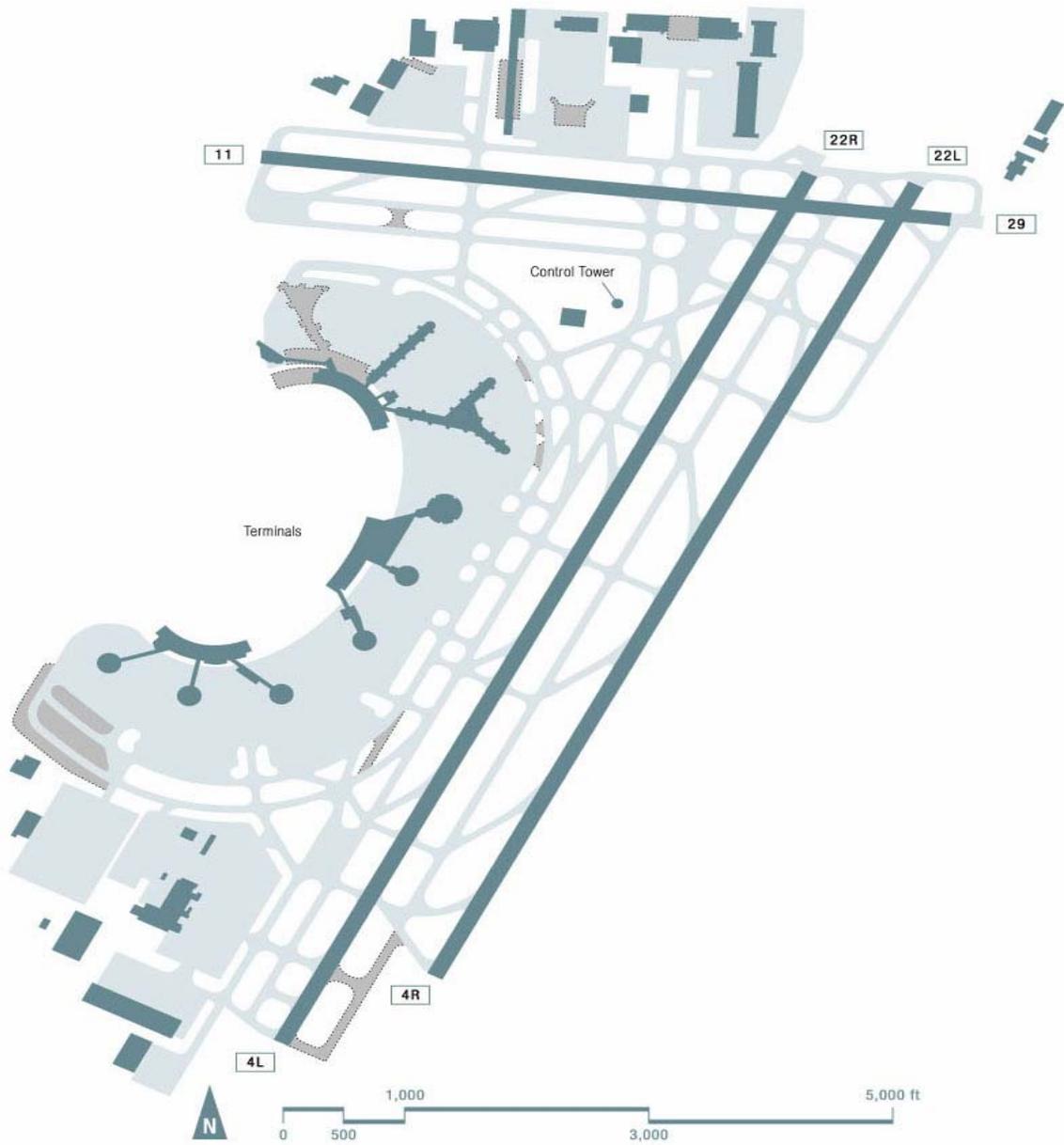


NEWARK – Newark Liberty International (EWR)



NEWARK – Newark Liberty International Airport (EWR)

Benchmark Results

- The capacity benchmark for Newark Liberty International Airport today is 84-92 flights per hour (arrivals and departures) in Optimum weather.
- The benchmark rate decreases to 80-81 flights per hour in Marginal conditions and to 61-66 flights per hour in IFR conditions.
- Note that these benchmarks represent balanced operations. Greater throughput may be possible during arrival or departure peaks.
- The most common runway configuration used in Optimum conditions today is arrivals on Runway 22L with occasional arrivals on Runway 11, and departures on Runway 22R with occasional departures on Runway 29.
- For future capacity benchmark calculations, the configuration yielding the best capacity in the Optimum and Marginal scenarios was usage of the parallels, i.e., arrivals on Runways 4L and 4R with departures on Runway 4L. The usage of this configuration assumes an airspace redesign and paired approaches in Marginal conditions based on either SOIA or RPAT procedures.
- In the following charts, please note that a number of hourly traffic points fall outside the calculated capacity curves at EWR. There are many possible reasons why this may occur without affecting operational safety. Higher throughputs may be possible when more than the average number of flights can use the secondary runway 11/29. Also, higher throughputs may be enabled by more efficient sequencing of aircraft, or by better than average pilot and controller performance. Lastly, actual weather conditions during the hour may have been better than the hourly readings in the database, allowing more efficient ATC procedures than were modeled.

These values were calculated for the Capacity Benchmarking task and should not be used for other purposes, particularly if more detailed analyses have been performed for the airport or for the individual programs.

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

NEWARK – Newark Liberty International Airport (EWR)

Weather	Scenario	Configuration	Procedures	Benchmark Rate (per hour)
Optimum Rate Ceiling and visibility above minima for visual approaches (3000 ft ceiling and 4 mi visibility) <i>Occurrence: 82%</i>	Today	Arrivals on Runway 22L (and 11) Departures on 22R (and 29) <i>Frequency of Use: 57% in Optimum conditions</i>	Visual approaches, visual separation	84-92
	New Runway	N/A		N/A
	Planned improvements (2013)	Arrivals on Runway 4R, 4L Departures on 4L		93
Marginal Rate Below visual approach minima but better than instrument conditions <i>Occurrence: 9%</i>	Today	Arrivals on Runway 4R Departures on 4L <i>Frequency of Use: 58% in Marginal conditions</i>	Instrument approaches, visual separation	80-81
	New Runway	N/A		N/A
	Planned improvements (2013)	Arrivals on Runway 4R, 4L Departures on 4L		86
IFR Rate Instrument conditions (ceiling < 1000 ft or visibility < 3.0 miles) <i>Occurrence: 9%</i>	Today	Arrivals on Runway 4R Departures on 4L <i>Frequency of Use: 62% in IFR conditions</i>	Instrument approaches, radar separation	61-66
	New Runway	N/A		N/A
	Planned improvements (2013)	Same		61

NOTE: Data on frequency of occurrence of weather and runway configuration usage is based on FAA ASPM data for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time.

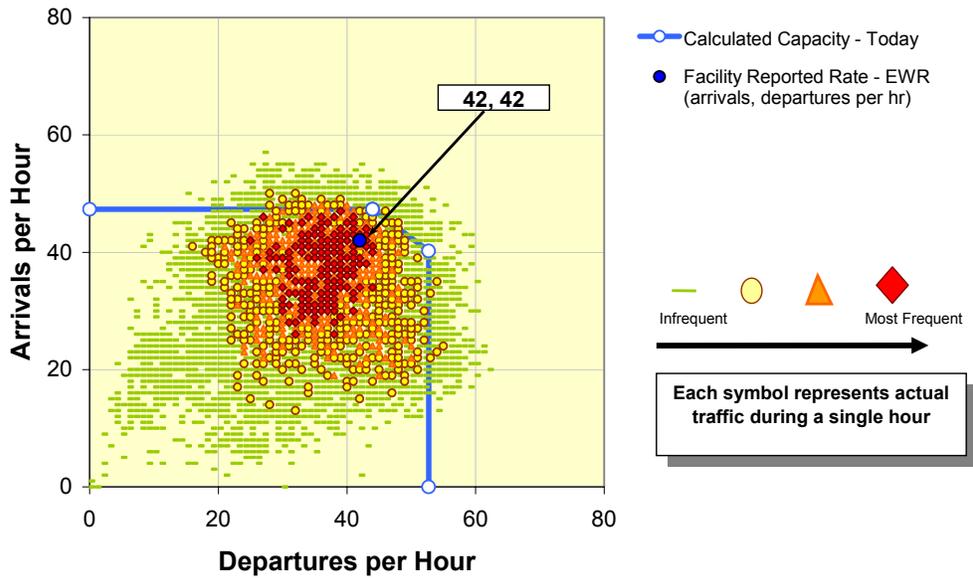
Planned Improvements at EWR include:

- CEFRR, for reduced in-trail separations between arrivals in Marginal conditions.
- Utilization of the parallel runways, 4L and 4R, for paired approaches. In Marginal conditions, such approaches might be enabled by SOIA (with PRM) or RPAT procedures.
- Airspace redesign.

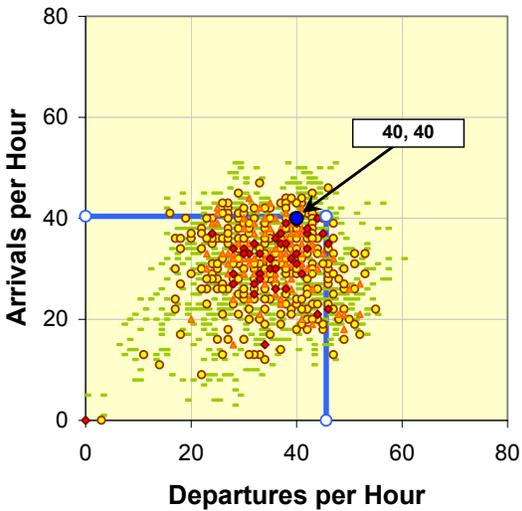
Additional information on these improvements may be found in the Introduction and Overview of this report, under “Assumptions.”

Calculated Capacity (Today) and Actual Throughput

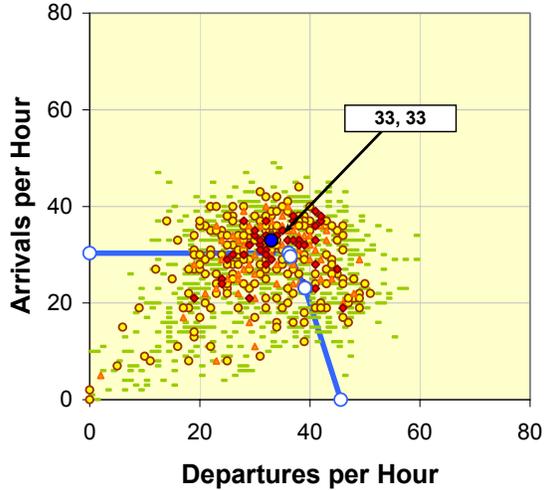
Optimum Rate



Marginal Rate



IFR Rate



Hourly traffic data was obtained from the FAA ASPM database for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time. Facility reported rates were provided by ATC personnel at EWR.