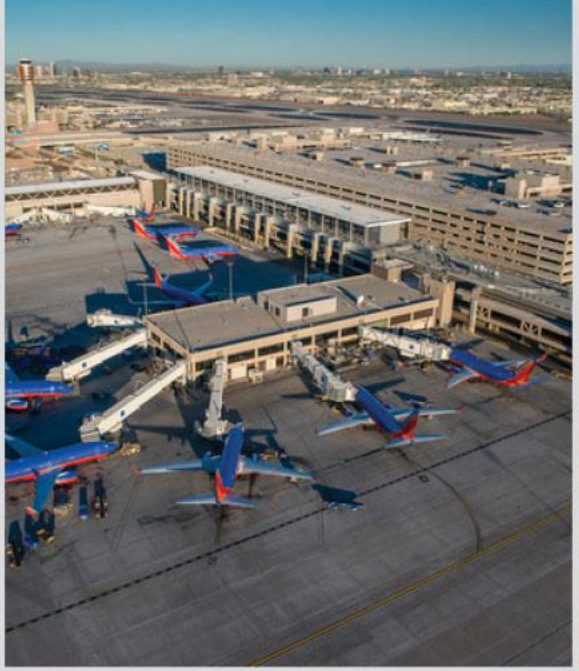


STATE AVIATION SYSTEM PLAN UPDATE

PAC Mtg. #2

July 12, 2017

ADOT

Kimley»Horn

Agenda

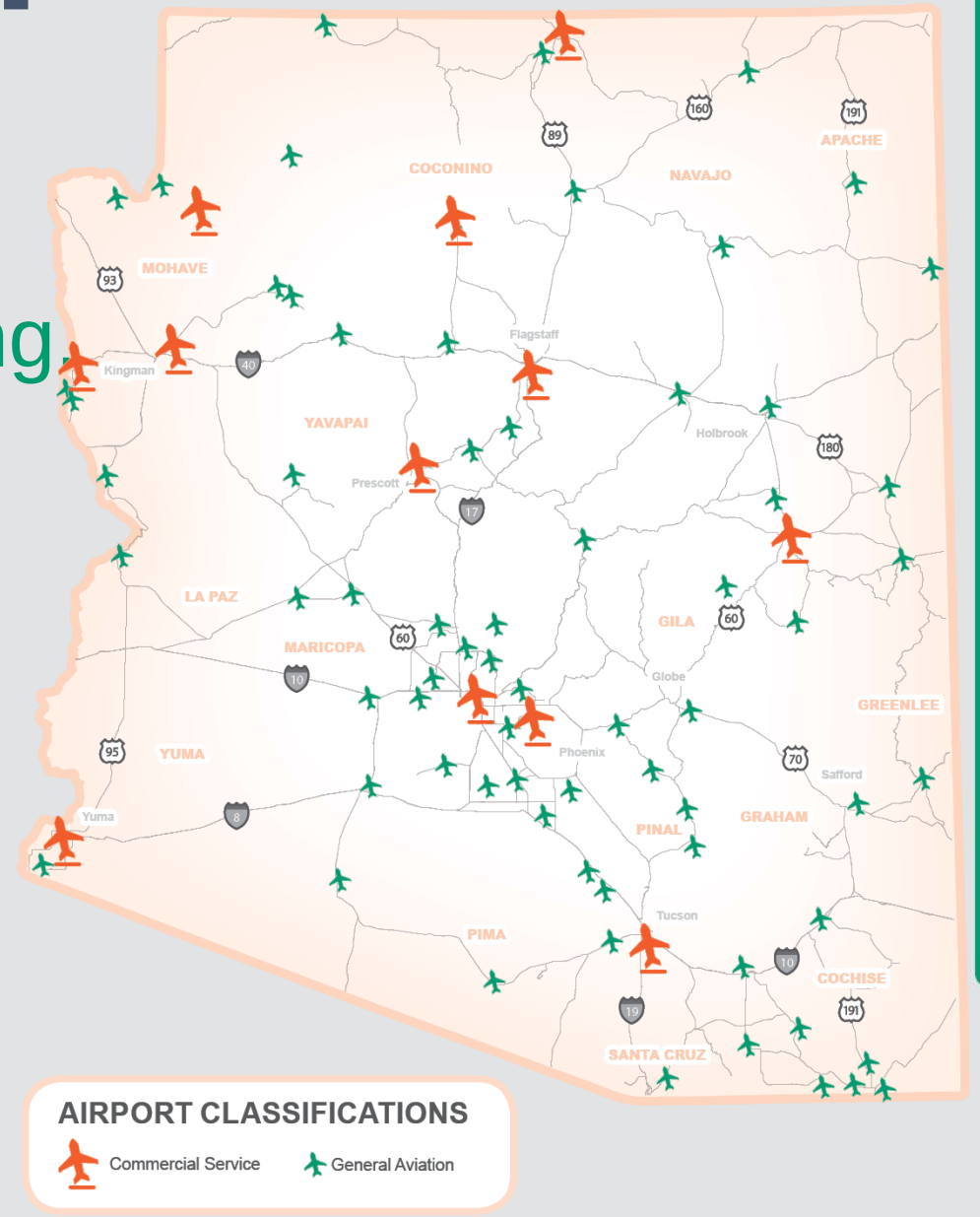
- Introductions
- SASP process
- Updated goals, performance measures, and system indicators
- Inventory findings
- Airport roles/classifications methodologies
- Forecast methodology
- Next steps

Arizona Aviation

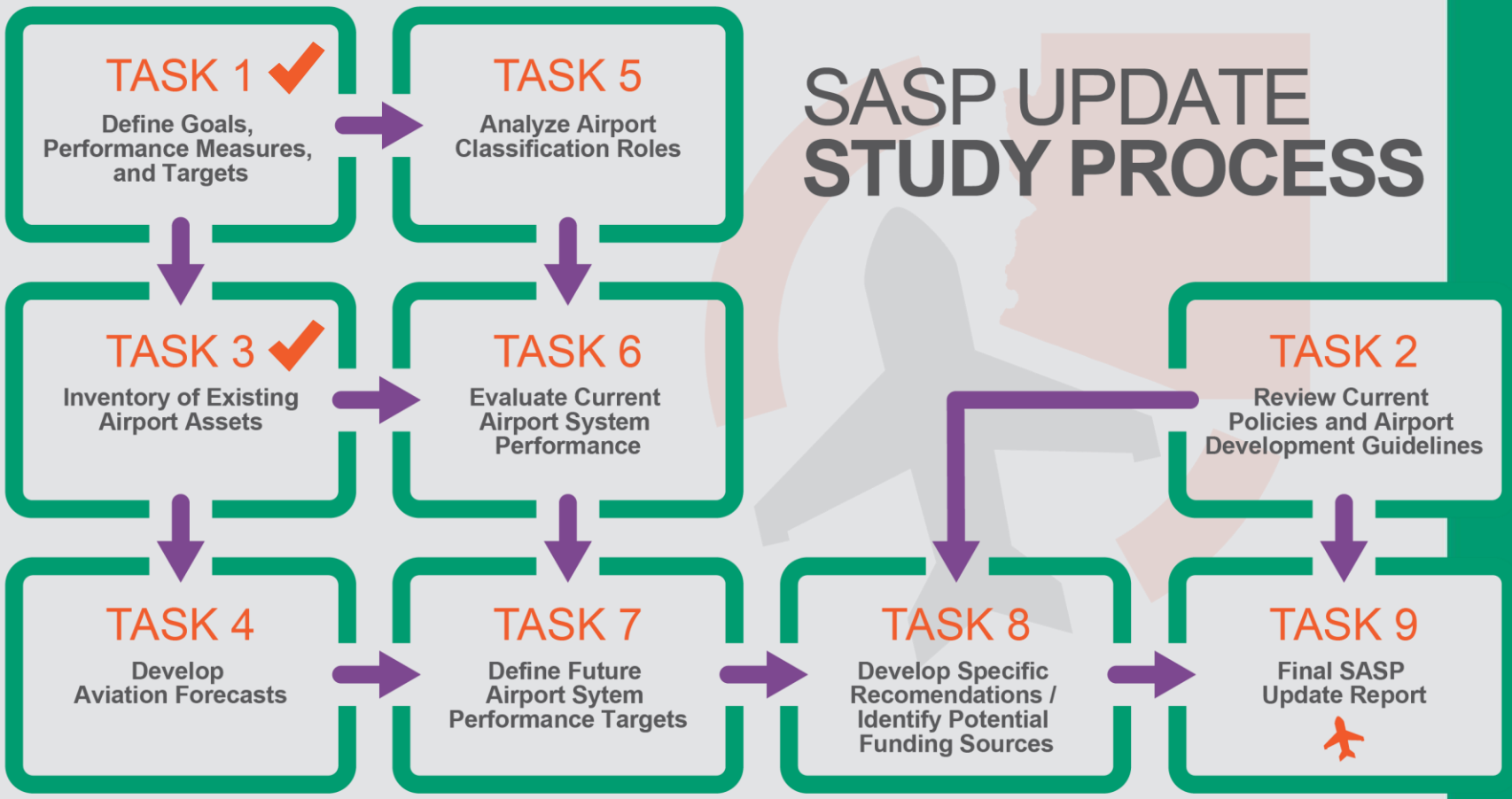
SASP Process

SASP Purpose

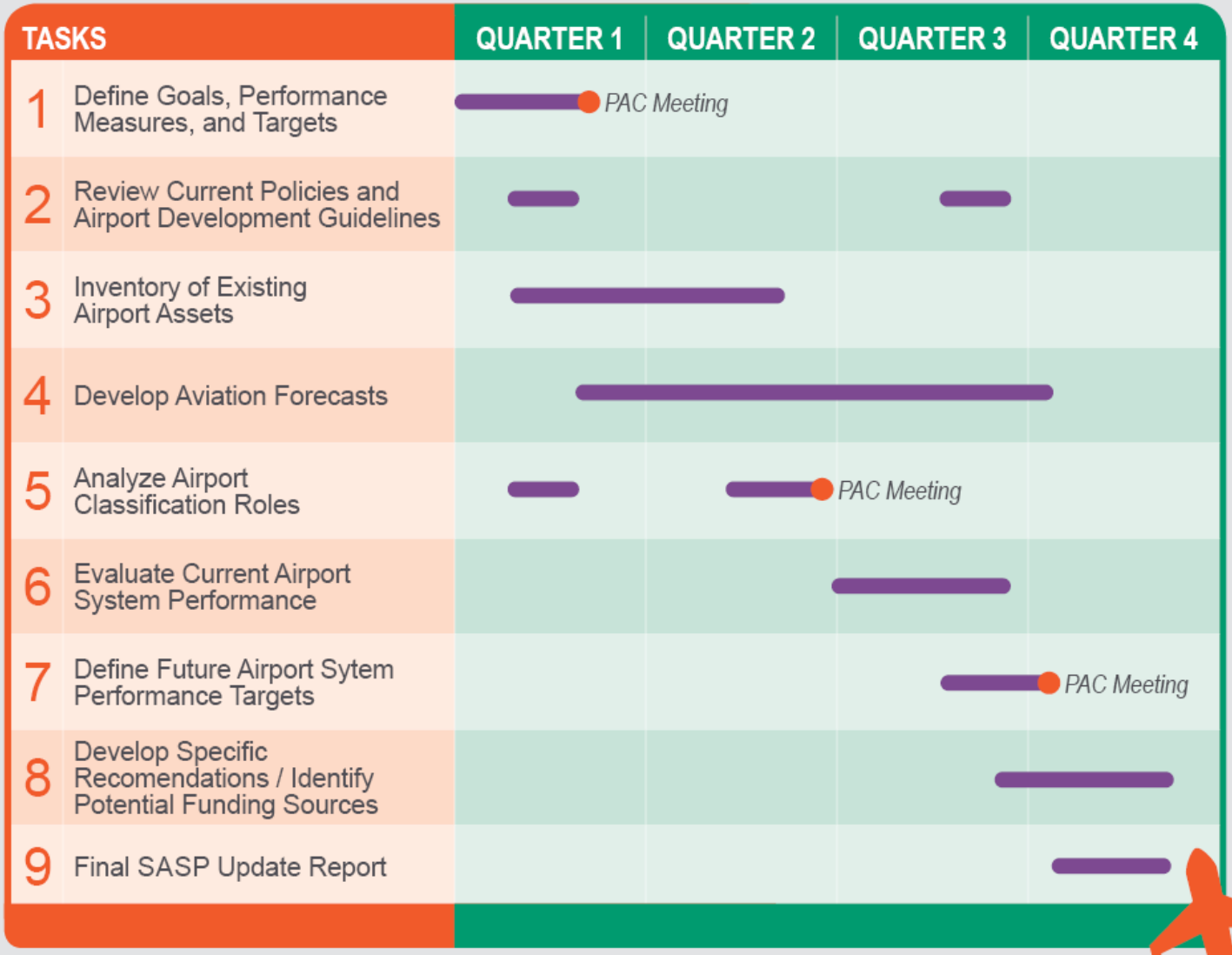
To provide a framework for the integrated planning, operation, and development of Arizona's aviation assets



SASP UPDATE STUDY PROCESS



SASP UPDATE **SCHEDULE**



Updated Goals

2017 SASP Goals

SAFETY **AND SECURITY**

Arizona should maintain a safe and secure airport system as measured by compliance with applicable safety and security standards while supporting health and safety-related services and activities.

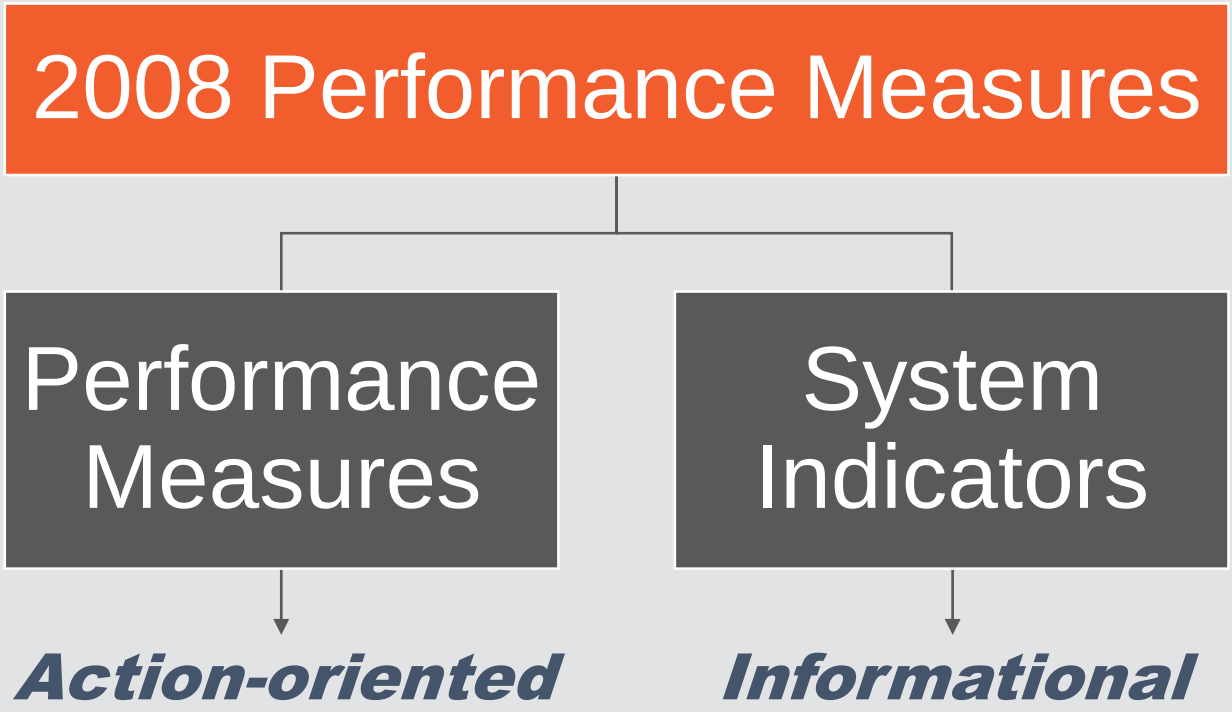
ECONOMIC **SUPPORT**

Arizona should advance a system of airports that supports Arizona's economic growth and development and promotes partnerships in a manner that reflects Arizona's socioeconomic and demographic characteristics.

FISCAL **RESPONSIBILITY**

Arizona should implement cost-effective investment strategies to meet current and projected demand while remaining adequately accessible to Arizona's citizens, visitors, and businesses

2017 Performance Measures versus System Indicators



Performance Measures

Goal Category	Performance Measures
Safety and Security	Percent of airports capable of supporting physician/medical transport
	Percent of airports with surrounding municipalities that have adopted controls/zoning, including “disclosure areas,” to make land use in the airport environs compatibles with airport operations and development
	Percent of airports controlling all runway end runway protection zones (RPZ)
	Percent of airports that have runway safety areas (RSA) on their primary runway that meet the standards for their current airport reference code (ARC)
	Percent of airports that have active programs, including vegetation management plans, to clear obstructions from their approaches
Fiscal Responsibility	Percent of population within 30 minutes of an all-weather runway (paved, instrument approach, automated weather observing system [AWOS])
	Number of airports with a current (past five years) master plan
	Percent of airports with a pavement condition index (PCI) of 70 or greater
Economic Support	Percent of airports with 24/7 fuel
	Percent of airports that are recognized in local comprehensive plans
	Percent of airports with the facilities to support jet aircraft

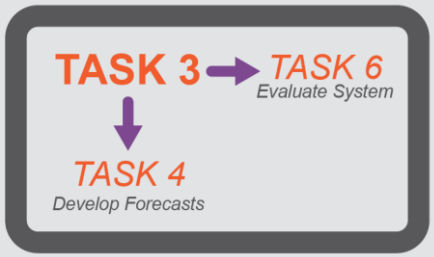
System Indicators

Goal Category	System Indicators
 **Safety and Security**	Percent of airports that have a written emergency response plan
	Percent of airports with clear approaches to primary runway end
	Percent of airports with adopted wildlife plans in accordance with appropriate FAA regulations
	Percent of airports that support aerial firefighting operations
 **Fiscal Responsibility**	Percent of population within 30 minutes of a system airport meeting business user needs
	Percent of communities in the state with a population greater than 5,000 with a 60-minute drive time of a commercial service airport
	Percent of communities in the state with a population greater than 1,000 with a 30-minute drive time of a general aviation airport
	Number of airports with utilities (i.e., electricity, telephone, water, sewer, and gas)
	Percent of population with 30 minutes of a NPIAS airport
 **Economic Support**	Percent of system airports supporting flight training
	Dollars of direct and indirect economic impact on the state from aviation

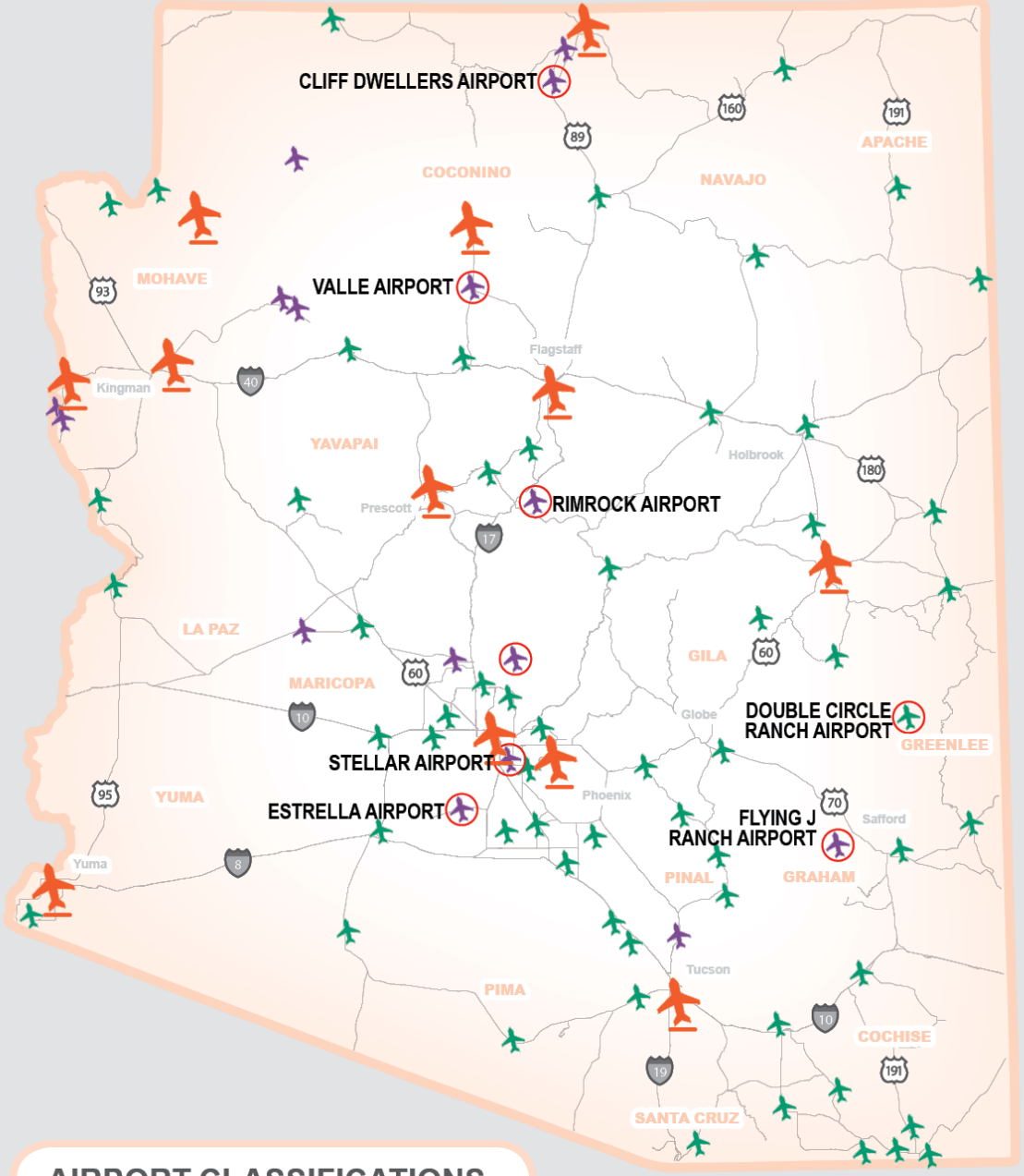
Inventory Findings

Inventory of Existing Airport Assets

- Gather data to evaluate system performance, develop statewide aviation forecasts, and identify regional aviation system needs
- Serves as a primary foundation for all subsequent analyses
- Contacted 86 airports for participation



Task 3



Privately Owned Airports/ Excluded Study Airports

Inventory Findings – Based Aircraft

Aircraft by Type	2008	Percent of Total	2016	Percent of Total
Single-Engine	6,353	77.4%	4,002	**72.9%**
Multi-Engine	861	10.5%	573	**10.4%**
Jets	358	4.4%	303	**5.5%**
Helicopter	317	3.9%	248	**4.5%**
Gliders	53	0.6%	80	**1.5%**
Ultralights/other	101	1.2%	116	**2.1%**
Military	170	2.1%	166	**3.0%**
Total	**8,213**		**5,488**	

Sources: 2008 SASP, 2017 Kimley-Horn

Inventory Findings – Annual Aircraft Operations

Operations by Type	2008	Percent of Total	2016	Percent of Total
Commercial Service	675,194	13.9%	433,325	**12.0%**
General Aviation-Local	2,051,040	42.4%	1,595,411	**44.3%**
General Aviation-Itinerant	1,791,696	37.0%	1,188,640	**33.0%**
Military	323,537	6.7%	386,659	**10.7%**
Total	**4,841,467**		**3,604,035**	

Sources: 2008 SASP, 2017 Kimley-Horn

Inventory Findings – Passenger Enplanements

Year	Passenger Enplanements
2008	23,200,000
2016	24,657,169
CAGR 2008-2016	0.76%

Sources: 2008 SASP, 2017 Kimley-Horn
Note: Passenger enplanements in 2008 rounded to nearest hundred thousand

The compound annual growth rate (CAGR) calculates a constant rate of change over a given time-period. It dampens the effect of volatility during periods that experience significant change, and is essentially a "smoothed" growth rate.

Inventory Findings – Instrument Approach Procedures (IAPs) and Fueling

IAPs	2008	2016
Airports with IAPs	40	38
Fueling	**2008**	**2016**
AvGas and/or Jet A	**53**	**55**
AvGas	52	37
Jet A	43	45

Sources: 2008 SASP, 2017 Kimley-Horn

Aerial Wildland Firefighting – Sierra Vista Municipal Airport (FHU)

Arizona's Amazing Airports!


SCUE


N949CH


73


PHILLIPS
66
DENSITY ALTITUDE
8600
AIRPORT ELEVATION

THANK YOU!

Airport Roles/ Classifications Methodology

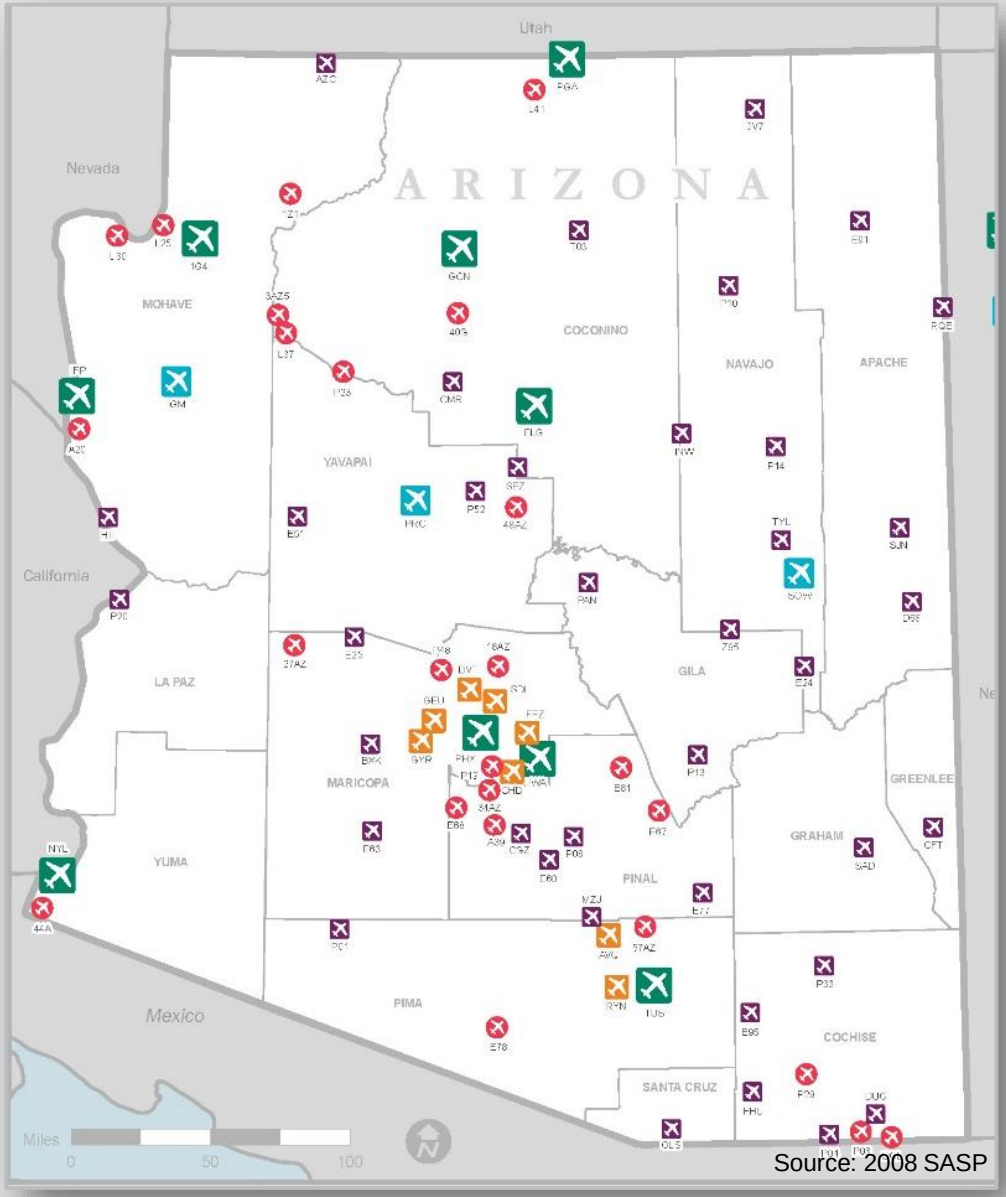
Why do we have roles/ classifications?

- Functions and activities at airports
- Coordinated planning of facilities
- Facility needs based on activities supported
- Potential funding-related uses:
  - Different programs by classification
  - Project priorities and eligibility
  - Element in priority rating system
  - Measuring system performance compared to investment

To understand how airports contribute to community and state

Task 5

2008 ADOT Roles



Source: 2008 SASP

Role (# of Airports)	Definition
Commercial Service (12)	Publicly owned airports which enplane 2,500 or more passengers annually and receive scheduled passenger air service
Reliever (8)	FAA-designated airports that relieve congestion at a commercial service airport
GA-Community (28)	Airports that serve regional economies, connecting to state and national economies, and serve all types of general aviation aircraft
GA-Rural (25)	Airports that serve a supplemental role in local economies, primarily serving smaller business, recreational, and personal flying
GA-Basic (10)	Airports that serve a limited role in the local economy, primarily serving recreational and personal flying

Re-examination of ADOT Roles

- 2008 SASP included many factors that were not quantifiable and hard to determine how airports moved from one classification to another
- FAA conducted General Aviation Asset Study and developed new categories
- Aviation industry changes

Comparison of Criteria

2008 SASP

- *Total based aircraft*
- *Based turbine aircraft*
- Registered pilots served
- Airside facilities/infrastructure
- Landside facilities/infrastructure
- Airport approach type
- Expansion potential
- *Commercial service*
- Design aircraft
- Aviation services provided
- Military or other special tenant organizations
- Businesses served
- Population served
- Industry groups served/economic development
- Retail sales
- Accommodations within a 30 minute drive
- Emergency use
- RPZ development controls
- Height zoning
- Community support
- Community outreach efforts

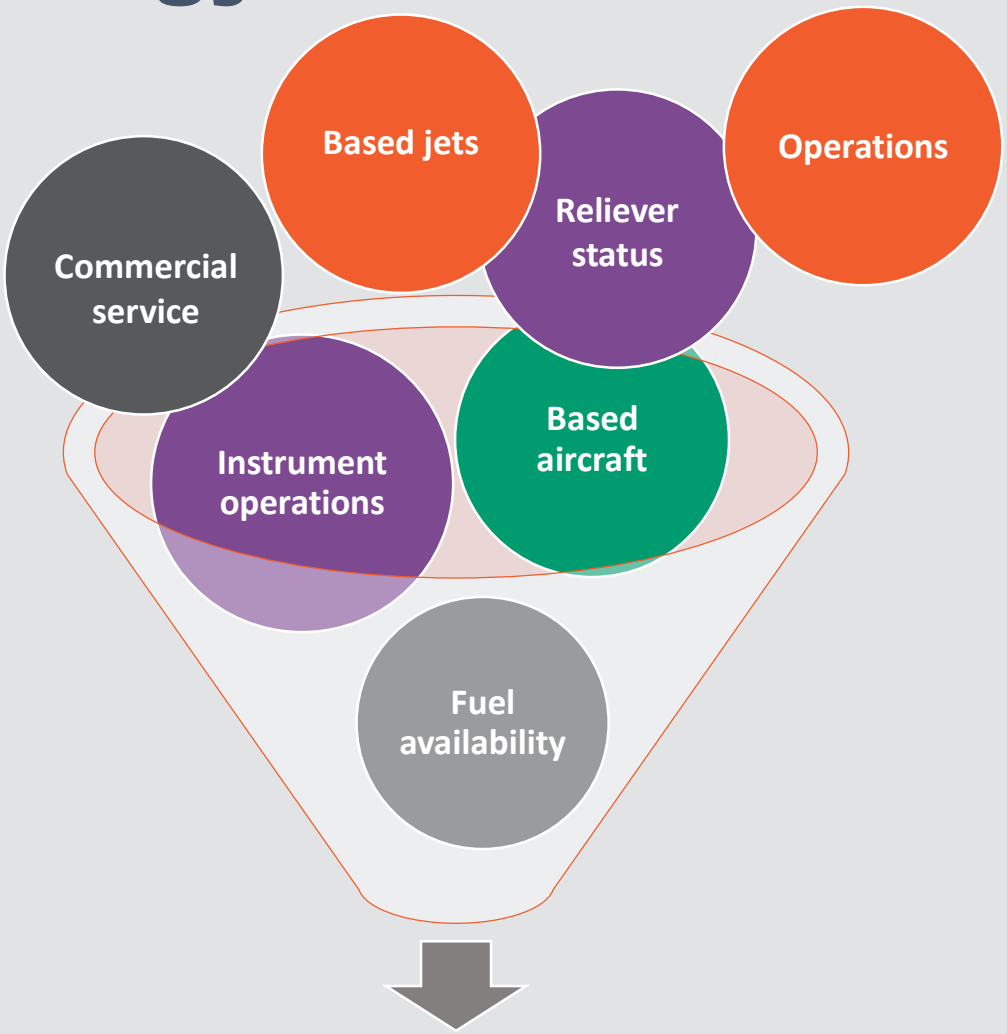
FAA Asset

- **Instrument operations**
- *Based jets*
- International flights
- Domestic flights
- Enplanements
- Charter enplanements
- Cargo weight
- Located in MSA
- Scheduled commercial service
- Proximity to nearest NPIAS airport (30+ miles)
- Used by U.S. Forest Service, U.S. Marshals, U.S. Customs and Border Protection, or U.S. Postal Service
- Essential Air Service
- New/replacement facility after January 1, 2001
- Reliever designation

2017 Proposed

- **Commercial service – domestic or international**
- Reliever status
- **Instrument operations**
- Operations
- **Based aircraft**
- Fuel availability

Proposed Roles/Classification Methodology



Airport Roles Decision Tree

What should the criterion ranges be?

- **Commercial** – international, domestic, none
- **Instrument operations** – 500 to 2,000
- **Operations** – 1,250 to 5,000
- **Based aircraft** – with or without jets
- **Based aircraft** – 5 to 200
- **Fuel** – Jet A and/or 100LL fuel

Feedback?

Role Methodology Options

Role/ Classification	2008 SASP	2017 Methodology		
		Low Activity	Medium Activity	High Activity
Commercial Service-International	Publicly owned airports which enplane 2,500 or more passengers annually and receive scheduled passenger air service	International commercial service		
Commercial Service-National		Domestic commercial service		
Reliever	FAA-designated airports that relieve congestion at a commercial service airport	Reliever status and at least 500 instrument operations, 50 based aircraft including 1 jet, and aircraft fuel	Reliever status and at least 1,000 instrument operations, 100 based aircraft including 2 jets, and aircraft fuel	Reliever status and at least 2,000 instrument operations, 200 based aircraft including 4 jets, and aircraft fuel
GA-Community	Airports that serve regional economies[1], connecting to state and national economies, and serve all types of general aviation aircraft	125 instrument operations and 5 based aircraft *OR* 1 based jet and aircraft fuel	250 instrument operations and 10 based aircraft *OR* 1 based jet and aircraft fuel	500 instrument operations and 20 based aircraft *OR* 1 based jet and aircraft fuel
GA-Rural	Airports that serve a supplemental role in local economies[2], primarily serving smaller business, recreational, and personal flying	1,250 operations *OR* 5 based aircraft and aircraft fuel	2,500 operations *OR* 10 based aircraft and aircraft fuel	5,000 operations *OR* 20 based aircraft and aircraft fuel
GA-Basic	Airports that serve a limited role in the local economy, primarily serving recreational and personal flying	All other GA airports		

Notes: 1. For the purpose of this report, a regional economy is defined as the economic activity of an area that encompasses multiple communities or political jurisdictions. 2. For the purpose of this report, a local economy is defined as the economic activity of a single community or a largely rural area.

Results of Methodologies

Role/Classification	2008 SASP Results	2017 Methodology		
		Low Activity	Medium Activity	High Activity
Commercial Service-International	11	3	3	3
Commercial Service-National		8	8	8
Reliever	8	8	↓1	↓3
GA-Community	25	↓2	↓4	↓6
GA-Rural	25	↓3	↓3	↓6
GA-Basic	9	↑7	↑10	↑17

Relationship to the NPIAS

Role	Low Activity			Medium Activity			High Activity		
	No.	NPIAS	Non-NPIAS	No.	NPIAS	Non-NPIAS	No.	NPIAS	Non-NPIAS
Commercial Service-International	3	3	0	3	3	0	3	3	0
Commercial Service-National	8	8	0	8	8	0	8	8	0
Reliever	8	8	0	7	7	0	5	5	0
GA-Community	23	21	2	21	19	2	19	17	2
GA-Rural	22	13	9	22	14	8	19	14	5
GA-Basic	16	6	10	19	8	11	26	12	14

Discussion of results

Feedback?

Facility and Service Objectives

What are Facility & Service Objectives?

- **Not** standards or requirements
- Recommendations of provided services and facilities based on system role/classification
- Minimum levels of development

2008 GA-Community Objectives

General Aviation – Community Airport	
Component	**Minimum Objectives**
ARC	B-II
Runway Length	Accommodate 75% of large aircraft at 60% useful load
Runway Width	To meet ARC
Taxiway	Full or partial-parallel; width per ARC
Surface	Paved
Approach Capability	Non-precision
Visual Aids	Rotating beacon, lighted wind cone/segmented circle, REILs, VGSI
Lighting	MIRL/MITL
Approach Lighting System	None
Fencing	Perimeter fence
Services	Limited services FBO/limited maintenance/on-site ground transportation/phone/restroom/fuel (Jet A and AvGas)
Facilities	Terminal with appropriate facilities Hangars: 60% of based fleet and 25% overnight Apron: 40% of based fleet and 50% for transient Auto parking: 33% of based fleet

Proposed – Three Components

Component	Airport Criteria	
General Airfield	ARC	Surface
	Runway Length	Approach Capability
	Taxiway	Visual Aids
	Lighting	Approach Lighting System
Airside Facilities	Operations/Maintenance Hangar	
	Hangars	Auto Parking
	Apron	Terminal/Pilot's Lounge
Services	FBO	Aircraft Maintenance
	Avionics Sales and Service	Off-Site Rental Car
	On-Site Rental Car	Restroom
	Phone	U.S. Customs
	Fuel	Deicing
	Snow Removal	Oxygen
	Weather Reporting	Air Taxi/Charter Service
	Aircraft Rental	

Facility and Service Objectives Activity

Feedback?

Separate into <u>three</u> small groups and provide feedback on boards on what services and facilities <u>you</u> think are most important, by role/classification

Overview of Forecasts Task

Elements of Forecasts Task

- Industry trends review
- Forecast indicators:
  - Based aircraft
  - General aviation ops
- Comparison of GA activity indicators to TAF for NPIAS airports
- Utilize TAF for enplanements and commercial activity
- Identify design aircraft and operational activity by turbo jet and prop aircraft over 12,500 pounds

Task 4

GA Forecast Methodologies

FAA Advisory Circular 150/5050-7, The Airport System Planning Process:

Level of detail in the forecasts should be based upon airports' activity, planning issues to be addressed, and the future use of the forecasts.

Approaches:

- Top-down: examine larger system and utilize market share
- Bottom-up: look at individual airport-level activity

Accomplishments and Next Steps

Today's Accomplishments

- Reviewed the updated goals and inventory findings
- Obtained feedback on:
  - Airport roles/classification
  - Facility and service objectives

Next Steps

- Complete draft of Inventory Chapter
- Complete draft of Roles/Classifications Chapter using data obtained from today's meeting
- Complete draft of Forecasts of Aviation Demand chapter

Thoughts?

Thank You!

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www.azdot.gov/SASPUpdate

ARIZONA SASP UPDATE – CLASSIFICATIONS/ROLES METHODOLOGY

Summary Results

Role	2008 (Number of Airports)	Proposed 2017 (Number of Airports)		
		LOW	MEDIUM	HIGH
Commercial - International	3	3	3	3
Commercial - National	8	8	8	8
Reliever	8	8	7	5
GA-Community	25	23	21	19
GA-Rural	25	22	22	19
GA-Basic	9	16	19	26
Percent of Airports with the same role as 2008 SASP		71.3%	70.0%	60.0%

Results by Airport

Associated City	Airport Name	2008 SASP Role	Proposed 2017 Classifications/Roles		
			LOW	MEDIUM	HIGH
Aguila	Eagle Roost Airpark	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Ajo	Eric Marcus Municipal	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Bagdad	Bagdad	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Benson	Benson Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Bisbee	Bisbee Municipal	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Buckeye	Buckeye Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Bullhead City	Eagle Airpark	NA	GA-Rural	GA-Rural	GA-Rural
Bullhead City	Laughlin/Bullhead City Int'l	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Bullhead City	Sun Valley	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Carefree	Sky Ranch at Carefree	GA-Community	GA-Community	GA-Community	GA-Community

Associated City	Airport Name	2008 SASP Role	Proposed 2017 Classifications/Roles		
			LOW	MEDIUM	HIGH
Casa Grande	Casa Grande Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Chandler	Chandler Municipal	Reliever	Reliever	Reliever	Reliever
Chinle	Chinle Municipal	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Cibecue	Cibecue	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Clifton	Greenlee County	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Colorado City	Colorado City Municipal	GA-Community	GA-Rural	GA-Rural	GA-Basic
Coolidge	Coolidge Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Cottonwood	Cottonwood Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Douglas	Bisbee-Douglas International	GA-Rural	GA-Community	GA-Rural	GA-Rural
Douglas	Cochise College	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Douglas	Douglas Municipal	GA-Community	GA-Rural	GA-Rural	GA-Basic
Eloy	Eloy Municipal	GA-Community	GA-Rural	GA-Rural	GA-Rural
Flagstaff	Flagstaff Pulliam	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Gila Bend	Gila Bend Municipal	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Glendale	Glendale Municipal	Reliever	Reliever	Reliever	GA-Community
Globe	San Carlos Apache	GA-Rural	GA-Rural	GA-Basic	GA-Basic
Goodyear	Phoenix Goodyear	Reliever	Reliever	GA-Community	GA-Community
Grand Canyon	Grand Canyon National Park	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Holbrook	Holbrook Municipal	GA-Community	GA-Rural	GA-Rural	GA-Basic
Kayenta	Kayenta	GA-Rural	GA-Rural	GA-Basic	GA-Basic
Kearny	Kearny	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Kingman	Kingman	Commercial Service	GA-Community	GA-Community	GA-Community
Lake Havasu City	Lake Havasu City	GA-Community	GA-Community	GA-Community	GA-Community
Marana	Marana Regional	Reliever	Reliever	Reliever	Reliever
Marana	Pinal Airpark	GA-Community	GA-Community	GA-Community	GA-Community

Associated City	Airport Name	2008 SASP Role	Proposed 2017 Classifications/Roles		
			LOW	MEDIUM	HIGH
Marble Canyon	Marble Canyon	GA-Rural	GA-Rural	GA-Rural	GA-Basic
Maricopa	Ak Chin Regional	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Maricopa	Estrella Sailport	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Meadview	Pearce Ferry Airport	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Mesa	Falcon Field	Reliever	Reliever	Reliever	Reliever
Nogales	Nogales	GA-Community	GA-Community	GA-Community	GA-Community
Page	Page Municipal	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Parker	Avi Suquilla	GA-Community	GA-Community	GA-Community	GA-Rural
Payson	Payson	GA-Community	GA-Community	GA-Community	GA-Community
Peach Springs	Grand Canyon Caverns	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Peach Springs	Grand Canyon West	GA-Rural	Commercial - National	Commercial - National	Commercial - National
Peach Springs	Hualapai	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Peoria	Pleasant Valley	GA-Community	GA-Rural	GA-Rural	GA-Rural
Phoenix	Phoenix Deer Valley	Reliever	Reliever	Reliever	Reliever
Phoenix	Phoenix Sky Harbor	Commercial Service	Commercial - International	Commercial - International	Commercial - International
Phoenix	Phoenix-Mesa Gateway	Commercial Service	Commercial - International	Commercial - International	Commercial - International
Polacca	Polacca	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Prescott	Ernest A. Love Field	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Safford	Safford Regional	GA-Community	GA-Community	GA-Community	GA-Community
San Luis	Rolle Airfield	GA-Rural	GA-Rural	GA-Rural	GA-Basic
San Manuel	San Manuel	GA-Rural	GA-Rural	GA-Rural	GA-Rural
Scottsdale	Scottsdale	Reliever	Reliever	Reliever	Reliever
Sedona	Sedona	GA-Community	GA-Community	GA-Community	GA-Community
Seligman	Seligman	GA-Rural	GA-Basic	GA-Basic	GA-Basic

Associated City	Airport Name	2008 SASP Role	Proposed 2017 Classifications/Roles		
			LOW	MEDIUM	HIGH
Sells	Sells	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Show Low	Show Low Regional	Commercial Service	Commercial - National	Commercial - National	Commercial - National
Sierra Vista	Sierra Vista Municipal-Libby Army Airfield	GA-Community	GA-Community	GA-Community	GA-Community
Springerville	Springerville Municipal	NA	GA-Community	GA-Community	GA-Rural
St. Johns	St. Johns Industrial Air Park	GA-Community	GA-Community	GA-Community	GA-Rural
Superior	Superior	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Taylor	Taylor	GA-Community	GA-Rural	GA-Rural	GA-Basic
Temple Bar	Temple Bar	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Tombstone	Tombstone Municipal	GA-Basic	GA-Basic	GA-Basic	GA-Basic
Tuba City	Tuba City	GA-Rural	GA-Basic	GA-Basic	GA-Basic
Tucson	La Cholla Airpark	GA-Rural	GA-Community	GA-Community	GA-Community
Tucson	Ryan Field	Reliever	Reliever	Reliever	GA-Community
Tucson	Tucson International	Commercial Service	Commercial - International	Commercial - International	Commercial - International
Whiteriver	Whiteriver	GA-Rural	GA-Rural	GA-Rural	GA-Basic
Whitmore	Grand Canyon Bar 10	GA-Basic	GA-Rural	GA-Basic	GA-Basic
Wickenburg	Wickenburg Municipal	GA-Community	GA-Community	GA-Community	GA-Community
Willcox	Cochise County	GA-Community	GA-Community	GA-Community	GA-Rural
Williams	H.A. Clark Memorial Field	GA-Community	GA-Rural	GA-Rural	GA-Rural
Window Rock	Window Rock	GA-Rural	GA-Community	GA-Rural	GA-Rural
Winslow	Winslow-Lindbergh Regional	GA-Community	GA-Community	GA-Rural	GA-Rural
Yuma	Yuma International	Commercial Service	Commercial - National	Commercial - National	Commercial - National

2008 Facility and Service Objectives

Commercial Service Airports	
Airport Criteria	**Minimum Objectives**
ARC	Consistent with Master Plan
Runway Length	Consistent with Master Plan
Runway Width	To meet ARC
Taxiway	Consistent with Master Plan
Surface	Asphalt/paved
Approach Capability	Precision desired; near prevision (minimum)
Visual Aids	Rotating beacon, lighted wind cone/segmented circle, REILs, VGSI
Lighting	HIRL/HITL desired; MIRL/MITL (minimum)
Approach Lighting System	ALS
Fencing	Perimeter fencing and controlled access
Services	Full-service fixed base operator (FBO)/maintenance/on-site rental car/phone/restroom/24-7 fuel (Jet and AvGas)
Facilities	Consistent with Master Plan
Reliever Airports	
Airport Criteria	**Minimum Objectives**
ARC	C-III
Runway Length	Accommodate 75% or large aircraft or 90% useful load
Runway Width	To meet ARC
Taxiway	Full parallel; width per ARC
Surface	Asphalt/paved
Approach Capability	Near-precision desired; non-precision (minimum)
Visual Aids	Rotating beacon, lighted wind cone/segmented circle, REILs, VGSI
Lighting	MIRL/MITL
Approach Lighting System	ALS desired
Fencing	Perimeter fencing and controlled areas
Services	Full-service FBO/maintenance/on-site rental car/phone/restroom/24-7 fuel (Jet and AvGas)
Facilities	– Terminal with pilots' lounge – Hangars: 75% of based fleet and 25% overnight – Apron: 25% of based fleet and 75% for transient – Auto parking: 75% of based fleet
General Aviation – Community Airports	
Airport Criteria	**Minimum Objectives**
ARC	B-II
Runway Length	Accommodate 75% of large aircraft at 60% useful load
Runway Width	To meet ARC
Taxiway	Full or partial parallel; width per ARC
Surface	Asphalt/paved
Approach Capability	Non-precision
Visual Aids	Rotating beacon, lighted wind cone/segmented circle, REILs, VGSI

General Aviation – Community Airports (continued)	
Airport Criteria	**Minimum Objectives**
Lighting	MIRL/MITL
Approach Lighting System	None
Fencing	Perimeter fencing
Services	Limited service FBO/limited maintenance/on-site ground transportation/phone/restroom/fuel (Jet and AvGas)
Facilities	– Terminal with appropriate facilities – Hangars: 60% of based fleet and 25% overnight – Apron: 40% of based fleet and 50% for transient – Auto parking: 33% of based fleet
General Aviation – Rural Airports	
Airport Criteria	**Minimum Objectives**
ARC	B-I
Runway Length	Accommodate 75% of small airplanes
Runway Width	To meet ARC
Taxiway	Full or partial parallel, connectors, or turnarounds; width per ARC
Surface	Asphalt desired; unpaved
Approach Capability	Non-precision or circling
Visual Aids	Rotating beacon, wind cone/segmented circle, VGSI
Lighting	MIRL/MITL
Approach Lighting System	None
Fencing	Perimeter fencing
Services	Phone/restroom/fuel (AvGas)/ground transportation
Facilities	– Hangars: 50% of based fleet and 25% for overnight – Apron: 50% of based fleet and 25% for transient – Auto parking: Equal to # of based fleet
General Aviation – Basic Airports	
Airport Criteria	**Minimum Objectives**
ARC	A-I
Runway Length	Maintain existing
Runway Width	To meet ARC
Taxiway	None
Surface	Gravel/dirt
Approach Capability	None
Visual Aids	Rotating beacon, wind sock
Lighting	LIRL or reflectors
Approach Lighting System	None
Fencing	Perimeter fencing desired
Services	Phone and restroom desired
Facilities	None

Sources: 2008 Arizona SASP

List of Possible Facility and Service Objectives

Component	Airport Criteria	
General Airfield	ARC	Surface
	Runway Length	Approach Capability
	Taxiway	Visual Aids
	Lighting	Approach Lighting System
	Fencing	Pavement Condition
Airside Facilities	Operations/Maintenance Hangar	
	Hangars	Auto Parking
	Apron	Terminal/Pilot's Lounge
Services	FBO	Aircraft Maintenance
	Avionics Sales and Service	Off-Site Rental Car
	On-Site Rental Car	Restroom
	Phone	U.S. Customs
	Fuel	Deicing
	Snow Removal	Oxygen
	Weather Reporting	Air Taxi/Charter Service
	Aircraft Rental	

SASP Update – Planning Advisory Committee (PAC) - Meeting 2

Date, Time		July 12, 2017, 2017; 10:00 – 12:00 AM	
Location		Kimley-Horn & Associates – Phoenix Office 7740 N 16th Street, Suite 300, Phoenix, AZ 85020	
PAC Attendees		**PAC Attendees:** ☒ Kenneth Potts, Glendale Airport ☒ Zenia M. Cornejo, Falcon Field Airport ☒ Scott Robidoux, Tucson Airport Authority (AA) ☒ Kyler Erhard, FAA – AZ ADO ☒ James Timm, Arizona Pilots Association (APA) **PAC Attendees by Phone:** ☒ Marisa Walker, AZ Commerce Authority ☒ Gladys Wiggins, Airport Director, Yuma Airport Authority ☒ Arlando Teller, Sovereign Navajo Nation, Division of Transportation ☒ Lisa Marra, Cochise County ☒ Heidi Yaqub, ADOT Multimodal Planning Division	**Consultant Staff:** ☒ Pam Keidel-Adams (PKA), Kimley-Horn (KHA) ☒ Thomas Gibson (TG), KHA ☒ Catherine Woodwell (CW), KHA ☒ Mary Ortega-Itsell (MOI), Genesis Consulting Group (GCG) **ADOT Aeronautics** ☒ Don Kriz, ADOT Aeronautics ☒ Matt Smith, ADOT Aeronautics
1	**Introductions & Agenda**	a. Self-Introduction for those in attendance and on the phone	
2	**SASP Process and Task Updates**	a. SASP Process • To provide a framework for integrated planning, development, and operations at airports in AZ aviation system b. SASP Update - PKA provided an update on the study process and status • Task 1 (Complete) – Define Goals, Performance Measures and Targets • Task 3 (Complete) – Inventory of Existing Assets	

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Task 2 (In progress) – Review of current policies is in discussions with ADOT based on changes within the organization. By the end of September, Task 2 should be complete.
c. One month behind original project schedule
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<tr><td>3</td><td>Updated Goals, Performance Measures, and System Indicators
Task 1</td><td>
a. PKA discussed the outcomes of Task 1 – Define Goals, Performance Measures and Targets
b. Updated 2017 SASP Goals
Safety and Security
Economic Support
Fiscal Responsibility
c. 2017 Performance Measures and Indicators
2017 Performance and Indicators will be carried through the entire study
Performance Measures – Action-oriented
System Indicators – Informational
Question: Marisa Walker, AZ Commerce Authority, asked if we should consider adding an indicator on the number of enplanements or passengers.
— Ans: PKA, Yes, we will add this indicator.

PKA provided examples of how the goal categories and performance measures would produce action-oriented data sets; Examples:
d. Goal Category Performance Measures
<table>
<tr><td>Safety and Security</td><td>Percent of airports controlling RPZ</td></tr>
<tr><td>Fiscal Responsibility</td><td>Number of airports with Master Plans</td></tr>
<tr><td>Economic Support</td><td>Percent of airports with 24/7 fuel</td></tr>
</table>
PKA provided examples of how the goal categories and system indicators would produce informational data sets. Example:
e. Goal Category System Indicators
<table>
<tr><td>Safety and Security</td><td>Percent of airports with Airport Emergency Plan (AEP)</td></tr>
<tr><td>Fiscal Responsibility</td><td>Percent of population within 30 min of NPIAS airport</td></tr>
<tr><td>Economic Support</td><td>Dollars of economic impact</td></tr>
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		Question: How are percentages of controlled RPZ quantified? — Ans: PKA stated that as part of the airport inventory and site visits, the question was asked if each airport controlled their RPZ. These questions produced a number value rather than a detailed analysis. Question: Is GIS being used in the RSA and RPZ analysis? — Ans: PKA, No Comment: FAA ADO spoke of a current push by the office to update 5010 data as it relates to obstructions/vegetation in the RPZ. ADO office can assist airports in updating their 5010 forms upon removal of obstructions/vegetation. ADO is reviewing form for compliance prior to issuing grants. Question: Are the performance measures listed by order of importance? — Ans: PKA, No
4	**Inventory Findings, Task 3**	a. TG presented the Inventory of Existing Airport Assets Section • Data gathering serves as a basis for all subsequent analysis • Contacted 86 airports for participation, with six declining to participate b. Inventory Findings - Based Aircraft • This summary compared based aircraft by type and year (2008 and 2016 data) to provide insight on how based aircraft have changed since the last system plan in 2008. The change in percent of total was compared. — Decline in percent of Single-engine based aircraft — Increase in percent of Jets, and Helicopter based aircraft c. Inventory Findings – Annual Aircraft Operations • This summary compared total operations by type and year (2008 and 2016 data) to provide insight on how aircraft operations have changed since the last system plan in 2008. The change in percent of total was compared: — Decrease in percent of Commercial Service operations (mergers, upgauging, etc.)

		— Increase in percent of General Aviation (GA) Local operations (flight schools) — Increase in percent of Military operations d. Inventory Findings – Passenger Enplanements • Increase of 0.76 percent (compound annual growth rate) from 2008 to 2016 e. Inventory Findings – Instrument Approach Procedures (IAPs) and Fueling • From 2008 to 2016, airports with at least one IAP has stayed constant. Data identified 40 airports with IAPs in 2008 and 38 in 2016. The difference is from airports in the 2008 study being removed from 2016 study (Stellar Airpark, Sky Ranch at Carefree Airport) • Decrease of airports providing AvGas, increase in airports providing fuel f. Arizona Amazing Airports (TG, CW, and MOI) provided some interesting and fun facts about the airports they visited during the inventory process • Aerial Wildland Firefighting – Sierra Vista Municipal Airport • Show Low Regional Airport – Fire Training • Tucson International Airport – Public joint civil-military airport • Grand Canyon Caverns Airport – Tourist/Research Attraction
5	**Airport Roles/Classifications Methodologies** **Task 5**	a. Classification system of Arizona airports is needed for: • Coordination of planning activities and facility needs • Funding by classification and system performance measures b. 2008 ADOT roles included 5 types of airports and included a definition of each type c. It is being proposed that updates/revisions to roles/classification should be considered based on industry changes, including FAA ASSET categories. The 2008 SASP included too many non-quantifiable factors. d. FAA National Plan of Integrated Airport Systems (NPIAS) ASSET classification works on a national level but not state level. ADOT classification system is tailored to Arizona system.

		e. The proposed 2017 classifications are modeled after the FAA ASSET criteria and significantly reduce the ADOT 2008 SASP methodology Proposed Classifications: • Commercial Service - International • Commercial Service - Domestic • Reliever • Reliever • GA – Community • GA – Rural • GA - Basic f. PKA walked PAC through an Airport Roles Decision Tree exercise, to arrive at quantifiable airport classifications. The decision tree is modeled after the FAA ASSET Program modified for the current Arizona system. g. PKA requested feedback to the proposed classifications, including what the proposed criteria range for each class should be, including: • **Commercial** – international or domestic • **Instrument operations** – 500 to 2,000 • **Operations** – 1,250 to 5,000 • **Based jets** – with or without jets • **Based aircraft** – 5 to 200 • **Fuel** – Jet-A and/or 100LL fuel g. A Role Methodology Options worksheet (Attachment) was distributed to the PAC, showing the proposed airport role, 2008 SASP classification explanation, and a proposed 2017 Methodology with a further breakdown by activity level. h. The results of the proposed Methodology, ARIZONA SASP UPDATE – Classification/Roles Methodology Summary Results (Attachment) was provided to detail the outcomes of the proposed classification/roles options. This attached also listed the results of the proposed classifications/roles results by airport for the entire system. Question: What is the purpose of using the low, medium, high activity methodology? — Ans: The purpose is to provide three options to classify airports in the system with a less strict requirement (low), a mid-level

		requirement (MED), and a strict requirement (HIGH). Testing each methodology was intended to provide an in-depth view of how each methodology would affect the current system Comment: PKA will develop a survey, to be distributed to the PAC, to allow more time for thoughts, comments, and deliberations and into the proposed Classification/Roles Methodology.
6	**Facility and Service Objectives**	a. Objectives are not based on standards or requirements, but based on proposed minimum levels of development b. The three general components under consideration: • General Airside • General Landside • Services c. PKA, led a group exercise to provide feedback on what recommended minimum levels of development should delineate each proposed airport role/classification Comment: PKA will develop a survey, to be distributed to the PAC, to allow more time for thoughts, comments, and deliberations into the proposed minimum level of development objectives Question: How are percentages of controlled RPZ quantified? — Ans: PKA stated that as part of the airport inventory and site visits, the question was asked if each airport controlled their RPZ. These questions produced a number value rather than a were important to the PAC c. Attachment – 2008 Facility and Service Objectives • Data based on airport criteria and minimum objectives
7	**Overview of Forecast Methodologies** **Task 4**	a. Elements of Forecasts Task • Industry trends review • Forecast indicators: — Based aircraft — General aviation ops • Comparison of GA activity indicators to TAF for NPIAS airports • Utilize TAF for enplanements and commercial activity • Identify design aircraft and operational activity by turbo jet and prop aircraft over 12,500 pounds. PKA discussed using the FAA Traffic Flow Management System Counts (TFMSC**)** to quantify these operations activities.

		Comment: FAA Phoenix ADO noted that he could run the same reports to ensure what data he gets coincides with study data (which other consultants have noted is sometimes different)
7	**Accomplishments, Feedback, and Next Steps**	a. Presented updated goals, performance measures, and system indicators b. Reviewed inventory findings c. Re-examined ADOT airport roles and classifications d. Discussed what services and facilities are most important for an airport based on role/classification e. Previewed Task 4, Aviation Forecast approach • Woolpert will be assisting KHA with Forecast Task
8	**Adjournment**	a. Contact information for Matt Smith and PKA provided

Action Items

Date	Action Item	Owner	Status/Notes
07/20/17	Publish on-line survey for feedback on proposed 2017 SASP Classification Methodology	KHA	Ongoing
	Publish on-line survey for feedback on Facilities and Services proposed Objectives	KHA	Ongoing
	Send Chapter One to PAC for Review	KHA	Ongoing
	Send FAA – Phoenix ADO sample of TFMSC	KHA	Sent