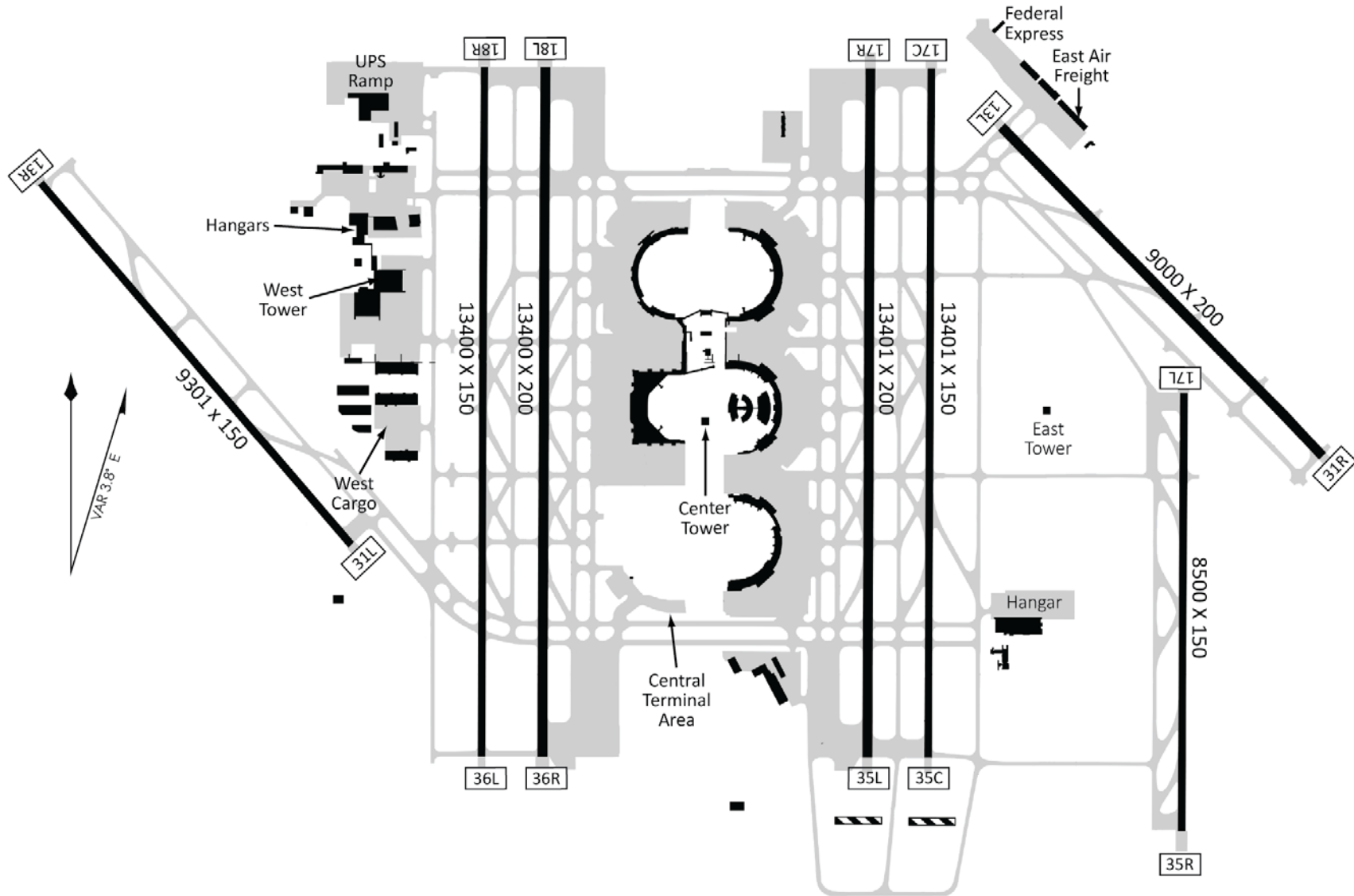


AIRPORT CAPACITY PROFILE: DALLAS/FORT-WORTH INTERNATIONAL AIRPORT



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.

DALLAS/FORT-WORTH INTERNATIONAL AIRPORT OVERVIEW

About this Airport Capacity Profile

- 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.
- For each weather scenario, capacity estimates are based on information provided by ATC, including reported arrival and departure rates.

Recent Capacity Changes at DFW

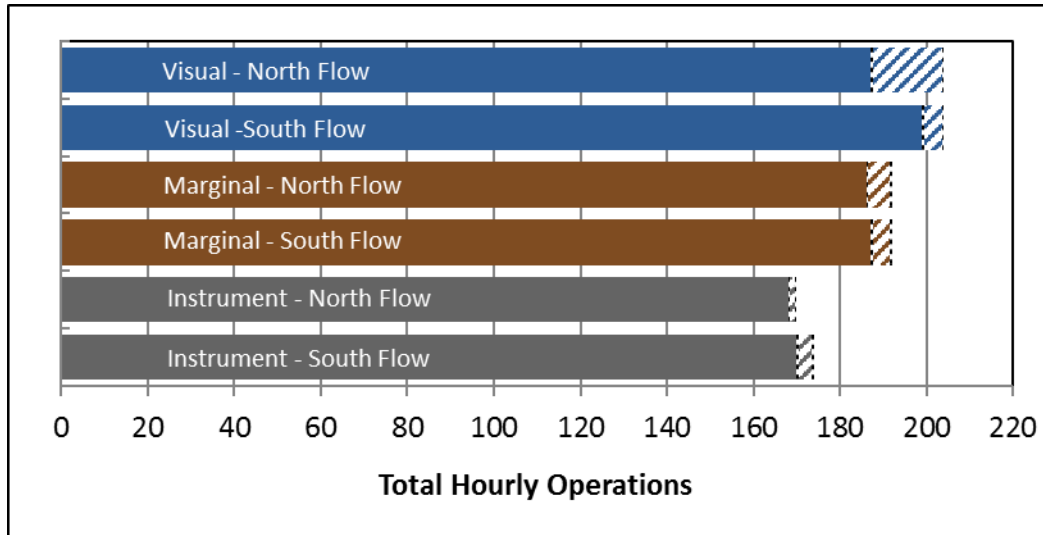
- Time-Based Flow Management (TBFM) helps to improve the flow of arrivals to the runways.
- Arrival-Departure Window (ADW) helps to minimize the long-term risk associated with arrival and departure operations on intersecting and converging runways. A range window prior to the arrival runway threshold is depicted on the controller's radar monitor. The departing flight cannot be released if the arrival is within that window, minimizing the risk of separation loss with the departing aircraft in the event the arrival executes a missed approach. DFW has an ADW in place for operations between Runways 31R and 35L for the North Flow, and Runways 13R and 18L for the South Flow. The ADWs were implemented at DFW in May 2014.

Future Improvements at DFW

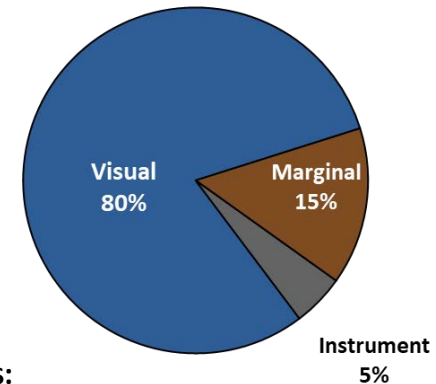
- Improved Runway Delivery Accuracy: The combined effects of several new capabilities, including Automatic Dependent Surveillance-Broadcast (ADS-B) Out, Cockpit Display of Traffic Information (CDTI), and Terminal Sequencing and Spacing (TSAS) in the terminal area, will improve the ability of controllers 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.
- Wake Recategorization Phase 1 assigns aircraft to new wake turbulence classifications based on their wake turbulence characteristics, such as wake generation, wake decay, and encounter effects. This results in closer longitudinal separation for certain aircraft types without sacrificing safety.
- End Around Taxiways on the northeast and southwest sides of the airport will improve surface efficiency with reduced taxi times and delay.

DALLAS/FORT-WORTH INTERNATIONAL AIRPORT OVERVIEW - 2

CURRENT OPERATIONS CAPACITY RATE RANGE



ANNUAL WEATHER CONDITIONS



VISUAL CONDITIONS:

- Ceiling and visibility allow for visual approaches: at least 3000 feet ceiling and 7 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

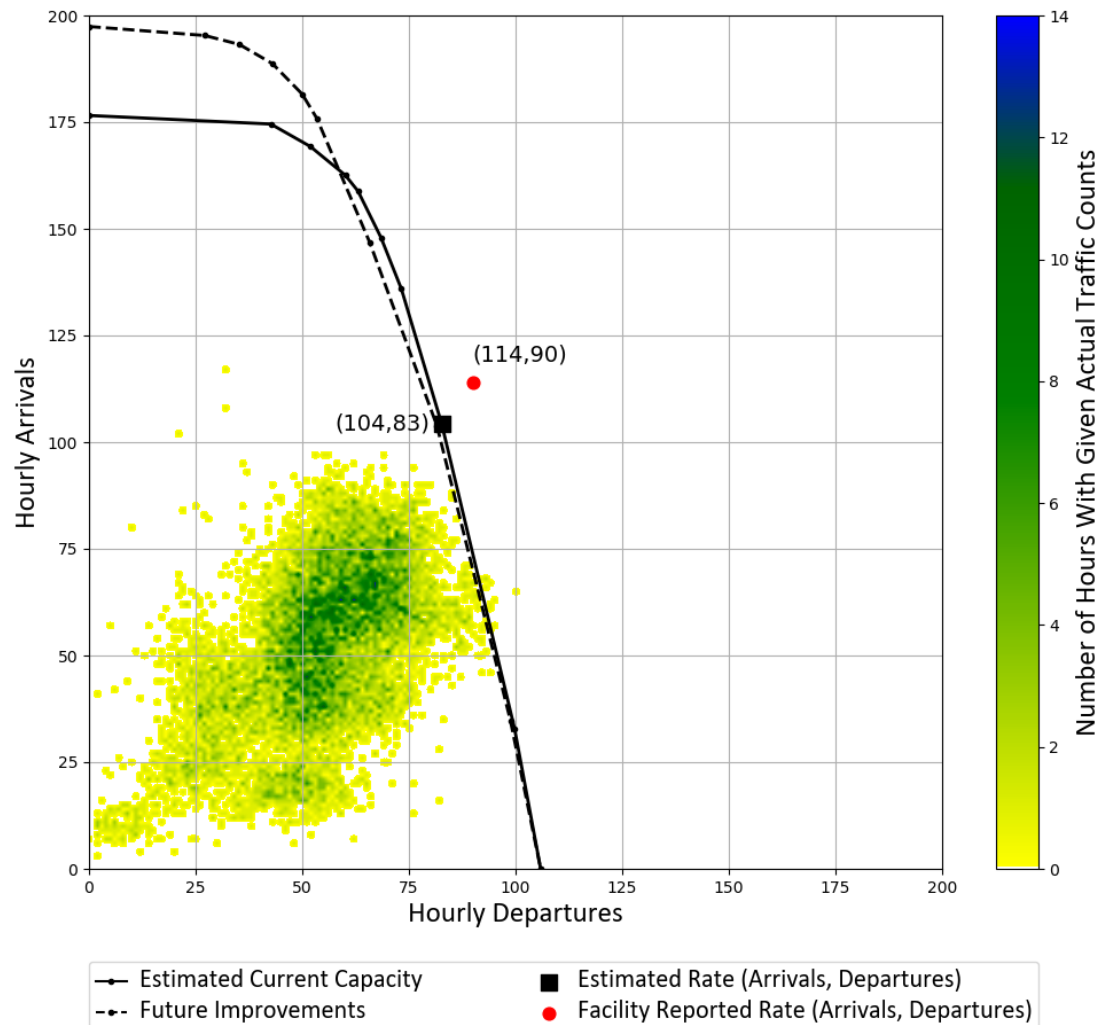
Data Sources

- 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 October 2015 through September 2017. 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.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	31R,35C,35R,36L	31L,35L,36R	204	187
FUTURE IMPROVEMENTS	31R,35C,35R,36L	31L,35L,36R	N/A	187

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Visual conditions in North flow is currently 187-204 operations per hour.
- The airport does not use visual spacing behind B757s and Heavy aircraft in visual conditions.
- The airport has an ADW in place for arrivals to 31R and departures from 35L.
- A380s and B748s can currently only operate on Runways 36L and 36R.

VISUAL WEATHER CONDITIONS

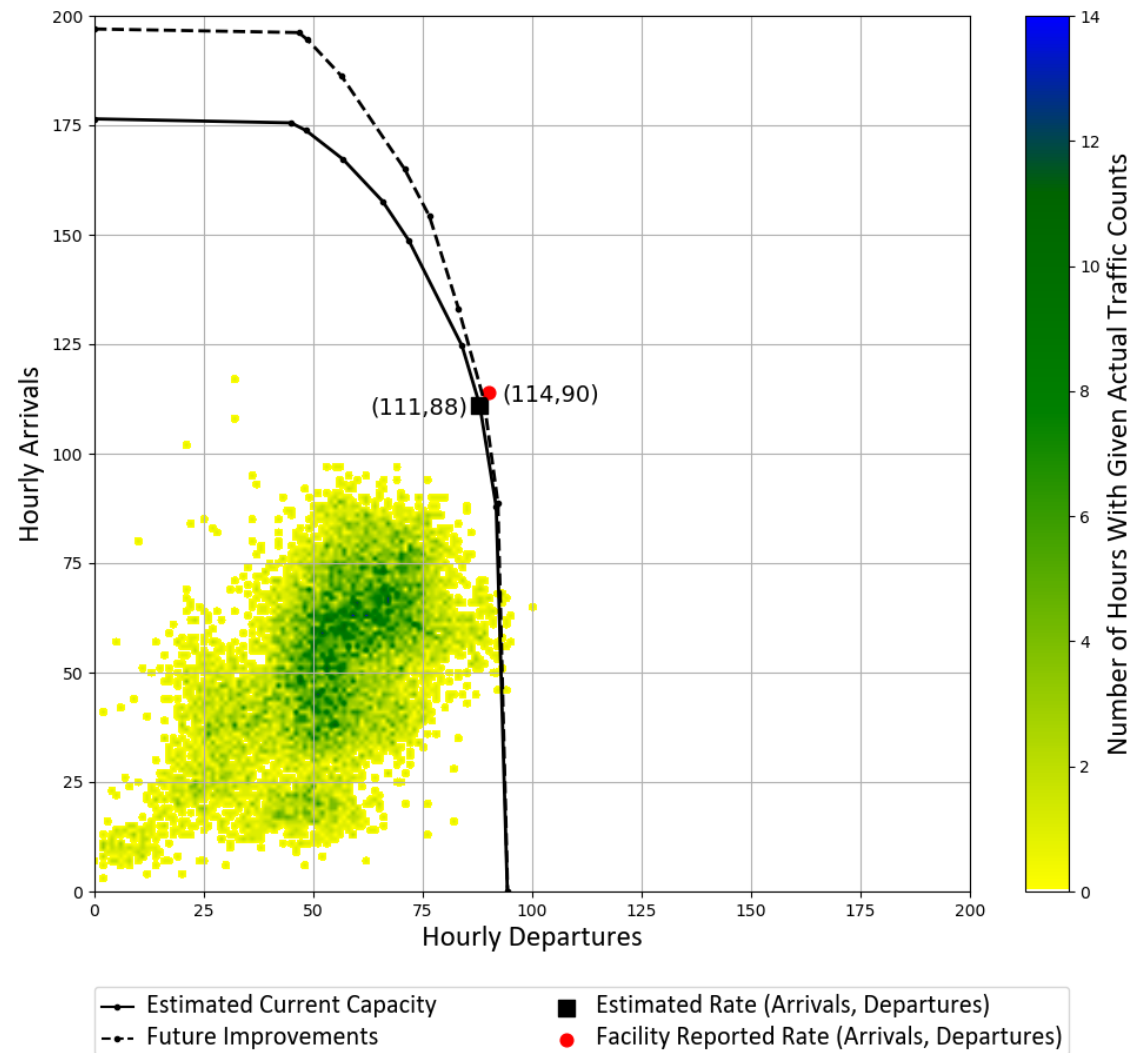


Actual traffic counts shown are for all Visual hours, all configurations.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	13R,17C,17L,18R	17R,18L	204	199
FUTURE IMPROVEMENTS	13R,17C,17L,18R	17R,18L	N/A	201

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Visual conditions in South flow is currently 199-204 operations per hour.
- The airport does not use visual spacing behind B757s and Heavy aircraft in visual conditions.
- The airport has an ADW in place for arrivals to 13R and departures from 18L.
- A380s and B748s can currently only operate on Runways 18L and 18R.

VISUAL WEATHER CONDITIONS

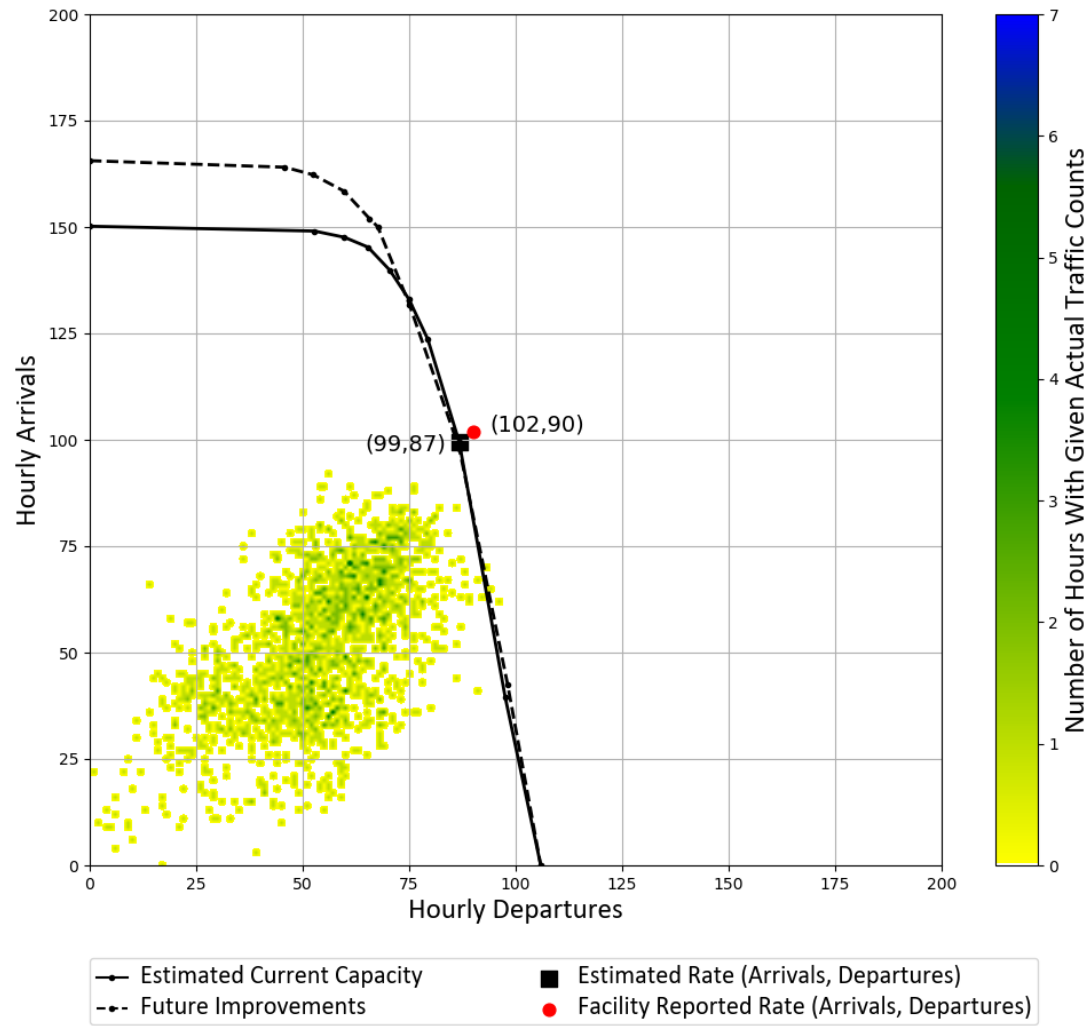


Actual traffic counts shown are for all Visual hours, all configurations.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	31R,35C,35R,36L	31L,35L,36R	192	186
FUTURE IMPROVEMENTS	31R,35C,35R,36L	31L,35L,36R	N/A	186

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Marginal conditions in North flow is currently 186-192 operations per hour.
- The airport does not use visual spacing behind B757s and Heavy aircraft in marginal conditions.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to runways 31R, 35C, 35R, 36L at DFW.
- The airport has an ADW in place for arrivals to 31R and departures from 35L.
- A380s and B748s can currently only operate on Runways 36L and 36R.

MARGINAL WEATHER CONDITIONS

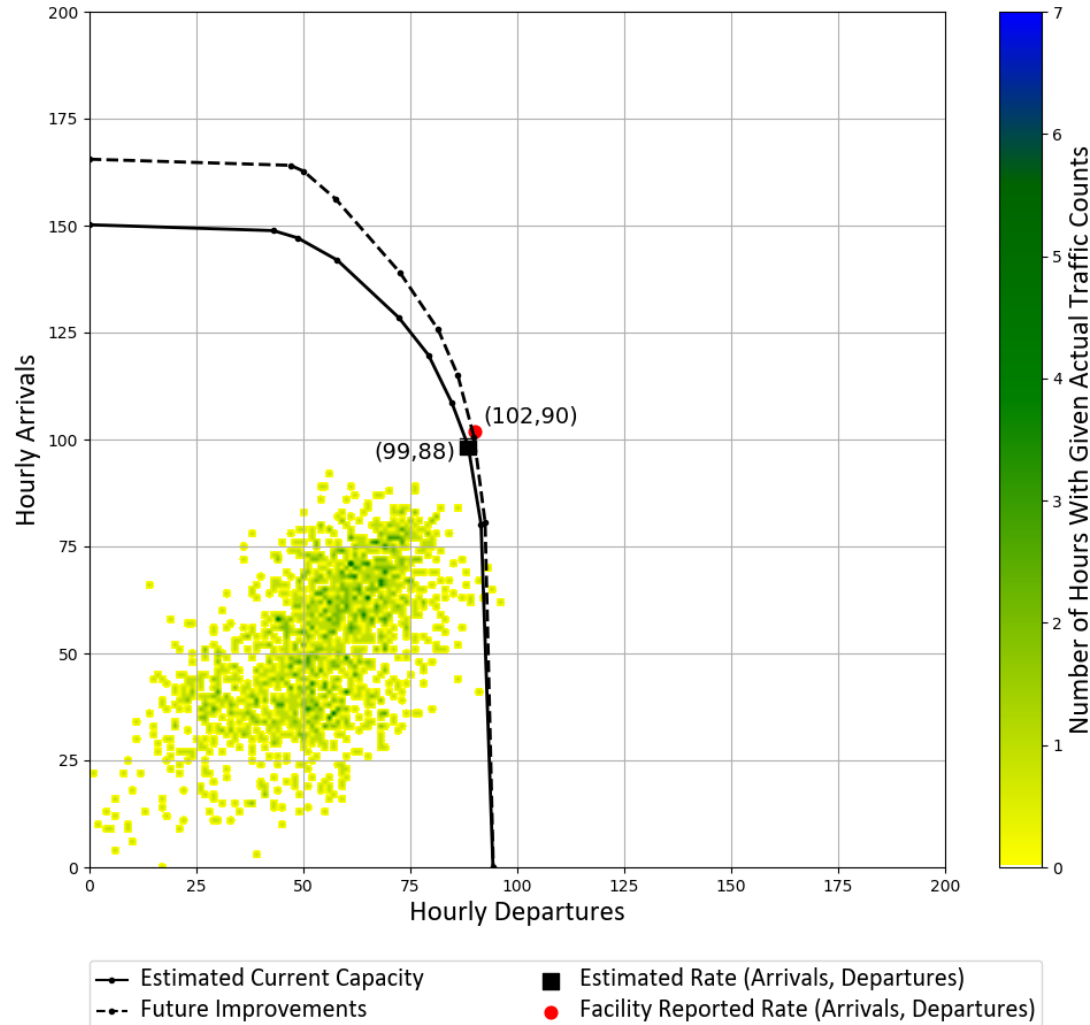


Actual traffic counts shown are for all Marginal hours, all configurations.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	13R,17C,17L,18R	17R,18L	192	187
FUTURE IMPROVEMENTS	13R,17C,17L,18R	17R,18L	N/A	191

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Marginal conditions in South flow is currently 187-192 operations per hour.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to runways 13R, 17C, 17L, 18R at DFW.
- The airport does not use visual spacing behind B757s and Heavy aircraft in marginal conditions.
- The airport has an ADW in place for arrivals to 13R and departures from 18L.
- A380s and B748s can currently only operate on Runways 18L and 18R.

MARGINAL WEATHER CONDITIONS

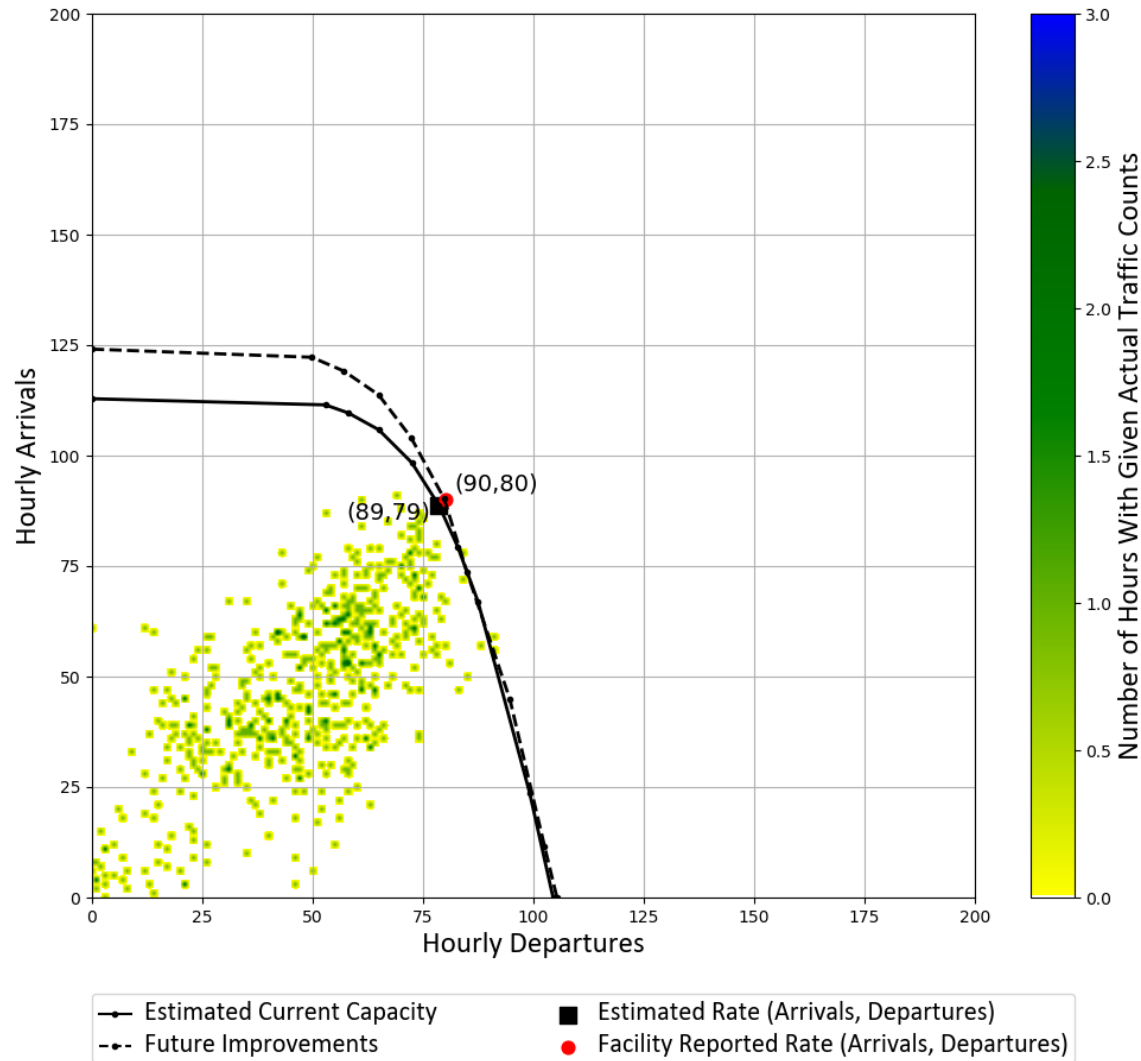


Actual traffic counts shown are for all Marginal hours, all configurations.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	35C,35R,36L	31L,35L,36R	170	168
FUTURE IMPROVEMENTS	35C,35R,36L	31L,35L,36R	N/A	170

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Instrument conditions in North flow is currently 168-170 operations per hour.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to runways 35C, 35R, 36L at DFW.
- A380s and B748s can currently only operate on Runways 36L and 36R.

INSTRUMENT WEATHER CONDITIONS

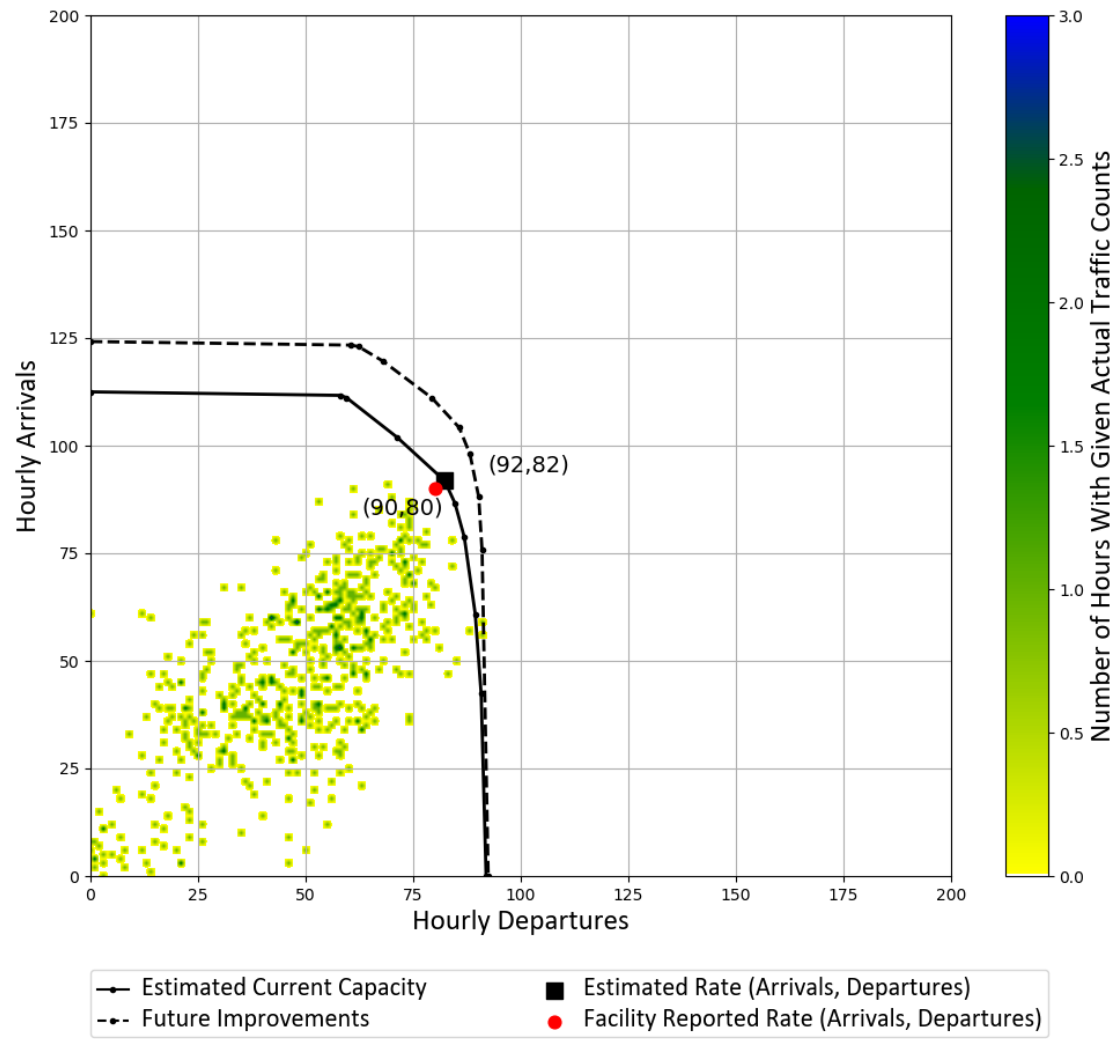


Actual traffic counts shown are for all Instrument hours, all configurations.

Type Operations	Arrival Runways	Departure Runways	Hourly Rate	
			ATC Facility Reported	Model-Estimated
CURRENT OPERATIONS	17C,17L,18R	17R,18L	170	174
FUTURE IMPROVEMENTS	17C,17L,18R	17R,18L	N/A	186

- **Future improvements:** Improved Runway Delivery Accuracy, Wake Recategorization Phase 1, End Around Taxiways.
- The capacity rate range in Instrument conditions in South flow is currently 170-174 operations per hour.
- Reduced separation (2.5 NM) between arrivals is authorized for instrument approaches to runways 17C, 17L, 18R at DFW.
- A380s and B748s can currently only operate on Runways 18L and 18R.

INSTRUMENT WEATHER CONDITIONS

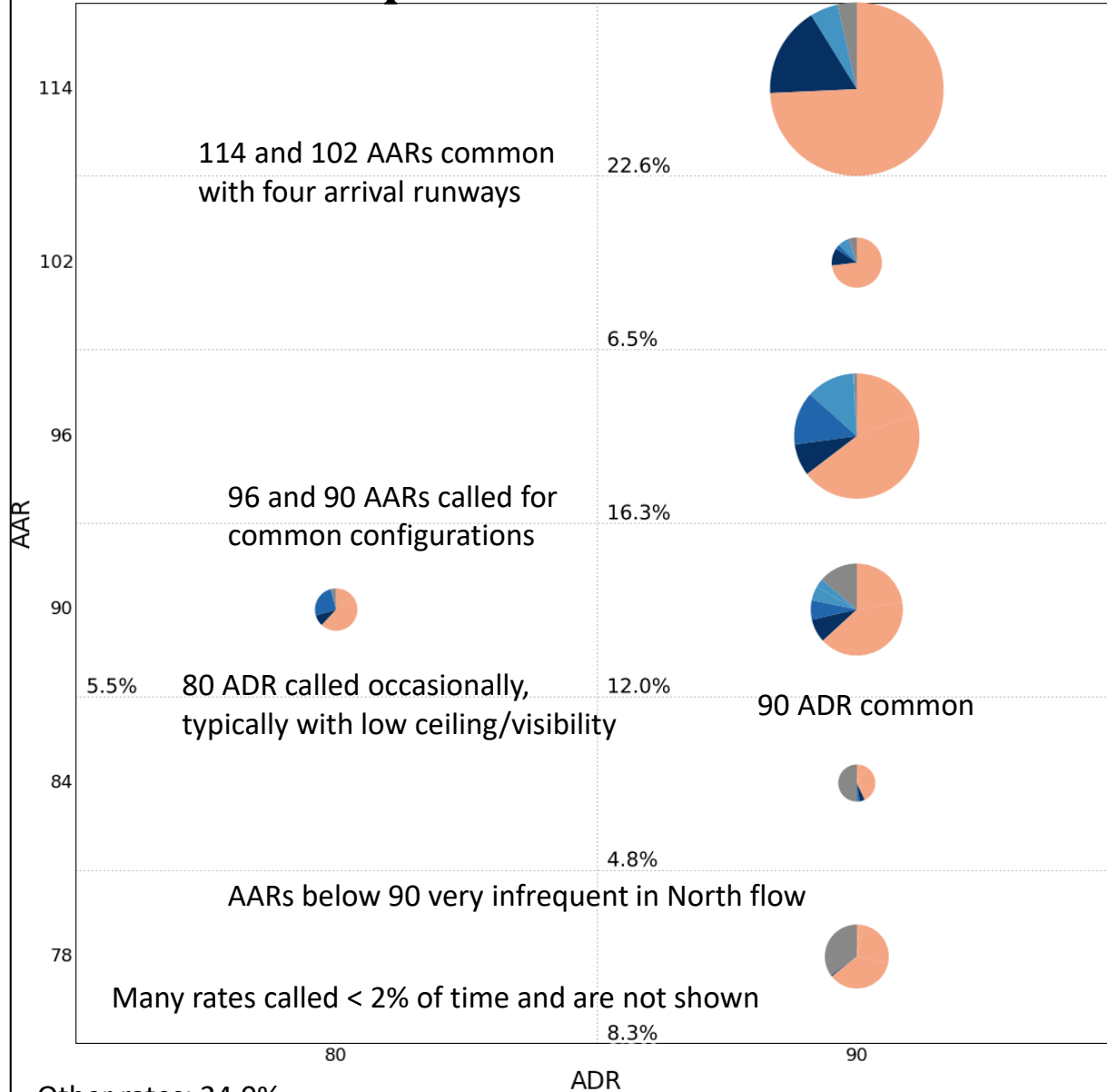


Actual traffic counts shown are for all Instrument hours, all configurations.

HISTORICAL CALLED RATE AND CONFIGURATION USAGE BY FLOW

NORTH FLOW – HISTORICAL USAGE

Airport Called Rates*



Other rates: 24.0%

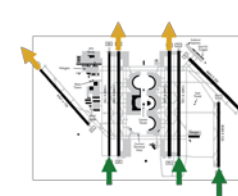
Color indicates configuration

* Rates for all hours regardless of configuration, minimum 2% of time

NORTH FLOW FACILITY REPORTED RATES		
114,90 (VMC)	102,90 (MMC)	90,80 (IMC)

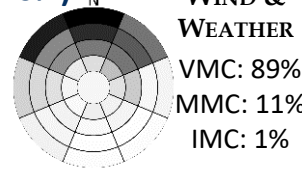
Configuration Usage

31R,35C,35R,26L | 31L,35L,36R (10%)

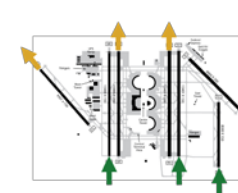


RATES

114,90 (42%)
96,90 (15%)
90,90 (11%)
102,90 (8%)
90,80 (5%)

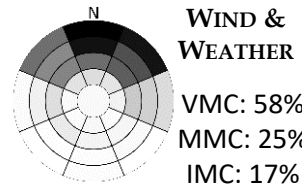


35C,35R,36L | 31L,35L,36R (6%)



RATES

96,90 (40%)
90,80 (25%)
90,90 (15%)
84,80 (10%)



Other North Flow > 2%

- 35C,35R,36L | 35L,36R (3%)
- 31R,35C,35R,36L | 35L,36R (2%)

South Flow Configurations

Other Configurations

Key

Arrivals | Departures (% of time in configuration)



RATES

90,90 (90%) Rates called at least 5% of time when configuration used

WIND & WEATHER



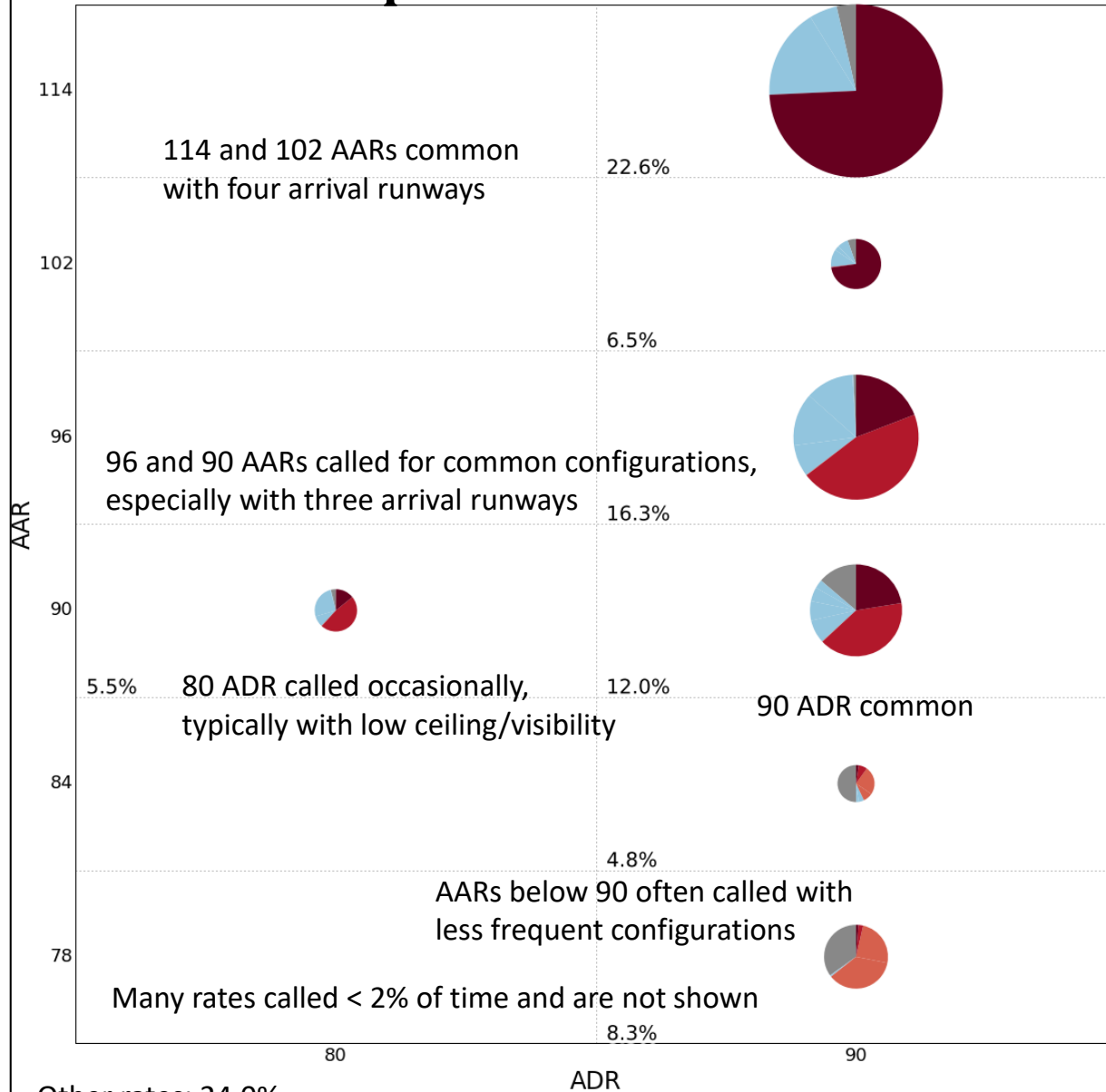
Wind speeds increase away from center (3 knot increments)

More common winds are darker

% of time spent in VMC/MMC/IMC when configuration used

SOUTH FLOW – HISTORICAL USAGE

Airport Called Rates*



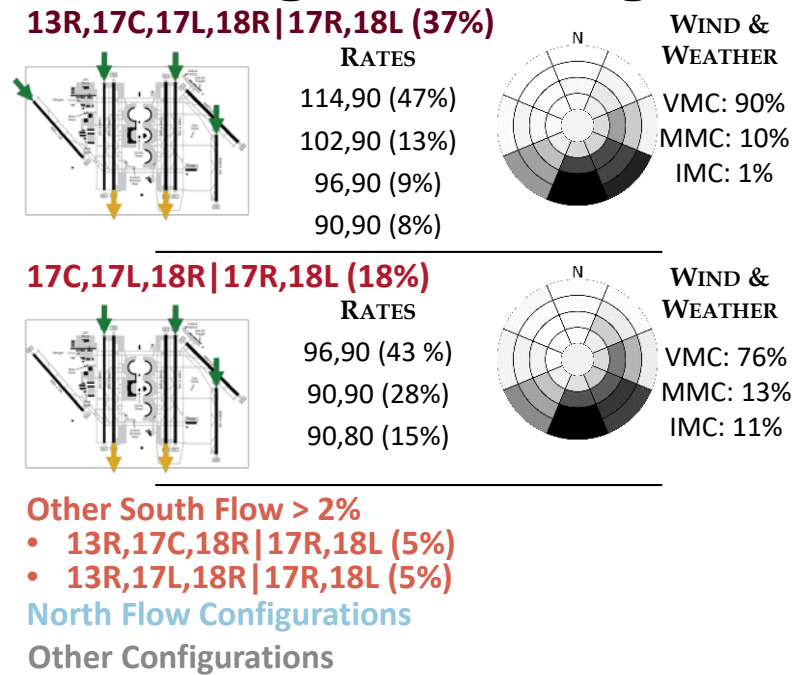
Other rates: 24.0%

Color indicates configuration

* Rates for all hours regardless of configuration, minimum 2% of time

SOUTH FLOW FACILITY REPORTED RATES		
114,90 (VMC)	102,90 (MMC)	90,80 (IMC)

Configuration Usage



Key

Arrivals | Departures (% of time in configuration)



RATES

90,90 (90%) Rates called at least 5% of time when configuration used

WIND & WEATHER



Wind speeds increase away from center (3 knot increments)

More common winds are darker

% of time spent in VMC/MMC/IMC when configuration used