

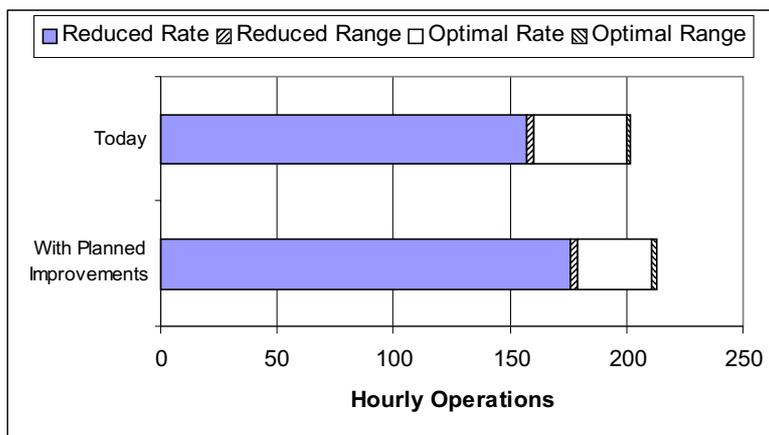
Chicago O'Hare International Airport Benchmarks

- The current capacity benchmark at Chicago O'Hare is 200-202 flights per hour in good weather.
- Current capacity falls to 157-160 flights (or fewer) per hour in adverse weather conditions, which may include poor visibility, unfavorable winds, or heavy precipitation.
- In 2000, O'Hare was ranked third most delayed airport in the country. Overall, slightly more than 6% of all flights were delayed significantly (more than 15 minutes).
- On good weather days, scheduled traffic is at or above the capacity benchmark for 3 ½ hours of the day and about 2% of the flights are delayed significantly.
- In adverse weather, capacity is lower and scheduled traffic exceeds capacity for 8 hours of the day. The number of significantly delayed flights jumps to 12%.
- Technology and procedural improvements are expected to increase O'Hare's capacity benchmark by 6% (211-213 flights per hour) in good weather over the next 10 years.
- The adverse weather capacity benchmark will increase by a total of 12% (176-179 flights per hour) compared to today.
- These capacity increases could be brought about as a result of:
 - ADS-B/CDTI (with LAAS), which provides a cockpit display of the location of other aircraft and will help the pilot maintain the desired separation more precisely.
 - FMS/RNAV routes, which allow a more consistent flow of aircraft to the runway.
- Demand at Chicago O'Hare is projected to grow by 18% over the next decade. This imbalance between capacity and demand growth is expected to significantly increase delays at O'Hare.

Airport Capacity Benchmarks – These values are for total operations achievable under specific conditions:

- **Optimum Rate** – Visual Approaches (VAPS), unlimited ceiling and visibility
- **Reduced Rate** – Most commonly used instrument configuration, below visual approach minima

Scenario	Optimum Rate	Reduced Rate
Today	200-202	157-160
New Runway	N/A	N/A
With planned improvements	211-213	176-179



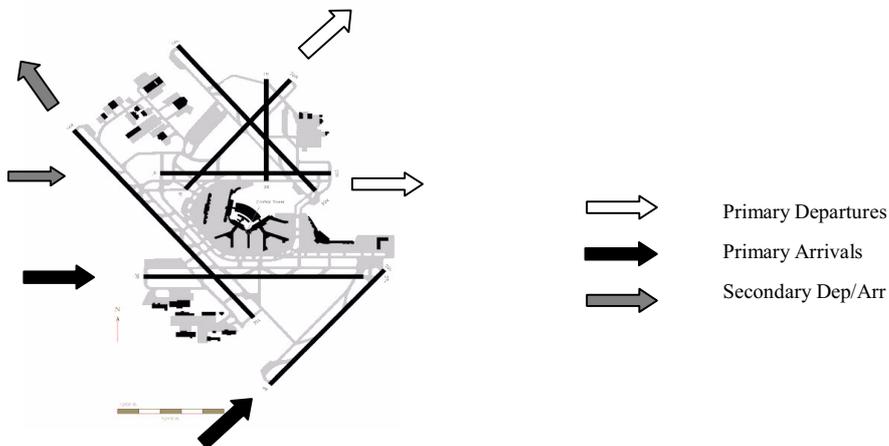
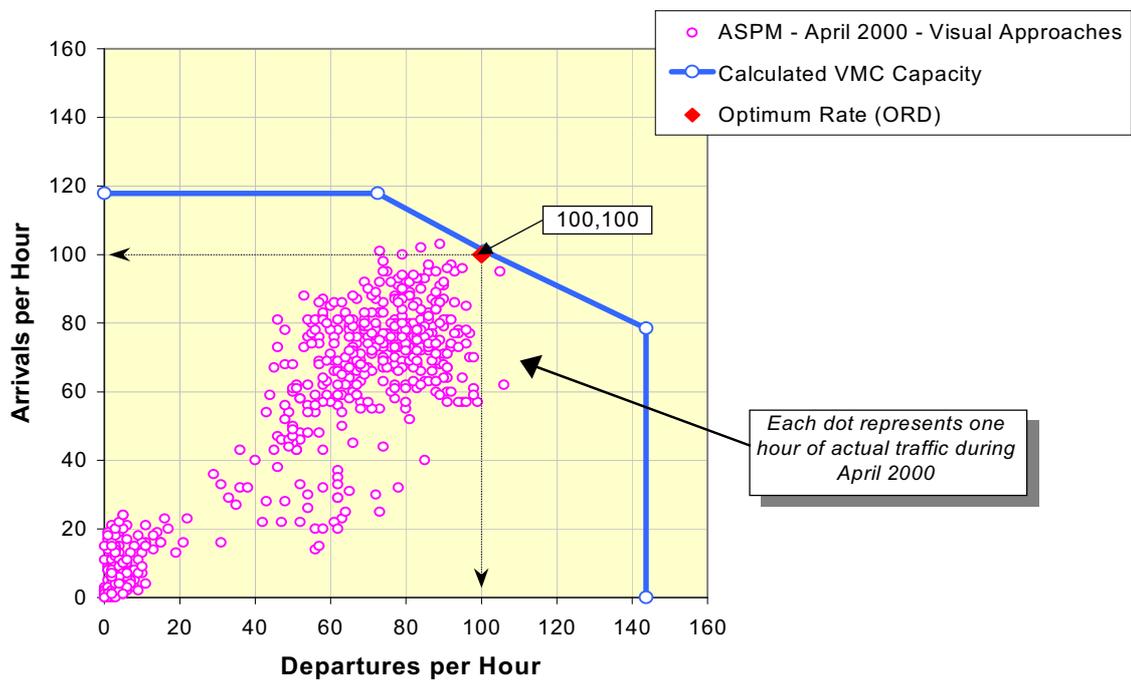
- The benchmarks describe an achievable level of performance for the given conditions, which can occasionally be exceeded. Lower rates can be expected under adverse conditions. Note: In some cases, facilities provided separate unbalanced maximum arrival and departure rates.
- Planned Improvements include:
 - ADS-B/CDTI (with LAAS) – provides a cockpit display of the location of other aircraft. This will help the pilot maintain the desired separation more precisely.
 - FMS/RNAV Routes – allows more consistent delivery of aircraft to the runway threshold.
- Benefits from Planned Improvements assume that all required infrastructure and regulatory approvals will be in place. This includes aircraft equipage, airspace design, environmental reviews, frequencies, training, etc. as needed.
- **Note:** These benchmarks do not consider any limitation on airport traffic flow that may be caused by non-runway constraints at the airport or elsewhere in the NAS. Such constraints may include:
 - Taxiway and gate congestion, runway crossings, slot controls, construction activity
 - Terminal airspace, especially limited departure headings
 - Traffic flow restrictions caused by en route miles-in-trail restrictions, weather or congestion problems at other airports

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 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.

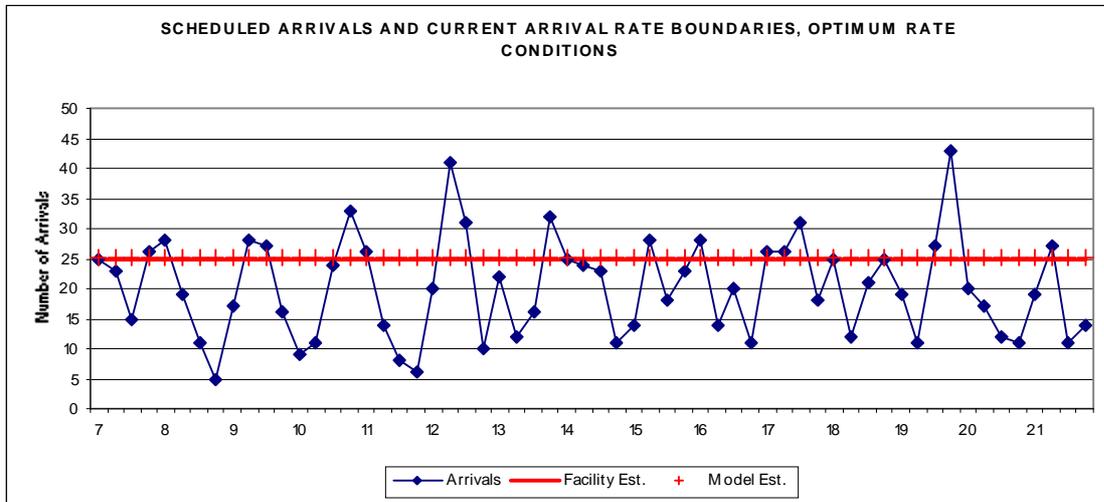
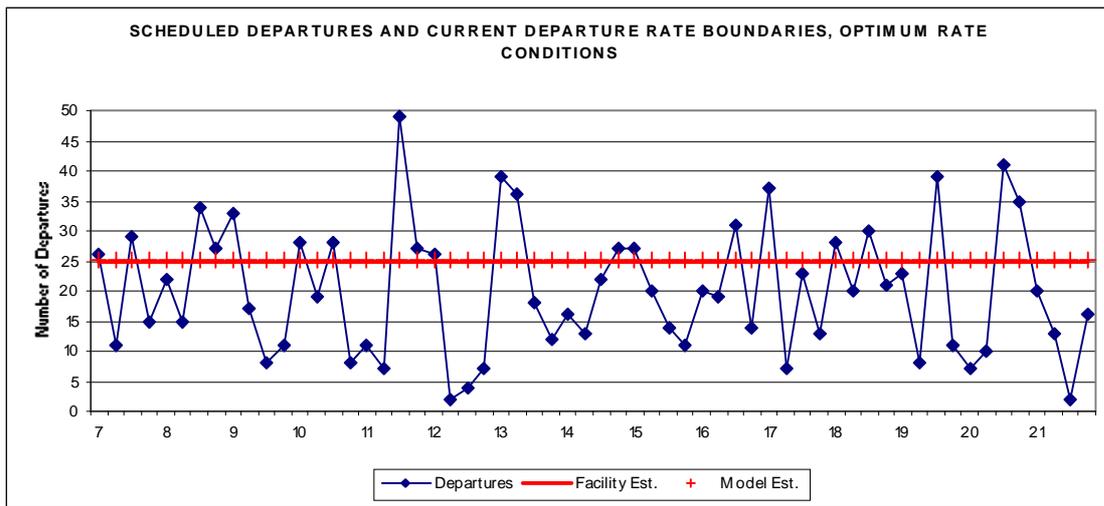
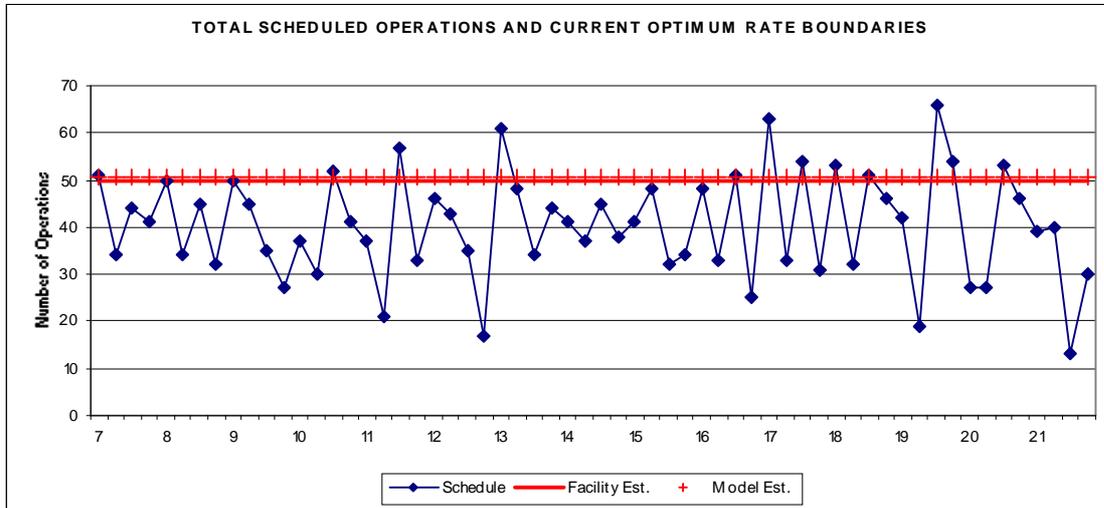
Current Operations – Optimum Rate

- Visual approaches, visual separation
 - Plan X: Arr: 4R/9R/(9L), Dep: 4L/9L/32L
 - Arrivals primarily to two+ parallel runways, depending on wind direction
 - Departures from two or more runways
- ASPM data is actual hourly traffic counts
- ORD frequently operates close to maximum rate
- Modeled capacity is close to actual throughput



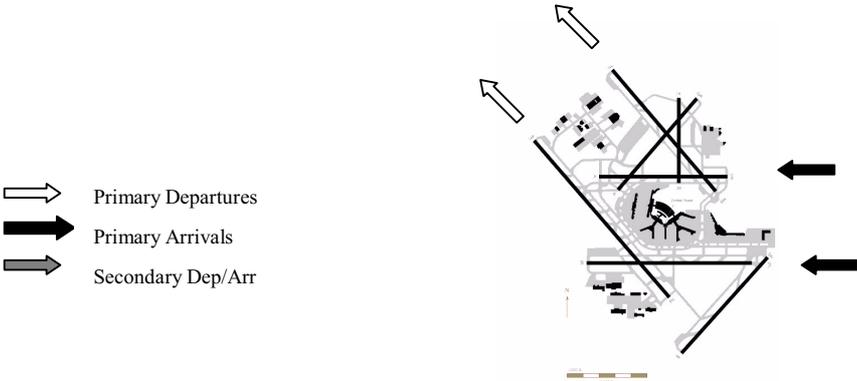
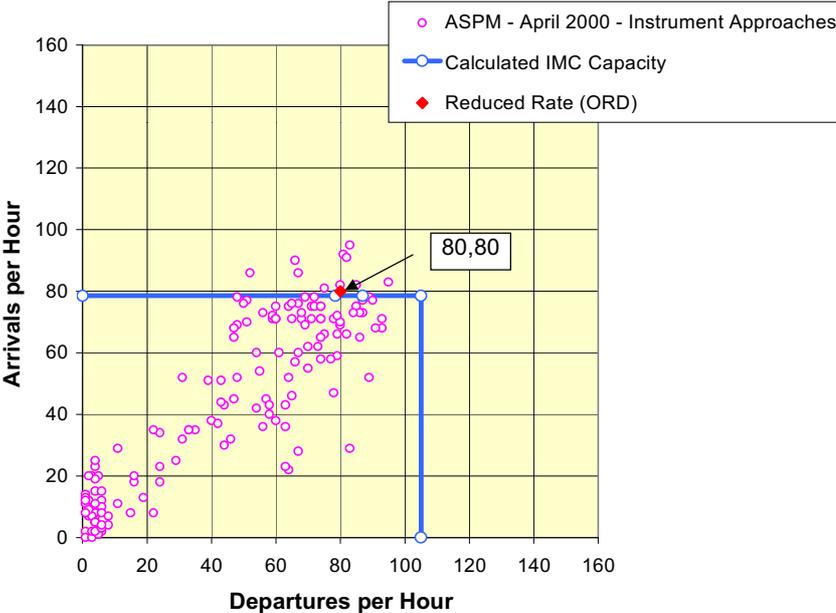
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Scheduled Departures and Arrivals and Current Departures and Arrival Rate Boundaries (15-Minute Periods) Under Optimum Rate Conditions



Current Operations – Reduced Rate

- Instrument approaches (below Visual Approach Minima)
 - Arrivals to two parallel runways
 - Departures from two+ parallel runways
- Calculated capacities are close to reported AAR and ADR
- ASPM data for “Instrument Approaches” can include marginal VFR, with higher acceptance rates.



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Scheduled Departures and Arrivals and Current Departure and Arrival Rate Boundaries (15-Minute Periods) Under Reduced Rate Conditions

