U.S. Airport Slot Regulations

Current Practices and New Proposals

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Brian Meehan

Consultant, U.S. Federal Aviation Administration Slot Office

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Demand Management Policy

- General reluctance to restrict airport demand
  - Priority is to improve ATC efficiency and enhance capacity
  - Establishing limits might provide disincentive to increase capacity
- Economic benefits of air service
- Only four U.S. airports with long-term FAA slot limits
  - Special Traffic Management Programs
    - High-demand events, short-term reservation programs
- ATC manages flights on a tactical basis
  - Traffic Management Initiatives as needed, primarily weather related
  - Collaborative Decision Making (CDM)
  - Safety and separation standards maintained regardless of demand
- Tension between controlling congestion and maintaining market access
- Goals: safety; manage delays; customer service (ATC); maintain air transportation system; promote competition
- Support for certain legal, policy, or political objectives
- Meet international obligations

Demand Management Triggers

- When does congestion/delay prompt action?
  - IATA Worldwide Scheduling Guideline Airport Designations
  - Proactive vs. crisis intervention
  - Airline, customer, passenger input
- Assess capacity constraints
  - Airport or Enroute limitations
  - Short term or long term problem
  - Acceptable levels of operations
  - Individual airport characteristics
    - Potential for Capacity Expansion
    - Makeup of demand at an airport
    - Internalize or externalize delay impacts
    - Impact of delay on the system

Who takes action?

FAA vs. airport operator role

- **Federal preemption on rates, routes, services**
- **Airport operator controls facilities**
- **FAA controls access to runway**
- **Interaction between runway slots and airport facilities**
- **FAA—currently prime agency**

Demand Management Options

Option I. No FAA action—let the market work

- Ensure safe, efficient operation of ATC system
- Difficultly in defining “acceptable” delay levels
- Congestion could be one cost of competition
- Carrier operating costs, passenger complaints and hub competition would force schedule changes
- How long for resolution? Is it politically acceptable to wait for resolution?

Option II. FAA Intervention (ATC limits)

- Triggering events—series of system failures

Administrative Options

Administrative Mechanisms

- **FAA has existing authority**
- **Fixed number of slots tied to capacity and "acceptable" delay levels**
  - **FAA tends to establish high cap**
- **Greater operational control**
- **Less carrier scheduling flexibility**
- **Allocation of fixed resource brings difficult policy decisions—winners and losers**
- **Finite lives vs. historic rights**
- **Initial allocation vs. reallocation**
- **Competition vs. service disruption**

Market Mechanism Options

Market Mechanisms

- **Requires new authority for FAA and/or airport operators**
- **Change to current FAA/airport operator roles**

Congestion Pricing

- **No slots. Operators free to schedule as they choose**
- **Less operational control**
- **Greater carrier scheduling flexibility**
- **Difficulty in setting appropriate rates. Pricing inefficiency—too high or too low**
- **Some level of congestion possible as market adjusts**
- **Who sets prices? Independent board under federal governmental oversight?**

Market Mechanism Options (II)

Auctions

- **Greater Operational Control (fixed number of slots)**
- **Economically "efficient" use of limited resource**
- **Carriers determine the value of slots in the market**
- **Possible integration between runway slots and airport facilities such as gates, terminal space, handling, baggage, and other infrastructure**
  - **Federal vs. airport operator role**
- **Define property right—what is being auctioned?**

Where is U.S. Today on Slots?

- **In 1969, the FAA adopted the High Density Rule (HDR) to control congestion at five key airports: Chicago O'Hare, Washington National, New York's LaGuardia and John F. Kennedy, and Newark Airport. The rule for Newark was suspended in 1970**
- **The FAA capped operations and slots for takeoffs and landings were allocated by carrier scheduling committees with governmental oversight. New demand after 1978 deregulation. Committees often deadlocked and the U.S. Department of Transportation (DOT) intervened**
- **In 1985, DOT adopted the "Buy/Sell" rule and included administrative allocation mechanisms, secondary market provisions, use or lose rules, and special provisions for international flights. Modest amendments since 1985**

Secondary Market Results

- Secondary market not as robust as envisioned
- Many slot “swaps” for timing adjustments but relatively few permanent or long-term transfers
- Most sales have involved carriers in bankruptcy or distress
- More “leases” than sales. Not all for consideration
- Most transactions between larger carriers
- Small carriers often sold slots to larger carriers—1980’s
- Certain new entrant/limited incumbent carriers have gained access through the secondary market
- Carriers value slot holdings for many reasons including fare premiums, market presence, service frequency
- Carriers might look at potential competitive impacts when making lease/sell decisions
- Options--Blind market

Significant Program Changes

- **In 1994 Congress created a slot exemption program in an effort to promote airline entry and service to small communities. Additional slots were created and awarded by DOT on a comparative basis. Delay costs of new flights deemed "acceptable"**
- **This exemption program was greatly expanded in 2000 resulting in "unacceptable" delays at LaGuardia and other airports**
- **A 2000 law (AIR-21) eliminated the HDR at O'Hare on July 1, 2002, and LaGuardia and JFK Airports on January 1, 2007. FAA has subsequently adopted new limits at O'Hare and LaGuardia. Increased flights and delays at JFK may require FAA action**

Slots at Chicago O'Hare

O'Hare Operations After Slot Controls

- **Carriers gradually increased operations, particularly by regional jets**
- **By November 2003, O'Hare had the worst on-time performance of the major U.S. airports (57% on-time arrivals)**
- **O'Hare congestion had a ripple effect throughout the system**

FAA/Air Carrier Actions

- **Hub carriers motivated to improve operations. After discussions with the FAA, United and American each agreed to cut peak arrivals by 5% in March 2004 and an additional 2.5% in June 2004**
- **Reductions partly backfilled by other carriers. DOT convened a meeting in August 2004 to reduce schedules and limit growth**
- **An FAA Order capped domestic arrivals. Foreign air carriers were not subject to the cap. FAA designated O'Hare as an IATA Level 2 airport to manages international flight changes**

Chicago O'Hare Final Rule

- FAA Order replaced by a rule in October 2006. Full coordination similar to IATA Level 3
- Operational cap and initial allocation based on historic
- On-going capacity review by ATC—caps could be increased without additional federal rulemaking
- Preference for small carriers in allocating new capacity
- New international arrivals permitted above the cap. FAA could retime flights by up to 60 minutes for operational reasons
- Blind market for buy/sell/leasing
  - Air carriers only; cash basis; FAA run bulletin board
- Minimum usage requirement (80%)
- Sunset date in 2008 tied to new airport capacity (runways)

LaGuardia--CY 2000-2001

- Air Carrier Response to AIR-21 Exemption Opportunities
  - "Darken the skies" approach by airlines
  - 300+ weekly flights by November 2000
  - Operations increased by about 25% and delays increased by over 200%
  - Schedules exceeded VMC capacity by 20-30 ops in some hours
- FAA Action
  - Routine traffic management initiatives under all weather conditions
  - Delay propagated through the system
  - Carriers regularly cancelled flights rather than incur multi-hour delay
  - January 2001: exemptions were reduced by about one-half and allocated by lottery
- Result of FAA Lottery
  - Capacity limits set near VMC capacity to recognize Congressional directive
  - Delays at LaGuardia were reduced significantly but remain high relative to other U.S. airports

LaGuardia Proposed Rule--2006

- Operational cap and slots (Operating Authorizations)
- Finite slot life (10% annual expiration)
- Market-based legislation proposed
- Target aircraft size—up gauge aircraft to potentially increase passenger throughput
- Small community/regional airport pool and carrier baseline exemptions
- Use-or-Lose requirement (target size and/or 80%)
- Weighted lottery to favor small carriers
- Blind secondary market with FAA sponsored bulletin board (cash and noncash proposals)

LaGuardia—Upgauging Proposal

- **Air carriers holding Operating Authorizations required to meet average airport-wide "target" aircraft size each year. Initial estimate ranges from 105-122 seats. Downward trend in seats. Average of 91 in June 2006**
- **Objective to increase passenger throughput within slot limits**
- **Seat target is based on capacities of the ground facilities, i.e. gates, parking positions, terminal space**
- **Carriers granted a baseline of 10 Operating Authorizations not subject to the target aircraft size**
- **Service to certain small community airports excluded from the target. Alternatives range from apx. 80 to 300 flights per day**

LaGuardia--Current Status

- **FAA adopted interim limits until a final rule is adopted**
  - **Maintains hourly operations cap for scheduled and unscheduled**
  - **Simplified air carrier/commuter categories**
  - **Maintained certain features of slot rule such as use or lose**
  - **Leasing permitted but no buy/sell (potential conflict with NPRM)**

- **Few supporting comments on NPRM received**
  - **Incumbent carriers questioned legal authority and policies**
  - **Current secondary market should be allowed to continue**
    - **DOT granted free slots to new entrants and distorted market**
  - **Finite slots are disruptive and do not recognize investment**
  - **New entrant/small carriers want greater access**
  - **Seat target seen as intrusion into marketing decisions**
  - **Perimeter rule at LGA cited as limiting viable markets**

Pending Next Steps--Auctions

- The FAA asked Congress for statutory authority to conduct auctions at LaGuardia
  - Airport Operator involvement
  - Money to be used for capacity enhancement
- Pilot Program to use market-based congestion mechanisms at up to 15 key airports
- Action on FAA bill expected by September 2007 but outcome of market authority is uncertain
- Opposed by most airlines; community concerns about potential schedule reductions

Potential Auction Design

- Possibly similar to FCC telecommunications spectrum auction. Design concepts would be proposed if Congressional approval granted
- Potential simultaneous clock auction
  - Prices announced by auctioneer; bidders respond with number wanted in time period
  - Carriers could place package bids to ensure workable slots received for planned schedules
  - As prices increase, demand decreases
  - Auction ends when demand reaches the slot limit in time windows
  - Process would likely need continued refinement

Key Auction Issues

- Federal Government remains involved in policies similar to administrative measures
  - Danger of political interference in market
- Federal Government needs to define objectives
  - New entry, competition, small community service, congestion management, throughput, etc.
  - Would objectives interfere in market?
- Finite Lives—how long? Any carve-outs?
- Potential Impact on Carrier schedules
- Credits/Vouchers for incumbency

Conclusions

- Number of airports with demand/capacity imbalance is likely to grow
- Government and industry need to resolve policy issues to avoid gridlock at key airports
- Outcome of market based approach is questionable. Practical implications and schedule uncertainty may prove impractical
- Demand management options must be airport specific—one size does not fit all
- Congestion toolbox should include less restrictive to more restrictive options