



NAS Resource Allocation: Economics and Equity Summary Observations

**Wye Woods Conference
Center**

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Summary Observations - 1

► WHAT IS THE PROBLEM?

- The Central US Public Carrier Air Transportation System has a **Finite and Quantifiable Capacity**
- This Capacity is set by **Federally Mandated Safety** ATC separation standards and a **Finite number of Runways** near major Population Centers
- **Slot modification** at LaGuardia led to **Severe Congestion** and **System Wide delay increases**
- **All slot controls are to be removed by 2007**
- Current Wt. Based **Landing Fees are not Market Based**
- FAA NPRM for LaGuardia Slot Auction Design is open for 90 days (June 12, 2001 Federal Register) Comment
 - <http://api.hq.faa.gov/lga/index.htm>

Summary Observations - 2

- ▶ The Collaborative Decision Making (CDM) system has established a **De-facto Market Trading in airspace slots at all US Airports** under Weather Perturbation Events
 - General Aviation priority probably too high
 - Data accuracy essential to system performance
 - Airports are not represented in the market
 - System Works Best if NOT GAMED BY PLAYERS
- ▶ The Government, **Airline and Airport Property Rights** are not well defined in this market and the value of the commodity has not been established
- ▶ Current Government Regulations do not have a **Value Signaling Mechanism** to **Encourage Efficient Utilization** of valuable and limited public and privately controlled transportation assets
 - No penalty for FAA over constriction of capacity
 - Estimates of Annual Delay cost are in excess of \$1B/yr

Summary Observations - 3

- ▶ Current Regulations **Designed to Encourage use of Excess Capacity**
 - circa 1978
 - Outmoded and in need of revision
- ▶ Change in Regulations requires a **Strong Case for Change**
 - Capacity Constraints, **Publicly Unacceptable Delays** and a Diminishing **SAFETY** relationship may be the Case
 - Increased Public Revenue?
 - How is the Revenue Allocated?
- ▶ New Regulations should be Designed to **Establish True Value** of air transportation assets
 - **Encourage Efficient Utilization**
 - **provide incentives for public and private investment** to increase system capacity and safety
 - Equitably deal with **Uncertainty**

Summary Observations - 4

- ▶ FCC Auctions provide political insights into how regulatory change can occur
 - Don't repeat European Auction Mistakes
- ▶ Federal Energy Auctions provide valuable insights into how the air transportation market may become more formalized and more efficient
 - Don't repeat California Auction Mistakes
- ▶ The Traveling Public ultimately Pays the Price for Cancellation, Delays and lack of Schedule Predictability
 - The Political Push for Reform?

Summary Observations - 5

► Initial Proposal for Next Step

- Define Current Stake holder's **Property Rights**
- Utilize the CDM system for market clearing
- Formulate an **Incentive System** that **Encourages Investment** in both public (i.e. airport, ATC telecommunications, etc.) and private (i.e. ADS-B, Data-Link communications, Enhanced Flight Management Systems, etc.)
- **Game/Simulate the System** to help Answer the Question: "What Might Happen if DoT/FAA Enacts a New Regulatory Environment?"