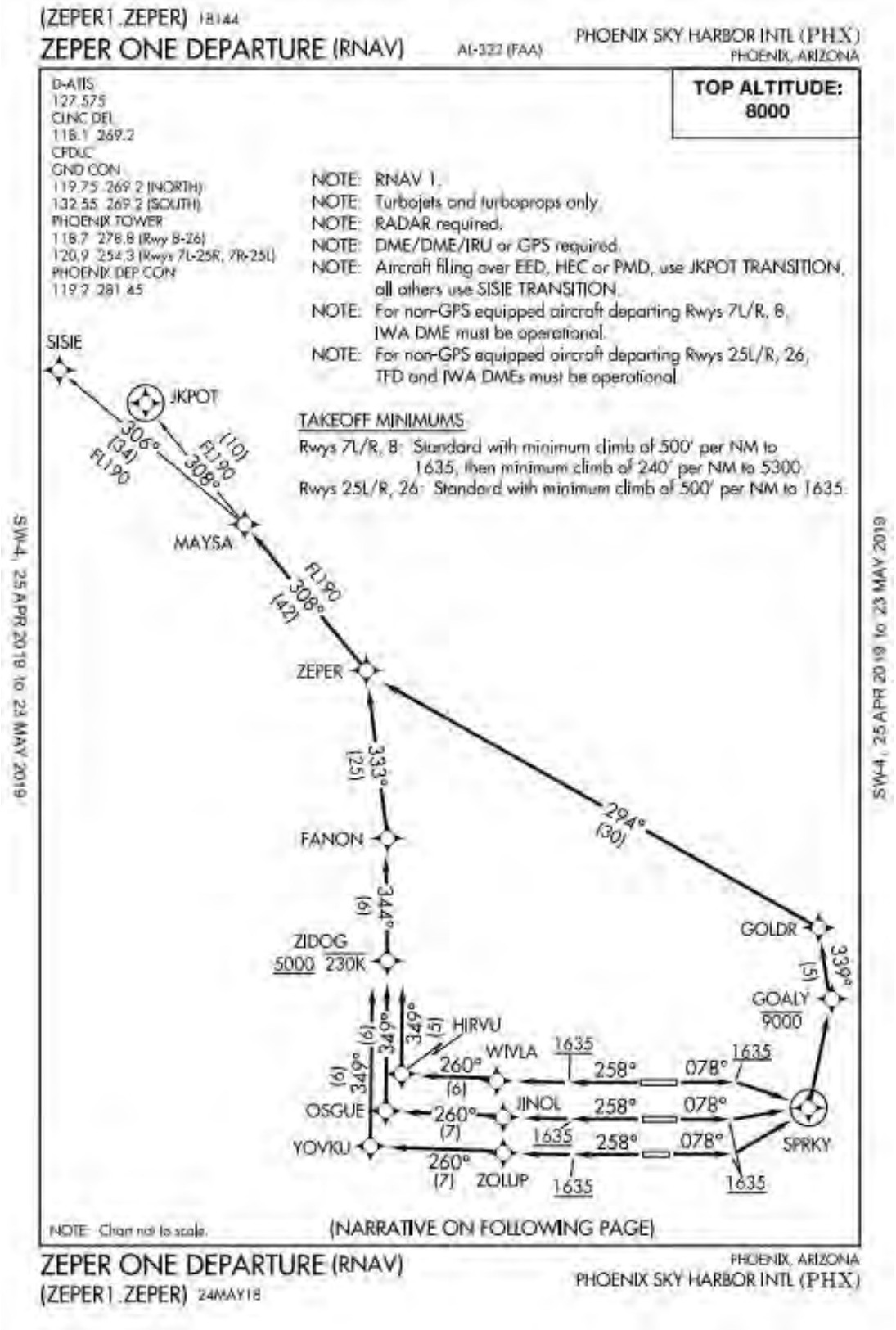
CARTL TRANSITION (QUAKY1.CARTL)
GRAND CANYON TRANSITION (QUAKY1.GCN)
JARPA TRANSITION (QUAKY1.JARPA)
RIMMM TRANSITION (QUAKY1.RIMMM)
YOOPR TRANSITION (QUAKY1.YOOPR)

SW-4, 25 APR 2019 to 23 MAY 2019

SW-4, 25 APR 2019 to 23 MAY 2019

ZEPER

ZEPER One Departure



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7L/R, 8: Climb heading 078° to 1635, then direct to SPRKY, then turn left direct to cross GOALY at or below 9000, then on track 339° to GOLDR, then on track 294° to ZEPER. Thence . . .

TAKEOFF RUNWAY 25L: Climb heading 258° to 1635, then direct ZOLUP, then on track 260° to YOVKU, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 344° to FANON, then on track 333° to ZEPER, thence . . . .

TAKEOFF RUNWAY 25R: Climb heading 258° to 1635, then direct JINOL, then on track 260° to OSGUE, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 344° to FANON, then on track 333° to ZEPER, thence . . . .

TAKEOFF RUNWAY 26: Climb heading 258° to 1635, then direct WIVLA, then on track 260° to HIRVU, then on track 349° to cross ZIDOG at or above 5000 and at or below 230K, then on track 344° to FANON, then on track 333° to ZEPER, thence . . . .

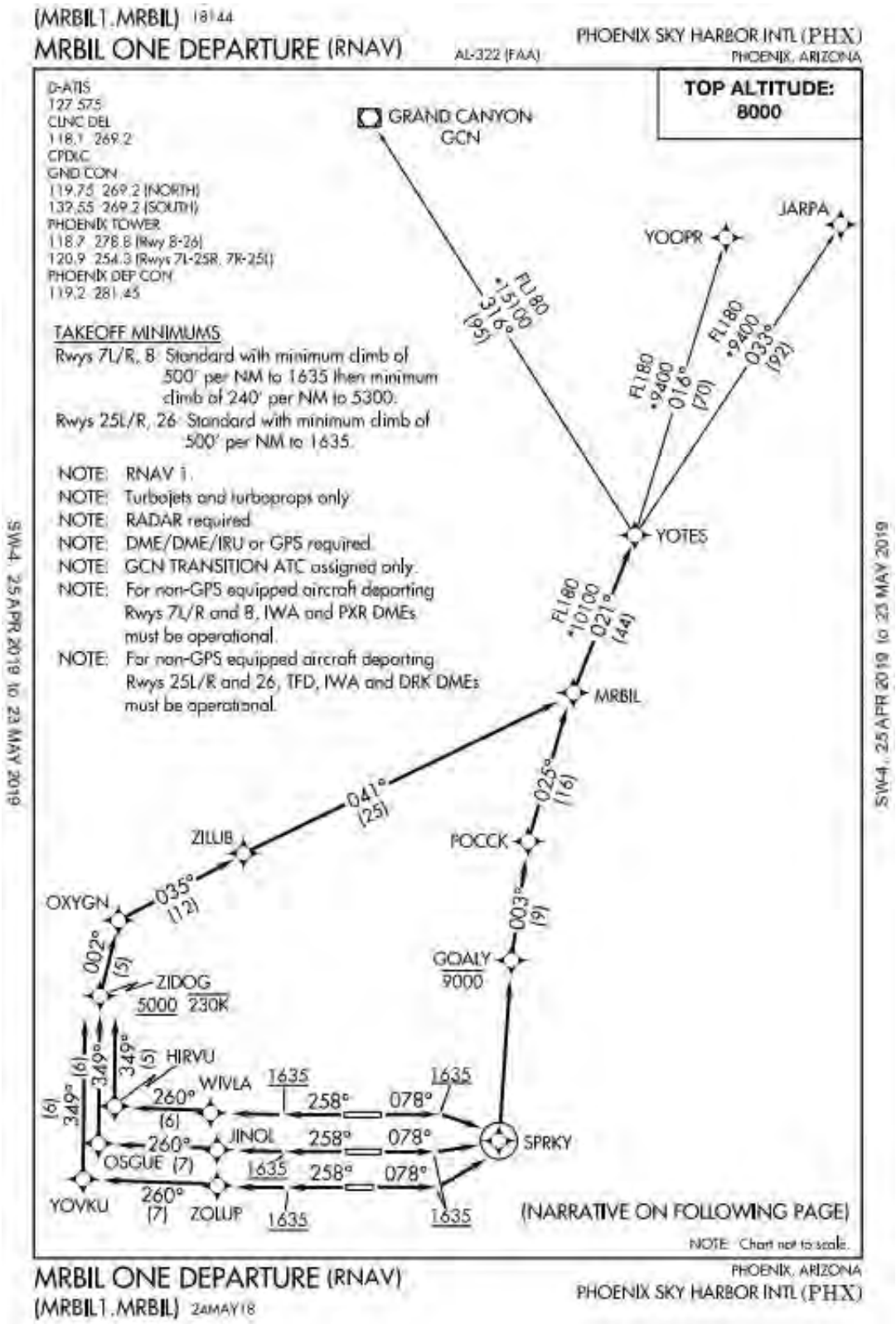
. . . . on track 308° to MAYSA, then on (transition). Maintain 8000, expect higher altitude 3 minutes after departure.

JKPOT TRANSITION (ZEPER1.JKPOT)
SISIE TRANSITION (ZEPER1.SISIE)

SW-4, 25 APR 2019 to 23 MAY 2019

SW-4, 25 APR 2019 to 23 MAY 2019

MIRBL One Departure



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7L/R, 8: Climb heading 078° to 1635, then direct to SPRKY, then turn left direct to cross GOALY at/below 9000, then on track 003° to POCCK, then on track 025° to MRBIL, thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 258° to 1635, then direct ZOLUP, then on track 260° to YOVKU, then on track 349° to cross ZIDOG at/above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 041° to MRBIL, thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 258° to 1635, then direct JINOL, then on track 260° to OSGUE, then on track 349° to cross ZIDOG at/above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 041° to MRBIL, thence. . . .

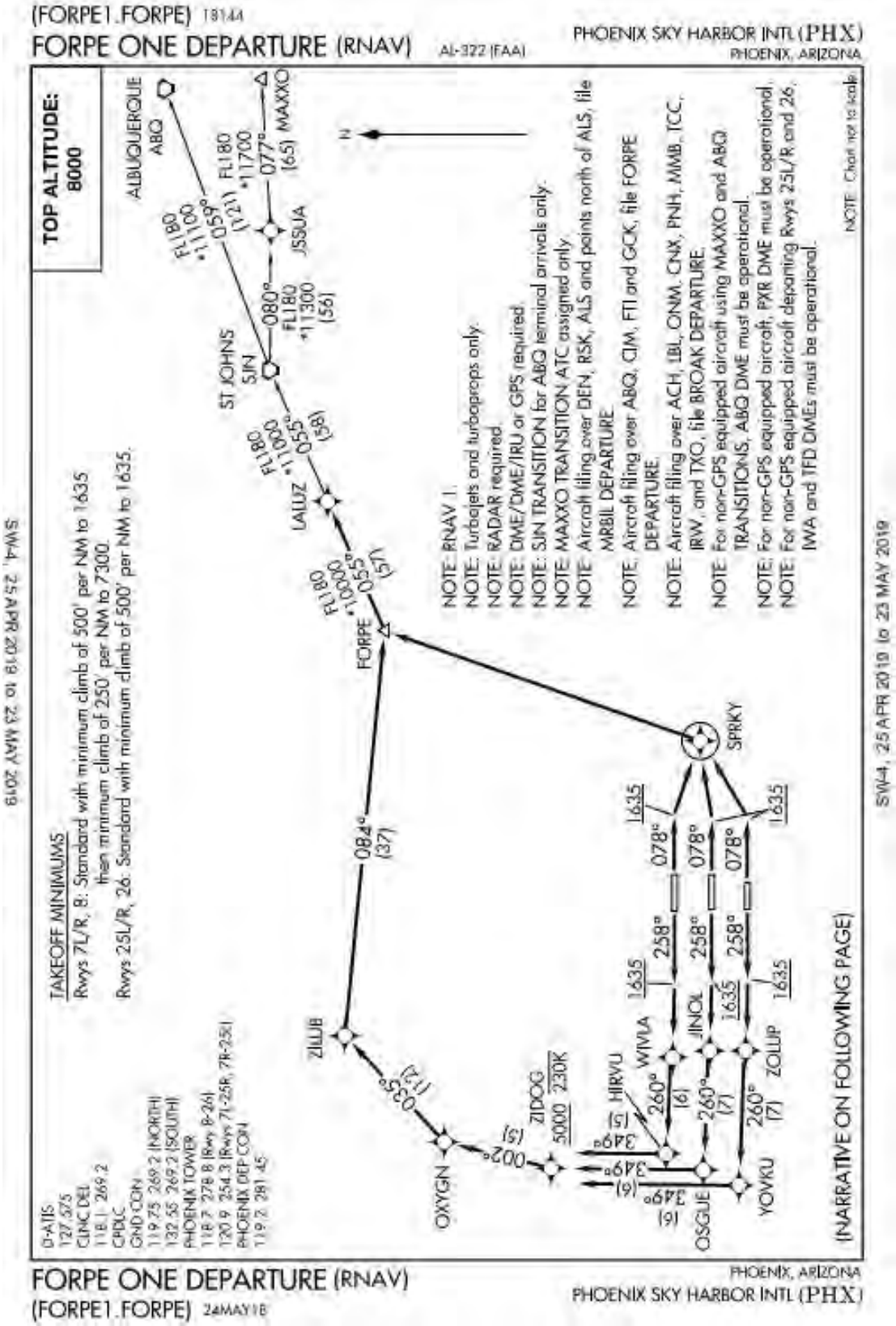
TAKEOFF RUNWAY 26: Climb heading 258° to 1635, then direct WIVLA, then on track 260° to HIRVU, then on track 349° to cross ZIDOG at/above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 041° to MRBIL, thence. . . .

. . . .on track 021° to YOTES, then on (transition). Maintain 8000, expect higher altitude 3 minutes after departure.

GRAND CANYON TRANSITION (MRBIL1.GCN)
JARPA TRANSITION (MRBIL1.JARPA)
YOOPR TRANSITION (MRBIL1.YOOPR)

SW4, 25 APR 2019 to 23 MAY 2019
SW4, 25 APR 2019 to 23 MAY 2019

FORPE One Departure



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7L, 7R, 8: Climb heading 078° to 1635, then direct SPRKY, then left turn direct FORPE, thence . . . .

TAKEOFF RUNWAY 25L: Climb heading 258° to 1635, then direct ZOLUP, then on track 260° to YOVKU, then on track 349° to cross ZIDOG at or above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 084° to FORPE, thence . . .

TAKEOFF RUNWAY 25R: Climb heading 258° to 1635, then direct JINOL, then on track 260° to OSGUE, then on track 349° to cross ZIDOG at or above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 084° to FORPE, thence . . .

TAKEOFF RUNWAY 26: Climb heading 258° to 1635, then direct WIVLA, then on track 260° to HIRVU, then on track 349° to cross ZIDOG at or above 5000 and at/below 230K, then on track 002° to OXYGN, then on track 035° to ZILUB, then on track 084° to FORPE, thence . . .

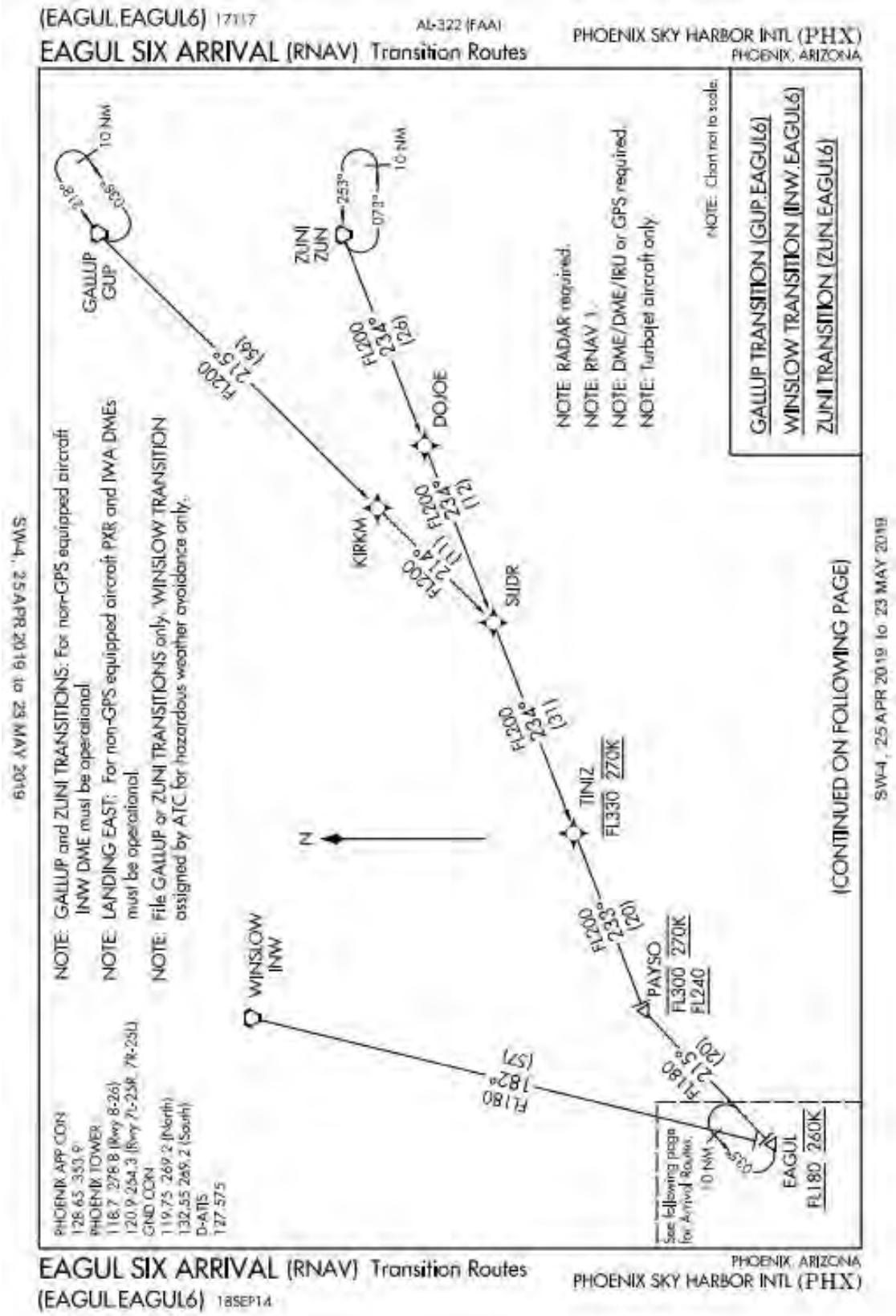
. . . on track 055° to LALUZ, then on (transition). Maintain 8000, expect higher altitude 3 minutes after departure.

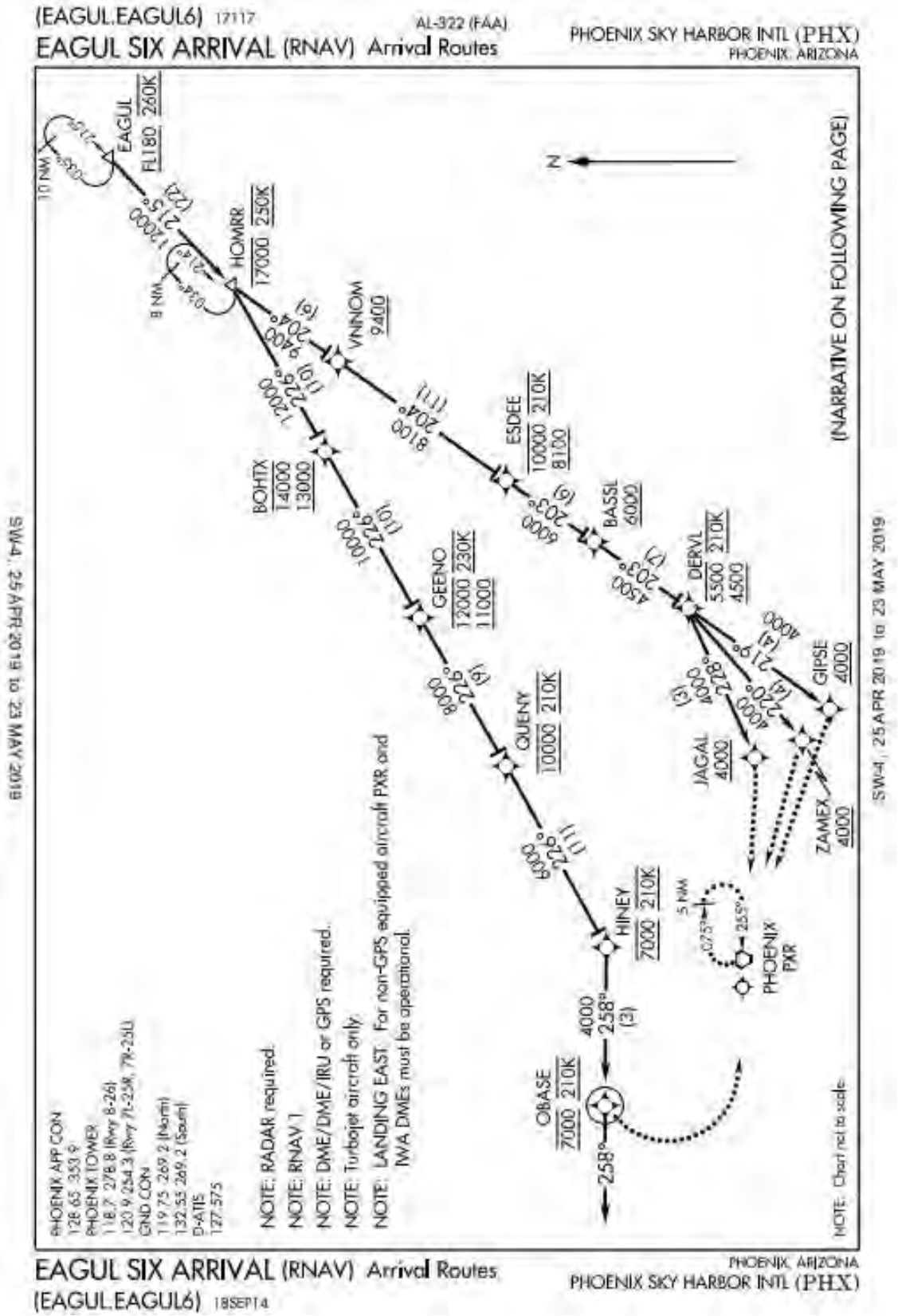
ALBUQUERQUE TRANSITION (FORPE1.ABQ)
MAXXO TRANSITION (FORPE1.MAXXO)
ST JOHNS TRANSITION (FORPE1.SJN)

SW4, 25 APR 2019 to 23 MAY 2019

SW4, 25 APR 2019 to 23 MAY 2019

EAGUL Six Arrival




(EAGUL.EAGUL6) 17117
AL-322 (FAA)
EAGUL SIX ARRIVAL (RNAV) Arrival Routes
PHOENIX SKY HARBOR INTL (PHX)
PHOENIX, ARIZONA
EAGUL
FL180 260K
HOMRR
17000 250K
VNNOW
9400
ESDEE
10000 210K
8100
BASSL
6000
DERVL
5500 210K
4500
GIPSE
4000
ZAMEX
4000
JAGAL
4000
BOHTX
14000
13000
GEENO
12000 230K
11000
QUENY
10000 210K
HINEY
7000 210K
OBASE
7000 210K
PHOENIX
PXR
10 NM
8 NM
5 NM
N
(NARRATIVE ON FOLLOWING PAGE)
PHOENIX APP CON
128.65 353.9
PHOENIX TOWER
118.7 278.8 (Rwy 8-26)
120.9 254.3 (Rwy 7L-25R, 7R-25L)
GND CON
119.75 269.2 (Norm)
132.55 269.2 (South)
D-ATIS
127.575
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: LANDING EAST. For non-GPS equipped aircraft PXR and IWA DMEs must be operational.
NOTE: Chart not to scale
SW-4, 25 APR 2019 to 23 MAY 2019
SW-4, 25 APR 2019 to 23 MAY 2019
EAGUL SIX ARRIVAL (RNAV) Arrival Routes
PHOENIX, ARIZONA
PHOENIX SKY HARBOR INTL (PHX)
(EAGUL.EAGUL6) 18SEP14

(EAGUL.EAGUL6) 17117

EAGUL SIX ARRIVAL (RNAV)

AL-322 (FAA)

PHOENIX SKY HARBOR INTL (PHX)
PHOENIX, ARIZONA

SW-4, 25 APR 2019 to 23 MAY 2019

ARRIVAL ROUTE DESCRIPTION

From EAGUL on track 215° to cross HOMRR at or below 17000 at 250K.

LANDING RUNWAYS 7L, 7R, 8: From HOMRR on track 226° to cross BOHTX at/above 13000 and at/below 14000, then on track 226° to cross GEENO at/above 11000 and at/below 12000 and at 230K, then on track 226° to cross QUENY at 10000 and at 210K, then on track 226° to cross HINEY at 7000 and at 210K, then on track 258° to cross OBASE at 7000 and at 210K, then on track 258°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 25L: From HOMRR on track 204° to cross VNNOM at/above 9400, then on track 204° to cross ESDEE at/above 8100 and at/below 10000 and at 210K, then on track 203° to cross BASSL at/above 6000, then on track 203° to cross DERVL at/above 4500 and at/below 5500 and at 210K, then on track 219° to cross GIPSE at/above 4000. Expect ILS or LOC RWY 25L approach or RADAR vectors to final approach course.

LANDING RUNWAY 25R: From HOMRR on track 204° to cross VNNOM at/above 9400, then on track 204° to cross ESDEE at/above 8100 and at/below 10000 and at 210K, then on track 203° to cross BASSL at/above 6000, then on track 203° to cross DERVL at/above 4500 and at/below 5500 and at 210K, then on track 220° to cross ZAMEX at/above 4000. Expect RNAV (GPS) Y RWY 25R approach or RADAR vectors to final approach course.

LANDING RUNWAY 26: From HOMRR on track 204° to cross VNNOM at/above 9400, then on track 204° to cross ESDEE at/above 8100 and at/below 10000 and at 210K, then on track 203° to cross BASSL at/above 6000, then on track 203° to cross DERVL at/above 4500 and at/below 5500 at 210K, then on track 228° to cross JAGAL at/above 4000. Expect ILS or LOC RWY 26 approach or RADAR vectors to final approach course.

LOST COMMUNICATIONS

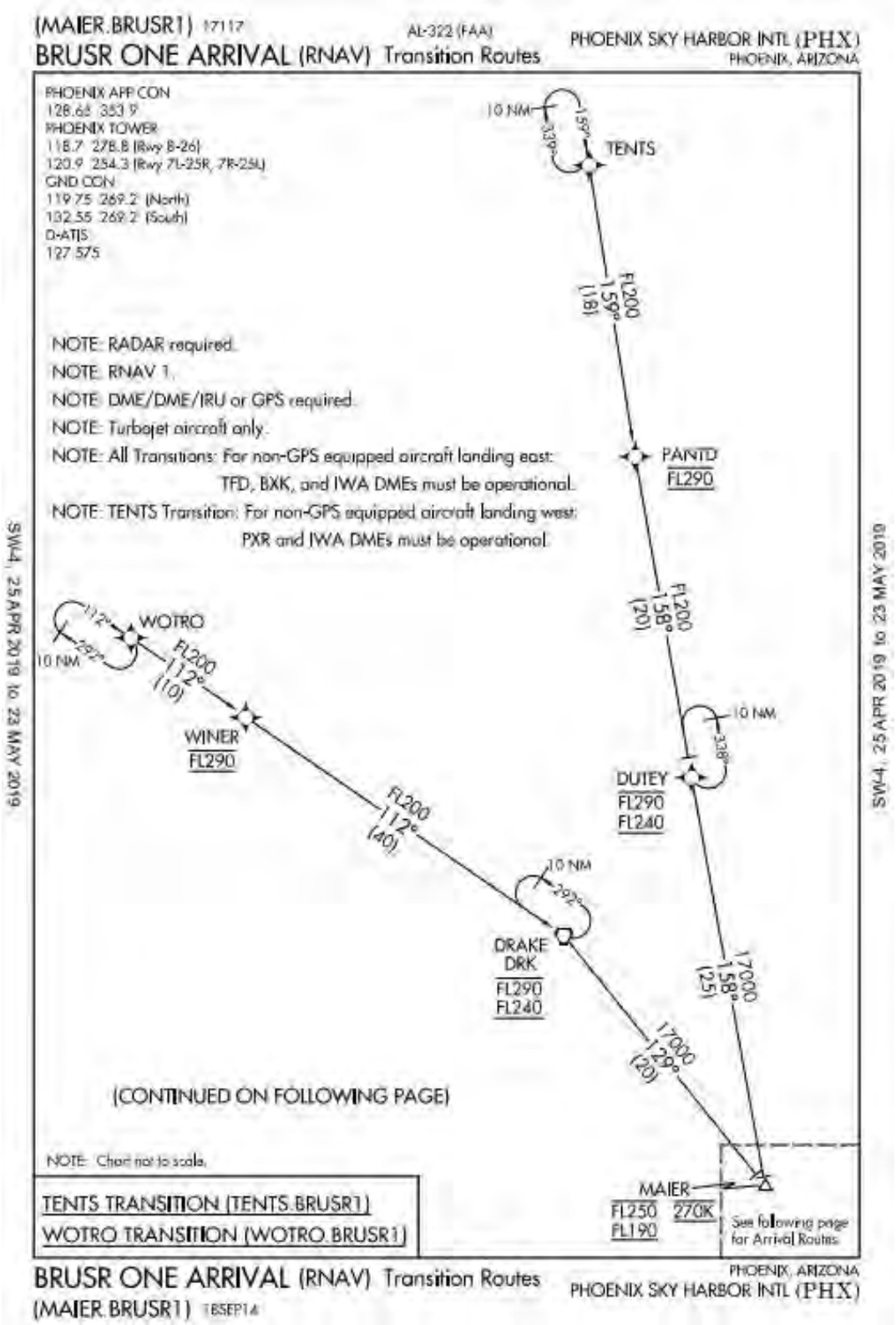
LANDING RUNWAY 7L: After OBASE turn left, intercept and execute RWY 7L ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 7R: After OBASE turn left, intercept and execute RWY 7R ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 8: After OBASE turn left, intercept and execute RWY 8 ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 25L: At GIPSE, intercept and execute RWY 25L ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 25R: At ZAMEX, intercept and execute RWY 25R RNAV (GPS) approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 26: At JAGAL, intercept and execute RWY 26 ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.

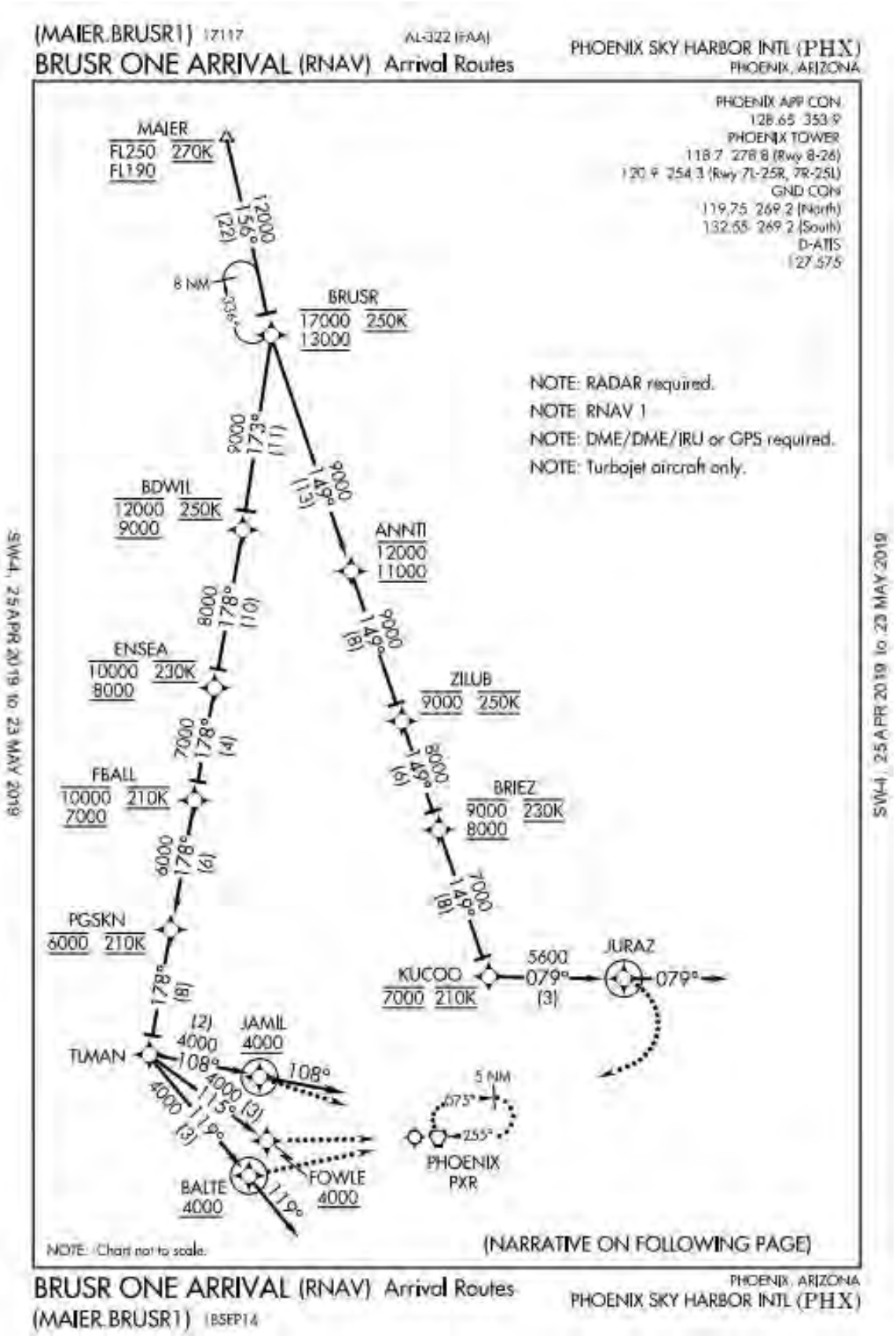
SW-4, 25 APR 2019 to 23 MAY 2019

EAGUL SIX ARRIVAL (RNAV)
(EAGUL.EAGUL6) 18SEP14

PHOENIX, ARIZONA
PHOENIX SKY HARBOR INTL (PHX)

BRUSR One Arrival




(MAIER.BRUSR1) 17117
AL-322 (FAA)
BRUSR ONE ARRIVAL (RNAV) Arrival Routes
PHOENIX SKY HARBOR INTL (PHX)
PHOENIX, ARIZONA
PHOENIX APP CON
128.65 353.9
PHOENIX TOWER
118.7 278.8 (Rwy 8-26)
120.9 254.3 (Rwy 7L-25R, 7R-25L)
GND CON
119.75 269.2 (North)
132.55 269.2 (South)
D-ATIS
127.575
MAIER
FL250 270K
FL190
12000
156°
(12)
8 NM
033°
BRUSR
17000 250K
13000
NOTE: RADAR required.
NOTE: RNAV 1
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
9000
173°
(11)
9000
149°
(13)
BDWIL
12000 250K
9000
ANNTI
12000
11000
8000
178°
(10)
9000
149°
(8)
ENSEA
10000 230K
8000
ZILUB
9000 250K
7000
178°
(4)
8000
149°
(6)
FBALL
10000 210K
7000
BRIEZ
9000 230K
8000
9000
178°
(6)
7000
149°
(8)
PGSKN
6000 210K
178°
(8)
5600
079°
(3)
JURAZ
079°
KUCOO
7000 210K
(2)
4000
108°
TLMAN
JAMIL
4000
108°
4000
115°
(3)
4000
119°
(3)
5 NM
073°
255°
PHOENIX
PXR
BALTE
4000
119°
FOWLE
4000
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)
SW-4, 25 APR 2019 to 23 MAY 2019
SW-4, 25 APR 2019 to 23 MAY 2019
BRUSR ONE ARRIVAL (RNAV) Arrival Routes
(MAIER.BRUSR1) (BSEP14
PHOENIX, ARIZONA
PHOENIX SKY HARBOR INTL (PHX)

(MAIER.BRUSR1) 17117

BRUSR ONE ARRIVAL (RNAV)

AL-322 (FAA)

PHOENIX SKY HARBOR INTL (PHX)
PHOENIX, ARIZONA

ARRIVAL ROUTE DESCRIPTION

From MAIER on track 156° to cross BRUSR at/above 13000 and at/below 17000 and at 250K.

LANDING RUNWAY 7L: From BRUSR on track 173° to cross BDWIL at/above 9000 and at/below 12000 and at 250K, then on track 178° to cross ENSEA at/above 8000 and at/below 10000 and at 230K, then on track 178° to cross FBALL at/above 7000 and at/below 10000 at 210K, then on track 178° to cross PGSKN at 6000 and at 210K, then on track 178° to TLMAN, then on track 115° to cross FOWLE at/above 4000. Expect ILS RWY 7L or RADAR vectors to final approach course.

LANDING RUNWAY 7R: From BRUSR on track 173° to cross BDWIL at/above 9000 and at/below 12000 and at 250K, then on track 178° to cross ENSEA at/above 8000 and at/below 10000 and at 230K, then on track 178° to cross FBALL at/above 7000 and at/below 10000 at 210K, then on track 178° to cross PGSKN at 6000 and at 210K, then on track 178° to TLMAN, then on track 119° to cross BALTE at or above 4000. Then on track 119°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 8: From BRUSR on track 173° to cross BDWIL at/above 9000 and at/below 12000 and at 250K, then on track 178° to cross ENSEA at/above 8000 and at/below 10000 and at 230K, then on track 178° to cross FBALL at/above 7000 and at/below 10000 at 210K, then on track 178° to cross PGSKN at 6000 and at 210K, then on track 178° to TLMAN, then on track 108° to cross JAMIL at or above 4000. Then on track 108°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 25L, 25R, 26: From BRUSR on track 149° to cross ANNTI at/above 11000 and at/below 12000, then on track 149° to cross ZILUB at 9000 and at 250K, then on track 149° to cross BRIEZ at/above 8000 and at/below 9000 and at 230K, then on track 149° to cross KUCOO at 7000 and at 210K, then on track 079° to JURAZ, then on track 079°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

LANDING RUNWAY 7L: At FOWLE, intercept and execute RWY 7L ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 7R: At BALTE, intercept and execute RWY 7R ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAY 8: At JAMIL, intercept and execute RWY 8 ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.
LANDING RUNWAYS 25L, 25R, 26: At JURAZ, turn right, intercept and execute RWY 25L ILS approach. If unable, proceed direct PXR VORTAC and hold, maintain 9000.

SW4, 25 APR 2019 to 23 MAY 2019

SW4, 25 APR 2019 to 23 MAY 2019

BRUSR ONE ARRIVAL (RNAV)

PHOENIX, ARIZONA
PHOENIX SKY HARBOR INTL (PHX)

(MAIER.BRUSR1) 18SEP14

Appendix 5: JDA Team

Joe Del Balzo – CEO JDA Aviation Technology Solutions: Mr. DelBalzo is JDA's Founder and President. He served as the highest-ranking career professional (Acting Administrator) in the Federal Aviation Administration (FAA). Both in his long career with FAA (where he also served as FAA's Executive Director of System Operations, Executive Director for System Development, Director of the Eastern Region and Director of the FAA Technical Center) and in his subsequent private role as an aviation consultant, he has earned wide respect for his expertise in a wide range of aviation issues.

Dr. Antonio A. Trani - JDA Associate Senior Executive Consultant: Dr. Trani is a Professor with the Department of Civil and Environmental Engineering at Virginia Tech University and is Co-Director of the National Center of Excellence for Aviation Operations Research (NEXTOR). He has been the Principal or Co-Principal Investigator on 68 research projects sponsored by the National Science Foundation, Federal Aviation Administration, National Aeronautics and Space Administration, National Consortium for Aviation Mobility, Federal Highway Administration, and the Center for Naval Analyses. Dr. Trani has provided noise, capacity and safety consulting services to the Norman Manley International Airport, Punta Cana International, National Institute for Aerospace (NIA), Xcelar, Quanta Technologies, Los Angeles World Airport, Charles Rivers Associates, Boeing Phantom Works, Civil Aviation Administration of China (CAAC), British Airports Authority (BAA), SEATAC Airport Authority, Louisville International Airport, Delta Airport Consultants, Celanese, and the MITRE Corporation.

Patty Daniel – JDA Associate Senior Air Traffic Procedure Subject Matter Expert: Patty recently retired from the FAA after 35 years. During the last five years of her career, Patty was assigned to the Mission Support office at FAA Headquarter while she served as the Management Lead on the Northern California Metroplex Design and Implementation Team as well as the Management Lead on the Las Vegas Metroplex Study Team. Prior to her work for Mission Support, Patty was the Traffic Management Officer for the Northern California TRACON (NCT) and spent eleven years as Support Manager for Airspace and Procedures at NCT where she worked to consolidate airspace from four TRACONs and Oakland Center to create NCT. Patty was a Certified Air Traffic Controller and Operations Supervisor at Oakland Bay TRACON and a certified Controller at Bismarck Air Traffic Control Tower. Patty has been instrumental in the implementation of RNP and RNAV procedures at Northern California airports, Simultaneous Offset Instrument Approaches (SOIA) and FAA Order 7110.308 at San Francisco International Airport. She has worked extensively with the military and was responsible for the development and implementation of RQ-4 Globalhawk operations at Beale Air Force Base.

Rob Voss - JDA Associate Senior Air Traffic Operations Subject Matter Expert: Rob is a JDA associated consultant and former career FAA Air Traffic Manager, Air Traffic Control Specialist, Operations Supervisor, Plans and Procedures Specialist, Quality Assurance and Training Specialist, Integration and Efficiency Specialist and finished his FAA career as a System Operations Senior Advisor. Rob spent more than 26 years with the FAA, including assignments at Scottsdale, Chicago Midway and San Francisco Air Traffic Control Towers and the Air Traffic Control System Command Center's Midwest Tactical Operations Office. While working outside of the FAA, Rob was an Air Traffic Consultant to the Deputy Airport Director (Noise Abatement) at San Francisco International Airport, where he assisted with community noise studies, providing analysis and education involving air traffic procedures. Rob also worked for several years as a contractor and the Lead Air Traffic Analyst at the NASA-Ames Future Flight Central research and simulation facility.

Cynthia Schultz PE, AAE - JDA Vice President of Airports: Cynthia manages the JDA airport line of business including airport safety, noise assessments, sustainability, security, expert witness and training services. She has 12 years of commercial airport management experience combined with 26 years of public and private sector aviation project management. She has managed over thirty airport planning, engineering and infrastructure projects totaling more than $100 M including administering noise projects both as a manager of a commercial airport (12 years) and aviation consultant (6 years). She has served as project manager for the Suburban O'Hare Commission noise services contract since 2015. Prior to working in the airport industry, Cynthia was a Senior Engineer for the Boeing Company where she was a project manager for the horizontal and vertical stabilizer composite tooling package for the 777 new airplane program.

COMMENTS OF THE CITY OF SCOTTSDALE ON THE FEDERAL AVIATION ADMINISTRATION'S STEP 2 PROCESS FOLLOWING THE COURT'S DECISION IN CITY OF PHOENIX, ARIZONA V. HUERTA

The city of Scottsdale is submitting these comments to the Federal Aviation Administration (FAA) on behalf of its many citizens who are being seriously and adversely affected by unacceptable levels of aircraft noise. Noise from aircraft departing and arriving at Phoenix Sky Harbor Airport is adversely affecting the health and quality of life of the people living under these flight paths. The city has received numerous complaints from citizens. They complain about their inability to carry on conversations and to sleep without being interrupted by aircraft noise early in the morning and late at night. There is considerable concern about the impact of this noise on their health, safety and property values.

The city of Scottsdale is submitting these comments as part of the step two process following the court's decision in the case of City of Phoenix, Arizona v. Huerta, 869 F.3d 963 (D.C. Circuit 2017) which vacated the FAA's NextGen departure routes from Phoenix Sky Harbor Airport. The city is pleased that the FAA recognizes the importance of public input and asks that it give favorable consideration to these comments.

Scottsdale is located in the beautiful Sonoran Desert, nestled between Paradise Valley and the McDowell Mountains. Scottsdale elevation rises by nearly 4,000 feet from south to north.

Scottsdale is a premier community known for a high quality of life with attractive residential, business and shopping areas. It is an internationally recognized visitor destination and a thriving location for business. It consistently ranks among the nation's best places to live and has top-rated schools, award-winning parks, low crime, and a vibrant economy. It has been a quiet community that attracts many retirees. Old town Scottsdale is home to many restaurants, retail shops, art galleries, and hotels. Scottsdale's McDowell Sonoran preserve, to the city's north, is the largest municipally owned park or preserve in the country. There are recreational opportunities for everyone with many golf courses, tennis courts, parks, pools, bike paths and trails. 43% of Scottsdale land is open space. 47% is residential. The rest is mixed-use or commercial. In the past, 98% of the residents

of Scottsdale rated the city as a good or excellent place to live. 96% rated the quality of life as good or excellent.

All of this, however, is placed in jeopardy as a result of the noise created by the new aircraft overflights.

The problem

For many years, planes flying east out of Sky Harbor Airport were widely dispersed so that the aircraft noise problem was minimized. At the end of 2014, with little notice and even less consultation, the FAA implemented new routes under the NextGen program. While NextGen no doubt provides many benefits, the impact in our area has been to move the flight paths down the middle of Scottsdale where aircraft are constantly flying over schools, hospitals, historical sites and residential communities. The more precise routes facilitated by NextGen technology mean that these noise sensitive areas are now constantly bombarded with aircraft noise.

The city urges the FAA to adjust these new routes for the following four reasons:

- The *process* by which they were adopted was improper:
- The new routes are *contrary to law,* arbitrary, and disproportionately impact Scottsdale vis-à-vis other communities in the area;
- The new routes endanger the *safety* of the citizens of Scottsdale; and
- The new routes increase aircraft *noise* to unacceptable levels.

Process

The FAA published the new Sky Harbor Airport flight routes in the US terminal procedures publication. The terminal procedures publication is issued in 24 loose-leaf or bound volumes covering the United States, Puerto Rico and the Virgin Islands. While this publication may be well known within the FAA and air traffic control circles, it is little known within the aviation community and certainly completely unknown to the general public. By using this obscure document to publicize the new routes, the agency effectively kept the public in the dark. This made it impossible for the city of Scottsdale or its residents to submit views on the impact of the new routes even if they could have known what those impacts would be before the new routes were actually flown. And unlike Phoenix, where at least low-level officials were consulted before the new routes were put into effect, Scottsdale officials were not consulted at all. According to the FAA's own rules at the time the new routes were published (FAA Order 1050.1E), the agency should

have conducted an Environmental Assessment pursuant to the National Environmental Policy Act (NEPA) before implementing the new routes. But Scottsdale residents could not request such an assessment for routes or actions that they did not even know about.[1]

Moreover, under Section 106 (16 U.S.C. § 470f) of the National Historic Preservation Act (NHPA) in effect at the time the new routes were first published, Federal agencies having direct or indirect jurisdiction over a proposed federal or federally assisted "undertaking" are supposed to consider the effects of the undertaking on historic properties or resources that are either eligible for listing or are listed on the National Register of Historic Places. Regulations have been issued that set forth this "Section 106 process" and explain how Federal agencies must take into account the effects of their actions on historic properties (16 U.S.C. § 470s). However, the FAA did not follow these regulations even though there are historic sites and national historic landmarks such as Taliesin West near the flight paths.

While we appreciate the fact that the FAA is holding public workshops and accepting comments, workshops do not provide the same opportunity as hearings for the public to be heard and there is no assurance that these written comments will be seriously considered by the FAA or that we will even receive an agency response.

Contrary to Law

In City of Phoenix v. Huerta, 689 F.3d 963 (D.C. Cir. 2017), the court held that, in issuing the NextGen flight routes from Phoenix Sky Harbor Airport, the FAA (1) did not properly consult with the City under the NHPA because it "consulted only low-level employees" without decisional authority, id. at 971, (2) did not properly notify citizens of the changing flight routes before they went into effect and therefore lacked a reasonable basis for issuing a categorical exclusion under NEPA on the mere assumption that the changes would not be highly controversial, see id. at 972–73, and (3) failed to follow its own regulations implementing the Transportation Act, which "require it to consult 'all appropriate . . . State[] and local officials having jurisdiction over'" efforts to "preserve the natural beauty of

[1] See 36 C.F.R. § 800.5(a); see also Am. Bird Conservancy v. FCC, 516 F.3d 1027, 1035 (D.C. Cir. 2008) ("Interested persons cannot request an [environmental assessment] for actions they do not know about, much less for actions already completed.").

… public park and recreation lands . . . and historic sites.'" Id. at 973 (quoting 49 U.S.C. § 303(a) and FAA Order 1050.1E, ¶6.2e). The court accordingly "vacate[d]" the FAA order "implementing the new flight routes and procedures" at Phoenix Sky Harbor Airport.

Following the court's decision in City of Phoenix v. Huerta, the FAA sought to limit the decision and remedy to only the westbound routes over Phoenix. It asked the court to amend and replace Section IV of its opinion and order of August 29th with the following text:

> "For the foregoing reasons, we grant the petitions and remand to the FAA, without vacating, the portion of the September 18, 2014 order implementing the MAYSA, LALUZ, SNOBL, YOTES, BNYRD, FTHLS, IZZZO, JUDTH, and KATMN procedures at Phoenix Sky Harbor International Airport departing Runways 25L, 25R or Runway 26 for further proceedings consistent with this opinion and the Memorandum filed with this Court on November 30, 2017. This Court will stay the issuance of its mandate until June 15, 2018, unless the parties notify this Court prior to that date that the mandate should issue. The parties may each file a status report of no more than 2,500 words on or before May 15, 2018, in the event the mandate has not yet issued."

The court's amended decision did not implement the FAA's request expressly to limit the vacatur order to the westerly departure routes. Instead, the court amended its opinion by inserting the word "departure" before the word "routes" and deleting the words "and procedures" so that the decision now reads as follows:

> "…vacate the September 18, 2014 order implementing the new flight departure routes at Sky Harbor International Airport, and remand the matter to the FAA for further proceedings..."

The new language expressly vacates the FAA's new departure routes, without distinguishing between eastbound and westbound routes. Rather than following this order, the FAA has suggested that the D.C. Circuit adopted its proposed limitation to vacate only the westbound departure routes, and thus modification of other departure routes is left solely to the FAA's discretion. Given that the order draws no distinction between eastbound and westbound routes, the FAA's view is arbitrary and capricious and not in accordance with law.

To comply with the court's order, FAA must adopt new eastbound departure routes that treat citizens that live to the east of the airport the same as those who live to the west of the airport. As detailed above, all of the procedural errors identified by the court in the FAA's implementation of the NextGen program under NEPA, the NHPA, and the Transportation Act with respect to Phoenix are equally true with respect to Scottsdale. Indeed, Scottsdale was not provided even the limited outreach afforded to Phoenix, and found deficient by the court. Therefore, to comply with the court's order vacating all departure routes based on FAA's failures to comply with federal law, the people of Scottsdale should also get noise relief just as the people in Phoenix did. To do otherwise is not only unfair, but also arbitrary and capricious and not in accordance with law.

Safety

As noted above, flights departing to the east of the airport are now concentrated over homes, schools and hospitals in the populated areas of Scottsdale rather than over mountains and rivers. It is well known that takeoffs and landings are the most dangerous phases of the flight. Aircraft now fly over densely populated areas of Scottsdale during these two most dangerous phases of flight. More than half of all fatal accidents occur in the first and last fractions of a journey, according to aircraft manufacturer Boeing. The annual Boeing Statistical Summary of Commercial Jet Airplane Accidents Worldwide Operations 1959 – 2016 found that for the period 2007 through 2016, 24 percent of all fatal accidents occur on the final approach to land while another 24 percent are in the landing. Eighteen percent occur during the take-off or climb. If an accident should occur during a takeoff or arrival to the east of the airport, it would be a major disaster for the many people in Scottsdale who are now living under the flight path.

At many urban airports, there may be no way to avoid flying over heavily populated areas regardless of which direction the aircraft are directed to take off or land. But where, as here, there are less populated areas that aircraft could fly over, it makes sense from a safety standpoint for the FAA to choose that less populated path rather than making aircraft fly over the more populated areas.

Noise

Aircraft noise is now impacting all of Scottsdale. However, North Scottsdale has been particularly hard hit. As charts presented by the FAA at the recent workshops demonstrate, a disproportionate number of the noise complaints come from citizens living in North Scottsdale. This is not surprising. Most of North Scottsdale is

designated by Ordinance as environmentally sensitive lands and Scottsdale citizens generally are very protective of the natural character of the desert and rural areas. Scottsdale has imposed significant height restrictions, use restrictions, and building restrictions to protect the local environment. People have moved to this area because they have sought the natural quiet that can be found here. Many people were in fact aware of the local airport and made a point of choosing a neighborhood to live in that was not underneath the flight paths.

Unfortunately, the recent changes in flight routes have moved air traffic over homes where there was little or no such traffic before. This has disrupted their lives and ruined their plans to enjoy the natural quiet of this area. This is not a case of people moving near an airport and then complaining about the noise. Rather, in this instance, the aircraft noise has been moved by the FAA to areas where there was little or no such noise before. An occasional flight overhead might not be a significant problem. However, the accuracy of NextGen technology and implementation concentrates the noise in a small area. Aircraft now fly right up the middle of Scottsdale over the most densely populated areas one after the other following precisely the same flight path. Residents in these areas are experiencing a constant and significant increase in their historic noise levels.

Scottsdale recognizes that NextGen may provide many efficiency benefits for the airlines. But this must be balanced against the environmental degradation experienced by the people on the ground underneath the flight paths. The precision of NextGen technology concentrates the flights and resulting noise over a much smaller area. The FAA's traditional noise threshold of 65 DNL does not fully capture the impact of the noise along these air routes and is a poor indicator of the actual annoyance. Residents in these areas are experiencing substantial increases over their historic noise levels due to the much higher frequency of flights over a much more concentrated area. And unfortunately, this area is now concentrated right over the populated areas of Scottsdale. It is no consolation for people whose lives are constantly disrupted by aircraft noise that it is not a significant impact under some arbitrary FAA noise threshold.

In fact, the problem is exacerbated by the geography and terrain of the local area. As an aircraft flies north through Scottsdale the terrain rises. So even though residents in the northern portion of Scottsdale may be further away from the airport and the aircraft may have climbed to a higher barometric altitude, the planes are still relatively close to the ground because of the higher elevation of the land.

Moreover, the nearby mountains and rocky landscape tends to magnify the noise especially in an area like the northern portions of Scottsdale where you do not find the higher ambient noise levels common in a more urban setting. And the problem is only going to get worse. Passenger traffic has increased 19% at Phoenix Sky Harbor Airport since the great recession. It is expected to grow 61% between now and 2045.[2]

For all these reasons, the aircraft noise issue has become intolerable and the citizens of Scottsdale cry out for some relief.

While the FAA may argue that many of these issues should have been raised shortly after the publication of the new routes, the absence of any real notice and opportunity to comment and the severe safety and environmental impacts that have resulted warrant a fresh look by your agency now that the D.C. Circuit has vacated all departure routes from Phoenix Sky Harbor Airport. At any rate, Scottsdale's requested air route modification is consistent with the FAA's Step Two commitment to consider comments regarding all air routes from Phoenix Sky Harbor Airport—not just the westerly departure routes—and thereby initiate a separate federal action subject to all applicable statutory and regulatory requirements. Failure to complete this federal action consistent with legal requirements is subject to further challenge in court.

Moreover, there are in fact solutions to these problems that could be implemented without seriously undermining the benefits of NextGen or redistributing the noise to other population centers.

The Solution

In many areas of the country, it may be difficult to solve one community's noise problem without creating the same problem for another community. However, here, in the West, with its large tracks of relatively unpopulated land, that is not necessarily the case. Accordingly, the city has retained JDA Aviation Technology Solutions (JDA) and asked them to develop a solution that would provide noise relief to the citizens of Scottsdale, reduce the number of noise impacted citizens overall and still be safe from an air traffic control perspective. As you know, JDA has staff and consultants with a wealth of noise, airport, and air traffic control expertise.[3] Many of them are former FAA employees. Based on their expertise, we

[2] See Table S-1 on page 6 of the FAA's Terminal Area Forecast Summary: Fiscal Years 2018 to 2045.

[3] See JDA Aviation Technology Solutions "Scottsdale Community Phoenix Sky Harbor International Airport Departure Procedure Study" [hereinafter JDA Study] at pages 12 and 13.

would urge the FAA to adopt the new departure procedures set forth in their submission [copy attached] and described below.

Current situation

Currently, aircraft departing to the east from the Phoenix airport going to the ZEPER, QUAKY, and MIRBL waypoints take almost an immediate sharp left turn and proceed north over the GOALY and GOLDR waypoints right through the middle of Scottsdale and over its most noise sensitive areas. According to JDA, these 3 flightpaths have the following adverse noise impacts:

- The MIRBL procedure adversely impacts 64,427 people, including 26,370 in Scottsdale;
- The QUAKY procedure adversely impacts 76,794 people, including 33,063 in Scottsdale; and
- The ZEPER procedure adversely impacts 82,259 people, including 37,754 in Scottsdale.

FAA Concept 1

The FAA, to its credit, at the recent workshops, proposed an alternative that it called Concept 1. The FAA stated that Concept 1 would supplement existing east flow northbound procedures. Under this concept, some aircraft departing to the east would take a more gradual left turn and head northeast over the Salt River and then turn north over the McDowell Mountain Regional Park and the GEENO waypoint on their way to the MRBIL waypoint. This would take the aircraft slightly to the east of Scottsdale. As a result, the houses and people in Scottsdale impacted by aircraft noise would be reduced. The problem is, by the FAA's own admission, only about 30% of the aircraft departing to the east would take this route. The other 70% would continue to go right up the middle of Scottsdale and its noise sensitive areas.

Acceptable Modification to FAA Concept 1

While the FAA Concept 1 is a step in the right direction, it does not provide sufficient noise relief for the citizens of Scottsdale. FAA's Concept 1 could be improved if those aircraft heading for QUAKY also turned northeast over the Salt River, proceeded over the McDowell Mountain Regional Park and did not head towards QUAKY until they had passed the GEENO waypoint. This would mean

that an additional 30% of air traffic could be passing to the east of Scottsdale. With this modification, Scottsdale could find FAA's Concept 1 acceptable.

Preferred Modification to FAA Concept 1

Scottsdale very much appreciates FAA's initiative in proposing its Concept 1. But even with the modification described above, it does not go far enough to reduce the harmful impacts of aircraft noise. In our view, the best solution would be to further modify Concept 1 by directing all aircraft taking off to the east to fly further to the northeast past the DERVL waypoint and turn north toward ESDEE on their way to MRBIL and QUAKY. In this way, the aircraft would completely bypass Scottsdale and many of its neighboring communities including the Yavapai Nation Reservation. This would take the aircraft over the least populated areas and would therefore provide the maximum noise and safety benefits.[4] Many of the people and houses that would still be impacted would be those near the east end of the airport who will be impacted regardless of which departure procedure is chosen.

Both this preferred modification and the acceptable modification described above would also be safe and consistent with FAA's Concept 2 governing arrival routes into Phoenix.[5] And Scottsdale would still be sharing a fair portion of the burden as a result of the flights to ZEPER, the Deer Park and Scottsdale airports, and military traffic.

We recognize that our preferred modification might increase flight times by a few minutes. This must be balanced against the resulting improvements in the noise environment for the people in and around Scottsdale and is a small price to pay to reduce the noise, environmental, and cultural impacts that are imposed by the current situation. Airlines benefit greatly from the passengers in the Phoenix/Scottsdale area and the extra few minutes of flight time is a small imposition that they should be willing to share in order to improve the quality of the lives of the citizens in the communities they serve.

It has long been national policy to promote an environment for all Americans free from noise that jeopardizes their health or welfare.[6] This routing far to the east of Scottsdale is most consistent with that national policy and we urge the FAA to adopt it. If FAA intends to insist on the capacity benefits that it would derive from

[4] See JDA Study pages 27, 28 and 30

[5] See JDA Study pages 28 and 29

[6] 42 U.S. Code § 4901, (Pub. L. 92–574, § 2, Oct. 27, 1972, 86 Stat. 1234.)

its Concept 2 for arrivals, then Scottsdale believes that the only acceptable option for departures is its preferred modification described here.

Item 21

Scottsdale's Modified Flight Path Proposals to the FAA

May 21, 2019

1

Scottsdale's Modified Flight Path Proposals
Background

- FAA implemented NextGen in 2014, with little notice or consultation
- Impacted east and west flight paths at Phoenix Sky Harbor Airport
- Scottsdale received many noise complaints almost immediately
- Lawsuit ensued, *City of Phoenix v. Huerta*
- Court vacated FAA order implementing new departure routes
- FAA contends court decision limited to westbound flights only

2

Scottsdale's Modified Flight Path Proposals
Background

- City of Scottsdale contracted with *Covington & Burling*, July 2018
  - Develop Legal Strategy
  - Develop Political Strategy
  - Develop Legislative Strategy
- Contract with *JDA Aviation Technology Solutions*, November 2018
  - Analyze current flight paths
  - Identify alternative flight paths to lessen or eliminate impact to Scottsdale
  - Provide viable data to support alternative flight paths

3

Scottsdale's Modified Flight Path Proposals
Background

- FAA Step One Workshops held February 2018
- FAA Step Two Workshops held April 2019
- Purpose for FAA to provide information and received comments from public on NextGen flight paths.
- Step Two Workshops: First introduction of FAA's "Concept 1" and "Concept 2"

4

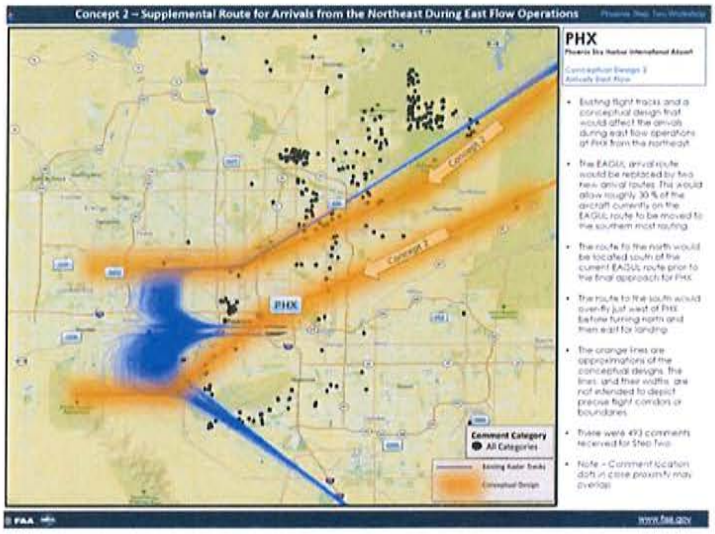
Current Sky Harbor Flight Path Routes

5

FAA Concept 1

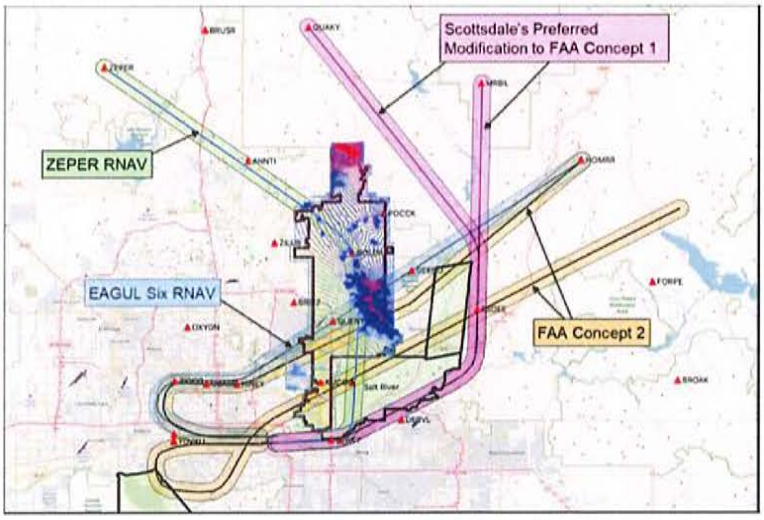
6

FAA Concept 2



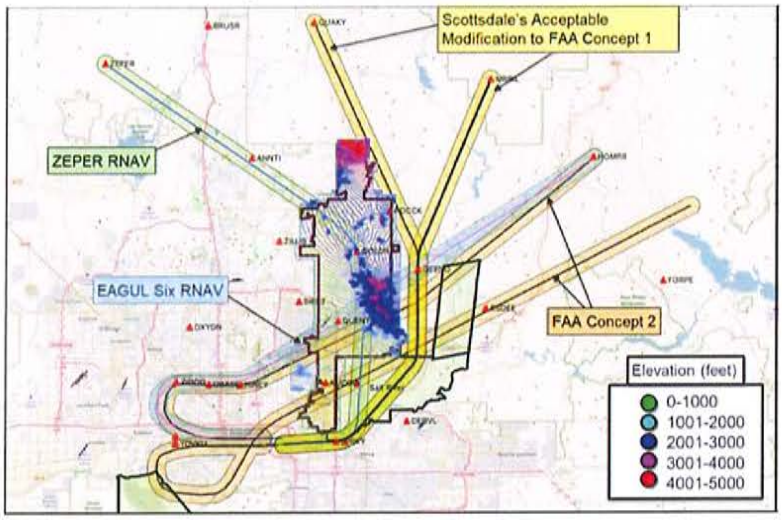
7

Scottsdale's Preferred Modification to Concept 1



8

Scottsdale's Acceptable Modification to Concept 1



9

Motion

- Consider approval of **Resolution No. 11499** to authorize the Mayor to submit comments on behalf of the City to the Federal Aviation Administration (FAA) regarding issues arising from the FAA's having redirected Sky Harbor air traffic in ways that have detrimentally affected Scottsdale residents.

10

Smith, Erica

From: Webmaster
Sent: Tuesday, May 21, 2019 9:08 AM
To: Smith, Erica
Subject: Comment on 05-21-2019 Agenda Item (response #21)

Comment on 05-21-2019 Agenda Item (response #21)

Survey Information

Site:	ScottsdaleAZ.gov
Page Title:	Comment on 05-21-2019 Agenda Item
URL:	https://www.scottsdaleaz.gov/council/meeting-information/agenda-comments/05-21-2019
Submission Time/Date:	5/21/2019 9:08:24 AM

Survey Response

AGENDA ITEM	
Which agenda item are you commenting on?	Regular Agenda Item No. 21, Resolution # 11499
COMMENT	
Comment:	SCANA (Scottsdale Coalition for Airplane Noise Abatement) supports the approval of this Resolution. It is important for the protection of the lifestyle Scottsdale is known for. SCANA and the residents of Scottsdale thank the City for its hard work and commitment to protect our communities from the FAA's arbitrary placement of NextGen flight paths over our homes.
Comments are limited to 8,000 characters and may be cut and pasted from another source.	
NAME	
Name:	SCANA
CONTACT INFORMATION	
Please provide the following information so someone may follow up with you if they have questions about your comment (optional).	

Email:	scanaphx@gmail.com
Phone:	(303) 748-8225
Address:	10115 E. Bell Road, Suite 107, No. 132, Scottsdale, 825260
Example: 3939 N. Drinkwater Blvd, Scottsdale 85251	