

*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 DFW.

## RECENT CAPACITY IMPROVEMENTS AT DFW

- Implementation of Traffic Management Advisor (TMA) helps to improve the flow of arrivals to the runways.

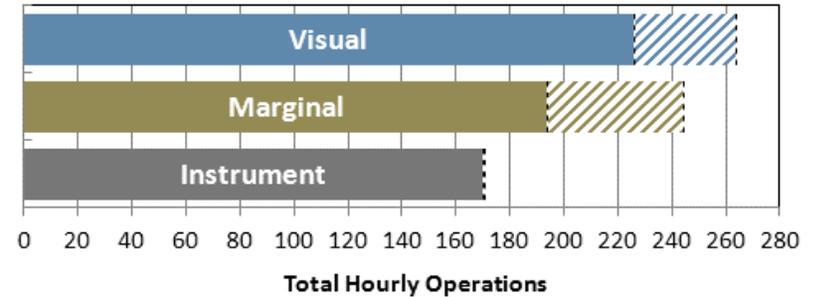
## FUTURE IMPROVEMENTS AT DFW

- *Improved Runway Delivery Accuracy:* The combined effects of several new capabilities, including ADS-B Out, CDTI, and TBM in the terminal area, will improve the ability of controllers by 2020 to deliver aircraft to the runway with the desired separation from the preceding aircraft. This will reduce the average spacing between arrivals and boost arrival capacity.
- Additional information on improvements may be found in this report under "Future Operation Assumptions."

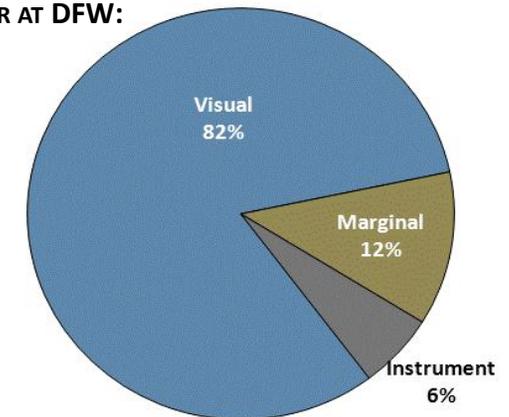
## DATA SOURCES

- Actual hourly DFW 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 DFW.
- Model-estimated rates are derived from operational information provided by ATC.

## CURRENT OPERATIONS CAPACITY RATE RANGE



## ANNUAL WEATHER AT DFW:



### VISUAL CONDITIONS:

- Ceiling and visibility allow for visual approaches: at least 3500 feet ceiling and 5 miles visibility

### MARGINAL CONDITIONS:

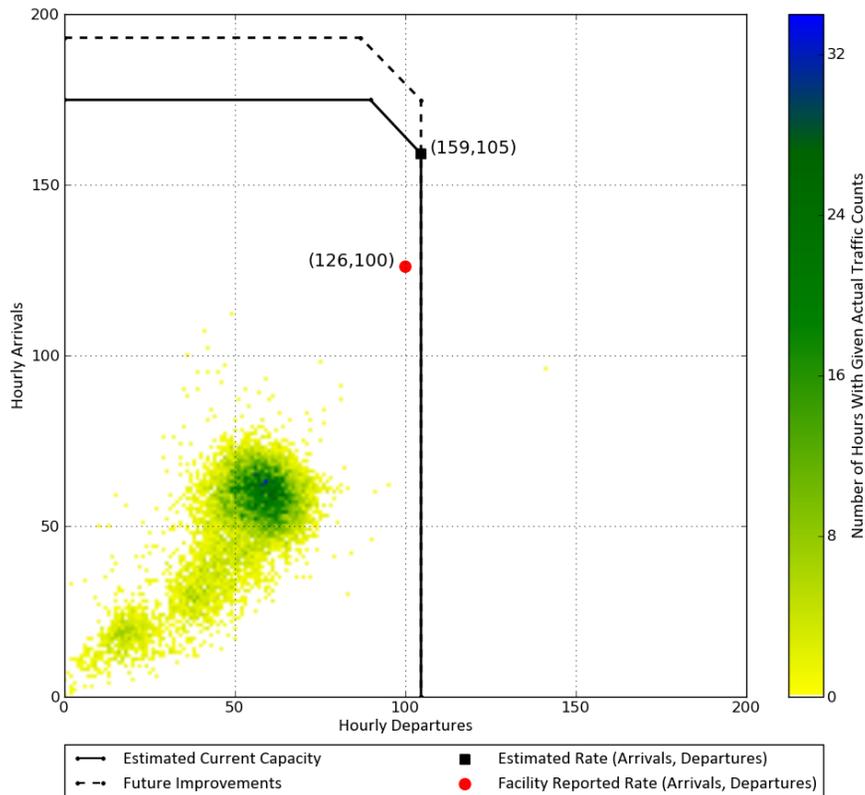
- Ceiling and visibility below visual approach minima but better than Instrument conditions

### INSTRUMENT CONDITIONS:

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

DFW Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	13R, 17C, 17L, 18R	13L, 17R, 18L	Visual Approaches, Visual Separation	226	264
<b>FUTURE IMPROVEMENTS</b> Improved Runway Delivery Accuracy	13R, 17C, 17L, 18R	13L, 17R, 18L		N/A	280

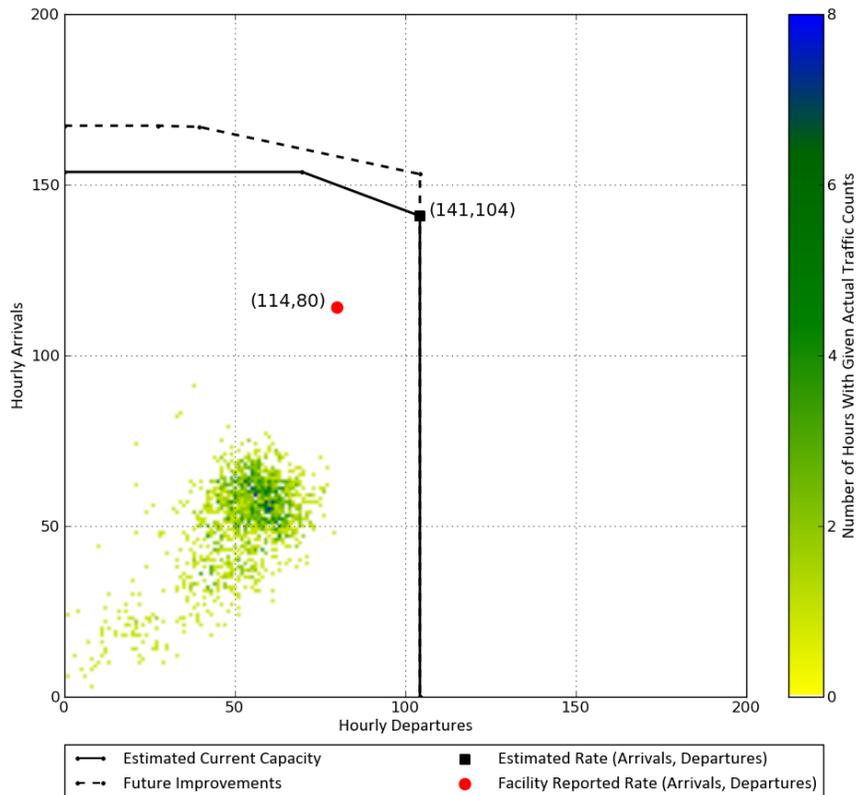
## VISUAL WEATHER CONDITIONS



- The capacity rate range in Visual conditions is currently 226-264 operations per hour.
- DFW has two primary directional traffic flows. The airport operates in variations of this configuration approximately 69% of the time in Visual weather conditions (totaling 57% annually).
- Operations on Runway 13L are typically limited to propeller aircraft due to noise restrictions.
- Same runway departure fanning is conducted from Runways 17R and 18L. This procedure enables higher departure throughput by reducing the minimum time required between successive departures.
- Visual separation is applied between converging arrivals to Runways 13R and 18R.

DFW Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	13R, 17C, 17L, 18R	13L, 17R, 18L	Triple Simultaneous Instrument Approaches to Runways 17C, 17L and 18R, Instrument Approach to 13R, Visual Separation	194	245
<b>FUTURE IMPROVEMENTS</b> Improved Runway Delivery Accuracy	13R, 17C, 17L, 18R	13L, 17R, 18L		N/A	257

## MARGINAL WEATHER CONDITIONS



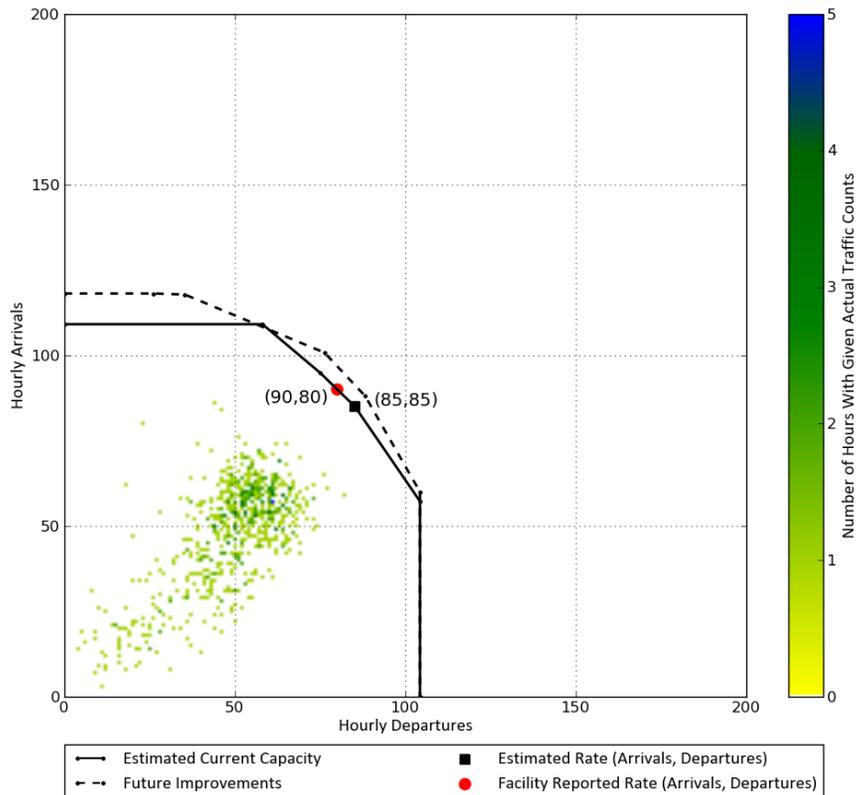
- The capacity rate range in Marginal conditions is currently 194-245 operations per hour.
- DFW has two primary directional traffic flows. The airport operates in variations of this configuration approximately 56% of the time in Marginal weather conditions (totaling 7% annually).
- Operations on Runway 13L are typically limited to propeller aircraft due to noise restrictions.
- Same runway departure fanning is conducted from Runways 17R and 18L. This procedure enables higher departure throughput by reducing the minimum time required between successive departures.
- Visual separation is applied between converging arrivals to Runways 13R and 18R.
- Reduced separation (2.5 NM) between arrivals is authorized for all runways at DFW.

# INSTRUMENT

# DALLAS/FORT WORTH INTERNATIONAL

DFW Scenario	Arrival Runways	Departure Runways	Procedures	Hourly Rate	
				ATC Facility Reported	Model-Estimated
<b>CURRENT OPERATIONS</b>	17C, 17L, 18R	13L, 17R, 18L	Triple Simultaneous Instrument Approaches, Radar Separation	170	170
<b>FUTURE IMPROVEMENTS</b> Improved Runway Delivery Accuracy	17C, 17L, 18R	13L, 17R, 18L		N/A	176

## INSTRUMENT WEATHER CONDITIONS



- The capacity rate range in Instrument conditions is currently 170 operations per hour.
- DFW has two primary directional traffic flows. The airport operates in variations of this configuration approximately 40% of the time in Instrument weather conditions (totaling 2% annually).
- Operations on Runway 13L are typically limited to propeller aircraft due to noise restrictions.
- Same runway departure fanning is conducted from Runways 17R and 18L. This procedure enables higher departure throughput by reducing the minimum time required between successive departures.
- Reduced separation (2.5 NM) between arrivals is authorized for all runways at DFW.