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## BRIEFING PAPER— REVIEW OF AVIATION DEMAND FORECASTS


### MASTER PLAN UPDATE PORTLAND INTERNATIONAL AIRPORT

Prepared for  
Port of Portland  
Portland, Oregon

September 22, 2009



City of Portland Bureau of  
Planning and Sustainability

 **PORT OF PORTLAND**  
Possibility. In every direction.™

A background image showing a snow-capped mountain peak, an airport control tower, and an airplane in flight against a blue sky.

**AIRPORT FUTURES**  
CHARTING A COURSE FOR PDX

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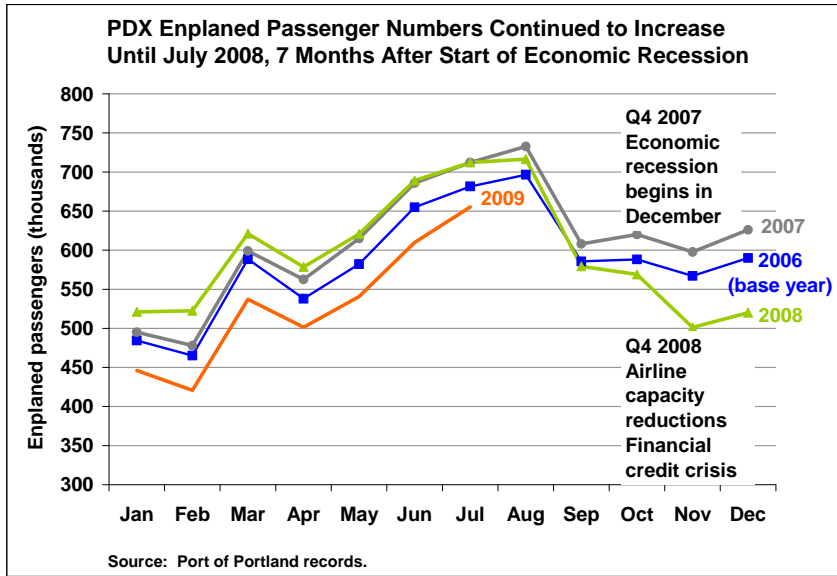
## 1. INTRODUCTION AND KEY FINDINGS

Aviation activity forecasts for the Master Plan Update were completed in April 2008 and presented to the Port Commission on May 14, 2008 and Portland City Council on June 25, 2008. Since the forecasts were completed, a number of changes have occurred that affected passenger demand at PDX and in the nation. These changes include the national and global economic recession, a credit crisis in October 2008, airline industry seating capacity reductions, and continued volatility in the price of oil. Although these and other factors were considered in the preparation of the forecasts, it was the intention of the Planning Advisory Group to revisit the forecasts and, in particular, to review the key industry issues and trends that drive aviation activity before the Master Plan Update is completed.

A review of the Master Plan forecasts was conducted in September 2009 and indicated that the forecasts are still appropriate planning inputs for the Master Plan. This briefing paper presents a high level summary of the September 2009 forecast review, which included monthly data from 2006 (the base year of the forecasts) through August 2009. The key findings are:

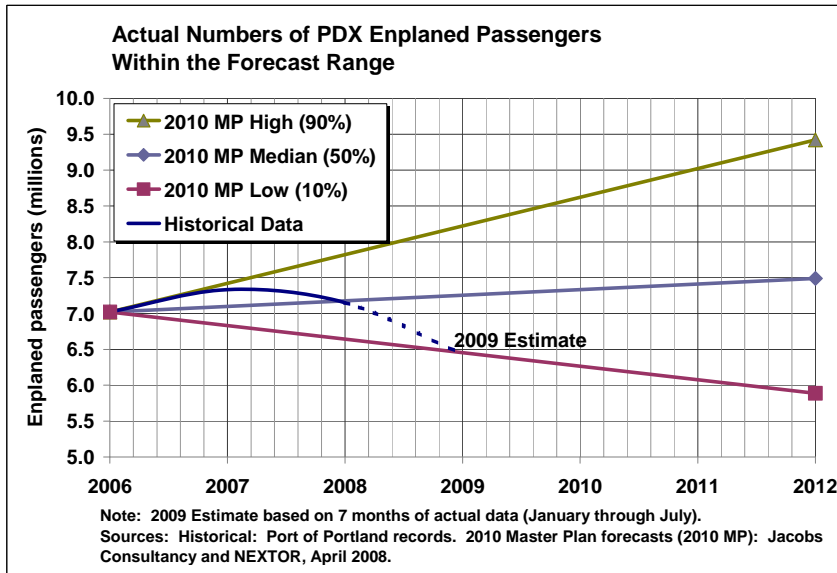
- The forecasts are still appropriate planning inputs for the PDX Master Plan Update.
- Although the events of the past 2 years have resulted in enplaned passenger numbers at PDX lower than the 50<sup>th</sup> percentile forecast, the forecast range continues to reflect likely future levels of passenger activity. The actual numbers of PDX enplaned passengers are within the forecast range, with an estimate of 2009 activity tracking the Low (10%) forecast.
- PDX air cargo decreased significantly in response to the national economic recession, with actual air cargo tonnage decreasing in 2008 and 2009 to levels lower than the Low (10%) forecast.
- The trend in PDX passenger and all-cargo airline aircraft operations followed the trend in enplaned passengers and air cargo. The number of PDX total aircraft operations is within the forecast range in 2008 but below the Low (10%) forecast in 2009 (estimated).
- The decreases in PDX passenger traffic in 2008 (2.5%) and estimated in 2009 (10.0%) are smaller than:
  - The decreases in PDX passenger traffic during the 1980-1981 recession (decreases of 14.3% in 1980 and 4.1% in 1981)
  - The decreases in passenger traffic at certain other West Coast airports during the current economic recession
- Although considerable uncertainty regarding an economic recovery remains in the near-term, the timing of PDX facilities will be based on activity levels rather than specific years. Continued efforts to monitor passenger and cargo activity and adjust expectations will be necessary.

2. ENPLANED PASSENGERS

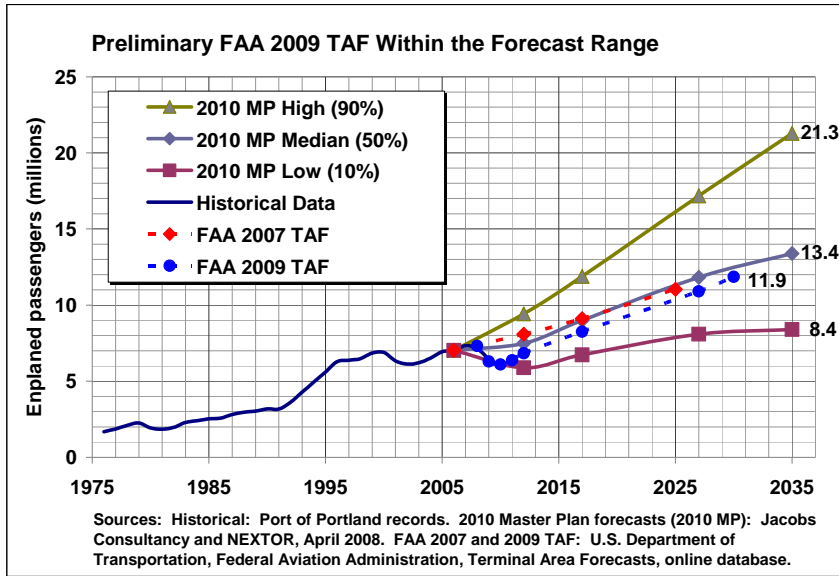


KEY FINDINGS

- The largest year-over-year decrease in PDX enplaned passengers occurred in February 2009, with smaller decreases through July 2009.
- Actual numbers of PDX enplaned passengers are within the forecast range, with the 2009 estimate tracking the Low (10%) forecast.



2. ENPLANED PASSENGERS (continued)



KEY FINDINGS

- PDX has weathered the economic recession better than certain other West Coast airports, in terms of the change in enplaned passengers, as shown below.
- The preliminary FAA 2009 Terminal Area Forecast (TAF) of enplaned passengers at PDX is lower than the numbers forecast in the 2007 TAF but within the forecast range.

Year-over-year Percent Change in Enplaned Passengers

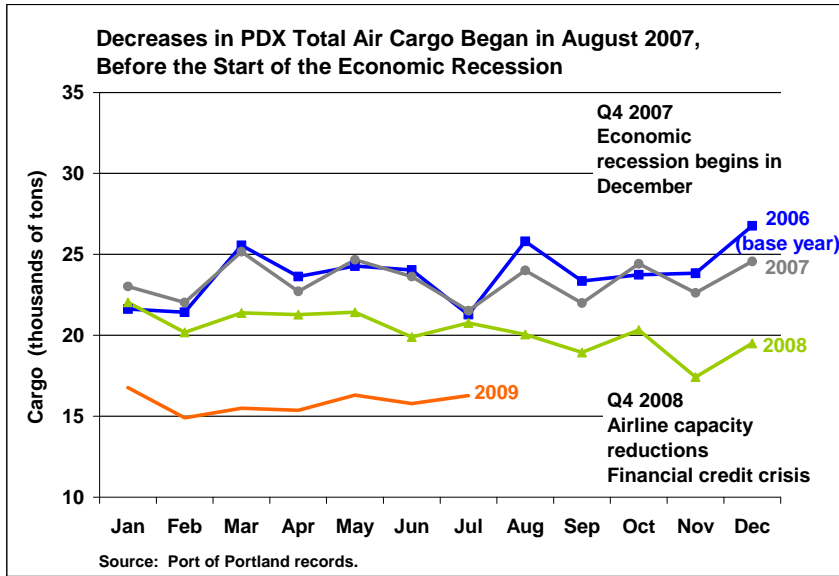
| Airport                                   | 2006-2007   | 2007-2008    | First 7 months 2008-2009 |
|---|-------------|--------------|--------------------------|
| <b>PDX</b>                                | <b>4.4%</b> | <b>-2.5%</b> | <b>-13.0%</b>            |
| <b>Other selected West Coast airports</b> |             |              |                          |
| Seattle-Tacoma International              | 4.3%        | 2.9%         | -4.8%                    |
| San Diego International                   | 4.8%        | -1.1%        | -10.1%                   |
| Metropolitan Oakland International        | 1.2%        | -21.5%       | -24.2%                   |
| Sacramento International                  | 3.9%        | -7.3%        | -14.3%                   |
| San Jose International                    | -0.5%       | -8.8%        | -17.8%                   |
| Orange County-John Wayne                  | 3.8%        | -9.9%        | -8.4%                    |
| <b>U.S. domestic enplaned passengers</b>  | <b>3.2%</b> | <b>-4.3%</b> | <b>-9.1%</b>             |

Note: Percent change for U.S. domestic from 2008 through 2009 is for the first five months.

Sources: Port of Portland records, U.S. Department of Transportation, T100, online database, and individual airport websites.

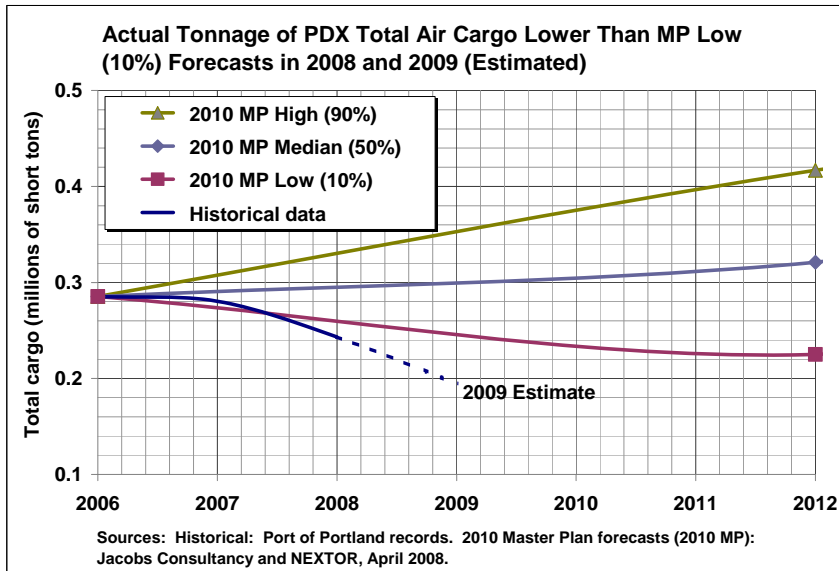


3. AIR CARGO



KEY FINDINGS

- The trends in PDX air cargo track the current economic recession, with year-over-year decreases in each month since the start of the recession in December 2007.
- The largest year-over-year decrease in PDX total air cargo occurred in April 2009, with significant seasonal variation.
- PDX air cargo decreased significantly in response to the national economic recession, following the trends in the nation and for certain other West Coast airports, as shown on the following page.
- Actual PDX air cargo tonnage drops below the Low (10%) forecast in 2008 and 2009 (estimated).



3. AIR CARGO (continued)

Year-over-year Percent Change in Total Air Cargo

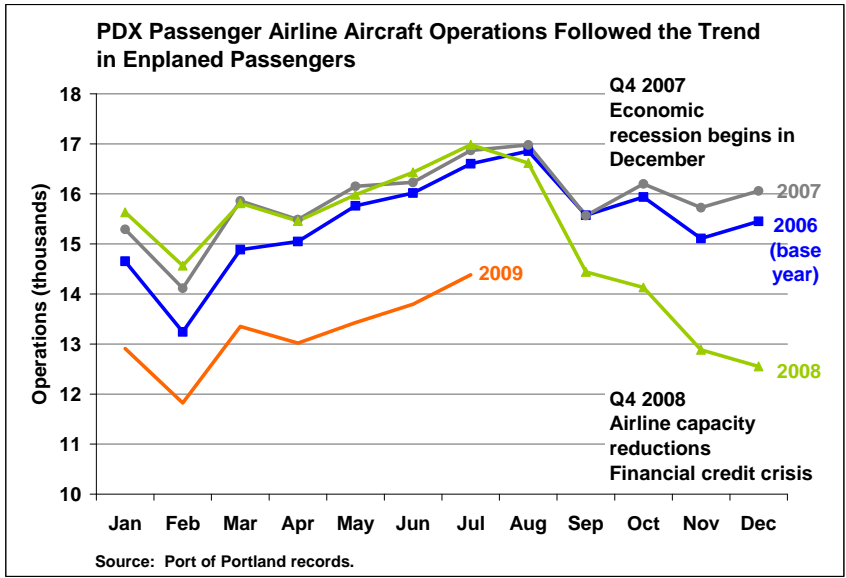
| Airport                                   | 2006-2007    | 2007-2008     | First 7 months<br>2008-2009 |
|---|--------------|---------------|-----------------------------|
| <b>PDX</b>                                | <b>-1.8%</b> | <b>-13.2%</b> | <b>-24.5%</b>               |
| <b>Other selected West Coast airports</b> |              |               |                             |
| Seattle-Tacoma International              | -6.7%        | -8.9%         | -9.9%                       |
| San Diego International                   | -25.6%       | -13.4%        | -17.9%                      |
| Metropolitan Oakland International        | 0.4%         | -7.2%         | -23.2%                      |
| Sacramento International                  | 17.0%        | -9.1%         | -4.8%                       |
| San Jose International                    | -9.5%        | -11.2%        | -29.3%                      |
| Orange County-John Wayne                  | -7.7%        | -22.2%        | -20.5%                      |
| <b>U.S. revenue tons enplaned</b>         | <b>-0.9%</b> | <b>-9.4%</b>  | <b>-17.4%</b>               |

Note: Percent change for U.S. domestic from 2008 through 2009 is for the first six months.

Sources: Port of Portland records, U.S. Department of Transportation, T100, online database, and individual airport websites.

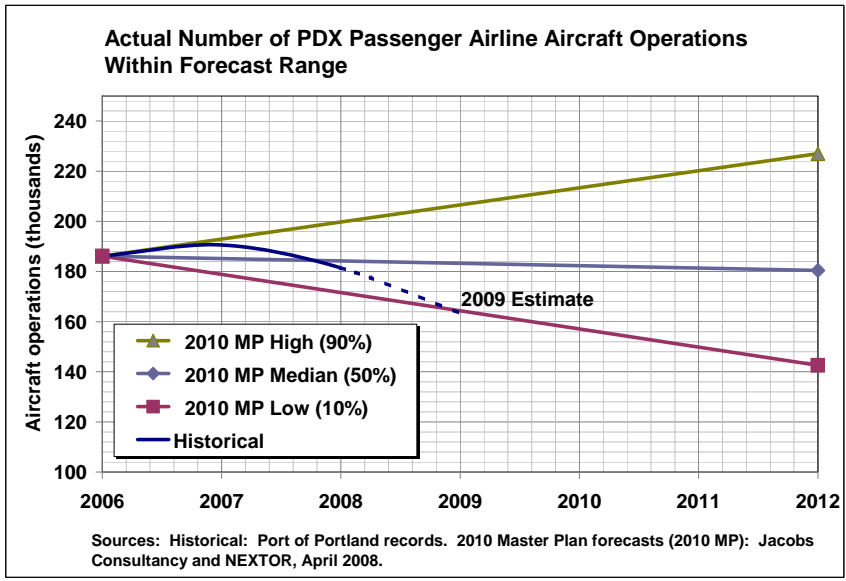


4. AIRCRAFT OPERATIONS



KEY FINDINGS

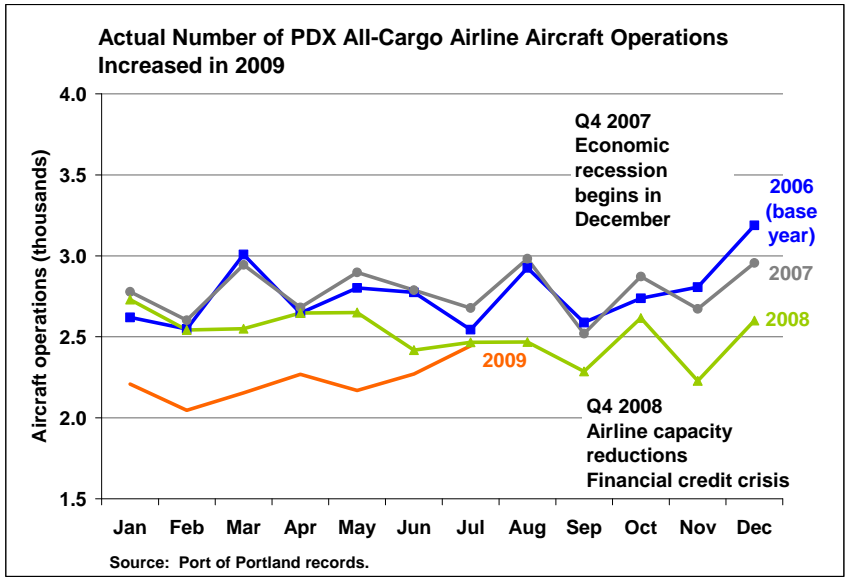
- PDX passenger airline aircraft operations followed the trend in enplaned passengers.
- The largest year-over-year decrease in PDX passenger airline aircraft operations occurred in December 2008, with smaller decreases through July 2009.



- The number of PDX passenger airline aircraft operations are within the forecast range, with the 2009 estimate tracking the Low (10%) forecast.

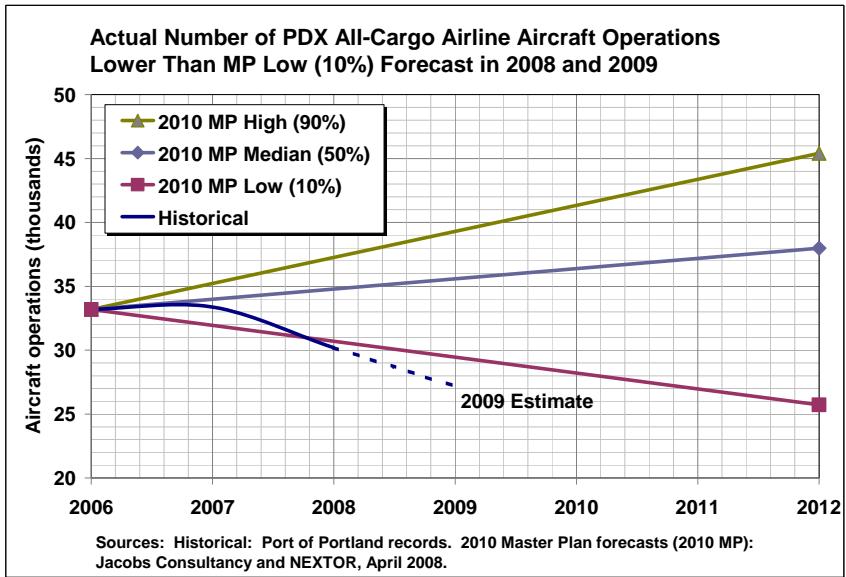


4. AIRCRAFT OPERATIONS (continued)

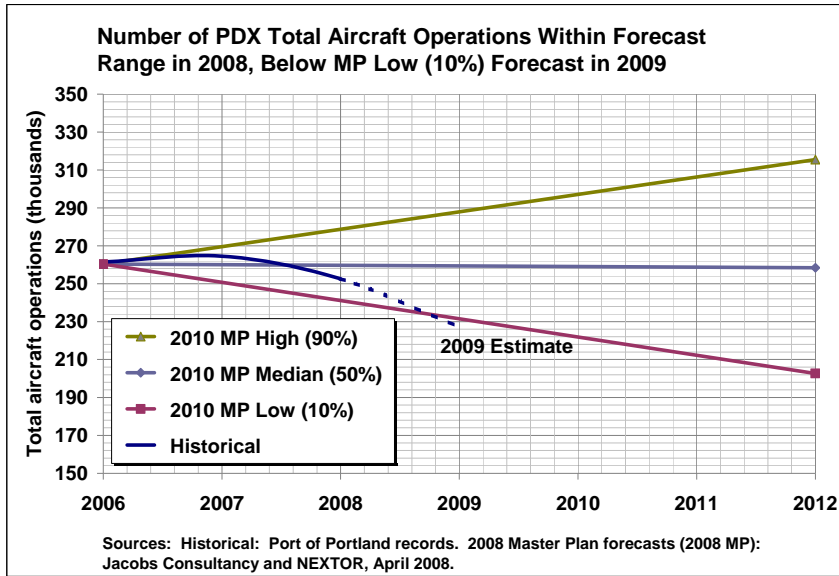


KEY FINDINGS

- The actual number of PDX all-cargo airline aircraft operations increased in 2009 and approached 2008 numbers in July 2009, reflecting an increase in regional feeder operations.
- The largest year-over-year decrease in PDX all-cargo airline aircraft operations occurred in February 2009.
- The actual number of PDX all-cargo airline aircraft operations is lower than the Low (10%) forecast in 2008 and 2009 (estimated).

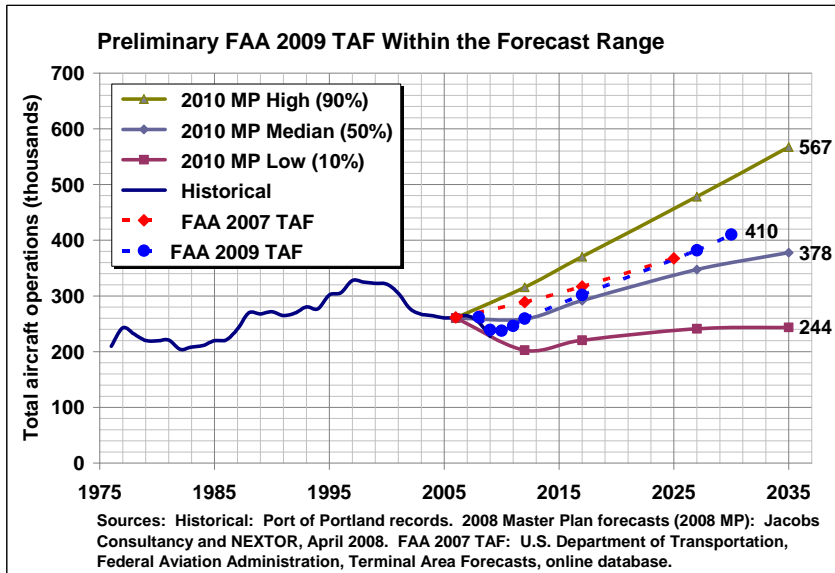


4. AIRCRAFT OPERATIONS (continued)



KEY FINDINGS

- The actual number of PDX total aircraft operations are within the forecast range in 2008, but below the Low (10%) forecast in 2009 (estimated).
- The preliminary FAA 2009 Terminal Area Forecast (TAF) of total aircraft operations at PDX is lower than the numbers forecast in the 2007 TAF in the near-term but within the forecast range.
- Recent trends in PDX total aircraft operations are consistent with the national average and better than that for certain other West Coast airports, as shown on the following page.



4. AIRCRAFT OPERATIONS (continued)

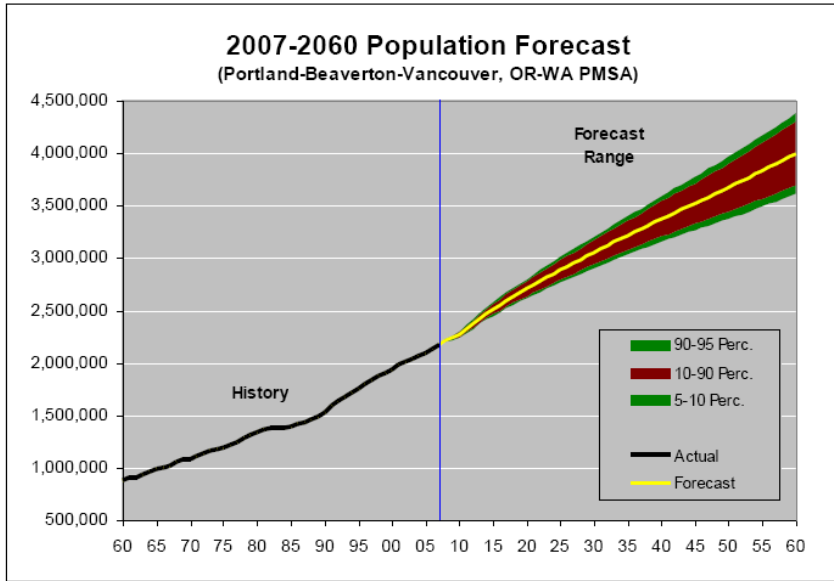
Year-over-year Percent Change in Total Aircraft Operations

| Airport                                   | 2006-2007    | 2007-2008    | First 7 months<br>2008-2009 |
|---|--------------|--------------|-----------------------------|
| <b>PDX</b>                                | <b>1.2%</b>  | <b>-4.5%</b> | <b>-12.8%</b>               |
| <b>Other selected West Coast airports</b> |              |              |                             |
| Seattle-Tacoma International              | 2.1%         | -0.6%        | -9.4%                       |
| San Diego International                   | 3.8%         | -3.5%        | -14.5%                      |
| Metropolitan Oakland International        | 3.5%         | -19.2%       | -17.3%                      |
| Sacramento International                  | 0.5%         | -12.0%       | -15.3%                      |
| San Jose International                    | -0.6%        | -7.8%        | -13.1%                      |
| Orange County-John Wayne                  | -4.5%        | -19.2%       | -30.0%                      |
| <b>U.S. airports</b>                      | <b>-0.8%</b> | <b>-6.1%</b> | <b>-10.7%</b>               |

Sources: Port of Portland records, U.S. Department of Transportation, Federal Aviation Administration, ATADS, online database, and individual airport websites.

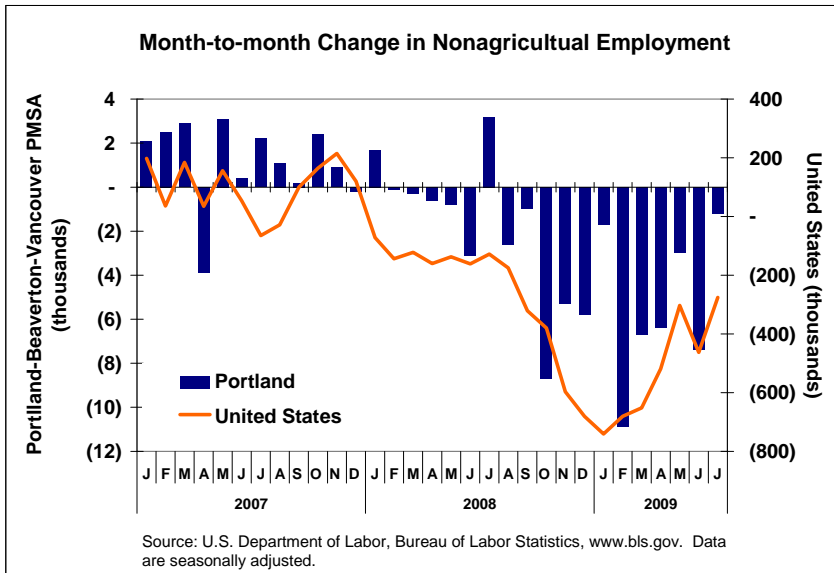


5. KEY ISSUES AND TRENDS

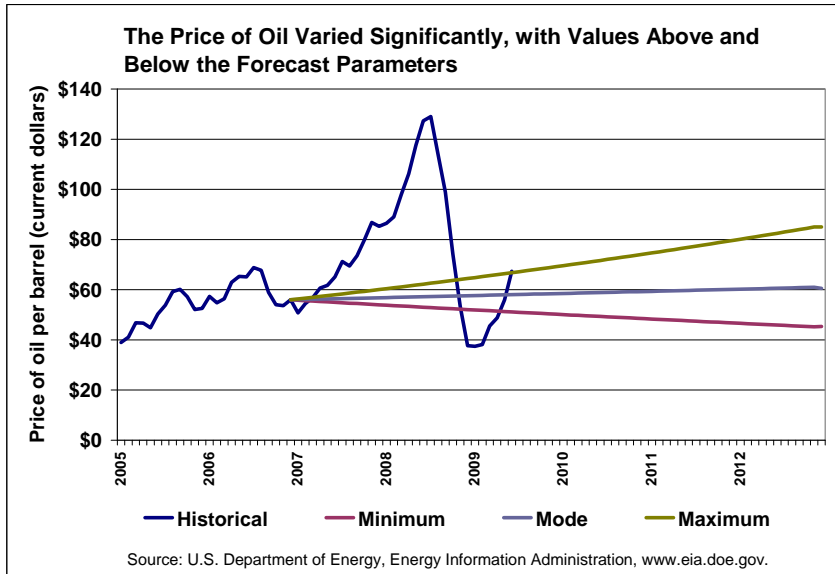


KEY FINDINGS

- Metro’s revised population projections (March 2009) are consistent with those used for the PDX MP.
- Portland regional employment trends followed, but have been more moderate than national trends during the current national economic recession.
- Metro’s revised employment projections (March 2009) allow for job losses through 2010.
- Although current income data are not available, Portland regional per capita income is likely lower in 2008, but within the forecast parameters.

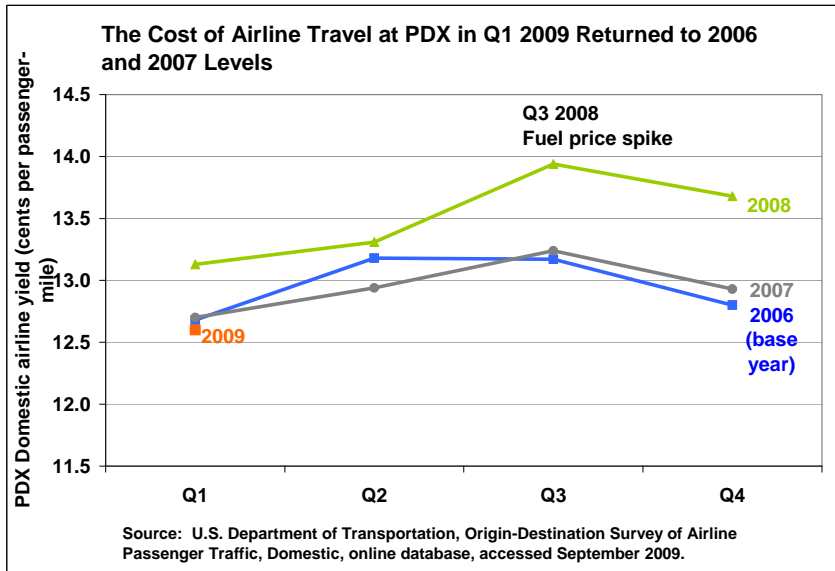


5. KEY ISSUES AND TRENDS (continued)

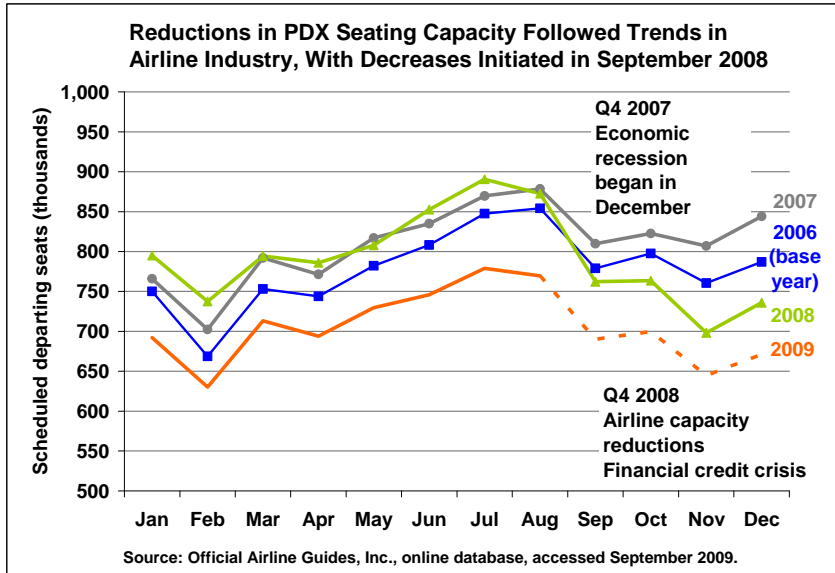


KEY FINDINGS

- The price of oil (before a carbon tax) has varied significantly, with values above and below the PDX Master Plan forecast parameters in the near-term.
- The Department of Energy projected a higher, but much narrower range of oil prices in its April 2009 Outlook compared with the March 2008 Outlook (available when the PDX Master Plan forecasts were prepared).
- The cost of airline travel at PDX (measured in airline yield—the cost of flying one passenger one mile) returned to 2006 and 2007 levels during the first quarter of 2009, following higher costs related to the fuel price spike during the third and fourth quarters of 2008.

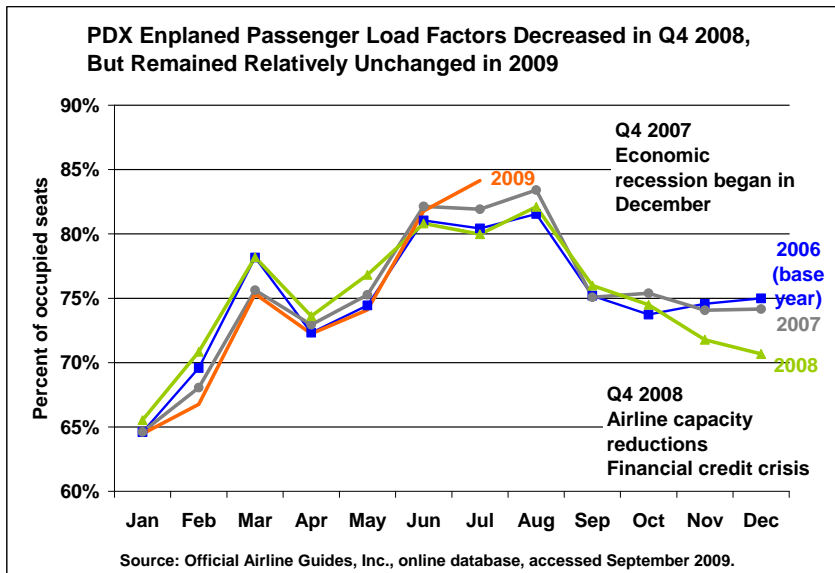


5. KEY ISSUES AND TRENDS (continued)



KEY FINDINGS

- Reductions in PDX seating capacity followed trends in the airline industry, with decreases initiated in September 2008.
- The largest year-over-year decrease in PDX seating capacity occurred in February 2009, with smaller through July 2009.



- PDX enplaned passenger load factors decreased in the fourth quarter of 2008, but remained relatively unchanged in 2009 in the face of weak demand related to the current economic recession.

