New York John F. Kennedy International Airport Benchmarks

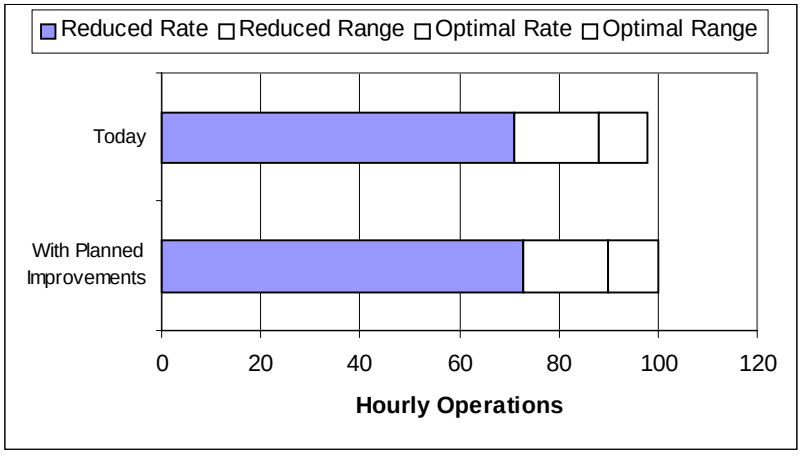
- The current capacity benchmark at John F. Kennedy International Airport is 88-98 flights per hour in good weather.
- Current capacity falls to 71 flights (or fewer) per hour in adverse weather conditions, which may include poor visibility, unfavorable winds or heavy precipitation.
- In 2000, almost 4% of all flights at Kennedy experienced significant levels of delay (more than 15 minutes).
- Periods of excess arrival and departure demand can be handled efficiently during good weather conditions, but cannot be sustained in adverse weather.
- In adverse weather, scheduled traffic exceeds capacity for more than 5 hours in the day.
- On adverse weather days, about 9% of the flights are delayed significantly (more than 15 minutes).
- Technology and procedural improvements are expected to improve Kennedy's good weather capacity benchmark by 2% (to 90-100 flights per hour) over the next 10 years.
- The adverse weather capacity benchmark will increase by 3% (to 73 flights per hour.
- 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.
  - Precision Runway Monitor (PRM) – allows use of independent arrivals for some parallel runway configuration. These benefits are not reflected in the benchmark value, however, since they apply to different runway configurations than those identified for the optimum and reduced rates.
- Demand at Kennedy is projected to grow by 18% over the next decade indicating that delays are expected to increase in the future.

JFK - Kennedy International Airport

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	**88-98**	**71**
New Runway	**N/A**	**N/A**
With planned improvements	**90-100**	**73**



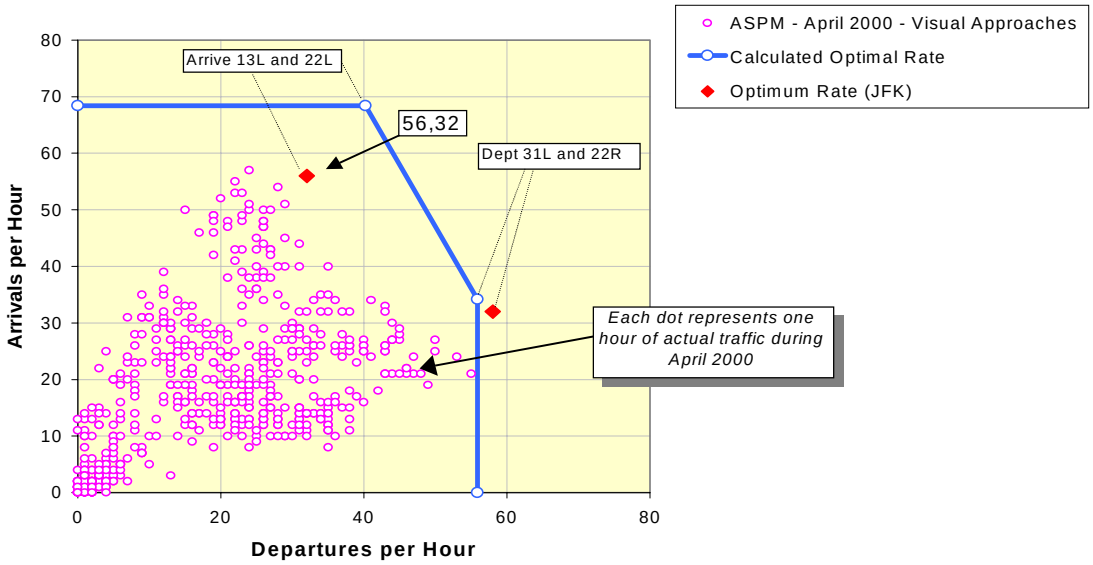
- The benchmarks describe an achievable level of performance for the given conditions, which can occasionally be exceeded. Lower rates can be expected under adverse conditions. Note: In some cases, facilities provided separate unbalanced maximum arrival and departure rates.
- Planned Improvements include:
  - 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

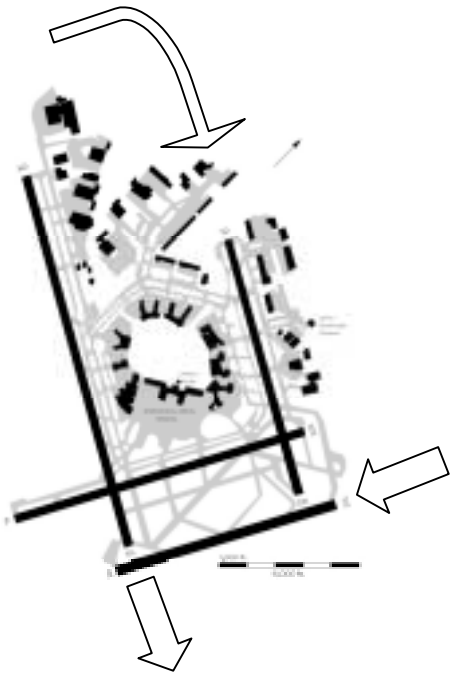
These values were calculated for the Capacity Benchmarking task and should not be used for other purposes, particularly if more detailed analyses have been performed for the individual programs.

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
  - Arrive 13L and 22L, depart 13R to favor arrivals
  - Arrive 22L, Depart 22R and 31L to favor departures
- ASPM data is actual hourly traffic counts for the month of April 2000 for Visual Approach conditions. This data includes other runway configurations and off-peak periods.
- Solid line represents the calculated airport capacity during a busy hour, and the tradeoff between arrivals and departure rates





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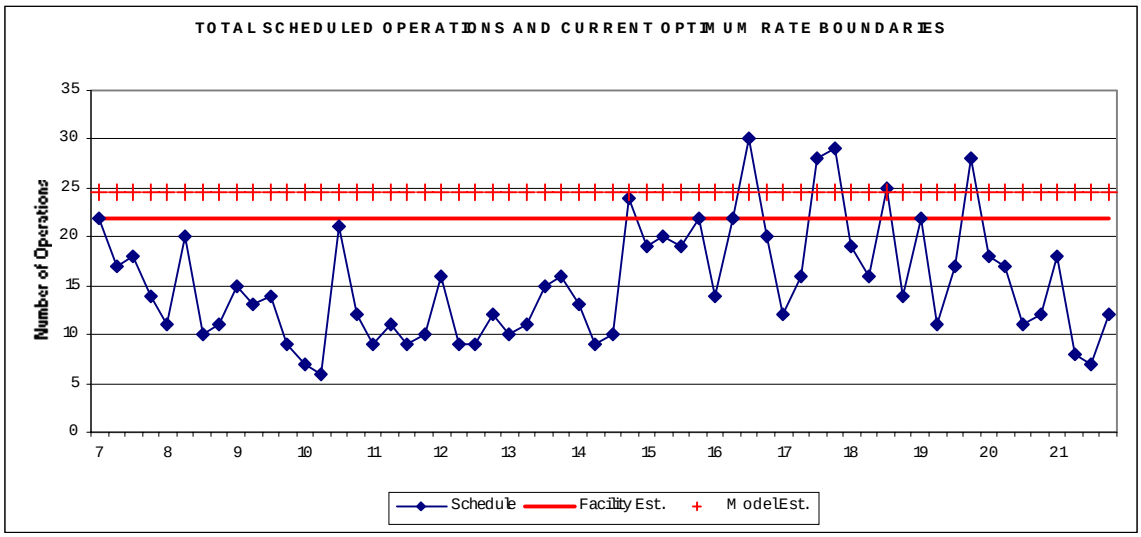
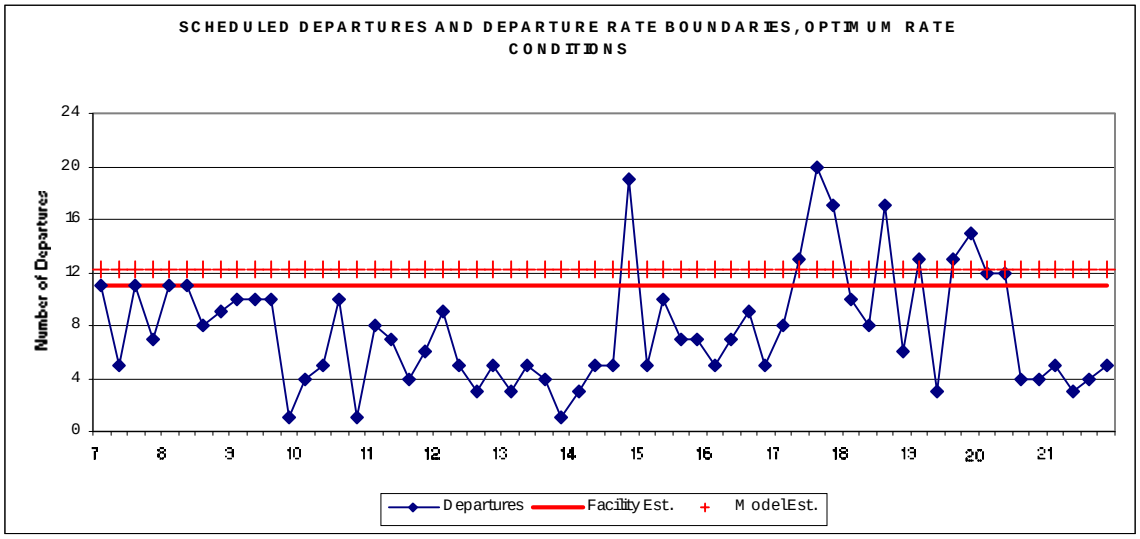
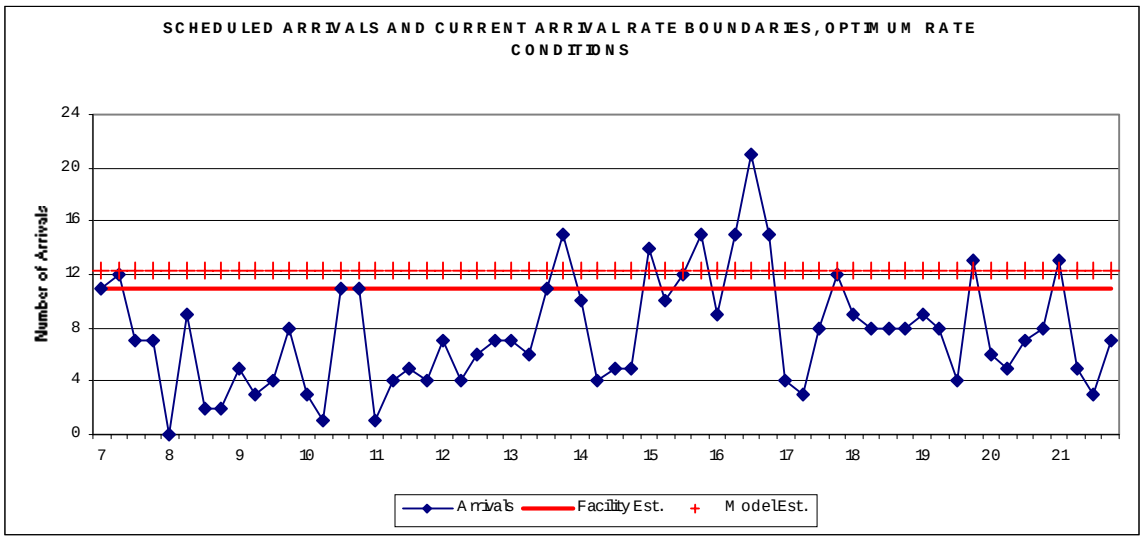
Scheduled Departures and Arrivals and Current Departure and Arrival Rate Boundaries (15-Minute Periods) Under Optimum Rate Conditions

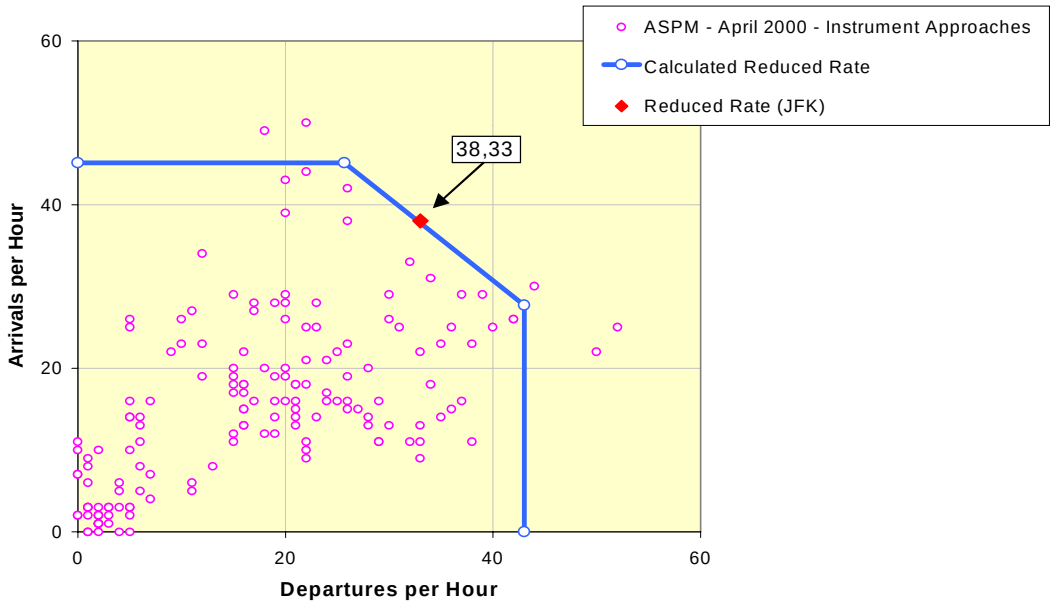


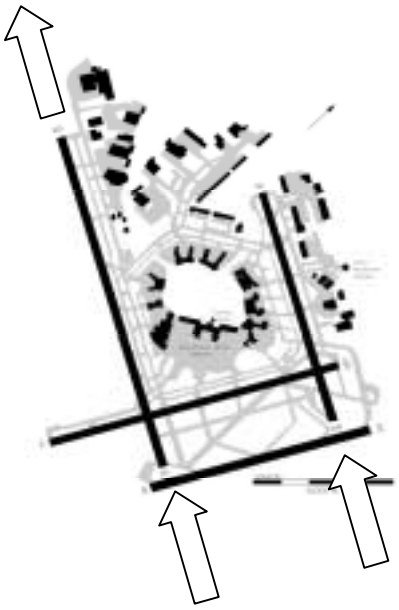




Current Operations – Reduced Rate

- Instrument approaches (below Visual Approach Minima)
  - Arrive 31L/R, depart 31L/R to favor arrivals
  - Depart 31L, 22R, arrive 22L to favor departures
- ASPM data for “Instrument Approaches” can include marginal VFR, with higher acceptance rates
- Chart below represents observed traffic and expected rates in terms of operations per hour





JFK - Kennedy International Airport

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