Logan Community Advisory Committee Meeting
January 23, 2008

Runway Use Overview

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What is Runway Use?

- Generally the proportional usage of a given runway for air traffic operations at an airport.
- Usually thought of in terms of Annual or Average Annual use, but other time periods are sometimes used.

Some Subtleties

- Can be broken down by operational type, aircraft category, time-of-day, or other categories.
- Can sometimes be a difference between time based usage and operations based usage.
- Sometimes expressed in terms of runway use configurations rather than individual runway usage.

What Affects Runway Use

1) Wind and Weather
   - Cross or tail wind component
   - Location of storms in airport area

2) Operational Efficiency
   - Configuration throughput/capacity
   - Direction of travel
   - Gate location/taxi time
   - Airspace structure/other airports

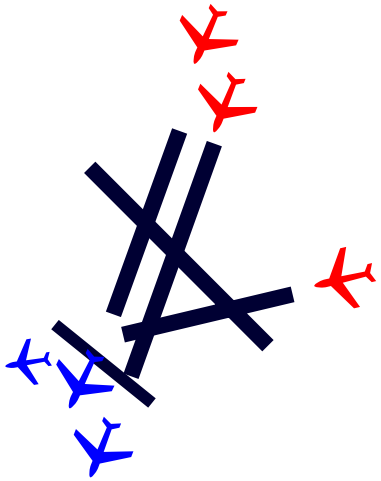
3) Pilot Preference/Request

Configurations at BOS

South

- Avls 22L/R-27
- Deps 22L/R (27)
- 2007 - 35%

Source: FAA 2007 ASPM data

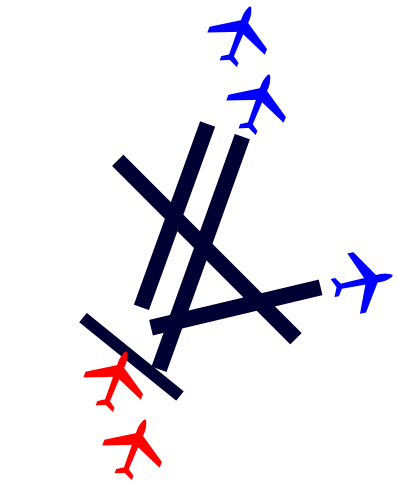


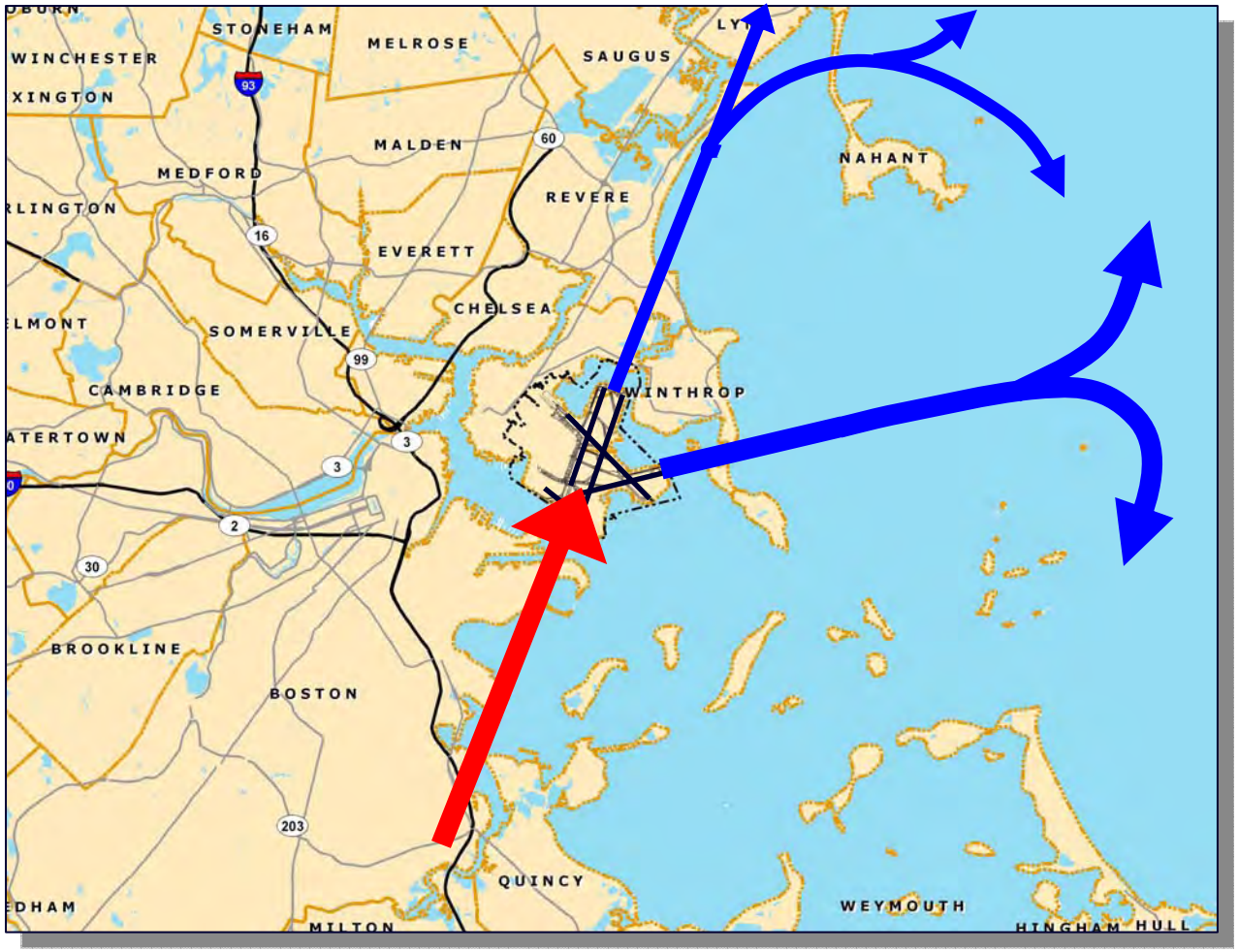
Configurations at BOS

Northeast

- Avls 4R-4L
- Deps 9–4L/R
- 2007 – 33%+

Source: FAA 2007 ASPM Data



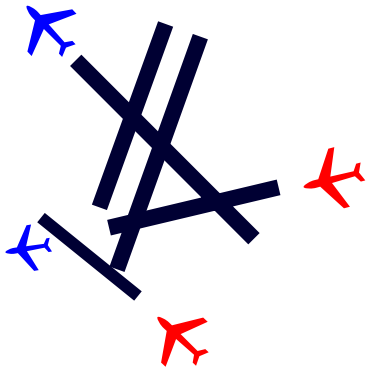


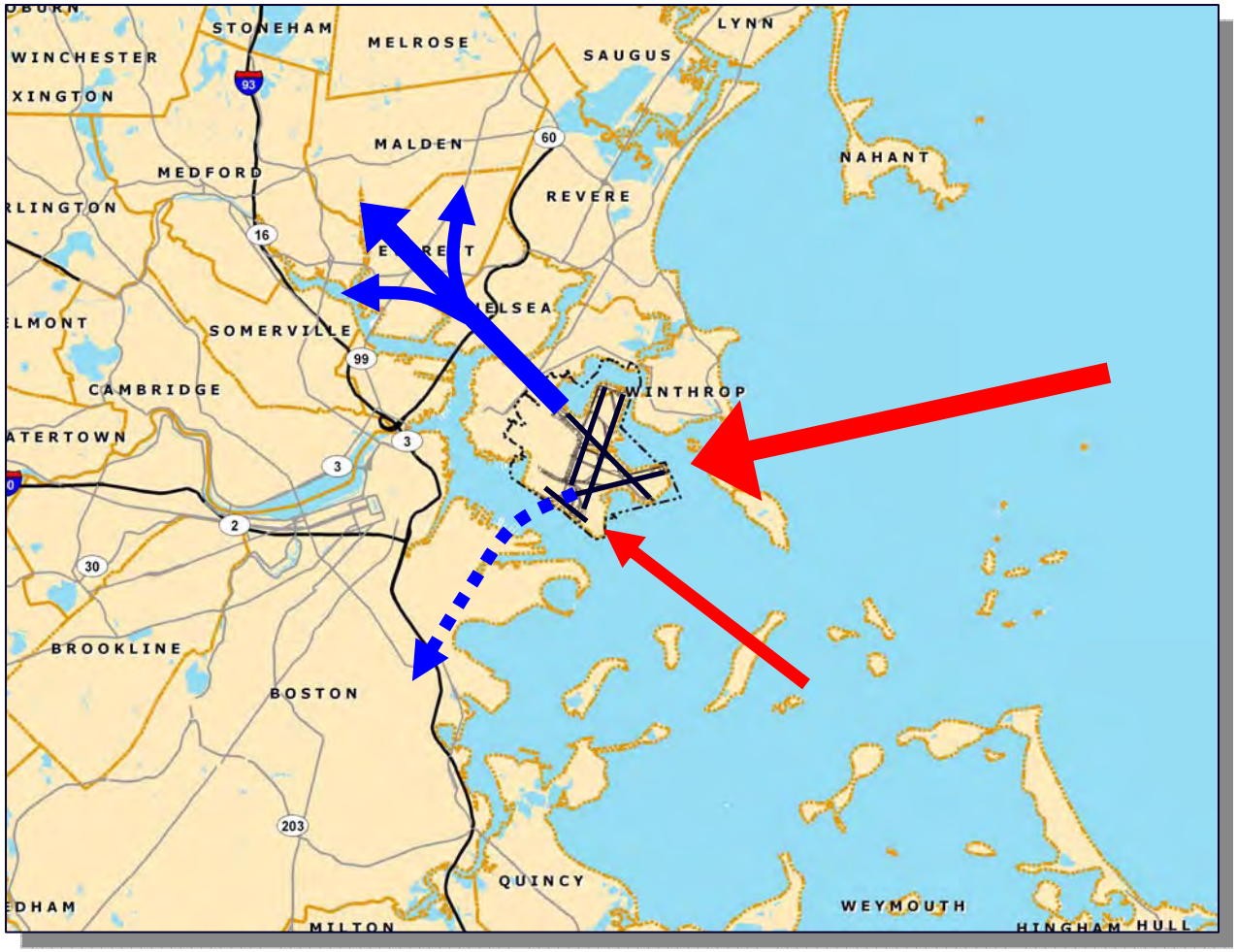
Configurations at BOS

Southwest

- Avls 32-27
- Deps 33L-(27)
- 2007 - 16%

Source: FAA 2007 ASPM Data



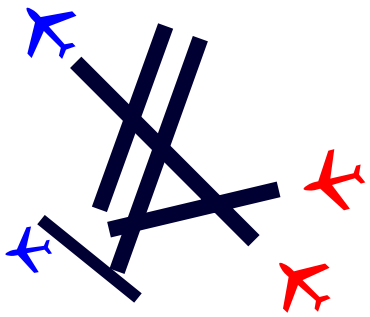


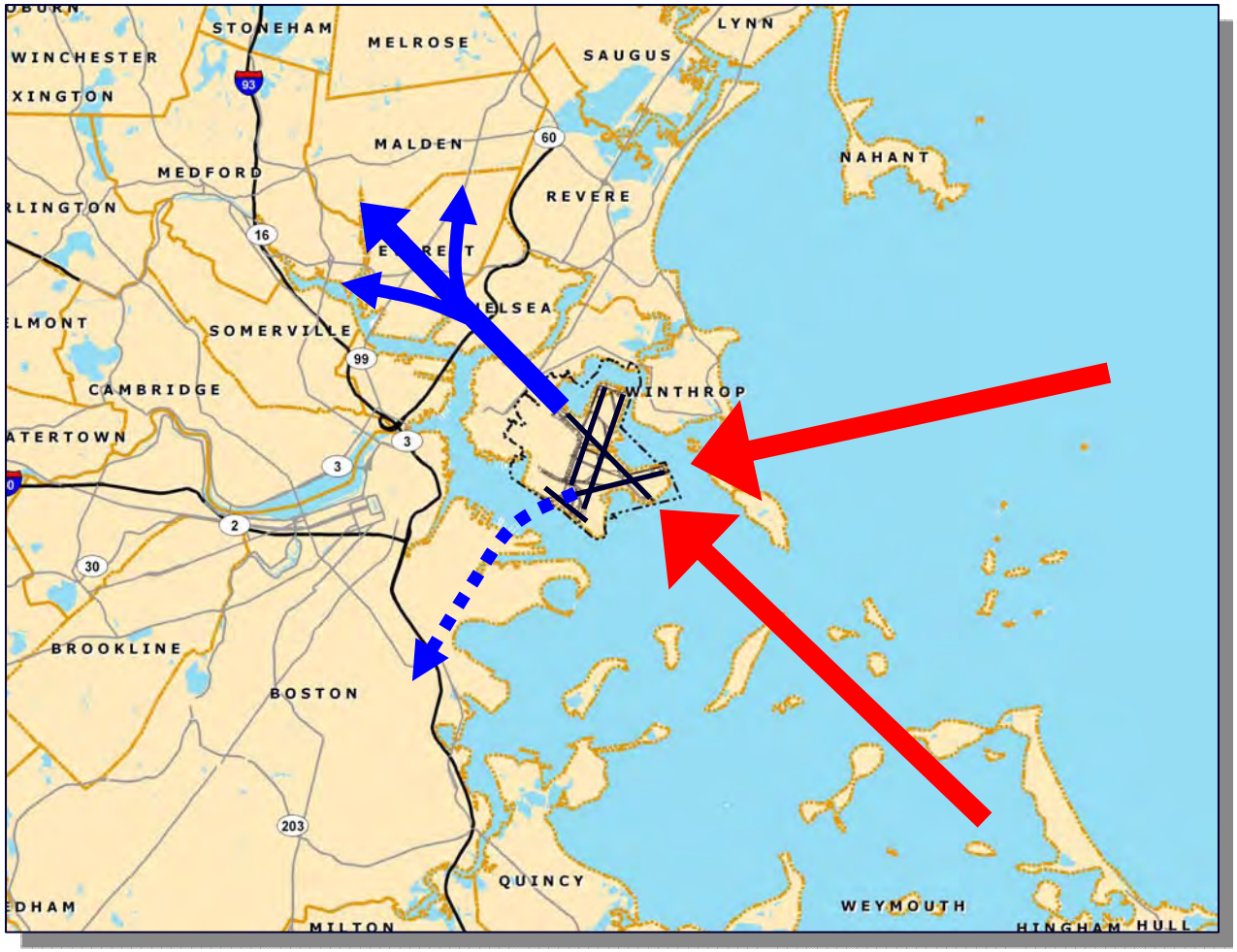
Configurations at BOS

Northwest

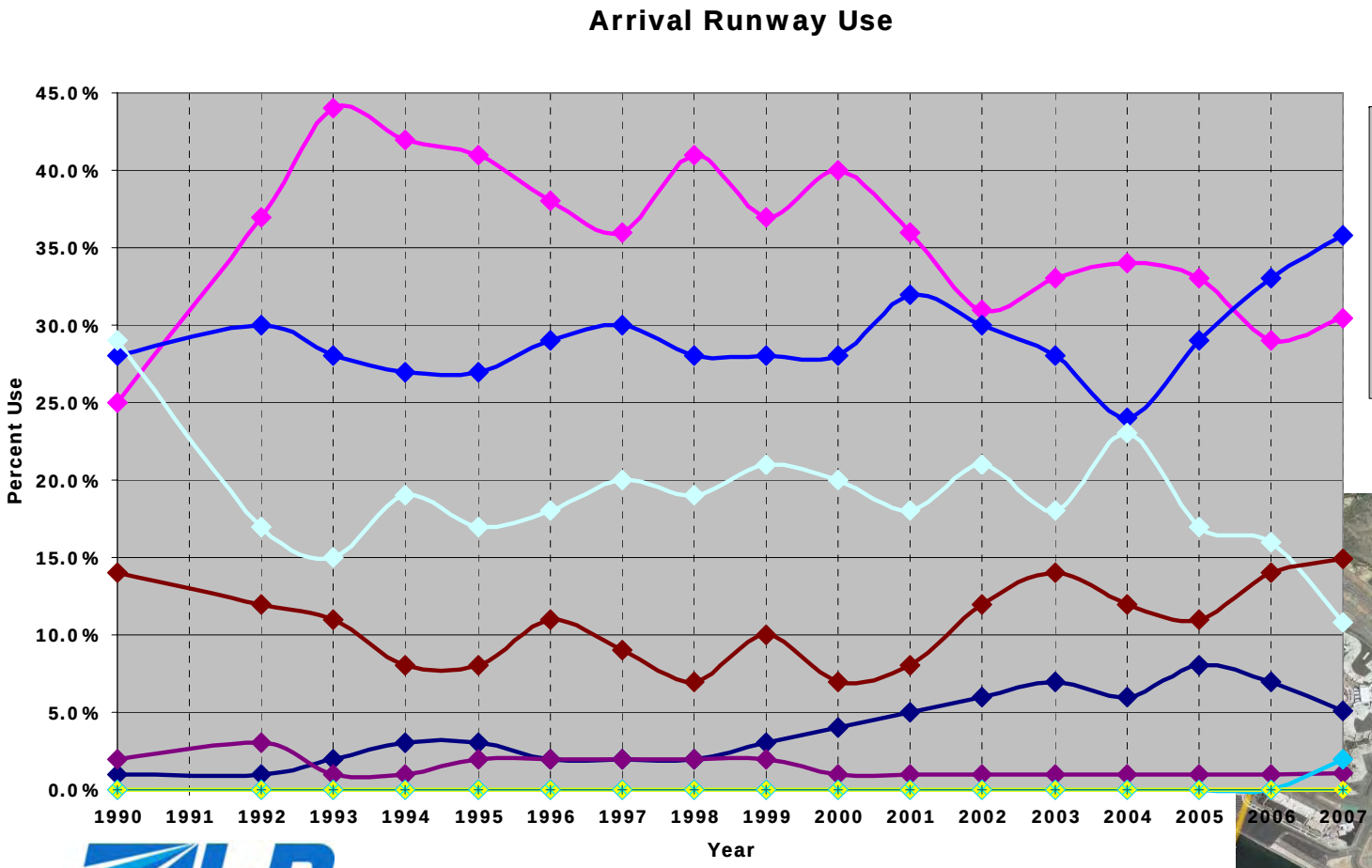
- Avls 33L-27
- Deps 33L-(27)
- 2007 - 10%

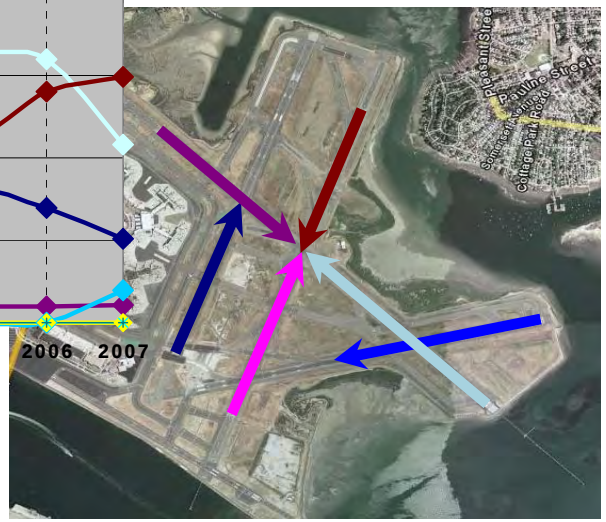
Source: FAA 2007 ASPM Data





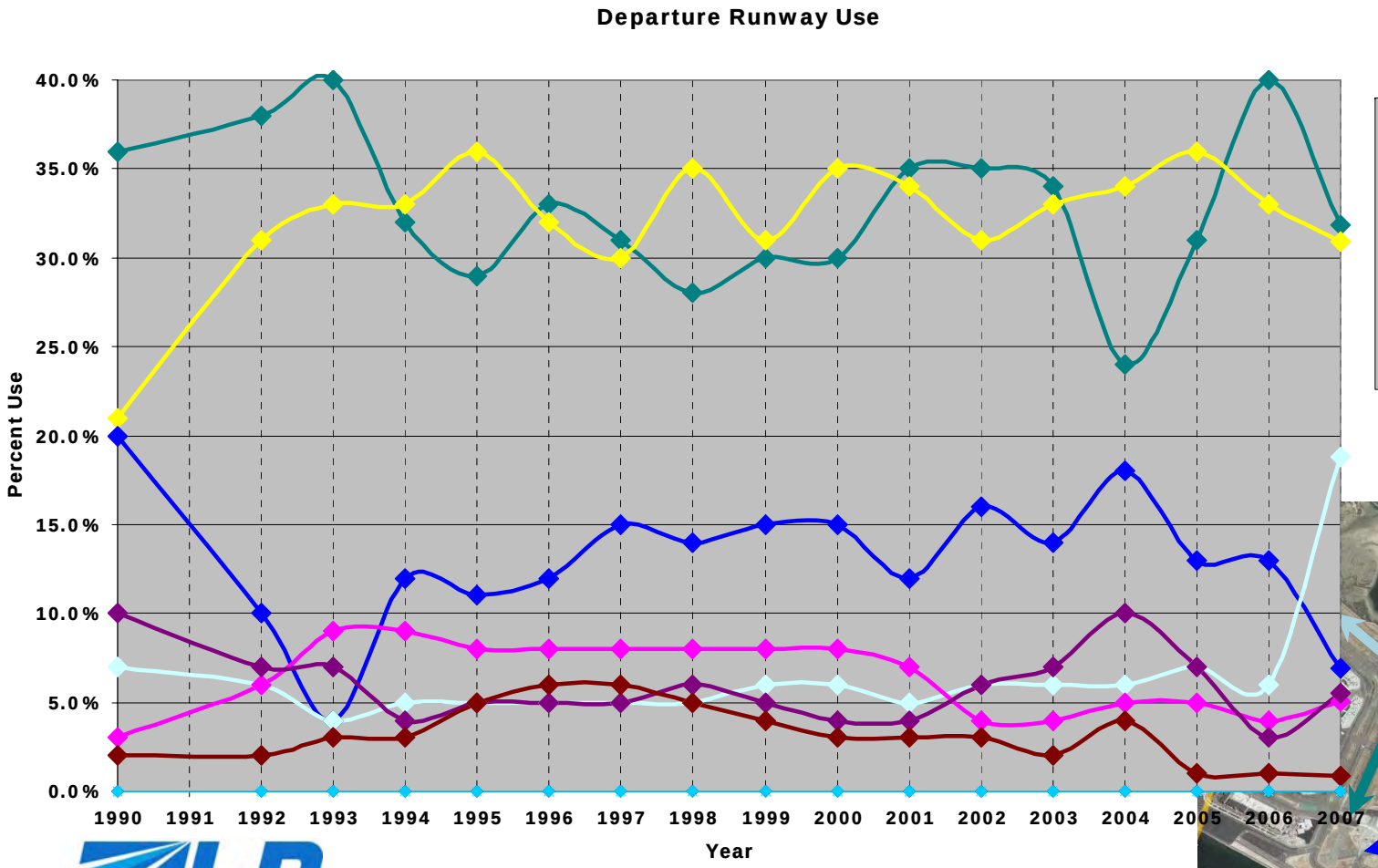
Historic Runway Use at BOS

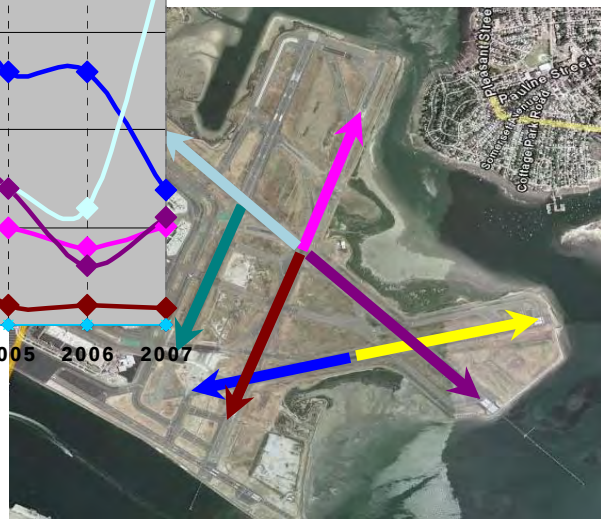




Source: 2006 EDR, Massport 2007 data.

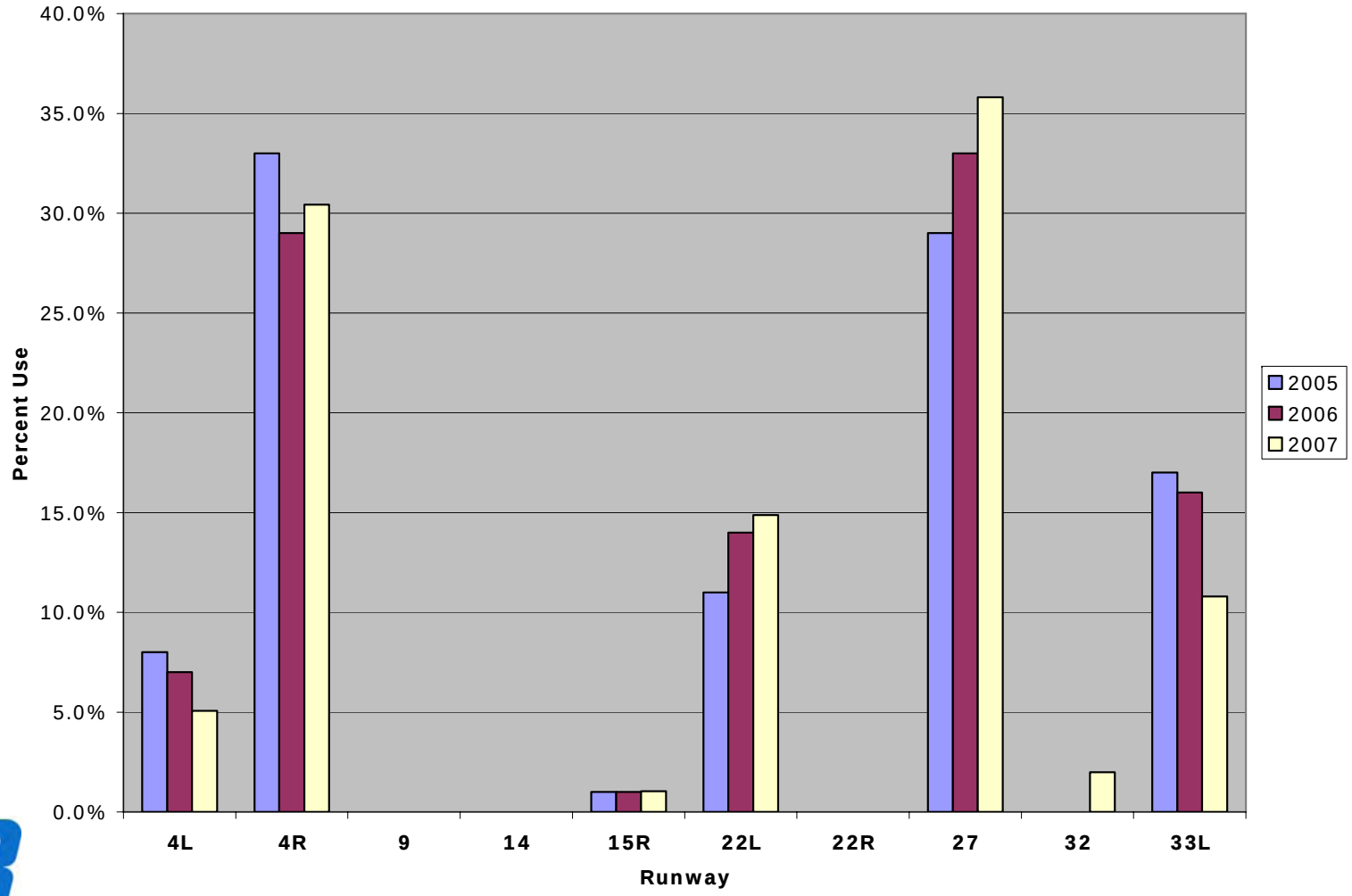
Historic Runway Use at BOS





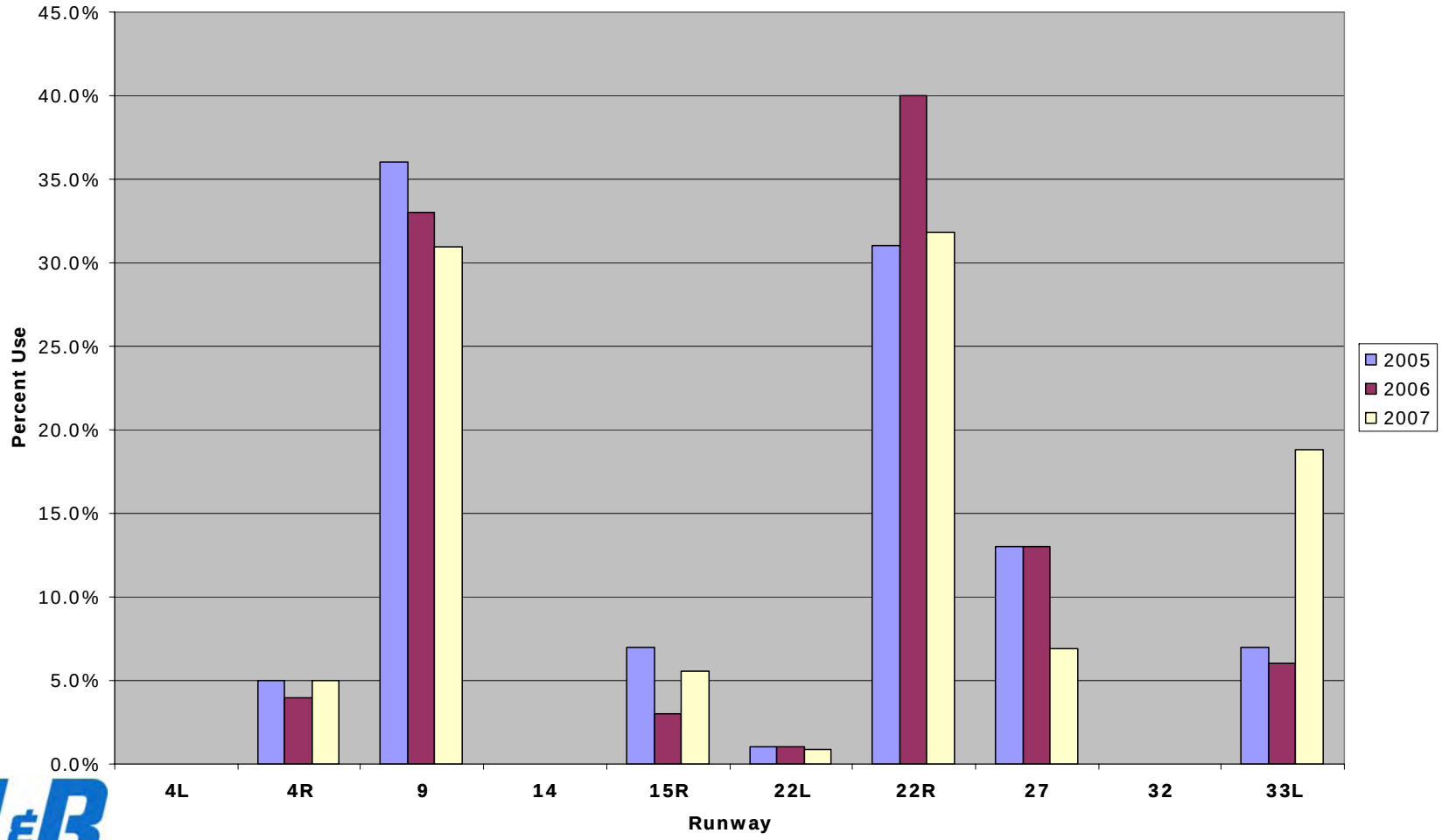
Source: 2006 EDR, Massport 2007 data.

Recent Arrival Runway Use at BOS



Source: 2006 EDR, Massport 2007 data.

Recent Departure Runway Use at BOS



Source: 2006 EDR, Massport 2007 data.

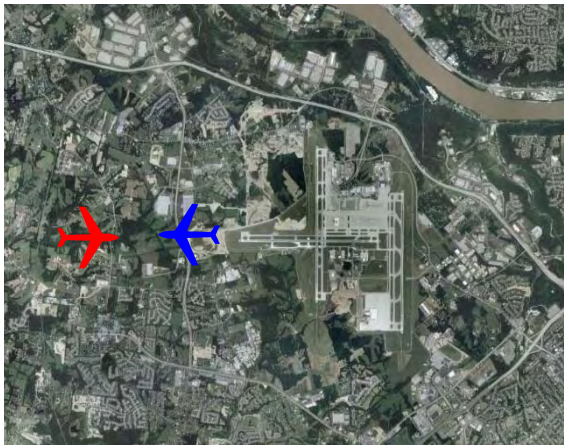
Runway Use Programs for Noise

- Generally Informal
- Try to minimize noise over nearby neighbors
- Sometimes try to share noise equitably.
- Success is highly dependant on land use and wind.

Some Examples

- LAX
  - Preferential west flow (96%)
  - Departures over the ocean and arrivals over communities.
  - Highly driven by on-shore winds, but accept a 7kt tail wind at night.

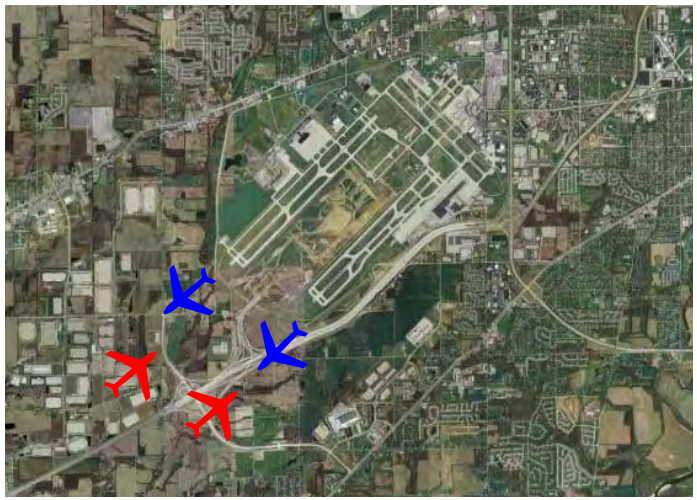
- CVG
  - Nighttime preferential over vacant area (88%)



Some Examples

- SDF
  - Nighttime contra-flow for UPS hub (90%)

- IND
  - Nighttime contra-flow for FedEx hub (75%)



Issues to Consider

- PRAS is very complex and has never been used effectively.
- Possibility – Identify several best capacity configurations and design a simpler program to share the noise.
- Look at weighted impacts of each configuration to focus on amount of desired use.