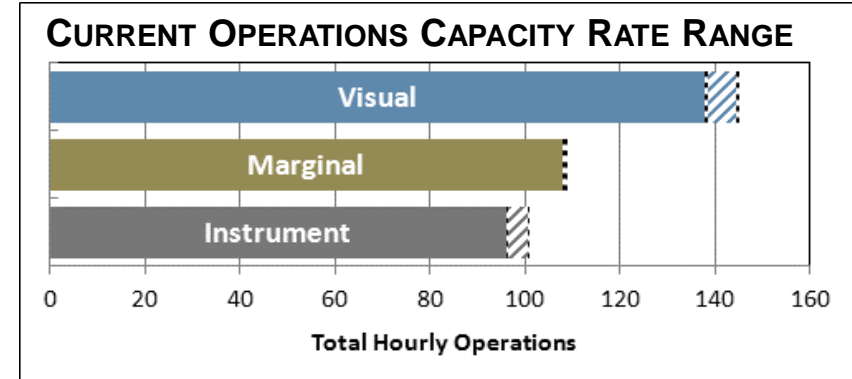


*Airport capacity profile estimates were created using a standard set of performance characteristics and do not take into account non-runway constraints, unless otherwise noted. The capacity estimates developed for this report are not intended to replace the results of any detailed analysis that would precede an environmental, investment, or policy decision.*

*The list of Future Improvements and their expected effects on capacity does not imply FAA commitment to, or approval of, any item on the list.*

**DEFINITION**

- The capacity profile shows the hourly throughput that an airport is able to sustain during periods of high demand, represented as the range between the model-estimated capacity and the ATC facility reported rate (called rate). Each weather condition has a unique capacity rate range.
- The following charts compare actual hourly traffic with the estimated capacity curves for PHX. Some few hourly traffic points fall outside the estimated capacity curves. There are many reasons why this may occur without affecting operational safety. For example, more aircraft may have been able depart on Runway 26 than were assumed in the analysis.

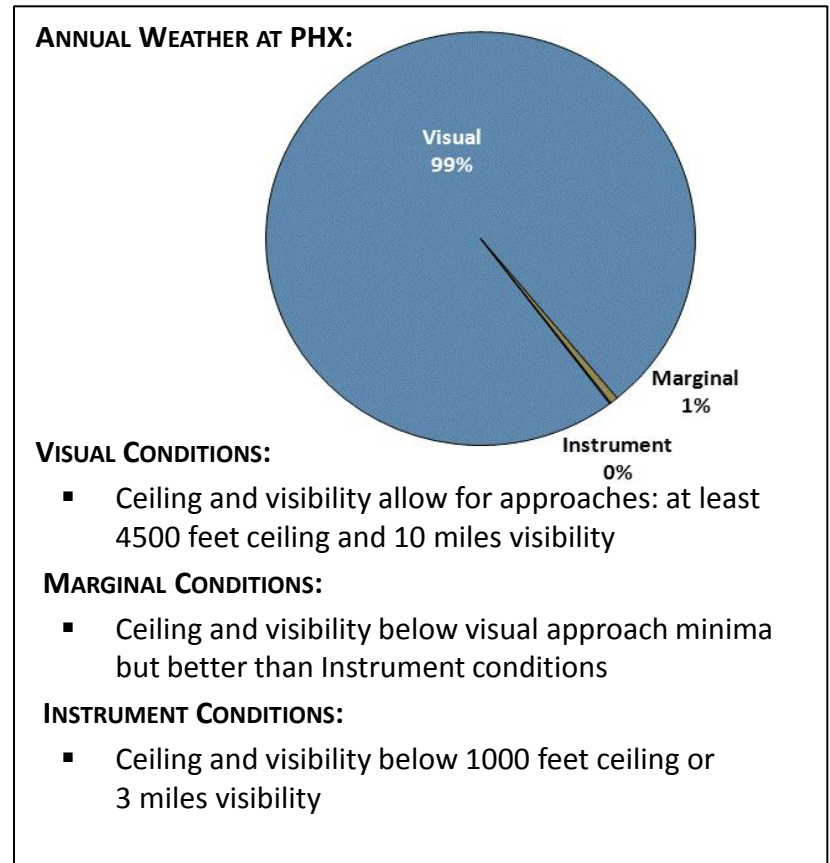


**FUTURE IMPROVEMENTS AT PHX**

- *Improved Parallel Runway Operations:* Current runway spacing allows for Simultaneous Instrument Approaches, however this procedure has not been implemented yet at PHX. It is unlikely that such approaches would be implemented until required by traffic levels and weather conditions.
- No improvements were modeled for PHX in Visual conditions.
- Additional information on these improvements may be found in this report under "Future Operation Assumptions."

**DATA SOURCES**

- Actual hourly PHX operations, weather and configuration data were obtained from the FAA ASPM database, and represent operational hours from 7am to 11pm local time for all of Fiscal Years 2009 and 2010. Actual configuration usage is determined by multiple operational factors, including weather conditions.
- Facility reported rates were provided by ATC personnel at PHX.
- Model-estimated rates are derived from operational information provided by ATC.



**VISUAL CONDITIONS:**

- Ceiling and visibility allow for approaches: at least 4500 feet ceiling and 10 miles visibility

**MARGINAL CONDITIONS:**

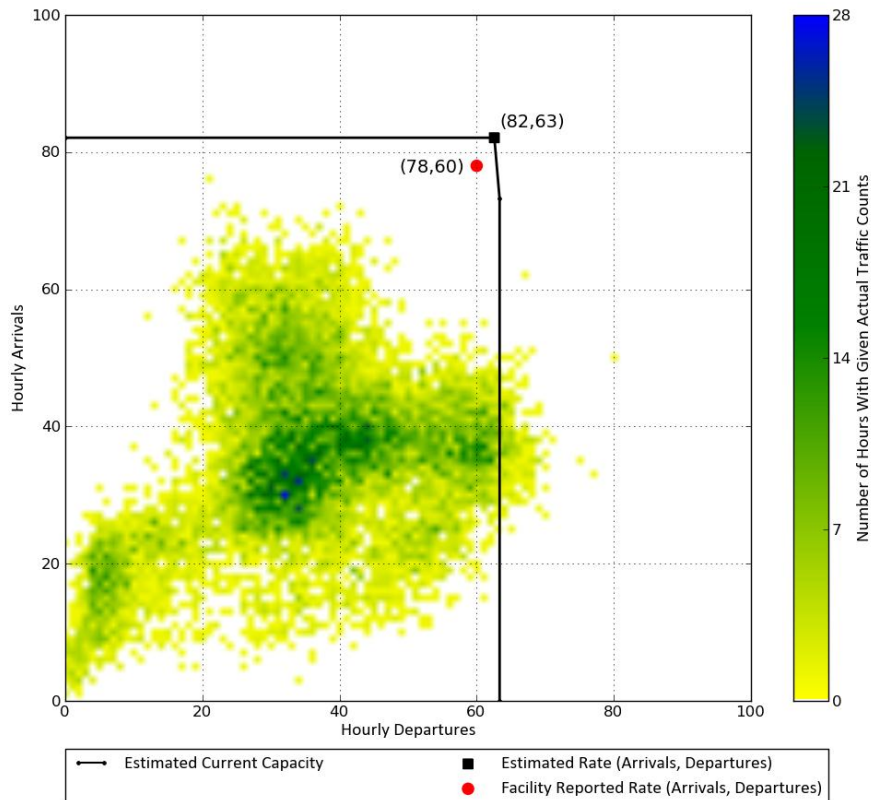
- Ceiling and visibility below visual approach minima but better than Instrument conditions

**INSTRUMENT CONDITIONS:**

- Ceiling and visibility below 1000 feet ceiling or 3 miles visibility

PHX Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	25L, 26	25R, 26	Visual Approaches, Visual Separation	138	145
<b>FUTURE IMPROVEMENTS</b>	25L, 26	25R, 26		N/A	145

## VISUAL WEATHER CONDITIONS



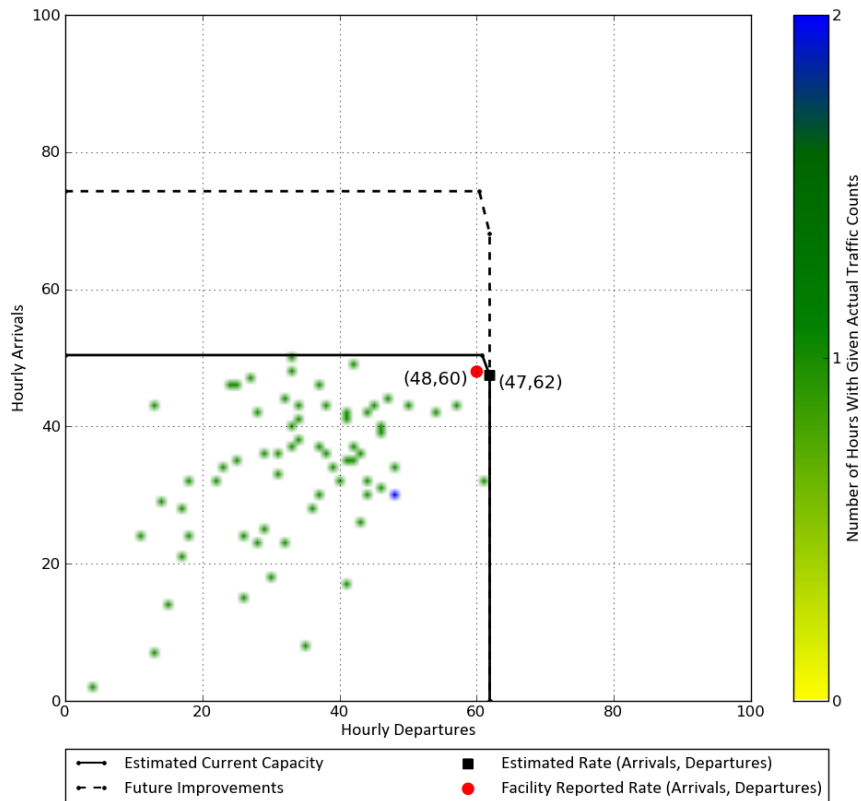
- The capacity rate range in Visual conditions is currently 138-145 operations per hour.
- PHX has two primary directional traffic flows. The airport operates in variations of this configuration approximately 48% of the time in Visual weather conditions (totaling 48% annually).
- Runway 26 is primarily used for arrivals, but due to parking location and operational necessity, some small aircraft utilize this runway for departure. Long-haul aircraft that require additional runway length because of high seasonal heat and the corresponding density altitude at PHX must also use Runway 26 for departure.

# MARGINAL

# PHOENIX SKY HARBOR INTERNATIONAL

PHX Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	25L, 26	25R, 26	Dependent Instrument Approaches, Visual Separation	108	109
<b>FUTURE IMPROVEMENTS</b> Improved Parallel Operations	25L, 26	25R, 26	Simultaneous Instrument Approaches, Visual Separation	N/A	130

## MARGINAL WEATHER CONDITIONS



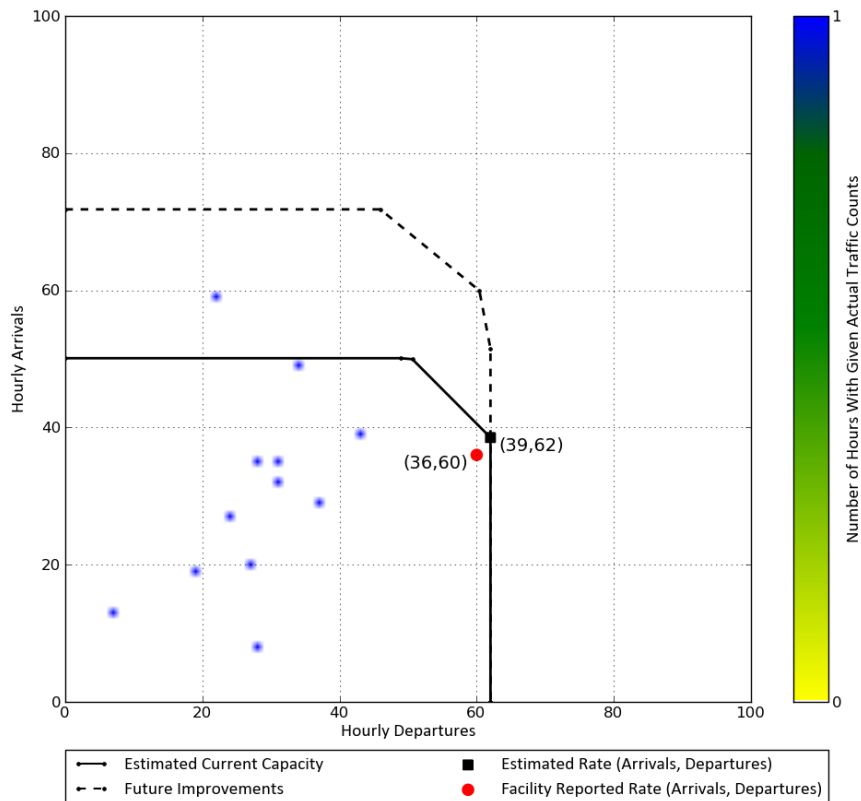
- The capacity rate range in Marginal conditions is currently 108-109 operations per hour.
- PHX has two primary directional traffic flows. The airport operates in variations of this configuration approximately 58% of the time in Marginal weather conditions (totaling less than 1% annually).
- Runway 26 is primarily used for arrivals, but due to parking location and operational necessity, some small aircraft utilize this runway for departure. Long-haul aircraft that require additional runway length because of high seasonal heat and the corresponding density altitude at PHX must also use Runway 26 for departure.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to Runways 25L and 26 at PHX.
- Peak arrival capacity is estimated to increase as future improvements are implemented.

# INSTRUMENT

# PHOENIX SKY HARBOR INTERNATIONAL

PHX Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	25L, 26	25R, 26	Dependent Instrument Approaches, Radar Separation	96	101
<b>FUTURE IMPROVEMENTS</b> Improved Parallel Operations	25L, 26	25R, 26	Simultaneous Instrument Approaches, Radar Separation	N/A	114

## INSTRUMENT WEATHER CONDITIONS



- The capacity rate range in Instrument conditions is currently 96-101 operations per hour.
- PHX has two primary directional traffic flows. The airport operates in variations of this configuration approximately 67% of the time in Instrument weather conditions (totaling less than 1% annually).
- Runway 26 is primarily used for arrivals, but due to parking location and operational necessity, some small aircraft utilize this runway for departure. Long-haul aircraft that require additional runway length because of high seasonal heat and the corresponding density altitude at PHX must also use Runway 26 for departure.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to Runways 25L and 26 at PHX.
- Peak arrival capacity is estimated to increase as future improvements are implemented.