APPENDIX A

Aviation Activity Forecast Technical Report

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Great Lakes Region
Minneapolis Airports District Office
6020 28th Ave S, Room 102
Minneapolis, MN 55450

July 2, 2012

Mr. Roy Fuhrmann
Director of Environment
Metropolitan Airports Commission
6040 28th Avenue South
Minneapolis, MN 55450

Dear Mr. Fuhrmann:

The Federal Aviation Administration (FAA) has evaluated the Aviation Activity Forecast Technical Report for the Minneapolis-St Paul International Airport (June 2012) prepared by the HNTB Corporation on behalf of the Metropolitan Airports Commission (MAC). The forecasts contained in the June 2012 report have been approved. The FAA concurs with the use of the forecasts for the 2020 Improvement project.

Please note that this transmittal serves as notification that the forecast has been approved. This is not a notice of final project approval, funding eligibility or availability. This forecast must be reviewed again within 3 to 5 years, unless current conditions change materially or new information becomes available sooner. If you have any questions or concerns, please do not hesitate to contact us.

Sincerely:

Steven J. Obenauer, Manager
Minneapolis Airports District Office
(612) 253-4630

Cc: Paul Lo, FAA Great Lakes Regional Office

Aviation Activity Forecast Technical Report

Prepared by:

HNTB Corporation

June 5, 2012

Minneapolis-St. Paul International Airport 2020 Improvements Environmental Assessment/ Environmental Assessment Worksheet

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INTRODUCTION & PURPOSE

The Metropolitan Airports Commission (MAC) prepared a Long Term Comprehensive Plan (LTCP) Update for the Minneapolis-St. Paul International Airport (MSP) in 2009. In the LTCP Update, the MAC identified specific physical improvements at MSP to allow the Airport to effectively continue providing the Twin Cities commercial air transport needs as forecast through 2030. While the LTCP Update identified facility improvements needed through year 2030, only the improvements needed through 2020 are considered appropriate for environmental review at this time. Thus, to comply with federal and state laws, the MAC is preparing an Environmental Assessment / Environmental Assessment Worksheet (EA) to evaluate and disclose the potential environmental impacts of improvements needed through 2020.

Since the LTCP forecast was published, a lagging economic recovery, changes in the airline industry, and new information on airline fleet plans, has created material changes that warrant an update of the forecast for the EA. In addition, some aspects of the forecast need to be developed in more detail than the original LTCP to generate the information needed to adequately assess the environmental impacts.

The FAA's Terminal Area Forecast (TAF) was considered for use in this study. The TAF, however, did not incorporate the planned Delta Air Lines fleet changes that will be increasing the average aircraft size. Moreover, the TAF does not provide the market level of detail required to prepare the gated flight schedules necessary to assess the noise and air quality impacts of the proposed improvements. Therefore, an independent forecast was prepared for this EA. A comparison with the 2011 TAF is provided in Section 14.

This technical report contains the annual and derivative activity forecasts for the Airport. Except where noted, the forecasts contained herein are unconstrained; they assume landside and airfield capacity will be available to accommodate the anticipated demand. Forecasts are presented for 2015, 2020, 2025, and 2030; however the main focus of the analysis is on 2020 and 2025. In some instances, forecast data are presented for 2016 to facilitate more detailed phasing should it be needed. Separate annual forecasts were developed for scheduled domestic and international passenger, non-scheduled passenger, air cargo, general aviation, and military activity.

More detailed gated flight schedules were prepared for 2010 (the base year), 2020 and 2025. The year 2020 represents the year of project implementation and 2025 activity levels are used

to evaluate impacts five years thereafter. Gated flight schedules were used to evaluate three on-site alternatives:

- Alternative 1 - Airlines Remain, which assumes that airlines remain and grow at their existing terminals;

- Alternative 2 - Airlines Relocate, which assumes that all non-SkyTeam airlines relocate to Terminal 2-Humphrey; and

- No Action Alternative: No expansion projects are assumed, except those that do not require environmental approval or are covered by a State Environmental Assessment Worksheet (EAW) or categorical exclusion.

This report first discusses historical and anticipated socioeconomic activity in the Twin Cities area, followed by a discussion of historical aviation activity and ongoing trends at MSP. Critical assumptions are then presented followed by the forecasts of domestic and international passengers, along with forecasts of non-scheduled passengers and peak activity. Forecasts of air cargo tonnage and operations, and general aviation and military activity are then discussed along with the gated flight schedules and associated detailed derivative forecasts. The technical report concludes with a summary of forecast annual activity and estimated gate requirements.

Subsequent to the preparation of this analysis, American Airlines declared Chapter 11 bankruptcy and new changes in Essential Air Service (EAS) providers were announced. As a result of the bankruptcy, American is expected to reorganize and possibly merge with another carrier, but not to cease operations. Currently, American Airlines accounts for slightly over 3 percent of passenger and aircraft operation activity at MSP; therefore the total impact of the bankruptcy on MSP activity is not expected to be significant. It was also announced that Great Lakes Aviation would be replacing Mesaba Airlines as the EAS carrier for several MSP markets, including Thief River Falls and Brainerd in Minnesota, Fort Dodge and Mason City in Iowa, Iron Mountain in Michigan, Watertown in South Dakota and Devils Lake in North Dakota. As a result, these markets will be served by Beech 1900 turboprop aircraft flown by Great Lakes instead of the Saab 340 turboprop aircraft flown by Mesaba. The forecast and planned facility improvements currently provide for activity by small turboprops, so these changes will not have a significant impact on the proposed improvements and resulting impacts.

The assumptions in the following forecasts are based on input from airline and Airport officials, previous MSP studies, relevant literature, and professional experience. Forecasting, however, is not an exact science. Departures from forecast levels in the local and national economy and in the airline business environment may have a significant effect on the projections presented herein. These uncertainties increase towards the end of the forecast period, when new technologies and business strategies and changes in work and recreational practices may have an unpredictable impact on aviation activity. For these reasons, the forecasts should be periodically compared with actual Airport activity levels, and Airport plans and policies adjusted accordingly.

1 Economic Trends

Passenger demand is determined by the strength of the economy and the cost and availability of air service. Consequently, the development of an aviation activity forecast requires a clear understanding of local economic forecasts and trends.

The service area definition corresponds to the seven counties that comprise the Metropolitan Council (Met Council). This core area includes Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington Counties. Larger service area definitions that encompass additional counties have been tested in previous MSP forecast efforts, but in those studies, passengers proved to be most sensitive to trends in the seven-county Met Council area.

Table A.1.1 presents historical and projected population, employment, income and per capita income for each county within the Met Council area. The tables in ***Attachment 1,*** *Socioeconomic Data,* provide more detailed information by county and also show data for the United States for comparison purposes. Two sets of forecasts are presented in the Attachment, one from the Met Council and the other from Woods & Poole Economics (W&P).

Both the Met Council and W&P socioeconomic forecasts have their strengths and weaknesses. The Met Council forecasts are prepared locally and reflect a detailed knowledge of the existing and projected growth trends within the Minneapolis-St. Paul metropolitan area. However, they do not include projections of income or projections of national activity. Income is important because analysis of historical passenger activity indicates that passenger demand is more closely correlated with income than with population or employment. Also, much of the analysis will be based on FAA projections of national aviation activity. For this analysis to be valid, the local and national socioeconomic projections need to be based on a consistent set of assumptions.

Table A.1.1

Summary of Socioeconomic Data and Forecasts
Seven-County Metropolitan Council Area

Year	Population	Employment	Income (thousands of 2010 $)	Per Capita Income (2010 $)
1990	2,298,418	1,590,618	81,852,051	35,612
1991	2,332,897	1,593,506	82,044,918	35,169
1992	2,368,710	1,616,834	85,283,163	36,004
1993	2,406,000	1,651,174	86,825,783	36,087
1994	2,441,014	1,701,628	90,864,821	37,224
1995	2,474,926	1,754,558	95,314,223	38,512
1996	2,508,406	1,789,424	99,780,757	39,779
1997	2,540,725	1,822,330	105,059,222	41,350
1998	2,575,454	1,871,106	113,798,168	44,186
1999	2,613,594	1,911,571	118,863,138	45,479
2000	2,651,983	1,956,386	126,248,090	47,605
2001	2,683,533	1,964,972	126,930,035	47,300
2002	2,699,163	1,950,277	128,152,703	47,479
2003	2,710,767	1,954,321	129,896,618	47,919
2004	2,726,057	1,982,000	134,458,194	49,323
2005	2,740,535	2,020,535	134,987,963	49,256
2006	2,763,470	2,050,927	139,696,298	50,551
2007	2,791,531	2,078,693	143,212,710	51,303
2008	2,818,169	2,093,774	142,240,983	50,473
2010	2,898,034	2,143,252	133,336,513	46,009
2015	3,085,516	2,266,500	148,743,864	48,207
		EA Analysis Period		
2020	3,272,997	2,389,747	166,088,730	50,745
2025	3,407,246	2,493,907	185,582,702	54,467
		Long Term		
2030	3,541,495	2,598,067	207,330,407	58,543
		Average Annual Growth Rate		
1990-2008	1.1%	1.5%	3.1%	2.0%
2008-2025	1.1%	1.0%	1.6%	0.4%
2008-2030	1.0%	1.0%	1.7%	0.7%

Sources: Attachment 1, Tables 1.1 through 1.8 and HNTB analysis.

The W&P forecasts are more recent than the Met Council forecasts. They also include personal income and prepare metropolitan and national forecasts using a common set of assumptions. However, the W&P forecasts do not incorporate a detailed knowledge of local growth trends and development constraints.

A hybrid forecast that incorporates the strengths and minimizes the weaknesses of the two data sources was prepared for use in this study. For each county, Met Council forecast growth rates were applied to the latest base year data. These forecasts were then adjusted, on a prorated basis, to sum to the W&P forecasts for the seven-county Met Council metropolitan area.

1.1 Population

Table 1.1 shows historical population in the Twin Cities, Minnesota, and the United States. The historical population information was obtained from the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce. Until 2000, the Twin Cities grew at a more rapid pace than the United States but metropolitan growth has roughly paralleled national growth over the last decade. The suburban areas are also growing slightly more quickly than the urban core (Hennepin and Ramsey Counties).

Table 1.2 presents two alternative forecasts of population for Minneapolis-St. Paul. The first forecast was obtained from the Met Council's revised Regional Development Framework 2030 Forecasts and is only available for the seven-county Met Council area. The second forecast applies the Met Council growth rates to the most recent available year for historical socioeconomic data (2008). As shown, the forecasts for the seven-county area project an average annual growth rate of about 1.1 percent through 2025. The forecasts project the metropolitan area to continue to grow faster than the state, and the outer suburbs to grow faster than the inner suburbs.

1.2 Employment

Table 1.3 presents historical employment for each of the seven Met Council counties, the service area, and the United States. The table shows the economic cycles that have occurred over the past two decades, including the boom times of the mid- to late 1980s and mid- to late 1990s, punctuated by the slowdowns and declines of the early 1980s, early 1990s, and 2001-2003. Overall, the metropolitan area has grown slightly more rapidly than the U.S. and the outer suburbs have grown slightly faster than the inner suburbs.

Employment forecasts from the Met Council are presented in Table 1.4. The Met Council uses a stricter definition of employment than is used by the U.S. Bureau of Economic Analysis and therefore their historical and projected employment numbers are lower.[1] Consequently, to facilitate comparison an adjusted set of Met Council projections was developed by applying Met Council growth rates to base year BEA numbers. The Met Council projections (1.0 percent per year) are more conservative than the Woods & Poole projections for national employment (1.2 percent per year).

1.3 Income and Per Capita Income

Table 1.5 shows historical income in the service area and the United States from 1980 through 2008. All numbers are provided in thousands of 2010 dollars. Total income in the metropolitan area grew at 3.3 percent annually through 2008, a higher rate than in the remainder of the State or the United States (3.0 percent). As was the case with employment, income has alternated between periods of rapid growth and periods of stagnation. No income data specific to the seven-county area is available for a more recent year than 2008. However, national data indicate that the 2008-2009 recession has had a negative impact on income growth.

Table 1.6 shows historical per capita income in 2010 dollars. Per capita income in the Twin Cities is higher than in the rest of the State or than in the United States. Over the past twenty years, Minnesota per capita income has grown at roughly the same pace inside and outside the metropolitan area but more quickly than in the United States.

Projected per capita income is shown in Table 1.7. No Met Council forecasts are presented because the Met Council does not publish income or per capita income forecasts. Woods & Poole projects per capita income to continue to grow but at a more moderate rate than it has in the past. This, in part, reflects an expectation that the growth in the economy will slow down as more members of the Baby Boom generation enter retirement. Per capita income is projected to grow at roughly 0.4 percent per annum through 2025 in the Twin Cities metropolitan area, compared to 0.9 percent in the United States. Note that in the short term, between 2008 and 2010, per capita income was estimated to decline as a result of the recession.

Table 1.8 presents two sets of income projections. The unadjusted Woods & Poole forecasts project real income to grow 1.8 percent per year in the metropolitan area. A second set of projections combines the Met Council population forecasts with the Woods & Poole per capita income forecasts to generate a hybrid income forecast for the seven-county service area. The adjusted forecast projects income to increase at 1.6 percent rate through 2025.

2 Historical Aviation Activity and Current Trends

This section provides a brief overview of historical passenger, cargo (freight and mail), general aviation and military activity at MSP.

2.1 Passenger Activity

Table A.2.1 shows historical domestic and international originations and **Table A.2.2** shows historical passenger enplanements at MSP. In general, passenger growth has tracked with economic growth. There were periods of slow growth in the early 1990s, and 2000-2003 and periods of more rapid growth in the mid- to late 1990s, as well as 2004 and 2005. Enplanements began to decline after 2005 and originations declined between 2007 and 2009.

Table A.2.1

Historical Originating Passengers at MSP

Year	Domestic Originations (a)	Combined International (b)	Total Originations
1990	4,284,240	n/a	n/a
1991	4,288,090	n/a	n/a
1992	4,414,590	n/a	n/a
1993	4,511,050	n/a	n/a
1994	4,598,270	n/a	n/a
1995	5,021,830	n/a	n/a
1996	5,411,820	n/a	n/a
1997	5,750,780	n/a	n/a
1998	5,736,650	n/a	n/a
1999	6,365,610	n/a	n/a
2000	7,225,020	n/a	n/a
2001	6,603,320	544,189	7,147,509
2002	6,207,930	502,422	6,710,352
2003	6,390,140	499,471	6,889,611
2004	7,074,980	595,452	7,670,432
2005	7,609,360	618,977	8,228,337
2006	7,643,820	654,297	8,298,117
2007	7,703,380	709,046	8,412,426
2008	7,065,580	718,963	7,784,543
2009	6,987,990	644,281	7,632,271
2010	7,084,400	706,128	7,790,528
	Average Annual Growth Rate		
1990-2010	2.5%	n/a	n/a
2001-2010	0.8%	2.9%	1.0%

(a) USDOT, Origin-Destination Survey as compiled by DataBase Products, Inc.

(b) USDOT, Origin-Destination Survey for U.S. Flag Carriers. Originations for Foreign-Flag Carriers estimated.

Sources: As noted and HNTB analysis.

Table A.2.2

Historical Revenue Passenger Enplanements at MSP

Year	Domestic Air Carrier Enplanements	International Air Carrier Enplanements	Regional Enplanements	Non-Scheduled Enplanements	TOTAL Enplanements
1980	4,285,217	28,731	159,727	113,793	4,587,468
1981	4,391,802	57,871	129,497	85,869	4,665,039
1982	5,071,395	50,574	178,590	82,278	5,382,837
1983	5,702,094	49,638	256,615	149,486	6,157,833
1984	5,986,288	73,014	287,762	187,076	6,534,140
1985	7,114,367	83,533	349,281	312,186	7,859,367
1986	7,845,494	81,700	481,188	238,972	8,647,354
1987	8,171,206	85,023	509,246	205,700	8,971,175
1988	8,023,121	65,265	516,083	266,344	8,870,813
1989	8,349,920	78,910	415,910	343,418	9,188,158
1990	8,609,638	102,673	495,439	387,320	9,595,070
1991	8,683,232	124,125	492,075	353,590	9,653,022
1992	9,550,986	144,255	566,186	419,060	10,680,487
1993	9,851,910	170,544	649,104	350,918	11,022,476
1994	10,261,328	166,114	646,788	457,715	11,531,945
1995	11,288,317	256,669	617,477	501,792	12,664,255
1996	12,142,783	276,575	720,749	481,532	13,621,639
1997	12,578,587	419,048	872,377	465,628	14,335,640
1998	12,645,248	519,395	820,709	635,290	14,620,642
1999	14,020,304	575,079	1,211,306	650,350	16,457,039
2000	15,278,927	644,096	1,204,681	399,683	17,527,387
2001	14,379,588	558,276	809,019	280,609	16,027,492
2002	13,794,354	551,203	1,054,192	365,023	15,764,772
2003	14,045,747	572,691	1,250,064	233,692	16,102,194
2004	14,901,675	677,318	1,778,396	240,250	17,597,639
2005	14,849,344	790,806	2,138,186	205,975	17,984,311
2006	14,143,459	692,757	2,190,679	151,412	17,178,307
2007	13,496,662	980,460	2,406,447	85,515	16,969,084
2008	11,750,665	1,264,507	3,336,724	32,376	16,384,272
2009	10,824,905	1,059,969	3,639,535	26,725	15,551,134
2010	10,214,550	1,141,442	4,354,331	4,736	15,715,059
		Average Annual Growth			
1980-1990	7.2%	13.6%	12.0%	13.0%	7.7%
1990-2010	0.9%	12.8%	11.5%	-19.8%	2.5%
1990-2001	4.8%	16.6%	4.6%	-2.9%	4.8%
2001-2010	-3.7%	8.3%	20.6%	-36.5%	-0.2%
1980-2010	2.9%	13.1%	11.6%	-10.1%	4.2%

Sources: MAC activity statistics and HNTB analysis.

There was a slight increase in both originations and enplanements in 2010. Key trends and factors at MSP over the past thirty years include:

- The reduction in traffic growth after 1987 following the Northwest/Republic merger and the economic slowdown;
- Two rapid periods of regional carrier growth, first in the 1980s with the advent of code-sharing and then in the late 1990s with the widespread proliferation of regional jets;
- Significant international passenger growth to European markets during most of the period as Northwest began non-stop service to Europe and the Northwest/KLM alliance provided access to many additional European markets;
- New international service to Asian markets resulting from the introduction of the Boeing 747-400 aircraft which provided the range to access these markets non-stop;
- Significant international growth to other North American countries, as the Canadian markets became liberalized, and scheduled non-stop winter flights to Mexico were introduced;
- An extended period of passenger growth corresponding with the economic boom of the mid and late 1990s;
- A brief slow-down in the growth in 1998 as a result of the Northwest work stoppage;
- Another spurt in growth in 1999-2000 corresponding to Sun Country's introduction of scheduled service and Northwest's competitive reaction;
- A major downturn beginning in 2001 as a result of the September 11th terrorist attacks and associated security restrictions and passenger apprehensions coupled with an economic slowdown;
- Rapid growth in 2004 resulting from an improving economy and relentless fare competition;
- A decline after 2005 resulting from Northwest's Chapter 11 filing, followed by a rapid increase in jet fuel prices, and followed in turn by the financial crisis of 2008 and subsequent economic recession, and 2008 Sun Country Chapter 11 filing; and
- A slowdown in international growth in recent years, as Northwest and then Delta placed more emphasis on other gateways in their system including Detroit, Atlanta, and New York JFK.

Total domestic originations have grown at a 2.5 percent average annual rate over the period. Total enplanements have grown at a 2.5 percent average annual rate over the same period indicating that international passengers and connecting enplanements have grown at about the same rate as originating enplanements. International enplanements and regional carrier enplanements have grown most rapidly. Conversely, non-scheduled enplanements have grown

the most slowly and declined significantly in recent years, although this is largely due to Sun Country's change in emphasis from charter to scheduled operations.

2.2 Aircraft Operations

Table A.2.3 presents historical aircraft operations at MSP. Each aircraft take-off and each aircraft landing counts as an operation. Total aircraft operations have grown at an average annual rate of 1.5 percent over the thirty year period. The fastest growing categories have been international and regional passenger carriers. Conversely, non-scheduled, general aviation and military operations have been declining.

Table A.2.3

Historical Aircraft Operations at MSP (a)

Year	Domestic Air Carrier	Regional	International Air Carrier (b)	Non-Scheduled	All-Cargo	General Aviation	Military	Total
1980	146,524	12,128	350	1,976	1,214	114,260	6,604	283,056
1981	146,338	9,904	472	2,568	1,446	97,278	5,606	263,612
1982	150,450	22,838	390	2,478	2,556	82,303	5,359	266,374
1983	170,108	33,924	388	3,752	3,192	83,548	5,100	300,012
1984	189,830	35,938	506	2,234	5,966	93,367	7,721	335,562
1985	220,190	31,460	628	3,346	5,338	106,715	14,020	381,697
1986	231,760	50,520	680	2,426	12,360	71,406	6,869	376,021
1987	213,540	56,410	644	3,002	15,434	70,050	8,676	367,756
1988	211,562	58,896	544	2,836	17,958	68,634	6,698	367,128
1989	218,168	59,338	718	3,310	17,194	71,669	4,347	374,744
1990	223,884	74,446	860	4,538	18,526	58,864	2,804	383,922
1991	225,390	75,856	1,078	5,046	20,280	55,702	2,534	385,886
1992	242,670	85,926	1,222	5,824	18,900	60,929	3,003	418,474
1993	258,374	108,237	1,285	4,855	15,198	49,216	2,825	439,990
1994	264,519	115,164	1,478	6,103	14,110	50,898	2,451	454,723
1995	281,334	106,763	1,832	6,832	15,909	49,769	2,915	465,354
1996	295,776	105,926	2,256	8,750	20,362	49,786	2,624	485,480
1997	294,220	102,038	3,821	8,350	15,011	64,209	3,624	491,273
1998	278,828	90,421	5,109	11,531	15,323	79,757	2,044	483,013
1999	314,883	109,017	6,036	10,600	17,271	49,256	3,358	510,421
2000	341,980	89,105	7,224	5,959	18,395	58,076	2,473	523,212
2001	342,122	81,661	7,449	4,090	17,077	45,943	3,180	501,522
2002	338,744	95,248	7,048	4,833	14,974	44,279	2,543	507,669
2003	336,516	104,931	8,461	4,732	16,579	39,513	1,856	512,588
2004	334,452	135,785	9,360	3,793	16,709	39,018	1,976	541,093
2005	314,833	144,293	13,351	3,879	17,182	36,472	2,230	532,240
2006	277,525	128,156	10,900	3,233	16,355	37,459	2,040	475,668
2007	253,338	135,170	14,889	1,432	15,292	30,562	2,289	452,972
2008	212,167	166,106	24,074	536	14,361	30,685	2,115	450,044
2009	188,812	183,540	22,273	371	11,146	24,361	1,892	432,395
2010	164,785	203,066	26,556	103	12,499	27,921	2,145	437,075
				Average Annual Growth				
1980-1990	4.3%	19.9%	9.4%	8.7%	31.3%	-6.4%	-8.2%	3.1%
1990-2001	3.9%	0.8%	21.7%	-0.9%	-0.7%	-2.2%	1.2%	2.5%
2001-2010	-7.8%	10.7%	15.2%	-33.6%	-3.4%	-5.4%	-4.3%	-1.5%
1980-2010	0.4%	9.8%	15.5%	-9.4%	8.1%	-4.6%	-3.7%	1.5%

(a) MSP Airport data.
(b) Most Canadian flights through 2007 included in domestic numbers.

Sources: As noted, MAC Activity Statistics, and HNTB analysis.

3 General Forecast Assumptions

This section describes the general assumptions that were applied in this forecast. More detailed assumptions specific to a particular activity category are described in the sections pertaining to those categories. The major assumptions are as described below.

3.1 Unconstrained Forecasts

The revised unconstrained forecasts contained herein are physically unconstrained. For the purposes of this study, "physically unconstrained" means that there are sufficient airport airfield, terminal, and landside facilities at the Airport to accommodate all commercial aviation activity dictated by demand. Although no airfield limits are assumed for General Aviation (GA), it is anticipated that the development of on-airport GA facilities will follow current trends. Therefore, it is assumed that limited on-airport GA facilities will continue to cause GA activity to divert to reliever airports.

It is assumed that destination airports will be developed sufficiently to accommodate demand from the Twin Cities. However, it is recognized that airfield capacity constraints at some airports, such as London Heathrow and Tokyo Narita, will force an increase in aircraft gauge that would not occur in a truly unconstrained case.

3.2 Regulatory Assumptions

No return to airline regulation, as occurred prior to 1979, is assumed. This means that airlines will increase service and change fares as market conditions dictate. Also, except for the demand management scenarios, the forecasts in this report assume no slot control systems for MSP or destination airports other than those already in place.

3.3 Economic Assumptions

The forecasts assume no future major economic downturn, such as occurred during the depression of the 1930s. The local and national economies will periodically increase and decrease the pace of growth in accordance with business cycles. However, it is assumed that, over the forecast term, the high-growth and low-growth periods will offset each other so that the economic forecasts described in Section 1 will be realized. As noted in Section 1, the socioeconomic projections used for these forecasts reflect the current economic downturn.

3.4 International Political Environment

No major international conflicts that would disrupt aviation at MSP are assumed. Likewise, no major trade wars or embargoes that would restrict the international flow of commerce and travel are assumed.

3.5 Security Environment

Post-September 11th security requirements are still evolving. They affect passenger demand by increasing the cost of travel, delays, and inconvenience. For the purpose of this study it is

assumed that the Transportation Security Administration (TSA) will maintain its objective of limiting security-related delays to 10 minutes.

3.6 Fuel Assumptions

In accordance with Department of Energy (DOE) forecasts, the real cost of fuel is assumed to increase from 2011 levels. However, no major disruptions, as occurred in the mid- and late 1970s, are assumed. Also, no major increases in fuel taxes are assumed. If this assumption does not hold, and fuel prices continue to remain high, airlines would have to raise air fares to remain in operation, and the higher air fares would reduce demand.

3.7 Environmental Factors

No major changes in the physical environment are assumed. It is assumed that global climate changes will not be sufficient enough to force restrictions on the burning of hydrocarbons or major fuel tax increases.

3.8 National Airspace System

It is assumed that the FAA will successfully implement any required changes and improvements for the national airspace system to accommodate the unconstrained forecast of aviation demand.

3.9 Airline Consolidation

It is assumed that factors, such as government regulations and labor union resistance, will prevent any major airline consolidation beyond the current ongoing mergers such as United/Continental and Southwest/AirTran. Although some minor airline consolidation could continue to occur, no attempt is made to predict the individual airlines that would be affected.

3.10 New Entrants

As they expand their national route networks, established airlines that currently do not serve MSP, such as JetBlue, are assumed to introduce service by 2015. Southwest Airlines is assumed to expand into MSP as they have at other major focus cities. New airlines may attempt to become established during the forecast period, however, it is not possible to predict the names and characteristics of these airlines.

3.11 Airline Alliances

The SkyTeam alliance is assumed to continue with its current membership through the future. Current members include Delta, Air France, KLM, Alitalia, Korean, Aeromexico, Aeroflot, China Southern, Air Europa, Kenya Airways, TAROM, Vietnam Airlines, and CSA Czech Airlines.

3.12 Airline Strategy

Delta Air Lines and Sun Country Airlines are assumed to continue to operate as hub carriers at MSP. Although they may develop additional focus cities, they are not assumed to either add or delete major hubs elsewhere in the United States, and therefore the connecting percentage is assumed to remain at levels similar to those from 1992-2010.

4 Domestic Passenger Forecasts

This section describes the domestic passenger forecast for MSP. Additionally, this section includes a discussion of assumptions and data sources, the methodology for the passenger originations forecast, and the assumptions used to determine potential new markets. This section also includes a discussion of the projections of enplanements and connections, load factor, and seat departures. The methodology and assumptions used to estimate the type of air service that would accommodate the projected passenger are also described. This section concludes with a forecast of domestic passenger carrier aircraft operations.

4.1 Methodology, Assumptions, and Data Sources

Following is a summary of the methodology used in the domestic passenger forecast:

1. Determine drivers of passenger activity in the Twin Cities area.
2. Project future domestic passenger originations at MSP using regression analysis.
3. Adjust originations for impact of Southwest Airlines.
4. Project future domestic passenger enplanements.
5. Determine future non-stop markets based on airline revenue thresholds for existing non-stop markets.
6. Allocate MSP passengers by market.
7. Project load factor for each market.
8. Project seat departures for each market using the passenger and load factor forecasts.
9. Estimate the most likely way that airlines would accommodate the seat departure forecast in terms of aircraft type and frequency of service.
10. Convert the outbound passenger forecast to enplanements using MSP enplanement data.
11. Convert the scheduled aircraft departure forecast to actual departures using historical departure completion data.

The methodology is described in greater detail in the sections that follow.

The following data sources were used in the analysis:

- Historical and projected information on population, employment, and real income were obtained from the Regional Economic Accounts Data developed by the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce (see Section 1).
- The USDOT OD1A domestic O&D data base was used to obtain fares, yield (airline revenue per passenger mile) and distance and historical originating traffic and on a market-by-market basis.
- The USDOT T-100 data base was used to obtain outbound passengers on a market-by-market basis.
- Official Airline Guide (OAG) information on scheduled operations was used to determine existing scheduled service and historical non-stop service.
- The OAG, JP Fleet Airline-Fleets International, and individual airline websites were used to determine aircraft seat configurations for each airline.
- JP Fleet Airline-Fleets International, individual airline websites, and industry publications were used to identify information on airline fleet orders.

4.2 Yield and Fare Projections

Since passenger originations are local, they are sensitive to local economic factors such as population, employment, and income, and also to airline factors such as air carrier service and fares. Therefore, the critical assumptions for this analysis include the use of the growth rates identified in Section 1 for socioeconomic data and on assumptions regarding future yield (revenue per passenger mile) and fare levels. The detailed yield and fare analysis is presented in ***Attachment 2***, *Fare and Yield Data and Projections*.

Table 2.1 presents historical fares and yields at MSP. Since the price to the passenger includes taxes and fees, in addition to the base fare reported by the airlines, these taxes and fees were added to the historical data. As shown in the table, there was a long-term decline in the real cost of air travel at MSP through 2005. Since 2005, the record has been mixed, as fares and yields increased to cover fuel prices and decreased during the worst part of the economic downturn.

Table 2.2 provides the FAA forecasts of yields and fares. An estimate of FAA fares was derived by multiplying the FAA forecasts of average yield and average trip distance. Since the FAA provides separate forecasts for mainline and regional carriers, these were weighted by FAA forecasted enplanements to generate combined mainline-regional carrier fare projections. As shown in Table 2.2, the FAA projects yield to continue to decline but, because of increasing trip distance, national fares are projected to decrease at a slower rate.

Real yields and fares (constant 2010 dollars) at MSP were assumed to change at the adjusted FAA national-projected rate (see Table 2.3). The calculation used 2008 as a base year to exclude the impact of Southwest Airlines which is addressed in Section 4.3.2. Table 2.4 shows projected MSP fares and yields including estimated taxes and fees.[2] Real fares and yields are anticipated to increase between 2010 and 2015, as the economy is anticipated to improve, but then resume their long-term decline thereafter.

4.3 Passenger Origination Forecast

This section presents the forecast of domestic passenger originations. It includes a discussion of the projection of domestic MSP originations and adjustments for the introduction of Southwest Airlines service.

4.3.1 Base Domestic Originations

Base domestic passenger originations were projected using the regression equation originally developed for the LTCP Update. Additional originations resulting from the introduction of air service by Southwest Airlines are discussed in Section 4.3.2. Regression analysis is a statistical method of generating an equation (or model) which best explains the historical relationship among selected variables, such as O&D passengers and real income. If it is assumed that the model that best explains historical activity will continue to hold into the future, this equation can be used as a forecasting equation. Using historical (1980-2006) data, several passenger origination forecasting models were tested. The potential driving factors tested included socioeconomic variables, aviation industry variables, and instrument variables. The socioeconomic variables included population, employment, income, and per capita income for the service area (see Section 1). The aviation industry variables included MSP fares and yields. Instrument variables representing the first Gulf War, the 1998 Northwest Airlines work stoppage, and the September 11 attacks and ensuing industry recovery were also tested. The model was tested in both linear and logarithmic formulations. The variables that were tested are shown in Tables 3.1 and 3.2 in ***Attachment 3***, *Variables Tested in Regression Analysis*.

Several of the equations that were calculated showed strong correlations with passenger originations. The model that produced the best results, from both a theoretical and statistical standpoint, was a logarithmic formulation, which specified MSP originations as a function of local income and average fares (including taxes and fees) as independent variables. The regression equation is presented in **Table A.4.1**.

Table A.4.1

Base Forecast of Annual Domestic Originations at MSP

Year	Income (thousands of 2007 dollars) (a)	Fare (2007 dollars) (b)	Originations (c)	Southwest Adjustment Factor (d)	Originations Including Southwest Factor (e)
2006	132,989,142	197.73	7,643,820	-	7,643,820
2007	136,336,723	190.64	7,703,380	-	7,703,380
2008	135,411,651	213.61	7,065,580	-	7,065,580
2009		170.45	6,721,144	1.04	6,987,990
2010	126,934,706	189.10	6,763,718	1.05	7,084,400
2015	141,602,313	199.47	7,611,722	1.06	8,046,352
2016	144,904,733	198.84	7,823,265	1.06	8,269,975
			EA Analysis Period		
2020	158,114,410	196.31	8,680,886	1.06	9,176,566
2025	176,672,429	193.13	9,909,172	1.06	10,474,987
			Average Annual Growth Rate		
2010-2025	2.2%	0.1%	2.6%	n/a	2.6%
			Long Term		
2030	197,375,975	189.80	11,313,215	1.06	11,959,201
			Average Annual Growth Rate		
2010-2030	2.2%	0.0%	2.6%	n/a	2.7%

(a) Attachment 1, Table 1.8. Converted to 2007 prices for use in forecasting equation.
(b) Attachment 2, Table 2.4. Converted to 2007 prices for use in forecasting equation.
(c) Projected using following equation:

ORIG = (10^-1.5452)*(INCOME^1.14219)*(FARE^-.34159)*(STRIKE)*(D2001)*(D2002)*(D2004)*(A2008)

where: ORIG = domestic originations
INCOME = 7-county metropolitan income in thousands of 2007 dollars)
FARE = average fare in 2007 dollars, including taxes and fees
STRIKE = instrument variable equal to (10^-.0266) in 1998 during NWA pilot job action, and equal to 1 in all other years.
D2001 = instrument variable equal to 1 prior to 2001, and to (10^-.04316) thereafter
D2002 = instrument variable equal to 1 prior to 2002, and to (10^-.02858) thereafter
D2004 = instrument variable equal to 1 prior to 2004, and to (10^.02318) thereafter
A2008 = adjustment factor of .89287, representing difference between actual 2008 originations and originations projected by the equation.

R-squared = .991
F-statistic = 307.52
Durbin-Watson = 1.93
Degrees of Freedom = 10
T-statistics
intercept = -1.73
INCOME = 16.82
FARE = -2.01
STRIKE = -2.50
D2001 = -3.82
D2002 = -2.81
D2004 = 2.13

(d) Adjustment for Southwest stimulation. Please see text for details.
(e) Originations multiplied by Southwest factor.

Sources: As noted and HNTB analysis.

The model's projections for 2008 were compared with preliminary numbers for 2008 and the results suggested a further downward adjustment over and above that explained by the economic variables. The year 2008 was selected over subsequent years because it was the last year in which there was no impact on originations by Southwest Airlines. Based on the difference between the forecast results and actual numbers, the value of this imputed instrument variable is 0.89287 or $10^{-.0492}$. This negative impact, along with that of the post-9/11 instrument variables, was carried through the forecast period.

The metropolitan area income and employment variables represent the size of the market, and the fare variable represents the cost of the service. Since the forecasting model has a logarithmic formulation, each of the exponents associated with the input variables is an elasticity. With small changes in the input variables, the forecasting model can be interpreted as indicating that every 1.0 percent increase in metropolitan area income will increase originations by approximately 1.14 percent and that every 1.0 percent decrease in MSP fares will increase originations by approximately 0.34 percent.

Projections of the input variables are necessary to use the forecasting equation. Specifically, income projections were obtained from Table 1.8 and fare and yield projections from Table 2.4.

Table A.4.1 and **Figure A.4-1** show the base forecast of scheduled domestic passenger originations prepared using the equation presented above. As shown, base domestic MSP originations are projected to rise from 6.8 million in 2010 to 9.9 million in 2025, an average annual increase of 2.5 percent. This growth rate is similar to the growth rate experienced since 1990 (2.5 percent). The reduced future growth rate is anticipated to result from slower-than-historical rates of real income growth and from a slight increase in real fares.

There are several assumptions implicit in the base passenger origination forecasts:

- The historical relationship between originations, income, and fares will continue throughout the forecast period. Forces that could disrupt this relationship, such as a return to regulation, severe congestion at destination airports, or the wide-scale use of teleconferencing as a travel alternative, could alter this relationship.

- In accordance with FAA forecasts, fuel prices will increase over the forecast period, causing fares to to decline more slowly than they have in the past.

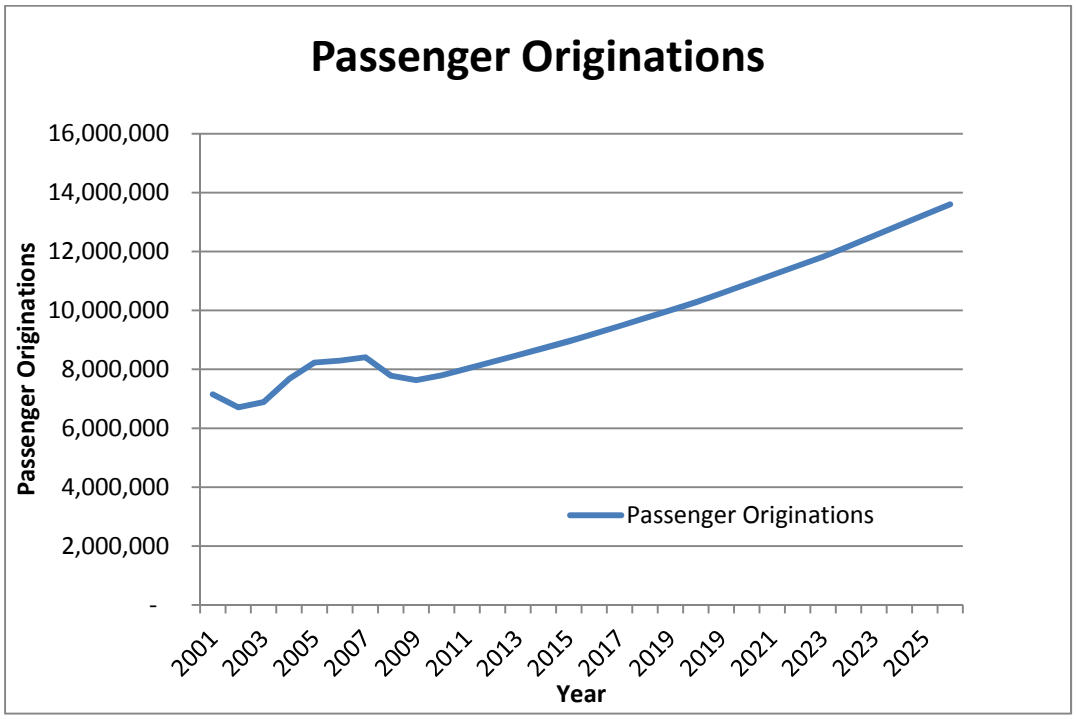
- Real income in the extended service area will grow at the rate projected in Table 1.8.

- The population's distribution of income through the forecast period will be similar to what it is today.

- As a percentage of income, taxes and medical expenses, which are the principal budget items over which households have little control, will not increase sufficiently to affect household or business budgets devoted to air travel.

Figure A.4-1

Historical and Projected Originations at MSP



4.3.2 Originations Resulting from Southwest Airlines Service

Southwest Airlines (Southwest) began to serve MSP directly in March 2009. Many in the aviation industry have noted a phenomenon termed the "Southwest effect" in which the introduction of air service to an airport by Southwest has resulted in a substantial increase in passenger activity. The principal cause of the increase is the reduction in fares resulting from increased competition. The effect, however, often exceeds the amount that would be expected from the reduction in fares, possibly because of the high frequency of service, price transparency, increases in the size of the catchment area, and consistent level of service. ***Attachment 4***, *Analysis of Southwest Airlines Impact*, provides the details of the analysis completed for the EA forecast.

Table 4.1 shows the historical impact of Southwest service on originations at large U.S. airports. The airports listed include large and medium hub airports where Southwest initiated service after 1990. Detroit Metropolitan Wayne County Airport (DTW) is included for comparison, although Southwest began service there in the 1980s. Originations in the table are expressed as a share of national originations to net out the impact of changes in the general economy and industry trends. To facilitate comparison, the shares are indexed so that in the two years prior to the introduction of Southwest service, the relative share is set equal to 1.00. In each case, the data series begins the first full year after the introduction of Southwest service. Therefore,

all other things being equal, the relative share of U.S. originations would remain at 1.00 if Southwest service had no impact on originations. The relative share would be greater than 1.00 if Southwest had a positive impact and less than 1.00 if Southwest had a negative impact.

In all cases, the addition of Southwest service caused the airport's share of national originations to increase. In one instance – Cleveland–Hopkins International Airport (CLE) – the relative share eventually dipped below 1.00 again, most likely because of Cleveland's poor record of economic growth relative to the remainder of the country. The increase in share was exceptional in the case of Baltimore/Washington International Thurgood Marshall Airport (BWI) and Fort Lauderdale Hollywood International Airport (FLL), mainly because Southwest was able to capture traffic from other markets – Washington and Miami.

To better evaluate the potential effect on MSP, the analysis was refined to include only airports similar to MSP – that is – airports that host major connecting operations and whose catchment areas do not substantially overlap that of another major airport. Four airports met that criterion – Denver International Airport (DEN), Philadelphia International Airport, CLE, and DTW. Table 4.2 shows the results of the analysis, indicating that for the airports most similar to MSP, the average impact of Southwest service was to increase originations by 11.1 percent over what they would otherwise have been. Preliminary indications are that Southwest impact on the MSP market after two years has been less than at the comparison airports. For example, after the first two years, Southwest stimulated traffic at MSP by 4.7 percent compared to an average of 9.2 percent at the comparison airports. Therefore, the ultimate Southwest stimulation effect at MSP was projected to be about 5.7 percent ((4.7%/9.2%)*11.1%)).

The domestic originations forecasts in Table A.4.1 were adjusted to reflect the anticipated impact of Southwest service. It was assumed that the effects would be fully realized by 2015. As shown, with the effect of Southwest Airlines included, originations are projected to increase from 7.1 million in 2010 to 10.50.4 million by 2025, an average annual increase of 2.6 percent.

4.4 Domestic Enplanement Forecasts

The forecast of domestic passenger enplanements is a function of the originating passenger forecast and the ratio of enplanements to originations (hubbing ratio). When queried, Delta Air Lines indicated that they did not anticipate a significant change in the ratio between enplanements and connections for their operation at MSP in the short term. In the longer term, there are a number of national industry factors that are affecting the relationship between enplanements and originations. These include:

- The loss of service at small communities, where the vast majority of passengers connect to their final destination.

- The increase and then decrease in regional jets, which facilitate point-to-point service for market pairs that had previously been too small to justify non-stop service.

- The proliferation of low cost carriers (LCC) which typically provide more point-to-point service than legacy carriers.

- Faster economic growth in communities served by large and medium hub airports as opposed to small hub airports.

In combination, these forces had caused connections to grow at a slightly lower rate than originations nationally through 2008, as shown in Table 5.1 within ***Attachment 5***, *Detailed Domestic Passenger Forecasts*. Since that time, the decrease in regional jet operations has reduced point-to-point service in many markets, thereby reversing the trend. In addition, the gradual expansion of the Sun Country Airlines route network will increase connecting opportunities. If the combination of historical trends is carried forward, the ratio of enplanements to originations will increase, albeit at a very slow rate. Table 5.2 shows the projected future hubbing ratio at MSP, assuming that it will increase at the same rate as the national hubbing ratio.

Table A.4.2 provides the forecast of domestic enplanements at MSP. The hubbing ratio in Table 5.2 was applied to base originations rather than total originations, since it is not anticipated that the additional originations stimulated by Southwest will lead to additional connecting passengers. As shown in Table A.4.2, total domestic enplanements at MSP are projected to increase from 14.6 million in 2010 to 21.3 million in 2025, an average annual increase of 2.6 percent.

Table A.4.2

Base Case Forecast of Domestic Enplanements at MSP

Year	Base Originations (a)	Hubbing Ratio (b)	Base Enplanements w/o Southwest (c)	Total Originations (d)	Total Enplanements including Southwest (e)
2006	7,643,820	2.137	16,334,138	7,643,820	16,334,138
2007	7,703,380	2.064	15,903,109	7,703,380	15,903,109
2008	7,065,580	2.135	15,087,389	7,065,580	15,087,389
2009	6,721,144	2.110	14,180,454	6,987,990	14,464,440
2010	6,763,718	2.080	14,069,455	7,084,400	14,568,881
2015	7,611,722	2.085	15,867,809	8,046,352	16,302,440
2016	7,823,265	2.085	16,311,764	8,269,975	16,758,473
EA Analysis Period					
2020	8,680,886	2.087	18,113,067	9,176,566	18,608,747
2025	9,909,172	2.088	20,694,684	10,474,987	21,260,499
Average Annual Growth Rate					
2010-2025	2.6%	0.0%	2.6%	n/a	2.6%
Long Term					
2030	11,313,215	2.090	23,648,339	11,959,201	24,294,325
Average Annual Growth Rate					
2010-2030	2.6%	0.0%	2.6%	2.7%	2.6%

(a) Table A.4.1. Originations without Southwest Factor.
(b) Attachment 5, Table 5.2.
(c) Base originations multiplied by Southwest factor.
(d) Table A.4.1. Total originations including Southwest factor.
(e) Base enplanements plus originations resulting from Southwest factor.

Sources: As noted and HNTB analysis.

4.5 Domestic Projections by Market

Since some of the end products of this forecast include detailed gated flight schedules for use in airfield simulation, gate requirements analyses, and noise simulation, domestic passenger forecasts were disaggregated by individual market. The approach involved the following steps:

- Project future average domestic load factor.
- Project future domestic annual scheduled seat departures.

- Estimate new non-stop markets.
- Allocate annual scheduled seat departures by market.
- Calculate average weekday peak month (AWDPM) seat departures by market.
- Prepare air service projections for each market estimating the number AWDPM flights that would serve each market, identified by airline and aircraft type.

4.5.1 Load Factor and Seat Departure Forecast

Table 5.3 shows projected domestic load factor for MSP. Over the past several years, the airline industry has experienced a significant increase in the average boarding load factor on both domestic and international flights. The load factor average has increased dramatically, from an average in the mid- to upper-50 percent range in the early 1980s to close to 80 percent nationally in 2010. This growth had been fueled by a strong economy coupled with strong travel demand, and has been maintained by actions by the airlines to remove capacity from their systems and to use sophisticated yield management procedures. Since national load factors have recently been at historically high levels, the FAA does not project them to go significantly higher. Average MSP load factors were assumed to follow the national trend.

Total annual scheduled seat departures were estimated by dividing the passenger enplanement projections by the load factor projections (Table 5.3).

4.5.2 Seat Departures by Market

MSP scheduled seat departures in each market were projected to increase from 2010 at the same rate as total domestic MSP seat departures, adjusted by the relative difference in income growth in the destination markets. As seen in the forecasting equation, there is a strong relationship between income and passenger demand. Therefore, it is reasonable to assume that the relative growth rate in each region's demand and service levels to the Twin Cities area will vary in relation to each region's growth in personal income relative to the United States. Woods & Poole Economics was used as the source of income forecasts by market.

A critical element of the forecasts is the determination of new non-stop markets. Candidate markets for non-stop domestic air carrier service were determined by identifying the current thresholds of total revenue (passengers multiplied by average fare) that justified non-stop service to MSP. A market's total revenue includes revenue from both originating and potential connecting passengers and is therefore a better measure of the market's value to the airline than just originating revenue to MSP. These thresholds are presented in Table 5.4. Thresholds are lower for nearby markets than more distant markets because service can be offered with smaller aircraft and because there is less competition from connecting hubs between the two markets. Thresholds of revenue necessary to justify non-stop service were estimated using the average of revenue in the smallest market with non-stop service and the largest market without non-stop service in each mileage band (0-300 miles, 301-500 miles, 501-700 miles, etc.). These thresholds are in large part determined by aircraft capabilities. For example, there is a

big jump in the threshold above 1,300 miles because that is beyond the capability of most regional jets. Therefore, these more distant markets would need to be large enough to justify mainline aircraft.

In markets to the west of MSP, specifically the rest of Minnesota, the Dakotas, and Montana, MSP is the most realistic connecting hub to most destinations. Since these are essentially "captive" markets, the ratio of connections to originations tends to be very high and the revenue threshold required for non-stop service tends to be lower. This is reflected in Table 5.4 which shows lower thresholds for markets to the west of MSP.

It was assumed that revenue in each market would increase at the same rate as the forecast of total MSP domestic airline revenue. New markets that are projected to grow sufficiently to justify non-stop service to MSP are shown in Table 5.5.

No service stimulation was assumed for traffic at new non-stop markets. Experience at other airports indicates that the stimulation effect is less than 10 percent and often less than 5 percent. In addition, the historical growth in Twin Cities' area originations has been caused, in part, by new non-stop service. Therefore, the forecasting equation implicitly includes the effect of new service stimulation. Including additional service stimulation would result in double counting.

Markets that were most likely to attract non-stop service by Southwest Airlines were identified based on the current level of originating traffic to MSP and the current Southwest share of those markets.

The individual market seat departure forecasts were proportionately adjusted as necessary so that they would sum to the forecast of total domestic scheduled seat departures.

The market-by-market annual seat departure forecasts are presented in Table 5.6. Forecast AWDPM seat departures were estimated by applying the current ratio of AWDPM seat departures to annual seat departures to the forecast of annual seat departures for each market. The forecasts of AWDPM seat departures by market are presented in Table 5.7.

4.6 Air Service Projections

The AWDPM seat departure projections were translated into projections of scheduled aircraft flights for each market using a set of assumptions regarding airline strategies and available equipment. The service projections are guided by the general assumptions outlined in Section 3. Based on previous surveys and discussions with the major airlines operating at MSP, industry publications, and professional experience, additional, more detailed air service assumptions were developed, as listed below:

- No radical changes in airline strategy for how to serve and compete in markets is assumed.

- The current pattern of airline dominance at other airport hubs and non-hubs is assumed to remain substantially in place.

- Delta Air Lines (including its Sky Team partners) is assumed to continue to maintain a near constant share of the MSP market, after allowance for the expansion of Southwest Airlines.

- Based on recent trends and airline surveys and interviews, service by turboprops and 50-seat regional jets is expected to decline significantly, and be replaced with service by larger jets at lower frequencies.

- Carriers that do not currently provide service to MSP, such as Jet Blue, are assumed to gradually introduce service from their main focus cities.

- Delta Air Lines is assumed to continue its current directional connecting bank structure.

- The existing connecting bank structure limits the number of Delta Air Lines daily frequencies to medium and long-haul markets to six, or seven at most. It is assumed that once the frequency limit is reached, Delta will accommodate increases in demand with larger gauge aircraft rather than increases in frequency. Once Delta "maxed out" a market both in terms of frequency and aircraft gauge, it was assumed that additional connecting traffic would be diverted through other hubs.

- Full integration of the Delta and former Northwest fleets is assumed by 2015.

- Delta Air Lines is assumed to continue to gradually remove the hush-kitted DC9 aircraft from its fleet, and completely remove them by 2015.

- It is assumed that Delta will phase-out the 757 and MD80 aircraft before 2030.

- It is assumed that the Saab 340 aircraft will be completely phased out by 2030.

- In the short range growth in the 76-seat CRJ-900 and EMB 175 aircraft fleet is anticipated to be capped because of scope clause restrictions. Once the Delta mainline fleet begins to grow again, it is assumed that 76-seat jets will grow at a similar rate.

- The replacement aircraft for the 757 is assumed to be the Airbus 321, but it is acknowledged that the replacement aircraft could be a Boeing 737-900 or a completely new next generation aircraft.

- The MD-90 is assumed to be the principal narrow-body growth aircraft in the short term, and the Boeing 737-800 is assumed to be the principal narrow-body growth aircraft in the long-term. It is acknowledged that an Airbus neo aircraft or completely new next generation aircraft could also be the growth aircraft during the latter part of the forecast period.

- It is assumed that 50-seat turboprop aircraft will gradually replace the Saab 340 in small short-haul markets.

- Southwest Airlines is assumed to fly mostly Boeing 737-700 aircraft through the forecast period, supplemented by some Boeing 717 aircraft from the AirTran acquisition and some Boeing 737-800 aircraft.

- Future schedule information provided by Sun Country was reviewed in estimating future Sun Country markets. Sun Country is assumed to continue to fly Boeing 737-700 and 737-800 aircraft.

- United Airlines and Continental Airlines are assumed to fully integrate their fleets.

- American Airlines is expected to gradually replace its MD-80 aircraft with newer Boeing aircraft, specifically the 737-800.

- Future fleet additions beyond those presently announced by the airlines are assumed to be consistent with current announced fleet expansion plans and existing acquisitions.

- No supersonic, hypersonic, or tilt-rotor aircraft are projected because of poor operating economies and potential noise impacts.

Using the above assumptions for guidance, air service scenarios were developed for each market in each forecast year. The scenarios were developed so that the selected aircraft types and frequencies in combination matched the AWDPM seat departure projections for that market. Factors considered in each market included historical service patterns, current dominant carriers, aircraft in place and on order, length of haul, and announced plans of current carriers and new entrants. Individual market scenarios are presented in Table 5.8.

4.7 Domestic Passenger Forecast Summary

Table A.4.3 summarizes the forecast of domestic passenger enplanements and aircraft operations for MSP. Table A.4.3 also shows the forecast of scheduled domestic aircraft operations. Completed aircraft departures are slightly less than the scheduled aircraft departures identified in Table 5.9, because typically approximately 1 to 2 percent of scheduled flights are cancelled for weather, mechanical, or miscellaneous other reasons. Total scheduled domestic passenger aircraft departures are projected to increase at 1.3 percent per year through 2025. Table 5.9 presents the forecast of AWDPM scheduled aircraft departures by aircraft type.

Table A.4.3

Forecast of Domestic Scheduled Passenger Aircraft Operations and Seat Departures at MSP

				EA Analysis Period		Long Term
	2010	2015	2016	2020	2025	2030
Scheduled Aircraft Departures						
AWDPM (a)	577.0	592.6	605.7	655.9	715.7	773.6
Annual (b)	186,101	187,371	191,503	207,632	226,687	245,966
Completed Aircraft Departures						
Annual (c)	183,926	185,180	189,264	205,205	224,037	243,090
Ratio (Completed to Scheduled) (d)	0.988	0.988	0.988	0.988	0.988	0.988
Completed Aircraft Operations (e)	367,851	370,360	378,528	410,410	448,074	486,180
Scheduled Aircraft Seat Departures						
AWDPM (f)	58,940	66,542	68,351	75,496	86,000	97,779
Annual (g)	18,741,711	20,743,014	21,306,965	23,563,283	26,856,266	30,651,710
Seats per Departure						
AWDPM (h)	102.1	112.3	112.9	115.1	120.2	126.4
Annual (i)	100.7	110.7	111.3	113.5	118.5	124.6
Enplanements (j)	14,568,881	16,302,440	16,758,473	18,608,747	21,260,499	24,294,325
Enplanements per Departure (k)	79.2	88.0	88.5	90.7	94.9	99.9

(a) Attachment 5, Table 5.9.
(b) Scheduled seat departures divided by annual average aircraft size.
(c) Existing departures from MSP Monthly Summary Reports. Future completed departures estimated by multiplying scheduled departures by completion ratio.
(d) Assumed to remain constant at 2010 levels.
(e) Completed aircraft departures multiplied by 2.
(f) Attachment 5, Table 5.8.
(g) Attachment 5, Table 5.3.
(h) AWDPM seat departures divided by AWDPM aircraft departures.
(i) Assumed to increase at same rate as AWDPM seats per departure.
(j) Table A.4.2.
(k) Enplanements divided by completed aircraft departures.

Sources: As noted and HNTB analysis.

5 International Passenger Forecasts

This section discusses the international passenger forecasts, including assumptions, methodologies, and results.

5.1 Methodology, Assumptions, and Data Sources

The methodology used to develop the international passenger forecasts was essentially a top-down approach adjusted to reflect local conditions. The type of bottom-up approach that was used to estimate domestic passenger traffic was not suitable for the international passenger forecast for several reasons. First, O&D data for passengers flying their entire itinerary on foreign-flag carriers is not available; therefore, the historical record is incomplete. Second, many of the international markets are still being developed, so insufficient historical data exists

from which to establish trends. Finally, past international service has been constrained by physical factors, such as distance, and political factors, such as bilateral agreements. These constraints tend to obscure the relationship between traditional drivers of demand, such as income and yield, and international passenger traffic.

A top-down approach provides an opportunity to exploit the research and analysis into international travel conducted by the FAA and major aircraft manufacturers, such as Boeing and Airbus. These organizations have much greater resources available to investigate the factors driving international demand, and are able to incorporate the findings into their forecasts. The selected top-down approach can be summarized as follows:

1. Develop forecasts of U.S. international passenger traffic by major region.
2. Estimate future Twin Cities' share of U.S. international passenger originations in each region.
3. Estimate future Twin Cities' international passenger enplanements from originations forecast.
4. Disaggregate regional forecasts into individual markets.
5. Identify potential new non-stop markets.
6. Develop passenger forecasts by market.
7. Estimate future load factor.
8. Project future seat departures by market using the passenger and load factor forecasts.
9. Estimate the most probable way that airlines would accommodate the seat departure forecast in terms of aircraft type and scheduled frequency.
10. Convert the passenger forecast to enplanements using local airport enplanement data.
11. Convert the scheduled aircraft departure forecast to actual departures using historical departure completion data.

The methodology will be described in greater detail in subsequent sections of this report.

The following data sources were used in the analysis:

- FAA, Boeing, and Airbus international projections.
- USDOT International Schedule T-100 data base.
- USDOT International O&D Survey.

- OAG information on scheduled operations, which was used to determine current scheduled service.

- The OAG, and JP Airline-Fleets International guide, which were used to determine aircraft seat configurations for each airline.

- JP Airline-Fleets International and other industry publications, which were used to gather information on airline fleet orders.

5.2 Forecasts by International Region

Table 6.1 in ***Attachment 6***, *Detailed International Passenger Forecast*, presents a comparison of international forecast growth rates developed by the FAA, Boeing, and Airbus. The projections show agreement in some areas, such as Europe, but vary in other regions. For example, Boeing is more optimistic about America than the FAA.

A consensus forecast was developed for each region using the average of the forecast indexes from the three organizations. Based on the consensus forecast, the Middle East, South America, and Africa are expected to grow most rapidly, followed by Asia and Oceania. More mature markets, such as Europe, Canada and Mexico/Central America, are expected to grow more slowly.

5.3 MSP Forecasts by Region

The estimated existing breakout of international originations from MSP by world region is provided in Table 6.2. The estimate is complicated by two factors. First, foreign-flag carriers are not required to submit originating data to the U.S. DOT. Secondly, international originating data submitted by the US-flag carriers is restricted, and cannot be published publicly. The estimates in Table 6.2 were prepared by adding estimated foreign-flag originations (based on a percentage of enplanements) to the US DOT originating passenger numbers. The two largest international markets are Europe and Mexico and Central America, followed by Asia, Canada, and the Caribbean.

Table 6.3 shows projected MSP international originations. The basis for the projections is the regional growth rates from Table 6.1 with two adjustments. First, the 2010 projections were adjusted upward to reflect actual 2010 international enplanements at MSP. Secondly, the growth rates in Table 6.1 were adjusted by the difference in estimated Twin Cities' income growth and U.S. income growth to incorporate the impact of the local economy. As shown, total international originations at MSP are projected to rise from 706,128 in 2010 to about 1.3 million by 2025.

5.4 MSP International Enplanement Forecast

Similar to the domestic forecast approach, future international passenger enplanements were estimated by applying a hubbing ratio to the forecast of international originations. The international hubbing ratio at MSP has begun to decrease in recent years, in part because of the

Delta/Northwest merger. There is a question as to whether the current hubbing ratio can be sustained after Delta's acquisition of Northwest, because of Delta's heavy investment in international facilities at Hartsfield-Jackson Atlanta International Airport (ATL), DTW, and John F. Kennedy International Airport (JFK). For these reasons, it was assumed that the future international hubbing ratio would change at the historical 2001-2010 rate but the rate of change would slow to half its historical rate. Table 6.4 shows the estimated future international ratio of enplanements to originations and **Table A.5.1** shows the future forecast of international enplanements at MSP. Total international enplanements are projected to increase from about 1.1 million in 2010 to 2.1 million in 2030, an average annual increase of 3.1 percent.

In summary, the international passenger forecast incorporates the consensus FAA, Boeing and Airbus forecasts for international growth in each world region, but modifies these projections to incorporate local factors. The local modifications consist of two parts. First, the MSP international O&D forecast is adjusted downward to reflect a regional Minneapolis-St. Paul economy that is expected to grow more slowly than the U.S. Economy (see Table 1.8). Secondly, the international connecting ratio at MSP is projected to gradually decline, reflecting Delta's current emphasis on developing other gateways, such as Detroit, Atlanta, and New York JFK instead of MSP.

Table A.5.1

Forecast of International Enplanements at MSP

Year	International Originations (a)	International Hubbing Ratio (b)	International Enplanements (c)
2006	654,297	1.059	692,757
2007	709,046	1.383	980,460
2008	718,963	1.759	1,264,507
2009	644,281	1.645	1,059,969
2010	706,128	1.616	1,141,442
2015	895,030	1.488	1,331,485
2016	931,500	1.468	1,367,795
EA Analysis Period			
2020	1,093,314	1.431	1,564,092
2025	1,336,925	1.358	1,815,444
Average Annual Growth Rate			
2010-2025	4.3%	-1.2%	3.1%
Long Term			
2030	1,636,550	1.289	2,109,421
Average Annual Growth Rate			
2010-2030	4.3%	-1.1%	3.1%

(a) Attachment 6, Table 6.3.
(b) Attachment 6, Table 6.4.
(c) Originations multiplied by international hubbing ratio.

Sources: As noted and HNTB analysis.

5.5 International Passenger Projections by Market

This section discusses the forecasts of MSP international passengers, first in markets with existing non-stop service, then in potential new markets.

5.5.1 Existing Markets

International originations in existing and potential non-stop markets were projected to increase at the same rate as the consensus growth indexes for each region developed in Table 6.1. Details of the calculations are presented in Table 6.5.

5.5.2 New Markets

Similar to the methodology used for domestic markets, passenger thresholds were used to identify potential new international non-stop markets. The process was more difficult because

international originating passenger data is not available for foreign-flag carriers. Therefore, several threshold criteria were used to estimate new markets. The methodology involved the following steps:

1. *Identify originating passenger thresholds for non-stop service in each region*. Thresholds will vary by region because a) shorter-haul markets require smaller aircraft and thus reduce the required threshold and b) the direction of the market will determine how much connecting traffic can logically be funnelled through the MSP gateway, thereby reducing the required originating passenger percentage. For example, most East Coast U.S. passengers can fly to Asia or western Canada via MSP with relatively little increase in circuity. However, those same passengers would incur much greater circuity if they were to use MSP as a gateway to Europe. Originations in each potential market were assumed to grow at the rates in Table 6.3 to determine if and when they would exceed the threshold.

2. *Identify seat departure thresholds for non-stop service to each region*. As a crosscheck on the passenger data, seat departures from all U.S. gateways to international markets were identified. Similar to Step 1, the threshold for new service in each region was assumed to be the average of the smallest market (measured in terms of seat departures) with non-stop MSP service and the largest market without non-stop MSP service. Scheduled seat departures in each potential market were assumed to grow at the rates in Table 6.3 to determine if and when they would exceed the threshold. Table 6.6 shows the seat departure thresholds by region.

3. *Identify thresholds for regions with no existing service.* Some regions, such as Africa or China, have insufficient service history from which to identify originating passenger thresholds. In these instances, thresholds were adopted from other regions based on similar distance and circuity characteristics. For example, European thresholds were used for Africa.

4. *Estimate new non-stop markets*. Information from the two sets of threshold criteria was integrated to estimate new non-stop markets. In general, any market that satisfied both threshold criteria was assumed to gain new non-stop service in the year in which those criteria were reached.

The new non-stop markets that were estimated using the above approach are listed in Table 6.5. The projections above are the best estimate of new market potential given available information. It is acknowledged that additional factors such as local economic trends, political circumstances, airline strategies, and market development initiatives may serve to either accelerate or delay the introduction of non-stop service to the markets listed in the Attachment.

5.5.3 Load Factor and Seat Departure Forecast

The load factor projections vary by market. Load factors in each region were projected to increase at the same rate as the FAA forecast load factor for that region. Projected seat departures in each market were estimated by dividing the passenger projections by the load

factor. Annual scheduled international seat departures at MSP are presented in Table 6.5. As shown, total scheduled international seat departures are projected to increase from 1.5 million in 2010 to 2.7 million by 2030. AWDPM seat departures were estimated by applying existing ratios of AWDPM to annual seat departures to the forecasts of annual seat departures.

5.6 Air Service Projections

The procedure used to allocate international passenger activity to airlines and aircraft equipment was similar to that used for the domestic air service projections. The following assumptions were used to guide the process:

- AWDPM aircraft types were projected to be consistent with the AWDPM seat departure forecast for each market, as presented in Table 6.5.
- The trend towards more Open Skies agreements is assumed to continue.
- No radical changes in airline strategy for how to serve and compete in markets are assumed.
- The current pattern of airline dominance at other airport hubs and gateways is assumed to remain in place.
- The current airline alliance structure is assumed to remain intact. Thus, SkyTeam members and code-sharing partners are expected to be more likely to provide service at MSP than other foreign-flag carriers.
- Except where noted, sufficient airport expansion in Europe and the Far East is anticipated to accommodate market demand.
- Delta is assumed to serve its overseas international markets with A-330s, Boeing 777's and Boeing 787's.
- Sun Country is assumed to serve its international markets with Boeing 737-700 and 737-800 aircraft, using refueling stops when necessary.
- Future fleet additions beyond those presently announced by the airlines are assumed to be consistent with current announced fleet expansion plans and existing acquisitions.
- No supersonic, hypersonic, or tilt-rotor aircraft are projected because of poor operating economies and potential noise impacts.

The air service projections for each international market are outlined in detail in Table 6.7. The air service scenarios presented in Table 6.7 are considered reasonable and plausible, given the available information. However, it is acknowledged that actual service patterns may deviate from those projected, and that these deviations could be material.

5.7 Summary

Table A.5.2 summarizes the unconstrained international scheduled passenger and aircraft operation forecasts. Total international enplanements are projected to increase from 1.1 million in 2010 to 2.1 million in 2030. Completed international aircraft operations are projected to increase from 26,556 in 2010 to 32,886 in 2025, an average annual increase of 1.4 percent.

Table 6.8 shows the scheduled international passenger fleet mix forecast. Although an increase in wide-body operations is anticipated, narrow-body aircraft operations to Canadian, Mexican and Caribbean markets are projected to account for the majority of the total.

Table A.5.2

Forecast of International Scheduled Passenger Aircraft Operations and Seat Departures at MSP

				EA Analysis Period		Long Term
	2010	2015	2016	2020	2025	2030
Scheduled Aircraft Departures						
AWDPM (a)	42.0	39.6	41.0	44.8	49.3	53.7
Annual (b)	13,458	13,679	13,977	14,965	16,666	18,237
Completed Aircraft Departures						
Annual (c)	13,278	13,496	13,790	14,765	16,443	17,993
Ratio (Completed to Scheduled) (d)	0.987	0.987	0.987	0.987	0.987	0.987
Completed Aircraft Operations (e)	26,556	26,992	27,580	29,530	32,886	35,986
Scheduled Aircraft Seat Departures						
AWDPM (f)	4,459	5,023	5,202	6,160	7,040	8,157
Annual (g)	1,505,939	1,736,730	1,798,544	2,027,989	2,351,155	2,722,441
Seats per Departure						
AWDPM (h)	106.2	124.2	126.9	137.5	142.8	151.9
Annual (i)	111.9	127.0	128.7	135.5	141.1	149.3
Enplanements (j)	1,141,442	1,331,485	1,367,795	1,564,092	1,815,444	2,109,421
Enplanements per Departure (k)	86.0	98.7	99.2	105.9	110.4	117.2

(a) Attachment 6, Table 6.8.
(b) Scheduled seat departures divided by annual average aircraft size.
(c) Existing departures from MSP Monthly Summary Reports. Future completed departures estimated by multiplying scheduled departures by completion ratio.
(d) Assumed to remain constant at 2010 levels.
(e) Completed aircraft departures multiplied by 2.
(f) Attachment 6, Table 6.7.
(g) Attachment 6, Table 6.5.
(h) AWDPM seat departures divided by AWDPM aircraft departures.
(i) Assumed to increase at blended rate from international AWDPM seats per departure and domestic annual departures, to incorporate trends in Mexican/Latin American market that is primarilly served by narrow-body aircraft.
(j) Table A.5.1.
(k) Enplanements divided by completed aircraft departures.

Sources: As noted and HNTB analysis.

6 Charter Enplanements and Aircraft Operations

The forecast of charter (non-scheduled) passenger enplanements and aircraft operations is discussed in this section.

6.1 Charter Passengers

Good historical data on charter activity is difficult to obtain and, therefore, it is not possible to develop a forecast using regression analysis or trend analysis. The FAA does not publish forecasts of national charter activity so a share analysis is not possible either. Typically, charter operators cater to tour groups traveling to leisure destinations or to sports teams traveling to road games.

Airport counts of charter passengers have declined significantly in recent years. This can be attributed to several factors:

- Sun Country, which has accounted for the majority of past charter operations, has placed more of an emphasis on scheduled operations, although in many instances to the same markets where they offered charter service.
- Some major charter operators, such as Champion, have ceased operations.
- Delta's flights to Mexico have cut into traditional charter markets.
- Continued price reductions by legacy carriers have diminished the price advantage that charter carriers can offer.

There is little indication that any of the above factors will be reversed. The entry of low fare service by Southwest Airlines will place additional pressure on charter operators. For these reasons, a return to earlier historical levels of charter passenger traffic is not expected. Charter traffic is projected to begin to increase again from its current low levels, given that the effect of most of the above factors has been already realized.

Table 7.1 in ***Attachment 7***, *Non-Scheduled Passenger Forecasts*, shows the forecast of charter enplanements. The forecast assumes that Sun Country continues operating as principally a scheduled carrier. Total charter enplanements are projected to increase from fewer than 5,000 in 2010 to almost 8,000 in 2030. The historical approximately even split between domestic and international passengers is assumed to resume in the future.

6.2 Charter Aircraft Operations

Tables 7.2 and 7.3 shows the derivations of domestic and international charter aircraft operations from the passenger forecast. The tables also show the forecast fleet mix. Passenger aircraft departures for charter carriers were estimated as follows:

1. Assume constant load factors since they are already at very high levels.
2. Project total charter seat departures by dividing forecast enplanements by the projected load factor.
3. Estimate future fleet mix based on existing carrier fleets and available information on aircraft acquisition plans.
4. Calculate average seats per aircraft from the future fleet mix.
5. Divide forecast seat departures by projected seats per aircraft to generate projected charter aircraft departures and operations.

No attempt was made to forecast charter activity by market. Table 7.4 summarizes the forecast of charter aircraft operations. As shown, total passenger charter aircraft operations are

projected to increase slightly from 103 in 2010 to 106 in 2025. Narrow-body aircraft are forecast to continue to account for the vast majority of charter operations.

7 Summary of Passenger Forecasts

Table A.7.1 summarizes the scheduled and non-scheduled domestic and international passenger enplanement forecasts. Total enplanements at MSP are projected to increase from 15.7 million in 2010 to 22.9 million in 2025, an average annual increase of 2.5 percent.

Table A.7.1

Forecast of Annual Domestic and International Revenue Enplanements at MSP

Year	Domestic (a)	International (b)	Charter (c)	Total
2006	16,334,138	692,757	151,412	17,178,307
2007	15,903,109	980,460	85,515	16,969,084
2008	15,087,389	1,264,507	32,376	16,384,272
2010	14,568,881	1,141,442	4,736	15,715,059
2015	16,302,440	1,331,485	5,316	17,639,241
2016	16,758,473	1,367,795	5,464	18,131,733
EA Analysis Period				
2020	18,608,747	1,564,092	6,081	20,178,920
2025	21,260,499	1,815,444	6,956	23,082,899
Average Annual Growth Rate				
2010-2025	2.6%	3.1%	2.6%	2.6%
Long Term				
2030	24,294,325	2,109,421	7,960	26,411,706
Average Annual Growth Rate				
2010-2030	2.6%	3.1%	2.6%	2.6%

(a) Table A.4.2.
(b) Table A.5.1.
(c) Attachment 7, Table 7.1.

Sources: As noted and HNTB analysis.

8 Air Cargo Tonnage and Aircraft Operations

The forecasts of air cargo tonnage and related all-cargo aircraft operations are discussed in this section.

Table 8.1 in ***Attachment 8***, *Detailed Cargo Forecasts*, shows historical enplaned air cargo, including both freight and mail, at MSP from 1990 through 2010. In the early part of the decade FedEx won a major postal service (USPS) contract to carry mail and they include mail with cargo when reporting statistics. Hence, the apparent recent downturn in air mail at MSP is mostly an artifact of changes in reporting practices. Air cargo tonnage at MSP grew rapidly in the 1980s and then at a slower rate through 1997. It has since declined, in part because of the stricter security restrictions imposed after the September 11, 2001 terrorist attacks. The stricter security restrictions have led to an especially sharp downturn in air cargo carried on passenger carriers. Cargo carried on all-cargo carriers continued to increase through 2004 but has since also declined.

8.1 Air Cargo Tonnage

As noted earlier, some carriers have ceased distinguishing between air mail and air freight when reporting their statistics. Consequently, the forecast contained herein combines freight and mail into a single air cargo category. All statistics are presented in short tons (2000 pounds per ton).

Table 8.1 shows the forecasts of air cargo at MSP. There are two main categories of air cargo tonnage, 1) cargo carried on passenger aircraft (belly cargo) and 2) cargo carried on dedicated all-cargo aircraft. Separate approaches were developed to forecast each category.

Forecasts of belly cargo activity are based in part on FAA forecasts of revenue ton miles (RTMs) of air cargo traveling on domestic passenger carriers. An index was developed which related the FAA forecast of RTMs on domestic passenger carriers to the forecast of Available Seat Miles (ASM) for domestic air carriers. This ratio provided the expected future relationship of cargo to available seats. This index was then applied to the forecasts of scheduled seat departures prepared in Sections 4 and 5 to produce a belly cargo forecast for MSP.

As shown in **Table A.8.1**, enplaned belly cargo is projected to decline slightly from 21,943 tons in 2010 to 21,403 tons in 2025, remaining well below the belly cargo tonnages experienced in the 1990s. Increased security restrictions and strong competition from the dedicated all-cargo carriers will make it difficult for passenger carriers to recapture market share.

All-cargo carrier air cargo tonnage was estimated as a share of the FAA forecast of domestic all-cargo RTMs. All-cargo carrier tonnage at MSP roughly paralleled U.S. all-cargo carrier RTMs in the 1990s but has declined since 2003. The MSP share was assumed to continue to decline but at half the rate of the recent past, reflecting a combination of long-term and short-term historical rates. Enplaned all-cargo tonnage is forecast to increase slightly from 89,990 tons in 2010 to 102,005 tons in 2025, an average annual increase of 0.8 percent.

Table A.8.1 summarizes the cargo tonnage forecast. The ratio of deplaned to enplaned cargo tonnage was assumed to equal the 2007-2008 average in the future. Combined belly and all-cargo carrier enplaned tonnage is forecast to increase at a 0.4 percent annual rate from 111,933 tons in 2010 to 123,408 tons in 2025.

Table A.8.1

Forecast of Enplaned and Deplaned Air Cargo (Short Tons) at MSP

Year	Passenger Carrier (a)			Cargo Carrier (a)			Total		
	Enplaned	Deplaned	Total	Enplaned	Deplaned	Total	Enplaned	Deplaned	Total
2007	25,124	28,745	53,870	116,058	113,849	229,908	141,182	142,595	283,777
2008	24,179	27,412	51,591	102,508	103,018	205,526	126,687	130,430	257,116
2010	21,943	24,993	46,936	89,990	89,291	179,281	111,933	114,284	226,217
2015	21,683	24,698	46,381	102,508	101,711	204,219	124,191	126,409	250,600
2016	21,709	24,727	46,436	102,280	101,485	203,765	123,989	126,212	250,201
EA Analysis Period									
2020	21,540	24,534	46,074	102,291	101,496	203,787	123,830	126,030	249,860
2025	21,403	24,378	45,781	102,005	101,212	203,218	123,408	125,591	248,999
Average Annual Growth Rate									
2010-2025	-0.2%	-0.2%	-0.2%	0.8%	0.8%	0.8%	0.7%	0.6%	0.6%
Long Term									
2030	21,237	24,190	45,427	101,465	100,676	202,141	122,702	124,866	247,568
Average Annual Growth Rate									
2010-2030	-0.2%	-0.2%	-0.2%	0.6%	0.6%	0.6%	0.5%	0.4%	0.5%

(a) Attachment 8, Table 8.1 and MSP Monthly Summary Reports. Deplaned cargo assumed to increase at same rate as enplaned cargo.

Sources: As noted and HNTB analysis.

8.2 All-Cargo Aircraft Operations

Table 8.2 presents the forecast of all-cargo aircraft operations and fleet mix.

The future all-cargo carrier fleet mix was estimated based on available information on future aircraft acquisition plans by the carriers serving MSP. The average lift capacity per aircraft operation was estimated from the projected fleet mix and future all-cargo carrier aircraft departures were estimated by dividing total all-cargo carrier lift capacity by the capacity per aircraft. Load factors in 2010 were unusually low, so 2008 load factors were used for the purpose of estimating future required all-cargo lift capacity. No attempt was made to forecast cargo activity by market.

Total all-cargo aircraft operations are projected to rise from 12,499 in 2010 to 12,826 in 2025, an average annual rate of 0.2 percent.

9 General Aviation and Military Operations

This section discusses the forecasts of general aviation and military operations.

9.1 General Aviation

In contrast to commercial activity at MSP, general aviation (GA) activity has been declining in the long-term. This mirrors the experience at many other major airports, where many GA operators have relocated to reliever airports to avoid the congestion generated by scheduled commercial operations.

The LTCP forecasts for the MAC Reliever Airport System (Reliever Airport forecast) provided much of the basis of the GA forecast for MSP. The study was selected because it was performed on a system basis, and therefore takes into account the interactions resulting from the differing growth rates among the Twin Cities counties and the differing capabilities and capacities of the airports in the system.

Table A.9.1 shows the based aircraft forecast for MSP, which comes from the Reliever Airport forecasts. Based on available hangar facilities, the maximum capacity was estimated at 30 aircraft. Based aircraft in each category were projected to grow at national trends, adjusted for local factors, until the capacity limit was achieved. As shown, all based aircraft are anticipated to be jets, as is the existing case.

Table 9.1 in ***Attachment 9***, *Detailed General Aviation Forecasts*, shows the MSP forecast of GA operations based on the methodology in the Reliever Airport forecast. As shown, even with the constraint on based aircraft, the anticipated increase in jet aircraft utilization results in a growing number of GA aircraft operations. The Reliever Airport methodology addresses hangar capacity but does not address airfield capacity and delay.

Table A.9.2 shows the recent history of GA operations at MSP and compares it to the FAA count of itinerant GA operations in the US. As shown, MSP GA activity, as a share of the

United States, has been consistently declining. GA activity in the US rose in the late 1990s but then declined as a result of the recession and the 9/11 attacks. Since 2001, US GA activity (itinerant operations) had been relatively constant until the fuel price increases and recession of the past three years. The FAA predicts that GA will begin to recover in the near future and resume moderate growth, primarily focused on jets, helicopters and light sport aircraft.

Table A.9.1

Summary of MSP Based Aircraft Forecast

Year	Single Engine Piston	Multi-Engine Piston	Turboprop	Microjets	Other Jets	Helicopter	Other (b)	Total
2008	0	0	0	0	24	0	0	24
2010	0	0	0	1	26	0	0	27
2015	0	0	0	1	29	0	0	30
2016	0	0	0	1	29	0	0	30
EA Analysis Period								
2020	0	0	0	1	29	0	0	30
2025	0	0	0	1	29	0	0	30
Average Annual Growth Rate								
2010-2025	-	-	-	-	0.7%	-	-	0.7%
Long Term								
2030	0	0	0	1	29	0	0	30
Average Annual Growth Rate								
2010-2030	-	-	-	-	0.5%	-	-	0.5%

Source: Table G.6 in Minneapolis-St. Paul Reliever Airports: Activity Forecasts - Technical Report.

Table A.9.2

Forecast of Annual General Aviation Aircraft Operations at MSP

Year	FAA Itinerant GA Ops (000's) (a)	Ratio of MSP Operations to US Operations (b)	MSP Operations from Ratio Method (c)	MSP Operations from Reliever LTCP Method (d)	Average (e)
1995	20,860	2.39	49,769		
1996	20,823	2.39	49,786		
1997	21,669	2.96	64,209		
1998	22,086	3.61	79,757		
1999	23,019	2.14	49,256		
2000	22,844	2.54	58,076		
2001	21,433	2.14	45,943		
2002	21,451	2.06	44,279		
2003	20,231	1.95	39,513		
2004	20,007	1.95	39,018		
2005	19,303	1.89	36,472		
2006	18,707	2.00	37,459		
2007	18,575	1.65	30,562		
2008	17,521	1.75	30,685	30,685	
2009	15,554	1.57	24,361		
2010	14,982	1.86	27,921	32,793	
2015	15,948	1.64	26,178	39,140	29,751
2016	16,156	1.60	25,855	39,594	29,783
		EA Analysis Period			
2020	17,021	1.45	24,609	41,413	29,934
2025	18,178	1.27	23,148	43,289	30,003
		Average Annual Growth Rate			
2010-2025	1.3%	-2.5%	-1.2%	1.9%	0.5%
		Long Term			
2030	19,427	1.12	21,790	44,903	30,011
		Average Annual Growth Rate			
2010-2030	1.3%	-2.5%	-1.2%	1.6%	0.4%

(a) FAA Aerospace Forecast: Fiscal Years 2010-2030.

(b) Ratio of MSP GA operations to thousands of US operations. Assumed to change at historical rate in the future.

(c) Historical from Table A.2.3. Future estimated by multiplying FAA forecast by ratio of MSP operations to US operations.

(d) Unconstrained GA forecasts estimated using methodology in Minneapolis-St. Paul Reliever Airports: Activity Forecasts - Technical Report.

(e) Average of Ratio and LTCP methods.

Sources: As noted and HNTB analysis.

Table A.9.2 also shows the MSP GA forecast if the Airport share of U.S. GA activity is assumed to continue to decline at historical rates. As shown, under this assumption, GA operations would decline at a 1.2 percent annual rate to slightly over 23,000 by 2025.

The Reliever Airport methodology accounts for the anticipated stimulation resulting from the higher utilization of jet aircraft while the US share methodology captures the ongoing trend of GA operators diverting their aircraft from MSP to one of the regional reliever airports. The recommended forecast incorporates both trends by taking the average of the two methodologies. As shown in Table A.9.2, based on the average, total GA operations are projected to increase slightly from 27,921 in 2010 to 30,003 in 2025, an average annual increase of 0.5 percent per year.

Forecast operations by aircraft type are shown in Table 9.1. Based on current practices at MSP, all these operations are projected to be itinerant operations. Operations in each GA aircraft category were assumed to grow at the same rate as FAA forecast of hours flown in that category. The results were then adjusted on a prorated basis to sum to the original forecast of GA aircraft operations. The result, as shown in the table, is a slight increase in jet operations through 2025, while turboprop and piston operations decrease.

9.2 Military

Military operations are related to national and international political and institutional factors rather than local economic conditions. The number of military operations at MSP decreased during most of the 1980s and early 1990s and then leveled off after a spike in activity in 2001. Discussions with the United States Air Force National Guard and Reserve indicated no changes in mission that would result in a material change in the number of aircraft operations. Due to the uncertainties enumerated above and consistent with interview results and the principal trend occurring since 1990, military operations are assumed to remain constant at 2010 levels throughout the forecast period. This assumption is consistent with FAA forecasts of national military activity. However, future national defense actions could increase or decrease future military operations.

Table A.9.3 shows the forecast of military operations. As shown, annual operations are projected to remain constant at 2,145 in the future.

Table A.9.3

Forecast of Annual Military Aircraft Operations at MSP

Year	Total (a)
1990	2,804
1991	2,534
1992	3,003
1993	2,825
1994	2,451
1995	2,915
1996	2,624
1997	3,624
1998	2,044
1999	3,358
2000	2,473
2001	3,180
2002	2,543
2003	1,856
2004	1,976
2005	2,230
2006	2,040
2007	2,289
2008	2,115
2009	1,892
2010	2,145
2015	2,145
2016	2,145
EA Analysis Period	
2020	2,145
2025	2,145
Average Annual Growth Rate	
2010-2025	0.0%
Long Term	
2030	2,145
Average Annual Growth Rate	
2010-2030	0.0%

(a) Table A.2.3 for historical data. Assumed to remain constant in future.

Sources: As noted and HNTB analysis.

10 Summary of Annual Forecasts

This section summarizes the passenger and aircraft operation forecasts.

Table A.10.1 provides a summary of the passenger forecasts. Total revenue enplanements are forecast to increase from 15.7 million in 2010 to 23.1 million in 2025, an average annual increase of 2.6 percent. Originating passengers are projected to increase from 7.8 million to 11.8 million over the same period. As a percentage of enplanements, originations are projected to increase, but with the majority of the increase occurring in the early part of the period as a result of Southwest's entry into the market. The percentage of enplanements accounted for by originations is expected to increase from 50 percent in 2010 to 52 percent by 2025.

Table A.10.2 summarizes the unconstrained forecast of aircraft operations at MSP. Total aircraft operations are estimated to increase from 437,075 in 2010 to 526,040 in 2025, an average annual increase of 1.2 percent. The scheduled passenger operation categories are projected to grow the most rapidly, and air cargo, general aviation, and military aircraft operations are projected to grow more slowly.

Table A.10.3 provides a year-by-year forecast of total enplanements and aircraft operations. Values for years other than 2015, 2016, 2020, 2025 and 2030 were interpolated.

The passenger and aircraft operation forecasts in Tables A.10.1 and A.10.2 are based on regional economic projections, industry forecasts of average air fares, airline fleet plans, and trends in the passenger connecting percentage. The demand generated by these factors is the impetus for the proposed terminal and landside facility improvements covered by this EA.

As noted in the introduction, a no-action analysis is required to evaluate the net environmental impacts of the proposed improvements. The no-action design day flight schedule (see Section 11) and associated airfield simulation analysis demonstrate that the airlines would need to make some changes in their scheduled flight times to accommodate projected demand with existing facilities through 2025. However, they would still be able to accommodate projected daily and annual demand albeit at a reduced level of service. Therefore, the induced aviation activity (difference between project and no-action activity) resulting from the proposed facility improvements consists of a redistribution of existing activity rather than creation of new activity for the duration of the evaluation period of this EA (2020-2025).

Table A.10.1

Summary of Passenger Forecast at MSP

	2007	2008	2010	2015	2016	EA Analysis Period 2020	2025	(2010-2025) Growth Rate	Long Term 2030	(2010-2030) Growth Rate
Enplanements										
Domestic Scheduled Air Carrier (a)	15,903,109	15,087,389	14,568,881	16,302,440	16,758,473	18,608,747	21,260,499	2.6%	24,294,325	2.6%
International Scheduled Air Carrier (b)	980,460	1,264,507	1,141,442	1,331,485	1,367,795	1,564,092	1,815,444	3.1%	2,109,421	3.1%
Subtotal Scheduled	16,883,569	16,351,896	15,710,323	17,633,925	18,126,269	20,172,839	23,075,943	2.6%	26,403,746	2.6%
Domestic Charter (c)	41,874	16,990	4,736	2,658	2,732	3,041	3,478	-2.0%	3,980	-0.9%
International Charter(c)	43,641	15,386	0	2,658	2,732	3,041	3,478	0	3,980	0
Subtotal charter	85,515	32,376	4,736	5,316	5,464	6,081	6,956	2.6%	7,960	2.6%
Total Revenue Enplanements	16,969,084	16,384,272	15,715,059	17,639,241	18,131,733	20,178,920	23,082,899	2.6%	26,411,706	2.6%
Non-Revenue Enplanements	509,278	571,181	552,580	620,239	637,556	709,540	811,651	2.6%	928,700	2.6%
Total Enplanements	17,478,362	16,955,453	16,267,639	18,259,480	18,769,289	20,888,460	23,894,550	2.6%	27,340,406	2.6%
Originations										
Domestic Scheduled Air Carrier (a)	7,703,380	7,065,580	7,084,400	8,046,352	8,269,975	9,176,566	10,474,987	2.6%	11,959,201	2.7%
International Scheduled Air Carrier (b)	656,490	676,530	706,128	895,030	931,500	1,093,314	1,336,925	4.3%	1,636,550	4.3%
Subtotal Scheduled	8,359,870	7,742,110	7,790,528	8,941,382	9,201,475	10,269,880	11,811,912	2.8%	13,595,752	2.8%
Domestic Charter (d)	41,874	16,990	4,736	2,658	2,732	3,041	3,478	-2.0%	3,980	-0.9%
International Charter(d)	43,641	15,386	0	2,658	2,732	3,041	3,478	0	3,980	0
Subtotal charter	85,515	32,376	4,736	5,316	5,464	6,081	6,956	2.6%	7,960	2.6%
Total	8,445,385	7,774,486	7,795,264	8,946,698	9,206,939	10,275,961	11,818,869	2.8%	13,603,711	2.8%

(a) Table A.4.2.
(b) Table A.5.1.
(c) Attachment 7, Table 7.1.
(d) Assumed to be the same as enplanements.

Sources: As noted and HNTB analysis.

Table A.10.2

Summary of Forecast Aircraft Operations at MSP

	2007	2008	2010	2015	2016	EA Analysis Period 2020	2025	(2010-2025) Growth Rate	Long Term 2030	(2010-2030) Growth Rate
Domestic Scheduled Air Carrier (a)	388,508	378,273	367,851	370,360	378,528	410,410	448,074	1.3%	486,180	1.4%
International Scheduled Air Carrier (b)	14,889	24,074	26,556	26,992	27,580	29,530	32,886	1.4%	35,986	1.5%
Charter (c)	1,432	536	103	86	88	96	106	0.2%	118	0.7%
All-Cargo Carrier (d)	15,292	14,361	12,499	12,598	12,600	12,764	12,826	0.2%	12,956	0.2%
General Aviation and Air Taxi (e)	30,562	30,685	27,921	29,751	29,783	29,934	30,003	0.5%	30,011	0.4%
Military (f)	2,289	2,115	2,145	2,145	2,145	2,145	2,145	0.0%	2,145	0.0%
Total	452,972	450,044	437,075	441,932	450,724	484,879	526,040	1.2%	567,396	1.3%

(a) Table A.4.3.
(b) Table A.5.2.
(c) Attachment 7, Table 7.4.
(d) Attachment 8, Table 8.2.
(e) Table A.9.2.
(f) Table A.9.3.

Sources: As noted and HNTB analysis.

Table A.10.3

Annual Summary of Enplaned Passengers and Operations at MSP

Year	Total Enplanements	Total Aircraft Operations
2010	16,267,639	437,075
2011	16,666,007	438,046
2012	17,064,375	439,018
2013	17,462,743	439,989
2014	17,861,111	440,961
2015	18,259,480	441,932
2016	18,769,289	450,724
2017	19,299,082	459,263
2018	19,828,875	467,802
2019	20,358,668	476,341
	EA Analysis Period	
2020	20,888,460	484,879
2021	21,489,678	493,112
2022	22,090,896	501,344
2023	22,692,114	509,576
2024	23,293,332	517,808
2025	23,894,550	526,040
	Long Term	
2026	24,583,722	534,311
2027	25,272,893	542,582
2028	25,962,064	550,853
2029	26,651,235	559,125
2030	27,340,406	567,396
	Average Annual Growth Rate	
2010-2030	2.6%	1.3%

Sources: Tables A.10.1, A.10.2 and HNTB analysis.

11 Design Day Gated Flight Schedules

The derivation of design day gated flight schedules used in subsequent simulation and environmental analyses is discussed in this section. Design day schedules were prepared for an average weekday during the peak month for 2020 and 2025, the two years of analysis for the EA. Three alternative cases were prepared:

- Alternative 1: Airlines Remain, which assumes that airlines remain and grow at their existing terminals;
- Alternative 2: Airlines Relocate, which assumes that all non-SkyTeam airlines relocate to Terminal 2-Humphrey; and
- No-Action Alternative: No expansion projects are assumed, except those that are currently undergoing environmental approval, do not require environmental approval, or are covered by a State Environmental Assessment Worksheet (EAW) or categorical exclusion.

The development of the 2020 and 2025 flight schedules is presented first, followed by a discussion of the assumptions used to assign gates for each of the alternatives.

11.1 Preparation of Flight Schedules

Based on the information developed in the annual forecast, design day flight schedules representing the AWDPM in 2020 and 2025 were prepared. The projected schedules contain the following information on a flight-by-flight basis:

- Time of arrival at and departure from MSP
- Airline
- Aircraft type
- Origin and destination
- Domestic/International/Pre-cleared designation
- Category designation (scheduled, charter, cargo, etc.)

The following assumptions and procedures were used to prepare the design day schedules:

- The sources of the annual scheduled passenger forecasts were Tables 5.8 and 6.9 which detail AWDPM market-by-market service projections by airline and aircraft type.
- The July 2010 OAG schedules were used as the initial source of flight times for the future schedules. July was selected because it is typically the peak month for passenger and aircraft operations activity at MSP.

Scheduled times for new flights in existing markets were estimated using the following approach:

- New flights were scheduled to avoid two flights in the same connecting bank by the same airline in a given market.
- Flights were scheduled to avoid take-offs and landings during nighttime (2300-0600) at both the origin and destination market.
- New flights for Delta and Sun Country were scheduled to be consistent with their existing directional connecting bank structure.

Scheduled times for flights in new markets were estimated using the following approach:

- Flights were scheduled to avoid take-offs and landings during nighttime (2300-0600) at both the origin and destination market.
- New flights for Delta and Sun Country were scheduled to be consistent with their existing directional connecting bank structure.

Aircraft turnarounds (determination of which arriving flight becomes which departing flight) were estimated using the following approach:

- Based on current practice, wide-body aircraft turnarounds were assumed to last no less than 1 hour.
- Based on current practice, narrow-body turnarounds were scheduled to last no less than 35 minutes. This assumption varied depending on the airline and its current practices. For example, Southwest's average turnaround time of 25 minutes is reflected in the design day schedules.
- Based on current practice, regional aircraft turnarounds were scheduled to last no less than 25 minutes.

Enplaned and deplaned passengers were assigned to each flight based on existing load factors by airline for each market, with an adjustment for the time of day and the projected increase in average load factor over the forecast period. The split between O&D and connecting passengers for each market was based on existing O&D/connecting split for Delta flights in each market. Non-Delta carriers have very little connecting traffic; therefore each carriers' average ratio of originating to enplanement traffic was used across all markets.

11.2 Assignment of Gates

The same flight schedule was used as a starting point for each of the three alternatives, but the process for assigning gates differed. In addition, the 2025 no-action schedule required some

minor adjustments in schedule times for the projected level of activity to operate with the existing number of gates.

The following assumptions were employed to assign gates to the flight schedule for Alternatives 1 and 2:

- A preferential use lease structure was assumed.
- Reflecting existing Airport practice, arriving flights that are towed off and departing flights that are towed on were assigned 45-minute dwell times at their gate. This was reduced to 30-minutes for Southwest and regional carrier flights.
- A minimum 15-minute buffer was assumed between an aircraft departure and the next aircraft arrival at each gate. This assumption was relaxed on occasion if it meant avoiding the addition of a new gate to accommodate just one flight.
- Spare gates were assigned in addition to those gates required under a perfectly operating schedule. The number of spare gates was assumed to equal eight percent of the minimum number of required gates. Spare gates are typically required by a hub carrier to accommodate schedule disruptions.
- Flights were initially assigned to gates to maximize gate utilization given the above constraints. Once gate requirements were determined (including spare gates) the flights were redistributed among the gates to provide for a more balanced operation.

The gated flight schedule for the No-Action Alternative assumes no changes in the existing terminal facilities except for the currently proposed re-gating at Terminal 1-Lindbergh which would result in a net reduction of two gates from the existing configuration to accommodate the larger wingspans resulting from the addition of winglets to many aircraft. The reduction in the total gate number would be offset by the increased ability of many of the remaining gates to accommodate a wider variety of aircraft.

The following assumptions were employed to assign gates to the flight schedule for the No-Action Alternative:

- A common use lease structure was assumed for all carriers. Where possible, flights by individual airlines were assigned to the same set of adjacent gates throughout the day.
- No split of an individual airline's operations between Terminal 1-Lindbergh and Terminal 2-Humphrey was assumed.
- Some minor relocation of airlines between the two terminals was assumed. For example, JetBlue operations were moved to Terminal 1-Lindbergh and Air Canada operations were moved to Terminal 2-Humphrey.

- During peak periods, arriving narrow-body flights that are towed off and departing narrow-body flights that are towed on were assigned 30-minute dwell times at their gates.

- A minimum 5-minute buffer was assumed between an aircraft departure and the next aircraft arrival at each gate during peak periods.

- In one instance, the flight time of a charter operation was adjusted to make room for a scheduled operation for which no gate would have been available.

- No spare gates were assumed. If schedule disruptions were to occur, some arriving flights would need to wait until a gate became available.

- Flights were initially assigned to gates to maximize gate utilization given the above constraints. Once gate requirements were determined the flights were redistributed among the gates to provide for a more balanced operation.

- Where possible, flights were assigned to gates so as to maximize accessibility to the optimal runway for their ultimate destination.

When compared to Alternatives 1 and 2, the No-Action Alternative represents a much more crowded condition with reduced passenger service levels and increased airline operating burdens, especially when schedule disruptions occur. Nevertheless, the No-Action Alternative is technically feasible, even for 2025 activity levels. The number of turns per gate, though high, is less than has been experienced at other hub airports such as Charlotte and DFW.[3] As such, the No Action Alternative represents a reasonable estimate of how the Airport and the airlines would attempt to accommodate demand if they were not able to add terminal facilities.

12 Peak Activity Forecasts

The results of the design day gated flight schedule analyses were aggregated to develop peak activity forecasts which are detailed in ***Attachment 10***, *Hourly AWDPM Distributions*, and ***Attachment 11***, *Peak Activity Summaries*.

12.1 Hourly Distribution Summaries

Tables 10.1 through 10.3 show the existing hourly distribution of enplaning and deplaning passengers, originating and terminating passengers, and arriving and departing passenger flights for Terminal 1-Lindbergh, Terminal 2-Humphrey, and the whole airport respectively. The tables also include 60-minute peaks since the peak hour often includes part of two clock hours. At Terminal 1-Lindbergh, the busiest periods tend to be in the late afternoon and early evening although there are some busy periods in the morning as well. Terminal 2-Humphrey has a very busy early morning departure peak whereas arrival peaks are less intense and are distributed throughout the day.

Tables 10.4 through 10.12 show the hourly distributions resulting from the 2020 AWDPM schedules. The results for Alternative 1 for Terminal 1-Lindbergh, Terminal 2-Humphrey and the entire airport are presented in Tables 10.4 through 10.6. Tables 10.7 through 10.9 show the same results for Alternative 2 and Tables 10.10 through 10.12 show the results for the No Action Alternative. The overall distribution of activity by time of day is similar to 2010; however, under Alternative 2: Airlines Relocate there is a substantial transfer of activity, especially O&D activity, from Terminal 1-Lindbergh to Terminal 2-Humphrey.

Tables 10.13 through 10.21 show the hourly distributions resulting from the 2025 AWDPM schedules. The results for Alternative 1 for Terminal 1-Lindbergh, Terminal 2-Humphrey and the entire airport are presented in Tables 10.13 through 10.15. Tables 10.16 through 10.18 show the same results for Alternative 2 and Tables 10.19 through 10.21 show the results for the No Action Alternative. Again, the overall distribution of activity by time of day is similar to 2010.

No design day schedules were prepared for 2030. Hourly distributions for 2030 were estimated by extrapolating from the 2025 hourly distributions using the annual forecast growth rates as a control and incorporating some peak spreading. The estimated 2030 hourly distributions for Alternative 1, Alternative 2, and the No Action Alternative, broken out by terminal, are presented in Tables 10.22 through 10.30.

12.2 Peak Hour Summaries

Tables 11.1 through 11.3 in Attachment 11 summarize the annual, AWDPM and peak hour estimates of enplaning and deplaning passengers by alternative and by terminal. The distribution of activity by terminal is very similar for Alternative 1 and the No-Action Alternative, since the distribution of airlines among the terminals would be very similar. Under Alternative 2, however, Terminal 2-Humphrey would have twice as much passenger activity as under the other two alternatives.

Tables 11.4 through 11.6 summarize the annual, AWDPM and peak hour estimates of originating and deplaning passengers by alternative and by terminal. As shown, under Alternative 2 originating and terminating traffic would be roughly evenly divided between the two terminals, although Terminal 1-Lindbergh still would accommodate the vast majority of connecting traffic.

12.3 International Peak Summaries

At MSP, the seasonal distribution of international activity differs from that of domestic and total activity. International demand peaks during weekends in winter, especially March, whereas domestic demand peaks during weekdays in summer. The international peak is largely driven by tourist traffic to Mexico. International traffic to Europe and Asia peaks in summer, similar to domestic traffic.

A supplementary gated flight schedule analysis, limited to international activity, was performed for Saturdays in March. The analysis was performed to assess peak international demand to ensure that the planned number of gates and other international facilities would be adequate.

Tables 11.7 through 11.9 summarize peak international enplaning and deplaning passenger activity for a Saturday in March, broken out by terminal and alternative. Tables 11.10 through 11.12 provide similar breakouts of peak international originating and terminating passenger activity. The results are the same across all alternatives because, aside from Air Canada which does not require Customs and Border Protection facilities, none of the airlines providing international service are anticipated to change terminals under any of the alternatives.

13 Gate Requirements

Table A.13.1 summarizes the estimated gate requirements resulting from the design day gated flight schedule analyses. Also included for comparison is the existing number of gates at the two terminals. It should be noted that the existing gate capacity does not correspond to the existing gate requirement. Currently, the Airport has more gates than needed to accommodate existing passenger flights; however, by 2020 the demand for gates will exceed the capabilities of the current terminal configuration.

Table A.13.1

Summary of Forecast 2020 MSP Gate Requirements by Alternative

	Existing Capacity (a)		Alternative 1 - Airlines Remain		Alternative 2 - Airlines Relocate	
	Total	With International Capability	Total	With International Capability	Total	With International Capability
Terminal 1 - Lindbergh						
Total						
Widebody (b)	5	5	7	5	7	5
757 Class (c)	11	3	9	2	9	2
Narrow Body (d)	46	3	46	5	32	5
Large Regional (e)	16	-	30	-	29	-
Medium Regional (f)	24	-	19	-	19	-
Small Regional (g)	12	-	4	-	4	-
Subtotal	114	11	115	12	100	12
Terminal 2 - Humphrey						
Total						
Widebody (b)	2	2	1	1	1	1
757 Class (c)	4	4	2	-	2	-
Narrow Body (d)	4	-	10	4	24	4
Large Regional (e)	-	-	-	-	-	-
Medium Regional (f)	-	-	-	-	-	-
Small Regional (g)	-	-	-	-	-	-
Subtotal	10	6	13	5	27	5

(a) Includes planned Delta Air Lines reconfiguration of existing gates on Terminal 1. Many existing gates are restricted by the types of aircraft using adjacent gates.
(b) Includes all multiple aisle aircraft.
(c) Includes 757-200, 757-300 and anticipated replacement aircraft.
(d) Includes all mainline narrow-body aircraft except for 757 class.
(e) Includes Embraer 175 and Canadair 700 and 900 aircraft.
(f) Includes all regional aircraft between 44 and 69 seats.
(g) Includes all regional aircraft less than 44 seats.

Sources: Design day flight schedules and HNTB analysis.

The principle changes in future demand will be in the types of gates that are required. There will be a need for two more unrestricted wide-body gates, but the greatest demand will be for gates capable of accommodating large (70-seat plus) regional jets. Conversely, the analysis shows that the demand for small turboprop and 50-seat regional jet gates will be substantially less than the existing supply.

Under Alternative 1: Airlines Remain, there would be a need for 115 gates at Terminal 1-Lindbergh and 13 gates at Terminal 2-Humphrey in 2020. Under Alternative 2: Airlines Relocate, there would be a need for 100 gates at Terminal 1-Lindbergh and 27 gates at Terminal 2-Humphrey. A total of 12 international gates at Terminal 1-Lindbergh and 5 international gates at Terminal 2-Humphrey would be required under both alternatives.

Factors that could change future gate requirements at MSP include the following:

- Changes in forecast activity.
- Adjustments in the spare gate percentage.
- Increased future gate utilization among the carriers.
- Changes from preferential use to common use gate lease arrangements.
- Use of hardstands.
- Shuttling of international arrival passengers from domestic gates to Customs and Border Protection (CBP) facilities (this would not reduce the total number of gates but would reduce the number of international gates).

14 Forecast Comparison

Table A.14.1 compares the EA forecast with the LTCP Update forecast and the FAA's 2011 TAF. The average annual growth rate for passenger enplanements between 2010 and 2025 is 2.6 percent with the EA forecast as compared to 2.8 percent with the LTCP Update forecast and 2.0 percent for the TAF. The projected annual growth rate in total originations is 2.8 percent with the EA forecast, as compared to 3.4 percent with the LTCP Update forecast. The difference is primarily attributable to less aggressive assumptions regarding the growth of Southwest Airlines. The published TAF does not provide forecasts of originations.

The EA forecast of operations anticipates an average annual growth rate of 1.2 percent through 2025, which is lower than the LTCP Update forecast (1.7 percent) and slightly lower than the TAF (1.4 percent). The LTCP Update forecast was prepared prior to Delta's announcements regarding 50-seat regional jet reductions, and the TAF is based on national projections of average aircraft size.

FAA Guidance on the review and approval of aviation forecasts states that forecasts for total enplanements and total operations are "considered consistent with the TAF if they meet the following criterion: Forecasts differ by less than 10 percent in the 5-year forecast period, and 15 percent in the 10-year forecast period."[4] The 2020 forecast meets this criterion for both enplanements and aircraft operations.

Table A.14.1

Comparison of MSP Forecasts

	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	EA Analysis Period (2010-2025) Growth Rate	Long Term 2030	Long Term (2010-2030) Growth Rate
Enplanements								
EA Forecast (a)	15,715,059	17,639,241	18,131,733	20,178,920	23,082,899	2.6%	26,411,706	2.6%
LTCP Update Forecast (b)	16,526,385	19,102,835	*19,645,903*	21,818,176	24,980,903	2.8%	28,431,850	2.7%
2011 TAF (c)	15,295,616	16,823,731	17,201,135	18,643,055	20,626,495	2.0%	22,833,908	2.0%
Originations								
EA Forecast (a)	7,795,264	8,946,698	9,206,939	10,275,961	11,818,869	2.8%	13,603,711	2.8%
LTCP Update Forecast (b)	8,681,658	10,654,254	*10,990,162*	12,333,797	14,319,319	3.4%	16,624,892	3.3%
Operations								
EA Forecast (d)	437,075	441,932	450,724	484,879	526,040	1.2%	567,396	1.3%
LTCP Update Forecast (b)	459,481	507,669	*515,523*	546,936	592,849	1.7%	630,837	1.6%
2011 TAF (c)	427,558	449,493	455,020	485,065	525,526	1.4%	569,471	1.4%

(a) Table A.10.1. Does not include non-revenue enplanements.
(b) LTCP Update Forecast published August 2009. Does not include non-revenue enplanements.
(c) Federal Aviation Administration, Terminal Area Forecast for MSP, January 2012. Does not include non-revenue enplanements.
(d) Table A.10.2.

Sources: As noted and HNTB analysis.

15 Factors that Could Impact the EA Forecast

Airlines have been known to change fleet plans and feeder arrangements in the past, so there could be material changes in the passenger, aircraft operation, and fleet mix projections. Factors that could drive these changes include:

- *Changes in economic growth* – The economy is the ultimate driver of aviation activity. Therefore, growth above the levels projected in Table A.1.1 will, all other things being equal, result in activity levels higher than those presented in this report. Conversely, economic growth below the Table A.1.1 projections will result in lower than projected aviation activity levels at MSP.

- *Changes in fuel prices* – Higher than projected fuel prices would increase operating costs and average air fares and reduce demand, thereby reducing projected activity levels. In addition, the 50-seat regional jets are uneconomical at current fuel prices and under existing operating terms with the feeder carriers; those factors are driving the retirement of many of these aircraft. If fuel prices were to fall significantly or operating terms were to improve, the 50-seat aircraft would once again have more favorable operating economics, as they did in the 1990s and the early part of the last decade. With lower fuel prices or better operating terms, Delta and other airlines may choose to slow or halt the retirements of the 50-seat regional jet aircraft.

- *New Regional Carrier* - Delta has withdrawn from several small markets in Minnesota and the Dakotas in recent years and will likely reduce frequencies in additional markets. This would provide opportunities for an operator of small turboprops, such as Great Lakes Airlines, to backfill this service, perhaps under code-share agreements with United and Frontier, similar to their operation in Denver. Since they operate mostly 19-seat aircraft, a small number of passengers could generate a relatively large number of aircraft operations.

- *More Robust Essential Air Service Program* – Although unlikely in the current political climate, a more robust essential air service program would result in more service to small markets that would logically be served by smaller aircraft, either within or outside the Delta system.

ENDNOTES

[1] The Bureau of Economic Analysis employment statistics, upon which Woods & Poole projections are based, include the self-employed in addition to wage and salary workers.

[2] It was assumed that taxes and fees, as a proportion (%) of total fare, would remain at their 2008 levels over the forecast period.

[3] "An Evaluation of Air Carrier Gate Use at Selected Airports," in Handbook of Airline Economics, 1995.

[4] Federal Aviation Administration, Review and Approval of Aviation Forecasts, June 2008.

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Attachment 1

Socioeconomic Data

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LIST OF TABLES **Page**

Table 1.1

Historical Population

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US (a)
1980	196,934	37,246	195,537	944,339	460,972	44,037	114,207	1,993,272	227,224,719	0.88%
1981	200,223	37,960	200,120	953,632	464,661	44,949	116,489	2,018,034	229,465,744	0.88%
1982	203,185	38,516	204,814	961,435	467,807	45,803	118,856	2,040,416	231,664,432	0.88%
1983	205,362	38,799	207,632	966,876	469,240	46,005	120,247	2,054,161	233,792,014	0.88%
1984	208,888	39,342	213,995	972,868	469,887	47,187	122,543	2,074,710	235,824,907	0.88%
1985	213,359	40,208	221,244	985,599	473,859	48,987	124,760	2,108,016	237,923,734	0.89%
1986	218,309	41,263	228,968	997,454	478,857	50,405	127,522	2,142,778	240,132,831	0.89%
1987	224,834	42,741	241,271	1,005,648	480,597	52,568	131,170	2,178,829	242,288,936	0.90%
1988	232,370	44,715	255,030	1,018,825	483,483	54,895	137,085	2,226,403	244,499,004	0.91%
1989	237,833	46,304	265,585	1,026,682	485,633	56,454	141,537	2,260,028	246,819,222	0.92%
1990	245,255	48,409	277,866	1,035,132	486,531	58,285	146,940	2,298,418	249,622,814	0.92%
1991	251,565	50,251	286,916	1,043,220	488,277	60,328	152,340	2,332,897	252,980,941	0.92%
1992	257,253	52,089	296,694	1,050,216	491,517	62,549	158,392	2,368,710	256,514,224	0.92%
1993	261,729	54,436	305,852	1,059,615	492,298	65,393	166,677	2,406,000	259,918,588	0.93%
1994	268,278	56,936	311,008	1,069,030	493,614	68,352	173,796	2,441,014	263,125,821	0.93%
1995	273,226	59,644	319,218	1,076,932	495,857	70,987	179,062	2,474,926	266,278,393	0.93%
1996	278,260	62,197	328,159	1,083,757	498,326	73,883	183,824	2,508,406	269,394,284	0.93%
1997	282,976	63,939	335,640	1,089,694	502,514	77,754	188,208	2,540,725	272,646,925	0.93%
1998	288,089	65,838	343,231	1,099,002	506,075	80,878	192,341	2,575,454	275,854,104	0.93%
1999	293,599	68,181	350,520	1,109,634	509,175	85,094	197,391	2,613,594	279,040,168	0.94%
2000	299,775	70,860	357,906	1,118,227	511,587	91,081	202,547	2,651,983	282,171,957	0.94%
2001	305,002	73,109	363,622	1,124,929	512,979	97,200	206,692	2,683,533	285,081,556	0.94%
2002	309,032	75,686	368,205	1,123,225	510,592	103,169	209,254	2,699,163	287,803,914	0.94%
2003	312,164	78,391	371,955	1,122,285	505,612	107,957	212,403	2,710,767	290,326,418	0.93%
2004	317,165	81,020	376,747	1,122,694	500,781	113,668	213,982	2,726,057	293,045,739	0.93%
2005	320,476	83,943	381,256	1,121,705	497,118	118,503	217,534	2,740,535	295,753,151	0.93%
2006	324,414	86,510	385,604	1,125,352	496,718	122,733	222,139	2,763,470	298,593,212	0.93%
2007	326,973	88,320	390,284	1,133,986	499,408	126,176	226,384	2,791,531	301,579,895	0.93%
2008	328,998	90,162	393,528	1,143,863	502,658	129,220	229,740	2,818,169	304,374,846	0.93%
					Average Annual Growth Rate					
1980-2008	1.8%	3.2%	2.5%	0.7%	0.3%	3.9%	2.5%	1.2%	1.0%	
1980-1990	2.2%	2.7%	3.6%	0.9%	0.5%	2.8%	2.6%	1.4%	0.9%	
1990-2008	1.6%	3.5%	2.0%	0.6%	0.2%	4.5%	2.5%	1.1%	1.1%	

(a) Seven-county Metropolitan Council share of U.S.

Source: United States Department of Commerce, Bureau of Economic Analysis.

Table 1.2

Projected Population

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US
Metropolitan Council - Regional Development Framework Forecasts (a)										
2000	298,084	70,205	355,904	1,116,206	511,035	89,498	201,130	2,642,062	n/a	n/a
2005 (b)	*329,342*	*90,473*	*389,472*	*1,170,098*	*529,333*	*115,034*	*229,531*	2,853,282	n/a	n/a
2008	*348,097*	*102,633*	*409,613*	*1,202,433*	*540,311*	*130,356*	*246,572*	2,980,014	n/a	n/a
2010	360,600	110,740	423,040	1,223,990	547,630	140,570	257,932	3,064,502	n/a	n/a
2015 (b)	*388,345*	*137,285*	*453,880*	*1,275,365*	*558,735*	*161,595*	*288,268*	3,263,473	n/a	n/a
2020	416,090	163,830	484,720	1,326,740	569,840	182,620	318,603	3,462,443	n/a	n/a
2025 (b)	*427,380*	*181,165*	*505,470*	*1,368,265*	*579,710*	*201,745*	*340,897*	3,604,632	n/a	n/a
2030	438,670	198,500	526,220	1,409,790	589,580	220,870	363,190	3,746,820	n/a	n/a
Average Annual Growth Rate										
2010-2030	1.0%	3.0%	1.1%	0.7%	0.4%	2.3%	1.7%	1.0%	n/a	n/a
Metropolitan Council - Regional Development Framework Forecasts Adjusted for Base Year (c)										
2000	298,084	70,205	355,904	1,116,206	511,035	89,498	201,130	2,642,062	282,171,957	0.94%
2005	320,476	83,943	381,256	1,121,705	497,118	118,503	217,534	2,740,535	295,753,151	0.93%
2008 (d)	328,998	90,162	393,528	1,143,863	502,658	129,220	229,740	2,818,169	304,374,846	0.93%
2010	340,815	97,284	406,428	1,164,370	509,467	139,345	240,325	2,898,034	310,009,241	0.93%
2015	367,038	120,603	436,057	1,213,242	519,798	160,187	268,590	3,085,516	325,343,434	0.95%
EA Analysis Period										
2020	393,261	143,923	465,686	1,262,115	530,129	181,029	296,854	3,272,997	341,251,668	0.96%
2025	403,931	159,152	485,621	1,301,617	539,311	199,987	317,626	3,407,246	357,504,320	0.95%
Average Annual Growth Rate										
2010-2025	1.1%	3.3%	1.2%	0.7%	0.4%	2.4%	1.9%	1.1%	1.0%	
Long Term										
2030	414,602	174,380	505,556	1,341,120	548,494	218,946	338,398	3,541,495	373,827,815	0.95%
Average Annual Growth Rate										
2010-2030	1.0%	3.0%	1.1%	0.7%	0.4%	2.3%	1.7%	1.0%	0.9%	

(a) Metropolitan Council, Regional Development Framework 2030 Forecasts, revised November 2010.
(b) Interpolated.
(c) Forecast growth rates for each county applied to actual 2008 base year data.
(d) Woods & Poole Economics, The Complete Economic and Demographic Data Source (CEDDS) 2011.

Sources: As noted and HNTB analysis.

Table 1.3

Historical Employment

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US (a)
1980	71,048	15,348	75,978	724,963	314,564	18,178	36,474	1,256,553	113,983,200	1.10%
1981	70,901	15,817	76,360	723,730	311,400	18,216	38,203	1,254,627	114,914,000	1.09%
1982	71,047	15,498	76,190	710,906	305,291	18,232	38,159	1,235,323	114,163,300	1.08%
1983	73,855	15,784	78,823	717,114	307,641	18,746	40,695	1,252,658	115,645,700	1.08%
1984	80,426	16,352	88,262	763,089	325,417	19,789	42,733	1,336,068	120,528,100	1.11%
1985	83,261	17,705	95,174	790,797	332,093	21,065	44,827	1,384,922	123,796,700	1.12%
1986	86,336	17,886	99,735	809,432	335,291	21,926	47,308	1,417,914	126,232,300	1.12%
1987	91,998	19,344	109,690	843,558	343,801	23,281	51,379	1,483,051	129,548,400	1.14%
1988	97,082	20,300	120,332	865,227	350,711	24,490	52,954	1,531,096	133,563,900	1.15%
1989	100,716	21,783	126,727	882,531	351,764	24,897	54,408	1,562,826	136,177,800	1.15%
1990	103,751	24,304	132,944	893,644	353,860	25,958	56,157	1,590,618	138,330,900	1.15%
1991	106,759	25,771	136,672	886,823	353,018	27,018	57,445	1,593,506	137,612,800	1.16%
1992	108,863	28,053	142,293	895,630	353,852	29,302	58,841	1,616,834	138,166,100	1.17%
1993	111,332	30,632	146,844	912,273	357,644	31,747	60,702	1,651,174	140,774,400	1.17%
1994	115,502	32,741	154,560	934,602	364,652	33,801	65,770	1,701,628	144,196,600	1.18%
1995	119,414	35,265	162,880	959,251	372,914	36,365	68,469	1,754,558	147,915,800	1.19%
1996	122,639	35,940	169,331	975,916	375,511	38,095	71,992	1,789,424	151,056,200	1.18%
1997	125,186	36,988	173,982	989,480	380,628	38,880	77,186	1,822,330	154,541,200	1.18%
1998	129,909	38,808	180,208	1,015,772	387,566	38,618	80,225	1,871,106	158,481,200	1.18%
1999	138,499	39,594	190,854	1,029,202	390,742	41,204	81,476	1,911,571	161,531,300	1.18%
2000	143,555	41,631	197,954	1,048,325	395,185	44,283	85,453	1,956,386	165,370,800	1.18%
2001	148,362	43,316	203,347	1,036,721	398,046	46,893	88,287	1,964,972	165,510,200	1.19%
2002	148,660	44,783	209,923	1,014,027	395,077	48,771	89,036	1,950,277	165,063,100	1.18%
2003	151,693	45,680	216,524	1,005,226	393,795	50,152	91,251	1,954,321	166,019,500	1.18%
2004	154,939	46,966	221,513	1,015,858	396,805	53,158	92,761	1,982,000	169,026,700	1.17%
2005	159,570	48,052	228,432	1,033,196	400,864	54,857	95,564	2,020,535	172,551,400	1.17%
2006	161,558	50,733	233,260	1,047,407	403,933	56,662	97,374	2,050,927	176,124,600	1.16%
2007	163,470	51,383	236,916	1,063,592	407,474	57,767	98,091	2,078,693	179,871,700	1.16%
2008	163,796	52,578	238,237	1,070,633	411,598	58,680	98,252	2,093,774	181,755,100	1.15%
					Average Annual Growth Rate					
1980-2008	3.0%	4.5%	4.2%	1.4%	1.0%	4.3%	3.6%	1.8%	1.7%	
1980-1990	3.9%	4.7%	5.8%	2.1%	1.2%	3.6%	4.4%	2.4%	2.0%	
1990-2008	2.6%	4.4%	3.3%	1.0%	0.8%	4.6%	3.2%	1.5%	1.5%	

(a) Seven-county Metropolitan Council share of U.S.

Source: United States Department of Commerce, Bureau of Economic Analysis, 2010.

Table 1.4

Projected Employment

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US
Metropolitan Council - Regional Development Framework Forecasts (a)										
2000	110,050	28,740	154,242	877,346	333,305	34,931	67,649	1,606,263	n/a	n/a
2005 (b)	*117,420*	*34,620*	*170,156*	*914,073*	*352,563*	*42,066*	*77,685*	*1,708,582*	n/a	n/a
2008	*121,842*	*38,148*	*179,704*	*936,109*	*364,117*	*46,346*	*83,706*	1,769,973	n/a	n/a
2010	124,790	40,500	186,070	950,800	371,820	49,200	87,720	1,810,900	n/a	n/a
2015 (b)	*133,305*	*46,295*	*197,555*	*995,050*	*387,955*	*53,740*	*99,640*	*1,913,540*	n/a	n/a
2020	141,820	52,090	209,040	1,039,300	404,090	58,280	111,560	2,016,180	n/a	n/a
2025 (b)	*147,880*	*55,860*	*218,110*	*1,079,250*	*415,055*	*65,800*	*121,090*	*2,103,045*	n/a	n/a
2030	153,940	59,630	227,180	1,119,200	426,020	73,320	130,620	2,189,910	n/a	n/a
Average Annual Growth Rate										
2005-2030	1.1%	2.2%	1.2%	0.8%	0.8%	2.2%	2.1%	1.0%	n/a	n/a
Metropolitan Council - Regional Development Framework Forecasts Adjusted for Base Year (c)										
2000	143,554	41,631	197,953	1,048,324	395,184	44,281	85,451	1,956,378	165,370,800	1.18%
2005	159,570	48,052	228,432	1,033,196	400,864	54,857	95,564	2,020,535	172,551,400	1.17%
2008 (d)	163,796	52,578	238,237	1,070,633	411,598	58,680	98,252	2,093,774	181,755,100	1.15%
2010	167,759	55,820	246,676	1,087,435	420,305	62,293	102,964	2,143,252	174,062,641	1.23%
2015	179,206	63,807	261,902	1,138,044	438,544	68,041	116,955	2,266,500	186,999,786	1.21%
EA Analysis Period										
2020	190,653	71,794	277,128	1,188,653	456,783	73,790	130,947	2,389,747	197,896,707	1.21%
2025	198,800	76,990	289,152	1,234,344	469,178	83,311	142,133	2,493,907	209,315,190	1.19%
Average Annual Growth Rate										
2010-2025	1.1%	2.2%	1.1%	0.8%	0.7%	2.0%	2.2%	1.0%	1.2%	
Long Term										
2030	206,946	82,186	301,176	1,280,035	481,573	92,832	153,319	2,598,067	221,271,163	1.17%
Average Annual Growth Rate										
2010-2030	1.1%	2.0%	1.0%	0.8%	0.7%	2.0%	2.0%	1.0%	1.2%	-0.2%

(a) Metropolitan Council, Regional Development Framework 2030 Forecasts, revised 2010.
(b) Interpolated.
(c) Forecast growth rates for each county applied to actual 2008 base year data.
(d) Woods & Poole Economics, The Complete Economic and Demographic Data Source (CEDDS) 2011.

Sources: As noted and HNTB analysis.

Table 1.5

Historical Real Personal Income (thousands of 2010 dollars)

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US (a)
1980	4,683,168	942,599	5,264,014	29,331,254	12,645,661	1,103,300	2,940,573	56,910,569	5,451,328,828	1.04%
1981	4,727,142	972,755	5,468,801	29,770,052	12,870,708	1,128,323	3,088,869	58,026,649	5,613,298,527	1.03%
1982	4,842,344	991,097	5,691,248	30,541,250	13,193,225	1,157,750	3,232,101	59,649,016	5,702,201,597	1.05%
1983	5,054,209	1,009,794	5,956,706	31,278,314	13,506,477	1,189,807	3,393,701	61,389,007	5,833,317,937	1.05%
1984	5,477,229	1,121,010	6,631,193	33,662,256	14,413,698	1,307,266	3,746,168	66,358,820	6,221,038,813	1.07%
1985	5,725,558	1,197,506	7,093,476	35,211,965	14,887,002	1,390,418	3,987,502	69,493,427	6,442,818,876	1.08%
1986	5,971,505	1,265,157	7,432,884	36,571,991	15,303,089	1,466,640	4,212,043	72,223,309	6,651,746,687	1.09%
1987	6,192,553	1,346,572	7,946,353	37,834,953	15,591,421	1,535,670	4,444,328	74,891,850	6,817,951,008	1.10%
1988	6,412,136	1,398,548	8,510,066	39,027,733	15,833,160	1,600,486	4,647,105	77,429,233	7,070,634,855	1.10%
1989	6,660,614	1,532,350	9,077,099	40,393,207	16,091,942	1,671,597	4,756,787	80,183,596	7,299,951,481	1.10%
1990	6,776,899	1,591,234	9,376,464	40,953,305	16,481,681	1,717,065	4,955,403	81,852,051	7,425,550,590	1.10%
1991	6,895,577	1,627,706	9,585,290	40,655,611	16,429,220	1,755,518	5,095,996	82,044,918	7,436,762,943	1.10%
1992	7,261,317	1,765,571	10,206,082	42,028,182	16,618,602	1,888,930	5,514,480	85,283,163	7,687,933,025	1.11%
1993	7,633,858	1,898,739	10,576,577	42,287,299	16,610,751	2,007,493	5,811,065	86,825,783	7,837,404,170	1.11%
1994	8,115,735	2,058,498	11,256,759	43,818,402	17,153,610	2,161,180	6,300,638	90,864,821	8,105,117,733	1.12%
1995	8,473,694	2,245,042	11,830,088	46,053,512	17,740,365	2,333,208	6,638,314	95,314,223	8,372,246,067	1.14%
1996	8,935,318	2,443,782	12,637,699	47,747,625	18,463,573	2,555,531	6,997,229	99,780,757	8,710,082,680	1.15%
1997	9,363,522	2,632,346	13,452,973	50,642,496	18,768,094	2,791,513	7,408,278	105,059,222	9,082,425,160	1.16%
1998	10,163,777	2,928,214	14,787,463	54,721,617	20,024,212	3,072,240	8,100,646	113,798,168	9,672,104,729	1.18%
1999	10,796,107	3,145,815	15,495,331	57,166,355	20,293,502	3,384,222	8,581,807	118,863,138	10,008,391,414	1.19%
2000	11,587,914	3,462,311	16,356,688	60,477,405	21,278,857	3,880,019	9,204,895	126,248,090	10,566,536,875	1.19%
2001	11,762,709	3,719,885	16,460,985	59,746,102	21,670,468	4,059,112	9,510,774	126,930,035	10,761,582,951	1.18%
2002	12,106,639	3,770,412	16,842,574	59,545,462	22,142,193	4,129,309	9,616,114	128,152,703	10,827,149,710	1.18%
2003	12,300,956	3,850,766	17,266,892	60,280,010	22,025,931	4,270,932	9,901,129	129,896,618	10,979,662,826	1.18%
2004	12,557,792	4,068,362	17,711,274	62,319,034	22,832,984	4,545,044	10,423,702	134,458,194	11,338,891,280	1.19%
2005	12,555,171	4,300,985	17,855,361	62,504,374	22,576,884	4,815,785	10,379,403	134,987,963	11,617,368,721	1.16%
2006	12,805,955	4,495,714	18,194,452	65,082,527	23,232,914	5,003,458	10,881,279	139,696,298	12,148,526,913	1.15%
2007	13,107,352	4,802,701	18,706,829	66,490,484	23,508,798	5,263,660	11,332,886	143,212,710	12,478,981,986	1.15%
2008	12,960,367	4,878,718	18,548,506	65,785,257	23,344,649	5,367,174	11,356,312	142,240,983	12,430,393,202	1.14%
					Average Annual Growth Rate					
1980-2008	3.7%	6.0%	4.6%	2.9%	2.2%	5.8%	4.9%	3.3%	3.0%	
1980-1990	3.8%	5.4%	5.9%	3.4%	2.7%	4.5%	5.4%	3.7%	3.1%	
1990-2008	3.7%	6.4%	3.9%	2.7%	2.0%	6.5%	4.7%	3.1%	2.9%	

(a) Seven-county Metropolitan Council share of U.S.

Source: United States Department of Commerce, Bureau of Economic Analysis.

Table 1.6

Historical Real Per Capita Personal Income (2010 dollars)

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US (a)
1980	23,780	25,307	26,921	31,060	27,433	25,054	25,748	28,551	23,991	119.0%
1981	23,609	25,626	27,328	31,218	27,699	25,102	26,516	28,754	24,462	117.5%
1982	23,832	25,732	27,787	31,766	28,202	25,277	27,193	29,234	24,614	118.8%
1983	24,611	26,026	28,689	32,350	28,784	25,863	28,223	29,885	24,951	119.8%
1984	26,221	28,494	30,988	34,601	30,675	27,704	30,570	31,985	26,380	121.2%
1985	26,835	29,783	32,062	35,726	31,417	28,383	31,961	32,966	27,079	121.7%
1986	27,353	30,661	32,463	36,665	31,958	29,097	33,030	33,705	27,700	121.7%
1987	27,543	31,505	32,935	37,622	32,442	29,213	33,882	34,373	28,140	122.1%
1988	27,595	31,277	33,369	38,307	32,748	29,155	33,899	34,778	28,919	120.3%
1989	28,005	33,093	34,178	39,343	33,136	29,610	33,608	35,479	29,576	120.0%
1990	27,632	32,871	33,745	39,563	33,876	29,460	33,724	35,612	29,747	119.7%
1991	27,411	32,392	33,408	38,971	33,647	29,100	33,451	35,169	29,397	119.6%
1992	28,226	33,895	34,399	40,019	33,811	30,199	34,815	36,004	29,971	120.1%
1993	29,167	34,880	34,581	39,908	33,741	30,699	34,864	36,087	30,153	119.7%
1994	30,251	36,155	36,194	40,989	34,751	31,618	36,253	37,224	30,803	120.8%
1995	31,013	37,641	37,060	42,764	35,777	32,868	37,073	38,512	31,442	122.5%
1996	32,111	39,291	38,511	44,058	37,051	34,589	38,065	39,779	32,332	123.0%
1997	33,089	41,170	40,082	46,474	37,348	35,902	39,362	41,350	33,312	124.1%
1998	35,280	44,476	43,083	49,792	39,568	37,986	42,116	44,186	35,062	126.0%
1999	36,772	46,139	44,207	51,518	39,856	39,770	43,476	45,479	35,867	126.8%
2000	38,655	48,861	45,701	54,083	41,594	42,600	45,446	47,605	37,447	127.1%
2001	38,566	50,881	45,269	53,111	42,244	41,760	46,014	47,300	37,749	125.3%
2002	39,176	49,817	45,742	53,013	43,366	40,025	45,954	47,479	37,620	126.2%
2003	39,405	49,123	46,422	53,712	43,563	39,561	46,615	47,919	37,818	126.7%
2004	39,594	50,214	47,011	55,508	45,595	39,985	48,713	49,323	38,693	127.5%
2005	39,177	51,237	46,833	55,723	45,416	40,639	47,714	49,256	39,281	125.4%
2006	39,474	51,968	47,184	57,833	46,773	40,767	48,984	50,551	40,686	124.2%
2007	40,087	54,378	47,931	58,634	47,073	41,717	50,060	51,303	41,379	124.0%
2008	39,393	54,111	47,134	57,511	46,442	41,535	49,431	50,473	40,839	123.6%
					Average Annual Growth Rate					
1980-2008	1.8%	2.8%	2.0%	2.2%	1.9%	1.8%	2.4%	2.1%	1.9%	0.1%
1980-1990	1.5%	2.6%	2.3%	2.4%	2.1%	1.6%	2.7%	2.2%	2.2%	0.1%
1990-2008	2.0%	2.8%	1.9%	2.1%	1.8%	1.9%	2.1%	2.0%	1.8%	0.2%

(a) Seven-county Metropolitan Council share of U.S.

Source: United States Department of Commerce, Bureau of Economic Analysis.

Table 1.7

Projected Per Capita Income (2010 Dollars)

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US
					Woods & Poole (W&P) Forecasts (a)					
2000	38,655	48,861	45,701	54,083	41,594	42,600	45,446	47,605	37,447	127.13%
2005	39,177	51,237	46,833	55,723	45,416	40,639	47,714	49,256	39,281	125.40%
2008	39,393	54,111	47,134	57,511	46,442	41,535	49,431	50,473	40,839	123.59%
2010	34,885	43,104	41,775	53,812	44,334	34,300	42,523	45,938	39,184	117.24%
2015	36,550	41,105	45,535	56,582	46,767	34,922	44,515	48,133	41,649	115.57%
2020	38,192	38,947	49,539	60,065	49,771	35,595	46,454	50,667	44,276	114.43%
2025	41,630	39,803	55,111	64,341	53,157	37,093	50,028	54,383	47,186	115.25%
2030	45,390	41,031	61,300	68,947	56,794	38,978	54,047	58,453	50,414	115.95%
					Average Annual Growth Rate					
2008-2030	0.6%	-1.2%	1.2%	0.8%	0.9%	-0.3%	0.4%	0.7%	1.0%	-0.3%
					Woods & Poole Forecasts Adjusted for Base Year (b)					
2000	38,655	48,861	45,701	54,083	41,594	42,600	45,446	47,605	37,447	127.13%
2005	39,177	51,237	46,833	55,723	45,416	40,639	47,714	49,256	39,281	125.40%
2008 (a)	39,474	51,968	47,184	57,833	46,773	40,767	48,984	50,551	40,686	124.25%
2010	34,957	41,397	41,820	54,112	44,649	33,666	42,139	46,009	39,037	117.86%
2015	36,625	39,477	45,584	56,898	47,100	34,276	44,113	48,207	41,492	116.18%
					EA Analysis Period					
2020	38,270	37,404	49,592	60,401	50,126	34,936	46,034	50,745	44,110	115.04%
2025	41,715	38,226	55,170	64,701	53,535	36,407	49,575	54,467	47,009	115.87%
					Average Annual Growth Rate					
2008-2025	0.3%	-1.8%	0.9%	0.7%	0.8%	-0.7%	0.1%	0.4%	0.9%	
					Long Term					
2030	45,483	39,406	61,366	69,333	57,198	38,257	53,558	58,543	50,224	116.56%
					Average Annual Growth Rate					
2008-2030	0.6%	-1.2%	1.2%	0.8%	0.9%	-0.3%	0.4%	0.7%	1.0%	-0.3%

(a) Woods & Poole Economics, The Complete Economic and Demographic Data Source (CEDDS) 2011.
(b) Woods & Poole forecasts adjusted for 2008 base year.

Sources: As noted and HNTB analysis.

Table 1.8

Projected Income (thousands of 2010 dollars) Adjusted for Recession

Year	Anoka	Carver	Dakota	Hennepin	Ramsey	Scott	Washington	7-County Total	United States	Share of US
					Woods & Poole (W&P) Forecasts (a)					
2000	11,587,912	3,462,308	16,356,687	60,477,403	21,278,851	3,880,015	9,204,896	126,248,073	10,566,536,924	1.19%
2005	12,555,171	4,300,985	17,855,361	62,504,374	22,576,884	4,815,785	10,379,403	134,987,963	11,617,401,581	1.16%
2008	12,960,367	4,878,717	18,548,504	65,785,259	23,344,652	5,367,175	11,356,312	142,240,985	12,430,421,528	1.14%
2010	12,241,046	4,428,813	17,299,678	63,140,847	22,801,040	4,967,021	10,394,875	135,273,320	12,147,320,108	1.11%
2015	13,811,966	5,235,838	20,231,395	69,177,673	24,540,234	5,813,431	12,161,596	150,972,132	13,550,178,906	1.11%
2020	15,463,611	5,920,115	23,505,938	76,395,089	26,635,700	6,696,338	14,026,935	168,643,726	15,109,217,724	1.12%
2025	17,312,853	6,690,411	27,269,099	84,394,651	28,940,161	7,709,083	16,162,862	188,479,120	16,869,271,859	1.12%
2030	19,375,305	7,556,895	31,576,796	93,181,196	31,446,940	8,868,613	18,603,390	210,609,135	18,846,062,646	1.12%
					Average Annual Growth Rate					
2008-2030	1.8%	2.0%	2.4%	1.6%	1.4%	2.3%	2.3%	1.8%	1.9%	-0.1%
					Metropolitan Council - Regional Development Framework Adjusted Population Forecasts Multiplied by W&P PCI (b)					
2000	11,587,914	3,462,311	16,356,688	60,477,405	21,278,857	3,880,019	9,204,895	126,248,090	10,566,536,875	1.19%
2005	12,555,171	4,300,985	17,855,361	62,504,374	22,576,884	4,815,785	10,379,403	134,987,963	11,617,368,721	1.16%
2008	12,960,367	4,878,718	18,548,506	65,785,257	23,344,649	5,367,174	11,356,312	142,240,983	12,430,393,202	1.14%
2010	11,913,839	4,027,228	16,996,671	63,006,954	22,747,386	4,691,219	10,127,015	133,336,513	12,101,717,280	1.10%
2015	13,442,768	4,761,075	19,877,039	69,030,979	24,482,488	5,490,631	11,848,211	148,743,864	13,499,309,539	1.10%
					EA Analysis Period					
2020	15,050,263	5,383,305	23,094,228	76,233,090	26,573,023	6,324,514	13,665,483	166,088,730	15,052,495,496	1.10%
2025	16,850,074	6,083,754	26,791,477	84,215,689	28,872,061	7,281,025	15,746,370	185,582,702	16,805,942,129	1.10%
					Average Annual Growth Rate					
2008-2025	1.6%	1.3%	2.2%	1.5%	1.3%	1.8%	1.9%	1.6%	1.8%	
					Long Term					
2030	18,857,397	6,871,669	31,023,724	92,983,601	31,372,941	8,376,170	18,124,010	207,330,407	18,775,311,752	1.10%
					Average Annual Growth Rate					
2008-2030	1.7%	1.6%	2.4%	1.6%	1.4%	2.0%	2.1%	1.7%	1.9%	-0.2%

(a) Woods & Poole Economics, The Complete Economic and Demographic Data Source (CEDDS) 2007.

(b) Population forecasts adjusted for base year (Table A.2) multiplied by per capita income forecasts adjusted for base year (Table A.7).

Sources: As noted and HNTB analysis.

Attachment 2

Fare and Yield Data and Projections

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Table 2.1

Historical and Projected Average Domestic MSP Fares and Yields including Airline Fees and Taxes

Year	Nominal Fare (a)	Nominal Yield (a)	Real Fare	Real Yield	Average Distance (a)	Average Segments (a)	Additional Taxes and Fees: Excise Tax (b) (% of Fare)	Segment Tax (b) (per Enplanement)	Security Surcharge (b) (per Enplanement)	Passenger Facility Charge (per Enplanement) MSP (c)	Passenger Facility Charge (per Enplanement) General (d)	Nominal Fare w/ Fees (e)	Nominal Yield w/ Fees (f)	Real Fare w/ Fees (g)	Real Yield w/ Fees (h)	GDP Price Deflator (i)
1990	178.03	0.179	273.63	0.274	997	1.31	8.2%	$ -	$ -	$ -	$ -	192.57	19.31	295.97	29.68	1.537
1991	174.97	0.175	259.55	0.259	1001	1.30	10.0%	$ -	$ -	$ -	$ -	192.47	19.22	285.50	28.51	1.483
1992	166.94	0.167	240.56	0.240	1003	1.31	10.0%	$ -	$ -	$ 1.75	$ 1.75	185.92	18.54	267.90	26.72	1.441
1993	179.04	0.179	252.45	0.253	999	1.28	10.0%	$ -	$ -	$ 3.00	$ 3.00	200.79	20.10	283.11	28.35	1.410
1994	188.80	0.187	260.83	0.258	1010	1.29	10.0%	$ -	$ -	$ 3.00	$ 3.00	211.56	20.96	292.28	28.95	1.382
1995	183.74	0.186	248.34	0.251	988	1.27	10.0%	$ -	$ -	$ 3.00	$ 3.00	205.92	20.85	278.33	28.18	1.352
1996	197.18	0.198	260.83	0.262	994	1.26	3.5%	$ -	$ -	$ 3.00	$ 3.00	207.78	20.90	274.86	27.65	1.323
1997	191.64	0.192	248.86	0.250	996	1.27	7.9%	$ 0.25	$ -	$ 3.00	$ 3.00	210.97	21.18	273.95	27.50	1.299
1998	196.32	0.196	252.53	0.252	1001	1.28	8.8%	$ 1.25	$ -	$ 3.00	$ 3.00	218.93	21.86	281.61	28.12	1.286
1999	186.66	0.185	236.30	0.235	1007	1.24	7.9%	$ 2.06	$ -	$ 3.00	$ 3.00	207.65	20.61	262.86	26.09	1.266
2000	179.50	0.175	221.70	0.216	1028	1.23	7.5%	$ 2.50	$ -	$ 3.00	$ 3.00	199.71	19.42	246.67	23.98	1.235
2001	174.01	0.164	210.91	0.199	1058	1.26	7.5%	$ 2.75	$ -	$ 4.13	$ 3.90	195.65	18.49	237.13	22.41	1.212
2002	173.24	0.160	207.15	0.192	1081	1.30	7.5%	$ 3.00	$ 2.29	$ 4.50	$ 3.90	198.74	18.39	237.64	21.99	1.196
2003	173.33	0.160	203.13	0.187	1086	1.29	7.5%	$ 3.00	$ 1.67	$ 4.50	$ 3.90	197.96	18.23	231.99	21.36	1.172
2004	165.56	0.152	189.07	0.174	1088	1.26	7.5%	$ 3.10	$ 2.50	$ 4.50	$ 3.90	190.52	17.51	217.58	20.00	1.142
2005	153.92	0.143	170.68	0.159	1074	1.23	7.5%	$ 3.20	$ 2.50	$ 4.50	$ 3.90	177.90	16.56	197.27	18.36	1.109
2006	167.30	0.156	180.56	0.169	1071	1.24	7.5%	$ 3.30	$ 2.50	$ 4.50	$ 3.90	192.45	17.97	207.70	19.40	1.079
2007	165.54	0.154	173.89	0.162	1076	1.23	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	190.64	17.72	200.26	18.61	1.050
2008	193.62	0.176	196.86	0.179	1100	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	220.89	20.08	224.59	20.42	1.017
2009	152.33	0.140	154.60	0.142	1088	1.25	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	176.61	16.23	179.24	16.47	1.015
2010	172.82	0.159	172.82	0.159	1087	1.25	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	198.63	18.27	198.63	18.27	1.000
Aveage Annual Growth Rate																
1990-2000														-1.8%	-2.1%	
2001-2010														-2.1%	-2.7%	
1990-2010														-1.9%	-2.4%	

(a) USDOT Origin-Destination Survey as compiled by DataBase Products.
(b) Historical passenger ticket tax data from Air Transport Association. Values prorated when changes or expirations occurred within calendar year.
(c) Federal Aviation Administration. Values prorated when changes occurred within calendar year.
(d) Federal Aviation Administration. Estimated average of all airports.
(e) Nominal fares with taxes and fees included.
(f) Nominal yields with taxes and fees included.
(g) Average fares with taxes and fees included converted to 2010 prices.
(h) Average yields with taxes and fees included converted to 2010 prices.
(i) Gross Domestic Product Implicit Price Deflator for Consumer Expenditures from U.S. Bureau of Economic Analysis.

Sources: As noted, Air Transport Association web site and HNTB analysis.

Table 2.2

Summary National FAA Forecasts of Yield and Fare
(2009 Prices)

	FAA Forecasts (a)											
	US Yield			US Trip Length			US Average Fare (c)			US Enplanements (millions)		
Year	Mainline	Regional	Average (b)	Mainline	Regional	Average (b)	Mainline	Regional	Average (d)	Mainline	Regional	Total
2000	16.87	37.92	17.81	872.6	286.5	799.7	$147.21	$108.64	$142.41	561.50	79.70	641.20
2005	12.65	21.73	13.66	974.1	434.7	856.1	$123.22	$94.46	$116.93	523.10	146.40	669.50
2006	13.17	21.18	14.11	995.5	450.4	871.4	$131.11	$95.39	$122.98	516.20	152.20	668.40
2007	12.96	21.01	13.91	992.7	451.5	870.2	$128.65	$94.86	$121.00	533.90	156.20	690.10
2008	13.05	21.38	14.08	999.7	460.8	873.9	$130.46	$98.52	$123.00	522.20	159.10	681.30
2009	11.96	19.04	12.86	1,003.8	456.5	870.5	$120.05	$86.92	$111.98	477.60	153.80	631.40
2010	12.15	19.95	13.18	1,011.0	453.8	869.7	$122.84	$90.53	$114.64	473.30	160.80	634.10
2015	11.70	18.92	12.72	1,043.8	487.9	899.3	$122.12	$92.31	$114.37	535.10	188.00	723.10
EA Analysis Period												
2020	11.06	17.61	12.03	1,080.9	525.6	934.7	$119.55	$92.56	$112.44	605.10	216.30	821.40
2025	10.50	16.46	11.42	1,116.5	559.3	967.4	$117.23	$92.06	$110.50	680.70	248.60	929.30
Long Term												
2030	10.01	15.68	10.84	1,150.4	587.8	1,000.2	$115.16	$92.17	$108.47	760.90	284.60	1,045.50

(a) FAA forecast data from FAA Aerospace Forecasts: Fiscal Years 2010-2030.
(b) Average weighted by number of enplanements in each category.
(c) Estimated by multiplying yield by trip length.
(d) Average weighted by number of enplanements in each category.

Sources: As noted and HNTB analysis.

Table 2.3

Projected Domestic MSP Fares and Yields Excluding Southwest Impacts

Year	FAA Yield (a)	FAA Fare (a)	MSP Yield (b)	MSP Fare (c)
		Base Case		
2007	13.91	$121.00	0.162	$ 173.89
2008	14.08	$123.00	0.179	$ 196.86
2009	12.86	$111.98	0.142	$ 154.60
2010	13.18	$114.64	0.159	$ 172.82
2015	12.72	$114.37	0.162	$ 183.05
		EA Analysis Period		
2020	12.03	$112.44	0.153	$ 179.96
2025	11.42	$110.50	0.145	$ 176.85
		Average Annual Growth Rate		
2008-2025	-0.4%	-0.4%	-0.7%	-0.8%
		Long Term		
2030	10.84	$108.47	0.138	$ 173.60
		Average Annual Growth Rate		
2008-2030	-1.2%	-0.6%	-1.2%	-0.6%

(a) Table 2.2.

(b) Assumed to increase at same rate as adjusted FAA U.S. yield forecast from 2008 to net out effect of Southwest Airlines.

(e) Assumed to increase at same rate as adjusted FAA U.S. fare forecast from 2008 to net out effect of Southwest Airlines.

Sources: As noted and HNTB analysis.

Table 2.4

Projected Average Domestic MSP Fares and Yields including Airline Fees and Taxes and Excluding Effect of Southwest Airlines

Year	Fare Without Fees and Taxes (a)	Yield Without Fees and Taxes (a)	Average Distance (b)	Average Segments (c)	Additional Taxes and Fees					Real Fare w/ Fees (d)	Real Yield w/ Fees (e)
					Excise Tax (c) (% of Fare)	Segment Tax (c) (per Enplanement)	Security Surcharge (c) (per Enplanement)	Passenger Facility Charge (per Enplanement) MSP (c)	Passenger Facility Charge (per Enplanement) General (c)		
2007	165.54	0.154	1076	1.23	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	200.26	18.61
2008	196.86	0.179	1100	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	224.38	20.40
2009	154.60	0.142	1088	1.25	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	179.05	16.46
2010	172.82	0.159	1087	1.25	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	198.63	18.27
2015	183.05	0.162	1132	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	209.54	18.51
EA Analysis Period											
2020	179.96	0.153	1177	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	206.21	17.52
2025	176.85	0.145	1218	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	202.87	16.66
Long Term											
2030	173.60	0.138	1259	1.24	7.5%	$ 3.40	$ 2.50	$ 4.50	$ 3.90	199.37	15.83

(a) Table 2.3.
(b) Assumed to increase at same rate as FAA forecast of average US trip length.
(c) Assumed to remain constant in real prices.
(d) MSP Fare with taxes and fees added.
(e) MSP Yield with taxes and fees added.

Sources: As noted and HNTB analysis.

Attachment 3

Variables Tested in Regression Analysis

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Table 3.1

Data Used To Estimate MSP Regression Equations

Year	Domestic Originations	Charter Enplanements	Average Trip Distance	Average Fare (2007 Prices)	Average Yield (2007 Prices)	Employment 7-County Area	Income 7-County Area (2007 $)	No Sched. Service By Sun Country	NWA Work Stoppage	1991 Gulf War	Instrument Variable for 2001	Instrument Variable for 2002	Instrument Variable for 2003	Instrument Variable for 2004	NWA Chapter 11
1990	4284240	387320	997	281.33	28.22	1603044	76546647	1	0	0	0	0	0	0	0
1991	4288090	353590	1001	271.34	27.10	1605181	76567544	1	0	1	0	0	0	0	0
1992	4414590	419060	1003	254.76	25.41	1628288	79552668	1	0	0	0	0	0	0	0
1993	4511050	350918	999	268.92	26.93	1662568	80492172	1	0	0	0	0	0	0	0
1994	4598270	457715	1010	277.51	27.49	1713409	84046939	1	0	0	0	0	0	0	0
1995	5021830	501792	988	264.44	26.77	1766851	88005525	1	0	0	0	0	0	0	0
1996	5411820	481532	994	261.21	26.28	1802255	91965878	1	0	0	0	0	0	0	0
1997	5750780	465628	996	260.82	26.18	1834525	96874609	1	0	0	0	0	0	0	0
1998	5736650	635290	1001	268.25	26.79	1884161	104644525	1	1	0	0	0	0	0	0
1999	6365610	650350	1007	250.27	24.84	1927990	109008820	1	0	0	0	0	0	0	0
2000	7225020	399683	1028	234.86	22.84	1972269	115532307	0	0	0	0	0	0	0	0
2001	6603320	280609	1058	225.36	21.30	1982015	116168728	0	0	0	1	0	0	0	0
2002	6207930	365023	1081	225.72	20.88	1964849	116954718	0	0	0	1	1	0	0	0
2003	6390140	233692	1086	220.46	20.30	1971415	118465846	1	0	0	1	1	1	0	0
2004	7074980	240250	1088	206.71	19.00	2004534	123102449	0	0	0	1	1	1	1	0
2005	7609360	205975	1074	187.49	17.45	2045068	124827612	0	0	0	1	1	1	1	0
2006	7643820	151412	1071	197.36	18.43	2082727	127735714	0	0	0	1	1	1	1	1

Sources: Tables A.2.1, A.2.2, 2.1, 1.3, 1.5 and HNTB analysis.

Table 3.2

Data Used To Estimate Log Form MSP Regression Equations

Year	Domestic Originations	Charter Enplanements	Average Trip Distance	Average Fare (2007 Prices)	Average Yield (2004 Prices)	Employment 7-County Area	Income 7-County Area (2004 $)	No Sched. Service By Sun Country	NWA Work Stoppage	1991 Gulf War	Instrument Variable for 2001	Instrument Variable for 2002	Instrument Variable for 2003	Instrument Variable for 2004	NWA Chapter 11
YEAR	**ORIG**	**CHARTER**	**DIST**	**FARE**	**YIELD**	**EMP**	**INC**	**SY**	**STRIKE**	**GULF**	**2001**	**2002**	**2003**	**2004**	**CH11**
1990	6.63187	5.58807	2.99873	2.44921	1.45049	6.20495	7.88393	1	0	0	0	0	0	0	0
1991	6.63226	5.54850	3.00060	2.43351	1.43291	6.20552	7.88404	1	0	1	0	0	0	0	0
1992	6.64489	5.62228	3.00112	2.40613	1.40501	6.21173	7.90065	1	0	0	0	0	0	0	0
1993	6.65428	5.54521	2.99947	2.42963	1.43017	6.22078	7.90575	1	0	0	0	0	0	0	0
1994	6.66259	5.66060	3.00414	2.44328	1.43914	6.23386	7.92452	1	0	0	0	0	0	0	0
1995	6.70086	5.70052	2.99461	2.42232	1.42771	6.24720	7.94451	1	0	0	0	0	0	0	0
1996	6.73334	5.68263	2.99741	2.41699	1.41959	6.25582	7.96363	1	0	0	0	0	0	0	0
1997	6.75973	5.66804	2.99833	2.41634	1.41801	6.26352	7.98621	1	0	0	0	0	0	0	0
1998	6.75866	5.80297	3.00064	2.42855	1.42791	6.27512	8.01972	1	1	0	0	0	0	0	0
1999	6.80384	5.81315	3.00321	2.39840	1.39519	6.28510	8.03746	1	0	0	0	0	0	0	0
2000	6.85884	5.60172	3.01220	2.37082	1.35862	6.29497	8.06270	0	0	0	0	0	0	0	0
2001	6.81976	5.44810	3.02446	2.35288	1.32842	6.29711	8.06509	0	0	0	1	0	0	0	0
2002	6.79295	5.56232	3.03374	2.35357	1.31983	6.29333	8.06802	0	0	0	1	1	0	0	0
2003	6.80551	5.36864	3.03585	2.34333	1.30748	6.29478	8.07359	1	0	0	1	1	1	0	0
2004	6.84973	5.38066	3.03661	2.31536	1.27875	6.30201	8.09027	0	0	0	1	1	1	1	0
2005	6.88135	5.31381	3.03119	2.27297	1.24178	6.31071	8.09631	0	0	0	1	1	1	1	0
2006	6.88331	5.18016	3.02967	2.29527	1.26560	6.31863	8.10631	0	0	0	1	1	1	1	1

Sources: Table 3.1 and HNTB analysis

Attachment 4

Analysis of Southwest Airlines Impact

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Table 4.1

Relative Change in Airport Share of U.S. Originations
After Introduction of Southwest Service

Airport	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
BWI																					
Total Relative Share of U.S. (a)					1.38	1.40	1.43	1.55	1.69	1.81	1.95	2.14	2.07	2.09	1.94	1.80	1.85	1.82	1.89	2.02	1.95
Southwest Portion					0.13	0.21	0.27	0.36	0.43	0.53	0.64	0.79	0.84	0.91	0.86	0.83	0.89	0.90	0.92	0.97	0.94
Non-Southwest Portion					1.25	1.19	1.16	1.19	1.26	1.28	1.31	1.35	1.24	1.18	1.09	0.97	0.96	0.92	0.97	1.04	1.01
CLE																					
Total Relative Share of U.S. (a)				1.02	1.20	1.13	1.06	1.07	1.09	1.05	1.01	0.96	0.93	0.87	0.87	0.88	0.87	0.87	0.89	0.85	0.73
Southwest Portion				0.12	0.13	0.13	0.13	0.12	0.13	0.14	0.15	0.16	0.15	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.12
Non-Southwest Portion				0.90	1.07	1.01	0.93	0.95	0.96	0.91	0.86	0.81	0.77	0.72	0.74	0.75	0.74	0.74	0.76	0.72	0.61
DEN																					
Total Relative Share of U.S. (a)																	1.08	1.12	1.21	1.24	1.26
Southwest Portion																	0.07	0.11	0.16	0.19	0.21
Non-Southwest Portion																	1.01	1.01	1.05	1.05	1.05
DTW																					
Total Relative Share of U.S. (a)	1.10	1.05	1.01	0.99	1.04	1.07	1.04	1.04	1.05	1.08	1.08	1.03	1.00	0.98	0.99	0.99	1.02	1.05	0.96	0.91	0.89
Southwest Portion	0.03	0.02	0.03	0.05	0.10	0.09	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.06	0.07	0.06	0.07	0.08	0.08	0.08	0.08
Non-Southwest Portion	1.07	1.03	0.98	0.93	0.95	0.98	0.97	0.97	0.97	1.00	1.01	0.95	0.93	0.92	0.92	0.93	0.95	0.97	0.88	0.84	0.81
FLL																					
Total Relative Share of U.S. (a)								1.11	1.12	1.23	1.35	1.50	1.60	1.65	1.71	1.70	1.60	1.61	1.67	1.65	1.83
Southwest Portion								0.15	0.16	0.18	0.20	0.21	0.24	0.23	0.23	0.25	0.26	0.26	0.29	0.35	0.38
Non-Southwest Portion								0.95	0.96	1.05	1.15	1.28	1.36	1.43	1.48	1.45	1.35	1.35	1.37	1.30	1.44
MCO																					
Total Relative Share of U.S. (a)								1.21	1.21	1.24	1.27	1.29	1.28	1.31	1.38	1.43	1.43	1.44	1.47	1.47	1.56
Southwest Portion								0.08	0.10	0.11	0.14	0.17	0.20	0.21	0.23	0.27	0.30	0.32	0.35	0.37	0.38
Non-Southwest Portion								1.13	1.12	1.12	1.13	1.12	1.08	1.10	1.15	1.16	1.13	1.11	1.12	1.10	1.18
PHL																					
Total Relative Share of U.S. (a)																1.19	1.17	1.14	1.14	1.14	1.10
Southwest Portion																0.17	0.20	0.23	0.23	0.23	0.18
Non-Southwest Portion																1.02	0.97	0.91	0.91	0.91	0.91
PIT																					
Total Relative Share of U.S. (a)																	1.05	1.06	1.06	1.05	1.03
Southwest Portion																	0.16	0.18	0.20	0.23	0.21
Non-Southwest Portion																	0.89	0.88	0.85	0.83	0.81
TPA																					
Total Relative Share of U.S. (a)								1.06	1.10	1.16	1.19	1.26	1.26	1.26	1.27	1.33	1.30	1.26	1.26	1.24	1.28
Southwest Portion								0.12	0.14	0.17	0.20	0.24	0.26	0.26	0.27	0.30	0.34	0.35	0.37	0.39	0.41
Non-Southwest Portion								0.94	0.96	0.99	0.99	1.02	1.01	1.00	1.00	1.03	0.96	0.91	0.89	0.85	0.87
MSP																					
Total Relative Share of U.S. (a)																				1.04	1.04
Southwest Portion																				0.04	0.07
Non-Southwest Portion																				1.00	0.98

(a) Index where airport share of U.S. originations in last two years prior to introduction of Southwest service is set at 1.00.

Sources: US DOT Origin-Destination Survey and HNTB analysis.

Table 4.2

Estimate of Southwest Effect at Other Airport Hubs

	Airport					
	DEN	PHL	CLE	DTW	Average	MSP
Share of U.S. Originations						
Average of two years Immediately prior to introduction of Southwest Service	2.24%	1.61%	0.92%	1.61%		1.61%
Average in first year immediately after introduction of Southwest service.	2.41%	1.91%	0.92%	1.68%		1.67%
Percent Increase after 1 year	7.8%	18.8%	0.0%	4.2%	7.7%	4.0%
Average of two years Immediately after introduction of Southwest Service	2.51%	1.90%	0.93%	1.70%		
Percent Increase after 2 years	12.2%	18.0%	1.2%	5.4%	9.2%	4.7%
Average of three years Immediately after introduction of Southwest Service	2.58%	1.88%	0.99%	1.69%		
Percent Increase after 3 years (a)	15.0%	16.8%	7.4%	5.1%	11.1%	5.7%

(a) MSP increase in Southwest effect after three years assumed to be the same as the increase after two years multiplied by the ratio of the average three year to two year increase for the other sample connecting hub airports.

Sources: As noted, USDOT Origin-Destination Survey as compiled by DataBase Products, and HNTB analysis.

Attachment 5

Detailed Domestic Passenger Forecasts

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Table 5.1

Historical and Projected U.S. Ratio of Enplanements to Originations (Hubbing Ratio)

Year	US Domestic Originations (a)	US Domestic Enplanements (mil.) (b)	Ratio	U.S. Enplanement/ Origination Ratio (c)
1990	309,708,930	456.6	0.147	1.474
1991	298,682,290	445.7	0.149	1.492
1992	309,013,530	463.0	0.150	1.498
1993	321,385,460	470.4	0.146	1.464
1994	345,107,460	511.3	0.148	1.482
1995	361,589,460	531.1	0.147	1.469
1996	382,932,100	558.1	0.146	1.457
1997	394,540,870	577.8	0.146	1.464
1998	399,402,210	590.4	0.148	1.478
1999	415,932,070	610.9	0.147	1.469
2000	432,335,860	641.2	0.148	1.483
2002 (d)	391,376,320	575.1	0.147	1.469
2003	398,742,200	587.8	0.147	1.474
2004	434,868,840	628.5	0.145	1.445
2005	458,524,610	669.5	0.146	1.460
2006	461,580,390	668.4	0.145	1.448
2007	470,469,680	690.1	0.147	1.467
2008	446,112,430	681.3		1.527
2009	417,307,830	631.4		1.513
2010				1.478
2015				1.480
2016				1.480
EA Analysis Period				
2020				1.481
2025				1.482
Long Term				
2030				1.484

(a) USDOT Origin-Destination Survey as compiled by Data Base Products.
(b) FAA Aerospace Forecasts.
(c) Enplanements divided by originations. Assumed to grow at historical (1990-2009) rates.
(d) 2001 was excluded from the analysis because of the disruptive impacts of the 9/11 attacks.

Sources: As noted and HNTB analysis.

Table 5.2

Forecast of Domestic MSP Hubbing Ratio

Year	MSP Originations (a)	MSP Enplanements (b)	MSP Hubbing Ratio (c)	U.S. Connecting Ratio (d)
1990	4,284,240	9,105,077	2.125	1.474
1991	4,288,090	9,175,307	2.140	1.492
1992	4,414,590	10,117,172	2.292	1.498
1993	4,511,050	10,501,014	2.328	1.464
1994	4,598,270	10,908,116	2.372	1.482
1995	5,021,830	11,905,794	2.371	1.469
1996	5,411,820	12,863,532	2.377	1.457
1997	5,750,780	13,450,964	2.339	1.464
1998	5,736,650	13,465,957	2.347	1.478
1999	6,365,610	15,231,610	2.393	1.469
2000	7,225,020	16,483,608	2.281	1.483
2001	6,603,320	15,188,607	2.300	-
2002	6,207,930	14,848,546	2.392	1.469
2003	6,390,140	15,295,811	2.394	1.474
2004	7,074,980	16,680,071	2.358	1.445
2005	7,609,360	16,987,530	2.232	1.460
2006	7,643,820	16,334,138	2.137	1.448
2007	7,703,380	15,903,109	2.064	1.467
2008	7,065,580	15,087,389	2.135	1.527
2009	6,721,144	14,180,454	2.110	1.513
2010	6,755,188 (e)	14,069,455	2.083	1.478
2015			2.085	1.480
2016			2.085	1.480
EA Analysis Period				
2020			2.087	1.481
2025			2.088	1.482
Long Term				
2030			2.090	1.484

(a) Tables A.2.1 and A.4.1. Excluding Southwest Airlines.
(b) Tables A.2.2 and A.4.2. Excluding Southwest Airlines.
(c) Assumed to change at same rate as US rate.
(d) Table 5.1.
(e) Extrapolated from first three quarters.

Sources: As noted and HNTB analysis.

Table 5.3

Forecast of MSP Domestic Annual Seat Departures

Year	Enplanements (a)	Load Factor FAA (b)	Load Factor MSP (c)	Scheduled Seat Departures (d)
2010	14,568,881	81.6	77.7%	18,741,711
2015	16,302,440	82.5	78.6%	20,743,014
		EA Analysis Period		
2020	18,608,747	82.9	79.0%	23,563,283
2025	21,260,499	83.1	79.2%	26,856,266
		Long Term		
2030	24,294,325	83.2	79.3%	30,651,710

(a) Table A.4.2.

(b) FAA Aerospace Forecast: Fiscal Years 2010-2030.

(c) 2010 estimated by dividing enplanements by scheduled domestic seat departures. Assumed to grow at FAA rate during the forecast period.

(d) Base year levels from Official Airline Guide. Future levels estimated by dividing enplanements by MSP load factor.

Sources: As noted and HNTB analysis.

Table 5.4

Revenue Thresholds for Nonstop Service at MSP: 2009

Geographic Category	Revenue (10 percent sample) (a)				
	Lowest With (b)		Highest Without (c)		Average (d)
Domestic					
0-300 Miles	JMS	1,335,752	DBQ	11,833,310	6,584,531
301-500 Miles	MOT	35,695,635	CMI	26,582,141	31,138,888
501-700 Miles (east/South)	LEX	134,278,166	CAK	164,495,480	149,386,823
501-700 Miles (West)	GTF	53,615,602	CPR	28,129,401	40,872,501
701-1000 Miles (East/South)	TYS	233,132,467	LIT	310,593,131	271,862,799
701-1000 Miles (West)	GTF	53,615,602	JAC	93,422,388	73,518,995
1001-1300 Miles (East/South)	ORF	492,055,142	MHT	402,676,260	447,365,701
1001-1300 Miles (West)	FCA	59,037,428	JAC	93,422,388	76,229,908
1301-1800 Miles (East/South)	RSW	871,179,310	PBI	753,725,860	812,452,585
1301-1800 Miles (West)	PSP	189,849,820	RNO	450,183,395	320,016,607
1801 + Miles (Alaska)	FAI	175,198,491	JNU	79,265,185	127,231,838
1801 + Miles (HI/CR)	SJU	915,036,885	OGG	675,671,082	795,353,984

(a) USDOT O&D data. Includes all domestic revenue in market. 10 percent sample of airline revenue for entire market in 2009.
(b) Lowest revenue market in geographic category with non-stop service to MSP.
(c) Highest revenue market in geographic category without non-stop service to MSP.
(d) Average revenue of lowest revenue market with non-stop service and highest revenue market without non-stop service.

Sources: As noted and HNTB analysis.

Table 5.5

Estimated New Domestic Non-Stop Markets at MSP

Geographic Category		2009	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
MSP Domestic Originations (a)		6,987,990	8,269,975	9,176,566	10,474,987	11,959,201
Domestic Fare (b)		154.60	182.44	179.96	176.85	173.60
Revenue (000's) (c)		1,080,361	1,508,734	1,651,417	1,852,529	2,076,109
Domestic						
0-300 Miles	threshold (d)	6,584,531	6,584,531	6,584,531	6,584,531	6,584,531
DBQ	(e)	11,833,310	16,525,315	18,088,147	20,290,946	22,739,836
CMX	(e)	9,372,893	13,089,323	14,327,207	16,071,993	18,011,702
TVF	(e)	1,185,256	1,655,220	1,811,757	2,032,395	2,277,683
301-500 Miles	threshold (d)	31,138,888	31,138,888	31,138,888	31,138,888	31,138,888
FWA	(e)	76,361,740	106,639,801	116,724,943	130,939,861	146,742,836
CMI	(e)	26,582,141	37,122,180	40,632,900	45,581,228	51,082,372
SPI	(e)	16,816,094	23,483,815	25,704,727	28,835,082	32,315,154
501-700 Miles (east/South)	threshold (d)	149,386,823	149,386,823	149,386,823	149,386,823	149,386,823
CAK	(e)	164,495,480	229,719,298	251,444,318	282,065,539	316,107,691
SGF	(e)	117,679,680	164,340,647	179,882,675	201,789,025	226,142,700
EVV	(e)	56,492,187	78,891,807	86,352,765	96,868,919	108,559,913
501-700 Miles (West)	threshold (d)	40,872,501	40,872,501	40,872,501	40,872,501	40,872,501
CPR	(e)	28,129,401	39,282,941	42,998,008	48,234,362	54,055,710
GCC	(e)	10,825,234	15,117,529	16,547,225	18,562,367	20,802,637
701-1000 Miles (East/South)	threshold (d)	271,862,799	271,862,799	271,862,799	271,862,799	271,862,799
LIT	(e)	310,593,131	433,745,876	474,766,104	532,583,747	596,860,641
SYR	(e)	291,474,584	407,046,668	445,541,897	499,800,577	560,120,910
GSO	(e)	228,238,447	318,736,879	348,880,473	391,367,597	438,601,283
HSV	(e)	220,067,955	307,326,719	336,391,231	377,357,399	422,900,211
JAN	(e)	195,017,782	272,343,946	298,100,065	334,403,085	374,761,792
BTV	(e)	192,969,305	269,483,230	294,968,806	330,890,497	370,825,274
CAE	(e)	192,304,786	268,555,225	293,953,038	329,751,026	369,548,283
MDT	(e)	183,435,974	256,169,855	280,396,358	314,543,396	352,505,262
GSP	(e)	174,404,535	243,557,376	266,591,091	299,056,906	335,149,725
701-1000 Miles (West)	threshold (d)	73,518,995	73,518,995	73,518,995	73,518,995	73,518,995
JAC	(e)	93,422,388	130,465,138	142,803,491	160,194,288	179,527,945
ASE	(e)	78,765,563	109,996,760	120,399,377	135,061,772	151,362,216
GJT	(e)	66,301,195	92,590,167	101,346,607	113,688,730	127,409,687
EGE	(e)	58,679,903	81,946,970	89,696,861	100,620,263	112,764,002
IDA	(e)	50,271,181	70,204,120	76,843,466	86,201,564	96,605,128
DRO	(e)	47,090,613	65,762,431	71,981,717	80,747,746	90,493,094
HDN	(e)	36,204,907	50,560,452	55,342,057	62,081,685	69,574,250
1001-1300 Miles (East/South)	threshold (d)	447,365,701	447,365,701	447,365,701	447,365,701	447,365,701
MHT	(e)	402,676,260	562,340,729	615,522,433	690,481,567	773,814,960
ELP	(e)	400,649,714	559,510,641	612,424,698	687,006,585	769,920,587
CHS	(e)	319,537,240	446,236,399	488,437,881	547,920,490	614,048,357
PWM	(e)	245,298,027	342,560,724	374,957,387	420,620,193	471,384,339
SAV	(e)	244,503,833	341,451,626	373,743,399	419,258,363	469,858,153
1001-1300 Miles (West)	threshold (d)	76,229,908	76,229,908	76,229,908	76,229,908	76,229,908
LWS	(e)	18,943,814	26,455,193	28,957,114	32,483,550	36,403,951
FLG	(e)	18,816,101	26,276,841	28,761,895	32,264,557	36,158,528

Table 5.5

Estimated New Domestic Non-Stop Markets at MSP

Geographic Category		2009	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
1301-1800 Miles (East/South)	threshold (d)	812,452,585	812,452,585	812,452,585	812,452,585	812,452,585
PBI	(e)	753,725,860	1,052,584,399	1,152,129,442	1,292,437,285	1,448,419,992
1301-1800 Miles (West)	threshold (d)	320,016,607	320,016,607	320,016,607	320,016,607	320,016,607
RNO	(e)	450,183,395	628,684,836	688,140,836	771,943,535	865,108,475
FAT	(e)	168,722,085	235,621,788	257,905,019	289,313,032	324,229,875
1801 + Miles (Alaska)	threshold (d)	127,231,838	127,231,838	127,231,838	127,231,838	127,231,838
JNU	(e)	79,265,185	110,694,487	121,163,089	135,918,490	152,322,330
1801 + Miles (HI/CR)	threshold (d)	795,353,984	795,353,984	795,353,984	795,353,984	795,353,984
OGG	(e)	675,671,082	943,580,257	1,032,816,556	1,158,594,319	1,298,423,679
LIH	(e)	344,187,596	480,660,826	526,117,895	590,189,227	661,418,457
KOA	(e)	333,992,729	466,423,610	510,534,237	572,707,770	641,827,184

(a) Table A.4.1.
(b) Table 2.4.
(c) Revenue growth estimated by multiplying originations by average fare.
(d) Table 5.4.
(e) Base year revenue from USDOT O&D Survey. Assumed to grow at same rate as MSP revenue.

Sources: As noted and HNTB analysis.

Table 5.6

Forecast of MSP Domestic Scheduled Seat Departures by Market

Market		Annual Seats (a)					
					EA Analysis Period		Long Term
		2010	2015	2016	2020	2025	2030
ABE	Allentown, PA USA	0	0	0	0	0	0
ABQ	Albuquerque NM USA	96556	109447	107849	122773	142950	166102
ABR	Aberdeen SD USA	33954	36360	35381	38474	42352	46613
ALB	Albany NY USA	31996	34284	33436	36688	40869	45535
ALO	Waterloo IA USA	37144	39583	38479	41714	45761	50216
ANC	Anchorage(Intl) AK USA	152543	167713	164151	182469	206414	233325
ASE	Aspen CO USA	0	0	13800	15740	18376	21417
ATL	Atlanta(Intl) GA USA	861376	970378	954589	1026190	1123560	1152110
ATW	Appleton WI USA	84138	93261	91265	101382	114695	129789
ATY	Watertown SD USA	24820	26861	26186	28707	31912	35463
AUS	Austin(Bergstrom Intl) TX USA	79374	93275	92514	107693	129160	154693
AVL	Ashville NC USA	0	0	0	0	0	0
AZO	Kalamazoo MI USA	18200	19435	18921	20630	22806	25231
BDL	Hartford(Bradley Intl) CT USA	134464	151568	149140	168971	195494	225461
BGR	Bangor ME USA	0	0	0	0	0	0
BHM	Birmingham AL USA	21312	23430	22940	25525	28927	32770
BIL	Billings MT USA	72280	79788	78156	87123	98847	111994
BIS	Bismarck ND USA	143502	155884	152235	167898	188190	210947
BJI	Bemidji MN USA	39066	43568	42730	47832	54559	62133
BKX	Brookings SD USA	0	0	0	0	0	0
BMI	Bloomington IL USA	14600	16374	16062	17990	20546	23440
BNA	Nashvill(Intl) TN USA	93820	107571	106204	121704	142574	166329
BOI	Boise ID USA	73322	85417	84568	97846	115912	136593
BOS	Boston(Intl) MA USA	269616	291081	283812	311118	345907	384458
BRD	Brainerd MN USA	30512	34876	34427	39435	46273	54158
BTM	Butte MT USA	0	0	0	0	0	0
BTR	Baton Rouge LA USA	0	0	0	0	0	0
BTV	Burlington VT USA	0	0	0	27740	31313	35331
BUF	Buffalo(Intl) NY USA	22952	24188	23481	25326	27612	30119
BWI	Baltimore(Intl) MD USA	174102	192919	189198	211791	241520	274964
BZN	Bozeman MT USA	92552	108695	107670	124783	148344	175623
CAE	Columbia SC USA	0	0	0	20532	23267	26358
CAK	Akron OH USA	0	0	36500	39620	43594	48042
CHI	Chicago IL USA	1632249	1771136	1796968	1900294	2121635	2368881
CHS	Charleston SC USA	304	0	48192	54967	64290	75158
CID	Cedar Rapids/Iowa City IA USA	72034	78207	76291	83773	93377	104087
CLE	Cleveland(Intl) OH USA	147054	155423	150933	163023	177999	194400
CLT	Charlotte NC USA	259309	298876	295358	339549	399766	469045
CMH	Columbus(Intl) OH USA	125929	137237	134131	148321	166789	187537
CMI	Champagne IL USA	0	0	14600	15945	17634	19487
CMX	Hancock MI USA	5916	6262	20850	22020	23397	24884
COS	Colorado Springs CO USA	39036	43411	42587	47724	54523	62217
CPR	Casper WY USA	0	0	33896	37509	42153	47299
CVG	Cincinnati(Intl) OH USA	126440	137828	134639	164807	204216	273590
CWA	Wausau(Central) WI USA	65482	70291	68527	75087	83497	92881
DAY	Dayton(Intl) OH USA	47686	50252	48799	52705	57519	62762
DBQ	Bubuque IA USA	162	173	20850	22662	24965	27536
DEN	Denver(Intl) CO USA	924618	1040596	1023237	1156163	1336464	1544918
DFW	Dallas/Ft. Worth(Intl) TX USA	516566	589592	581607	664513	776589	904926
DLH	Duluth MN USA	119263	125092	121378	130673	142239	155026
DRO	Durango Col USA	0	0	0	0	13800	16612
DSM	Des Moines IA USA	125298	137201	134365	149662	169920	192973
DTW	Detroit(Metro Wayne) MI USA	525843	560294	545006	592266	651723	717354
EAU	Eau Claire WI USA	4140	0	0	0	0	0
EGE	Vail/Eagle CO USA	13800	15669	15395	17343	19914	22805
ELP	El Paso TX USA	0	0	44064	50229	58684	68511
FAI	Fairbanks(Intl) AK USA	34040	36813	35854	39134	43253	47766
FAR	Fargo ND USA	201467	219868	215078	238633	269446	304155
FAT	Fresno CA USA	0	0	0	0	0	40676
FCA	Kalispell/Glacier Nt Pk MT USA	40226	47126	46734	54346	65044	77670
FLL	Ft. Lauderdale(Intl) FL USA	76063	85451	84040	95021	109732	126489
FNL	Ft. Collins CO USA	162	0	0	0	0	0

Table 5.6

Forecast of MSP Domestic Scheduled Seat Departures by Market

Market		Annual Seats (a)					
					EA Analysis Period		**Long Term**
		2010	2015	2016	2020	2025	2030
FNT	Flint MI USA	23750	24630	23830	25381	27261	29318
FOD	Ft. Dodge IA USA	13940	14582	14140	15172	16430	17795
FSD	Sioux Falls SD USA	165164	187634	184837	210200	244350	283397
FWA	Ft. Wayne IN USA	7700	8313	21000	23087	25759	28724
GEG	Spokane(Intl) WA USA	123008	133595	130612	144571	162728	183063
GFK	Grand Forks ND USA	124393	132702	129500	142308	158668	176742
GJT	Grand Junction CO USA	0	0	13800	15560	17921	20618
GPT	Culfport MIS USA	0	0	0	0	0	0
GPZ	Grand Rapids MIN USA	0	0	0	0	0	0
GRB	Green Bay WI USA	125768	136098	132725	145606	162122	180531
GRI	Grand Island NE USA	0	0	0	0	0	0
GRR	Grand Rapids MI USA	177401	194006	189622	209710	236000	265712
GSO	Greensboro NC USA	0	0	20532	22596	25287	28326
GSP	Greenville SC USA	0	0	0	0	20532	22965
GTF	Great Falls MT USA	33896	35538	34451	36995	40140	43621
HDN	Steamboat Springs CO USA	8224	9299	9112	10170	11542	13068
HIB	Hibbing/Chisholm MN USA	33856	35446	34355	36849	39926	43326
HLN	Helena MT USA	27664	30631	30021	33551	38169	43345
HNL	Honolulu Oahu HI USA	75096	81093	79044	86550	96041	106493
HON	Huron SD USA	0	0	0	0	0	0
HOU	Houston TX USA	229824	261635	257681	292791	340588	395835
HRL	Harlingen TX USA	19056	21950	21753	25249	30149	35918
HSV	Huntsville AL USA	0	0	21312	24310	28318	32859
ICT	Wichita KS USA	41150	44480	43396	47676	53238	59515
IDA	Idaho Fall ID USA	0	0	0	13800	16387	19345
IFP	Bullhead City AZ USA	7641	8991	8936	10479	12672	15284
IMT	Iron Mountain MI USA	12410	13017	12647	13671	14944	16339
IND	Indianapolis IN USA	171239	186931	182662	201832	226886	255168
INL	International Falls MN USA	27846	29353	28458	30680	33398	36383
IWD	Ironwood MI USA	0	0	0	0	0	0
JAC	Jackson WY USA	9672	11430	11362	13316	16035	19211
JAN	Jackson MS USA	0	0	21312	23442	26197	29278
JAX	Jacksonville(Intl) FL USA	48192	53836	52885	59547	68426	78526
JMS	Jamestown ND USA	24820	26216	25451	27443	29875	32503
JNU	Juneau AK USA	0	0	0	0	34040	37476
LAN	Lansing MI USA	18000	19255	18734	20376	22438	24707
LAS	Las Vegas(Intl) NV USA	461681	532627	527125	609007	723295	857705
LBB	Lubbock TX USA	0	0	0	0	0	0
LEX	Lexington KY USA	11430	31300	30530	33512	37326	41563
LIT	Little Rock AR USA	0	0	21312	23652	26720	30179
LNK	Lincoln NE USA	55550	60914	59635	66350	75181	85161
LOS	Los Angeles USA	580823	637610	648642	692769	782921	884493
LSE	La Crosse WI USA	79434	86523	84549	93455	104986	117875
MBS	Saginaw MI USA	18200	18727	18088	19139	20390	21757
MCI	Kansas City(Intl) MO USA	231384	256018	250986	280579	319643	363779
MCO	Orlando(Intl) FL USA	376027	428155	422165	481567	561756	653485
MCW	Mason City IA USA	31926	33815	32906	35772	39387	43377
MDT	Harrisburg PA USA	0	0	0	27740	30632	33840
MEM	Memphis TN USA	228996	249590	243829	306995	389403	540364
MHT	Manchester NH USA	0	0	35944	40313	46152	52824
MIA	Miami(Intl) FL USA	175948	193015	189091	210866	239534	271878
MKE	Milwaukee WI USA	558451	582138	564608	606930	659194	716572
MLI	Moline IL USA	46362	49672	48342	52641	58054	64025
MOB	Mobile AL USA	0	0	0	0	0	0
MOT	Minot ND USA	101852	108720	105771	115071	126644	139300
MQT	Marquette MI USA	20850	21866	21304	23268	25769	28536
MSN	Madison(Dane County) WI USA	171252	190088	186507	209108	239015	272839
MSO	Missoula MT USA	51168	56902	55987	63380	73436	85054
MSY	New Orleans(Intl) LA USA	50003	54358	53098	58593	65645	73467
MTJ	Montrose CO USA	0	0	0	0	0	0
MYR	Myrtle Beach SC USA	304	0	0	0	0	0
NYC	New York City NY USA	812104	874225	885910	932652	1035395	1149499

Table 5.6

Forecast of MSP Domestic Scheduled Seat Departures by Market

Market		Annual Seats (a)					
					EA Analysis Period		**Long Term**
		2010	2015	2016	2020	2025	2030
OGG	Kahului HI USA	0	0	40547	46011	53380	61820
OKC	Oklahoma City(Rogers) Oklahama USA	51850	56404	55176	61210	69108	78008
OMA	Omaha NE USA	199118	217173	212160	234205	262751	294704
ORF	Norfolk/Va.Bch/Wmbg VA USA	28136	30793	30134	33473	37835	42738
PBI	West Palm Beach FL USA	1935	0	194112	222244	260496	304490
PDX	Portland OR USA	241729	267410	262099	310839	374493	473000
PHL	Philadelphia(Intl) PA USA	337087	365883	357178	393269	439820	491829
PHX	Phoenix(Intl) AZ USA	669557	750459	737943	833841	962260	1108540
PIA	Peoria IL USA	32624	34660	33720	36670	40364	44418
PIR	Pierre SD USA	18188	19573	19089	20966	23351	25989
PIT	Pittsburgh(Intl) PA USA	103970	111121	108154	117794	130020	143591
PLN	Emmet County USA	0	0	0	0	0	0
PNS	Pensacola USA	0	0	0	0	0	0
PSC	Pasco WA USA	18468	25550	25266	29118	34416	40565
PSP	Palm Springs CA USA	20338	23493	23230	26758	31594	37181
PVD	Providence RI USA	35944	38545	37580	41192	45833	51010
PWM	Portland ME USA	0	0	0	0	0	27740
RAP	Rapid City(Regional) SD USA	106150	116189	113675	126191	142522	160880
RDU	Raleigh/Durham NC USA	111407	129911	128649	148958	176532	208072
RFD	Rockford IL USA	162	176	172	189	211	235
RHI	Rhinelander WI USA	36676	40202	39288	43424	48814	54873
RIC	Richmond/Wmbg VA USA	15504	27740	27278	30824	35622	41152
RNO	Reno NV USA	0	0	56646	64170	74246	85721
ROA	Roanoke VA USA	0	0	0	0	0	0
ROC	Rochester NY USA	13686	27740	26979	29304	32231	35466
RST	Rochester MN USA	88792	101143	103324	112049	128917	148063
RSW	Ft. Myers(Southwest Fl Intl) FL USA	194112	225434	232303	259779	310672	370699
SAN	San Diego(Intl) CA USA	219257	243338	248066	266977	304493	346984
SAT	San Antonio TX USA	88128	101252	99958	114511	134173	156641
SAV	Savannah/Hilton Head GA USA	304	0	0	0	0	48192
SBN	South Bend(Regional) IN USA	21000	22444	22711	23779	26201	28856
SDF	Louisville KY USA	70474	76110	77233	81727	91383	102241
SEA	Seattle/Tacoma(Intl) WA USA	592802	658045	663656	686099	741409	750884
SFO	San Francisco(Intl) CA USA	518137	565095	577456	626898	723467	858191
SGF	Springfield MO USA	3400	3793	31300	35292	40625	46691
SJU	San Juan(Intl) Puerto Rico	7176	7870	8007	8553	9670	10930
SLC	Salt Lake City UT USA	281894	316853	323985	352513	407647	470970
SMF	Sacramento(Metro) CA USA	113292	125840	128476	139019	159572	182926
SPI	Springfield IL USA	0	0	0	0	0	14600
SRQ	Sarasota FL USA	0	0	0	0	0	0
STC	St. Croix VI USA	162	178	181	193	218	247
STL	St. Louis(Intl) MO USA	365449	393485	398694	419530	465519	516616
STT	St. Thomas VI USA	1782	1954	1988	2124	2401	2714
SUX	Sioux City IA USA	47890	50527	51032	53053	57961	63315
SYR	Syracuse NY USA	0	0	27740	29916	32591	35505
TOL	Toledo OH USA	5900	36500	35345	37774	40741	44003
TPA	Tampa(Intl) FL USA	152289	168852	172335	186269	213619	244761
TUL	Tulsa OK USA	40650	44089	44759	47441	53158	59605
TUS	Tucson AZ USA	53064	60432	61925	67899	79079	91755
TVC	Traverse City MI USA	34308	37025	37579	39794	44498	49749
TVF	Thief River Falls MN USA	0	0	0	0	0	0
TYS	Knoxville TN USA	20532	22817	23284	25151	28823	33003
WAS	Washington DC USA	419123	470280	480592	521840	601479	692209
XNA	Fayetteville(Regional) AR USA	40522	46958	48389	54113	64803	77516
	Total	18741711	20743014	21306965	23563283	26856266	30651710

(a) Assumed to grow at same rate as metropolitan income in destination area and adjusted to sum to total seat departure projections in Table 5.3.

Sources: As noted and HNTB analysis.

Table 5.7

Forecast of Domestic Average Weekday Peak Month Scheduled Seat Departures by Market at MSP

Market		Seasonality Ratio (a)	AWDPM Seats (b)				
					EA Analysis Period		**Long Term**
			2015	2016	2020	2025	2030
ABE	Allentown, PA USA	0.0	0	0	0	0	0
ABQ	Albuquerque NM USA	334.6	327	322	367	427	496
ABR	Aberdeen SD USA	320.6	113	110	120	132	145
ALB	Albany NY USA	256.3	134	130	143	159	178
ALO	Waterloo IA USA	310.1	128	124	135	148	162
ANC	Anchorage(Intl) AK USA	175.1	958	938	1042	1179	1333
ASE	Aspen CO USA	0.0	0	0	0	0	0
ATL	Atlanta(Intl) GA USA	346.0	2804	2759	2966	3247	3330
ATW	Appleton WI USA	332.1	281	275	305	345	391
ATY	Watertown SD USA	345.3	78	76	83	92	103
AUS	Austin(Bergstrom Intl) TX USA	405.4	230	228	266	319	382
AVL	Ashville NC USA	0.0	0	0	0	0	0
AZO	Kalamazoo MI USA	216.7	90	87	95	105	116
BDL	Hartford(Bradley Intl) CT USA	338.0	448	441	500	578	667
BGR	Bangor ME USA	84.9	0	0	0	0	0
BHM	Birmingham AL USA	312.6	75	73	82	93	105
BIL	Billings MT USA	233.9	341	334	372	423	479
BIS	Bismarck ND USA	292.4	533	521	574	644	721
BJI	Bemidji MN USA	271.6	160	157	176	201	229
BKX	Brookings SD USA	0.0	0	0	0	0	0
BMI	Bloomington IL USA	296.5	55	54	61	69	79
BNA	Nashvill(Intl) TN USA	312.6	344	340	389	456	532
BOI	Boise ID USA	292.2	292	289	335	397	467
BOS	Boston(Intl) MA USA	287.6	1012	987	1082	1203	1337
BRD	Brainerd MN USA	257.9	135	133	153	179	210
BTM	Butte MT USA	0.0	0	0	0	0	0
BTR	Baton Rouge LA USA	0.0	0	0	0	0	0
BTV	Burlington VT USA	282.9	0	0	98	111	125
BUF	Buffalo(Intl) NY USA	158.9	152	148	159	174	190
BWI	Baltimore(Intl) MD USA	286.1	674	661	740	844	961
BZN	Bozeman MT USA	218.8	497	492	570	678	803
CAE	Columbia SC USA	335.1	0	0	61	69	79
CAK	Akron OH USA	322.2	0	113	123	135	149
CHI	Chicago IL USA	307.6	5758	5842	6178	6898	7702
CHS	Charleston SC USA	466.9	0	103	118	138	161
CID	Cedar Rapids/Iowa City IA USA	245.4	319	311	341	381	424
CLE	Cleveland(Intl) OH USA	322.2	482	469	506	553	603
CLT	Charlotte NC USA	358.2	834	825	948	1116	1309
CMH	Columbus(Intl) OH USA	337.2	407	398	440	495	556
CMI	Champagne IL USA	296.5	0	49	54	59	66
CMX	Hancock MI USA	364.6	17	57	60	64	68
COS	Colorado Springs CO USA	243.9	178	175	196	224	255
CPR	Casper WY USA	171.0	0	198	219	246	277
CVG	Cincinnati(Intl) OH USA	435.7	316	309	378	469	628
CWA	Wausau(Central) WI USA	337.9	208	203	222	247	275
DAY	Dayton(Intl) OH USA	340.7	148	143	155	169	184
DBQ	Bubuque IA USA	248.4	1	84	91	100	111
DEN	Denver(Intl) CO USA	286.4	3634	3573	4037	4667	5395
DFW	Dallas/Ft. Worth(Intl) TX USA	349.7	1686	1663	1900	2221	2588
DLH	Duluth MN USA	292.6	428	415	447	486	530
DRO	Durango Col USA	0.0	0	0	0	0	0
DSM	Des Moines IA USA	335.2	409	401	447	507	576
DTW	Detroit(Metro Wayne) MI USA	341.9	1639	1594	1732	1906	2098
EAU	Eau Claire WI USA	339.9	0	0	0	0	0
EGE	Vail/Eagle CO USA	0.0	0	0	0	0	0
ELP	El Paso TX USA	334.6	0	132	150	175	205
FAI	Fairbanks(Intl) AK USA	97.7	377	367	400	443	489

Table 5.7

Forecast of Domestic Average Weekday Peak Month Scheduled Seat Departures by Market at MSP

Market		Seasonality Ratio (a)	AWDPM Seats (b)				
					EA Analysis Period		**Long Term**
			2015	2016	2020	2025	2030
FAR	Fargo ND USA	354.4	620	607	673	760	858
FAT	Fresno CA USA	248.7	0	0	0	0	164
FCA	Kalispell/Glacier Nt Pk MT USA	161.9	291	289	336	402	480
FLL	Ft. Lauderdale(Intl) FL USA	466.9	183	180	204	235	271
FNL	Ft. Collins CO USA	180.9	0	0	0	0	0
FNT	Flint MI USA	291.5	84	82	87	94	101
FOD	Ft. Dodge IA USA	335.2	44	42	45	49	53
FSD	Sioux Falls SD USA	322.3	582	573	652	758	879
FWA	Ft. Wayne IN USA	220.8	38	95	105	117	130
GEG	Spokane(Intl) WA USA	250.3	534	522	578	650	732
GFK	Grand Forks ND USA	323.2	411	401	440	491	547
GJT	Grand Junction CO USA	187.2	0	74	83	96	110
GPT	Culfport MIS USA	0.0	0	0	0	0	0
GPZ	Grand Rapids MIN USA	0.0	0	0	0	0	0
GRB	Green Bay WI USA	292.7	465	453	497	554	617
GRI	Grand Island NE USA	0.0	0	0	0	0	0
GRR	Grand Rapids MI USA	299.7	647	633	700	788	887
GSO	Greensboro NC USA	335.1	0	61	67	75	85
GSP	Greenville SC USA	335.1	0	0	0	61	69
GTF	Great Falls MT USA	290.8	122	118	127	138	150
HDN	Steamboat Springs CO USA	0.0	0	0	0	0	0
HIB	Hibbing/Chisholm MN USA	376.4	94	91	98	106	115
HLN	Helena MT USA	289.9	106	104	116	132	150
HNL	Honolulu Oahu HI USA	303.4	267	260	285	317	351
HON	Huron SD USA	0.0	0	0	0	0	0
HOU	Houston TX USA	299.3	874	861	978	1138	1323
HRL	Harlingen TX USA	397.5	55	55	64	76	90
HSV	Huntsville AL USA	312.6	0	68	78	91	105
ICT	Wichita KS USA	362.5	123	120	132	147	164
IDA	Idaho Fall ID USA	0.0	0	0	0	0	0
IFP	Bullhead City AZ USA	0.0	0	0	0	0	0
IMT	Iron Mountain MI USA	349.2	37	36	39	43	47
IND	Indianapolis IN USA	292.7	639	624	689	775	872
INL	International Falls MN USA	244.2	120	117	126	137	149
IWD	Ironwood MI USA	0.0	0	0	0	0	0
JAC	Jackson WY USA	95.3	120	119	140	168	202
JAN	Jackson MS USA	312.6	0	68	75	84	94
JAX	Jacksonville(Intl) FL USA	247.2	218	214	241	277	318
JMS	Jamestown ND USA	485.8	54	52	56	62	67
JNU	Juneau AK USA	97.7	0	0	0	348	383
LAN	Lansing MI USA	233.2	83	80	87	96	106
LAS	Las Vegas(Intl) NV USA	429.5	1240	1227	1418	1684	1997
LBB	Lubbock TX USA	0.0	0	0	0	0	0
LEX	Lexington KY USA	343.3	91	89	98	109	121
LIT	Little Rock AR USA	326.3	0	65	72	82	92
LNK	Lincoln NE USA	326.2	187	183	203	230	261
LOS	Los Angeles USA	274.3	2325	2365	2526	2855	3225
LSE	La Crosse WI USA	397.2	218	213	235	264	297
MBS	Saginaw MI USA	458.1	41	39	42	45	47
MCI	Kansas City(Intl) MO USA	284.6	900	882	986	1123	1278
MCO	Orlando(Intl) FL USA	519.0	825	813	928	1082	1259
MCW	Mason City IA USA	338.1	100	97	106	117	128
MDT	Harrisburg PA USA	274.4	0	0	101	112	123
MEM	Memphis TN USA	326.3	765	747	941	1193	1656
MHT	Manchester NH USA	282.9	0	127	142	163	187
MIA	Miami(Intl) FL USA	344.4	560	549	612	695	789
MKE	Milwaukee WI USA	284.8	2044	1983	2131	2315	2516
MLI	Moline IL USA	296.5	168	163	178	196	216
MOB	Mobile AL USA	0.0	0	0	0	0	0
MOT	Minot ND USA	318.1	342	332	362	398	438
MQT	Marquette MI USA	225.6	97	94	103	114	126

Table 5.7

Forecast of Domestic Average Weekday Peak Month Scheduled Seat Departures by Market at MSP

Market		Seasonality Ratio (a)	AWDPM Seats (b)				
					EA Analysis Period		**Long Term**
			2015	2016	2020	2025	2030
MSN	Madison(Dane County) WI USA	351.4	541	531	595	680	776
MSO	Missoula MT USA	334.5	170	167	189	220	254
MSY	New Orleans(Intl) LA USA	429.1	127	124	137	153	171
MTJ	Montrose CO USA	0.0	0	0	0	0	0
MYR	Myrtle Beach SC USA	0.0	0	0	0	0	0
NYC	New York City NY USA	286.1	3056	3097	3260	3619	4018
OGG	Kahului HI USA	303.4	0	134	152	176	204
OKC	Oklahoma City(Rogers) Oklahama USA	412.7	137	134	148	167	189
OMA	Omaha NE USA	297.2	731	714	788	884	992
ORF	Norfolk/Va.Bch/Wmbg VA USA	335.1	92	90	100	113	128
PBI	West Palm Beach FL USA	1198.4	0	162	185	217	254
PDX	Portland OR USA	270.3	989	970	1150	1385	1750
PHL	Philadelphia(Intl) PA USA	294.2	1244	1214	1337	1495	1672
PHX	Phoenix(Intl) AZ USA	376.8	1992	1958	2213	2554	2942
PIA	Peoria IL USA	341.6	101	99	107	118	130
PIR	Pierre SD USA	322.3	61	59	65	72	81
PIT	Pittsburgh(Intl) PA USA	274.4	405	394	429	474	523
PLN	Emmet County USA	0.0	0	0	0	0	0
PNS	Pensacola USA	0.0	0	0	0	0	0
PSC	Pasco WA USA	250.3	102	101	116	138	162
PSP	Palm Springs CA USA	0.0	0	0	0	0	0
PVD	Providence RI USA	253.9	152	148	162	181	201
PWM	Portland ME USA	282.9	0	0	0	0	98
RAP	Rapid City(Regional) SD USA	263.2	441	432	479	541	611
RDU	Raleigh/Durham NC USA	335.1	388	384	445	527	621
RFD	Rockford IL USA	344.7	1	0	1	1	1
RHI	Rhinelander WI USA	291.9	138	135	149	167	188
RIC	Richmond/Wmbg VA USA	335.1	83	81	92	106	123
RNO	Reno NV USA	429.5	0	132	149	173	200
ROA	Roanoke VA USA	0.0	0	0	0	0	0
ROC	Rochester NY USA	282.9	98	95	104	114	125
RST	Rochester MN USA	419.5	241	246	267	307	353
RSW	Ft. Myers(Southwest Fl Intl) FL USA	1198.4	188	194	217	259	309
SAN	San Diego(Intl) CA USA	305.3	797	813	874	997	1137
SAT	San Antonio TX USA	397.5	255	251	288	338	394
SAV	Savannah/Hilton Head GA USA	466.9	0	0	0	0	103
SBN	South Bend(Regional) IN USA	353.7	63	64	67	74	82
SDF	Louisville KY USA	343.3	222	225	238	266	298
SEA	Seattle/Tacoma(Intl) WA USA	264.4	2488	2510	2594	2804	2839
SFO	San Francisco(Intl) CA USA	261.9	2157	2205	2393	2762	3276
SGF	Springfield MO USA	265.6	14	118	133	153	176
SJU	San Juan(Intl) Puerto Rico	1198.4	7	7	7	8	9
SLC	Salt Lake City UT USA	301.2	1052	1076	1170	1353	1563
SMF	Sacramento(Metro) CA USA	248.7	506	517	559	642	736
SPI	Springfield IL USA	296.5	0	0	0	0	49
SRQ	Sarasota FL USA	0.0	0	0	0	0	0
STC	St. Croix VI USA	315.7	1	1	1	1	1
STL	St. Louis(Intl) MO USA	312.7	1258	1275	1342	1489	1652
STT	St. Thomas VI USA	1198.4	2	2	2	2	2
SUX	Sioux City IA USA	309.9	163	165	171	187	204
SYR	Syracuse NY USA	282.9	0	98	106	115	125
TOL	Toledo OH USA	322.2	113	110	117	126	137
TPA	Tampa(Intl) FL USA	476.5	354	362	391	448	514
TUL	Tulsa OK USA	404.3	109	111	117	131	147
TUS	Tucson AZ USA	440.9	137	140	154	179	208
TVC	Traverse City MI USA	168.4	220	223	236	264	295
TVF	Thief River Falls MN USA	0.0	0	0	0	0	0
TYS	Knoxville TN USA	330.1	69	71	76	87	100
WAS	Washington DC USA	261.3	1800	1839	1997	2302	2649
XNA	Fayetteville(Regional) AR USA	340.0	138	142	159	191	228
	Total		66819	68190	75226	85773	97694

(a) Ratio of annual scheduled seats to AWDPM scheduled seats.

(b) Annual scheduled seats for each market (Table 5.6) multiplied by seasonality ratio.

Sources: As noted and HNTB analysis.

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Allentown										**Target Seat Depa**	0	0	0	0
ABE	ABE	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Albuquerque										**Target Seat Depa**	322	367	427	496
ABQ	ABQ	DL	E90	100						0	0	0	0	0
ABQ	ABQ	DL	320	148	2.0	1.0		1.0		296	148	0	148	0
ABQ	ABQ	DL	319	124			3.0	1.0	3.0	0	0	372	124	372
ABQ	ABQ	DL	738	160						0	0	0	0	0
ABQ	ABQ	DL	M90	160		1.0		1.0		0	160	0	160	0
ABQ	ABQ	DL	M80	149						0	0	0	0	0
ABQ	ABQ	DL	NGA	120						0	0	0	0	0
ABQ	ABQ	DL	NGB	150						0	0	0	0	0
ABQ	ABQ	DL	757	184						0	0	0	0	0
ABQ	ABQ	DL	CR9	76						0	0	0	0	0
ABQ	ABQ	DL	738	160						0	0	0	0	0
ABQ	ABQ	DL	M88	142						0	0	0	0	0
ABQ	ABQ	SY	73G	129					1.0	0	0	0	0	129
		Subtotal			2.0	2.0	3.0	3.0	4.0	296	308	372	432	501
Aberdeen										**Target Seat Depa**	110	120	132	145
ABR	ABR	DL	CR7	70						0	0	0	0	0
ABR	ABR	DL	CRJ	50			1.0	2.0	3.0	0	0	50	100	150
ABR	ABR	DL	NGT	50						0	0	0	0	0
ABR	ABR	DL	SF3	34	3.0	3.0	2.0	1.0		102	102	68	34	0
		Subtotal			3.0	3.0	3.0	3.0	3.0	102	102	118	134	150
Albany										**Target Seat Depa**	130	143	159	178
ALB	ALB	DL	CRJ	50						0	0	0	0	0
ALB	ALB	DL	CR9	76		1.0	1.0	1.0	1.0	0	76	76	76	76
ALB	ALB	DL	319	124				0.2	0.6	0	0	0	25	74
ALB	ALB	SY	738	162						0	0	0	0	0
ALB	ALB	DL	E75	76	1.0	0.7	1.0	0.8	0.4	76	53	76	61	30
		Subtotal			1.0	1.7	2.0	2.0	2.0	76	129	152	162	181
Waterloo, IA										**Target Seat Depa**	124	135	148	162
ALO	ALO	NW	SF3	33						0	0	0	0	0
ALO	ALO	NW	CRJ	50						0	0	0	0	0
ALO	ALO	DL	CR9	76					0.4	0	0	0	0	30
ALO	ALO	DL	CRJ	50		1.0	2.0	3.0	2.6	0	50	100	150	130
ALO	ALO	DL	SF3	34	3.0	2.0	1.0			102	68	34	0	0
		Subtotal			3.0	3.0	3.0	3.0	3.0	102	118	134	150	160
Anchorage										**Target Seat Depa**	938	1042	1179	1333
ANC	ANC	NW	757	180						0	0	0	0	0
ANC	ANC	NW	753	224						0	0	0	0	0
ANC	ANC	NW	332	233						0	0	0	0	0
ANC	ANC	AS	738	160			2.0	2.0	2.0	0	0	320	320	320
ANC	ANC	AS	739	172		1.0				0	172	0	0	0
ANC	ANC	DL	757	184		1.0	1.0			0	184	184	0	0
ANC	ANC	DL	753	223	3.0	2.0	1.0	1.0		669	446	223	223	0
ANC	ANC	DL	76D	262						0	0	0	0	0
ANC	ANC	DL	321	180					3.0	0	0	0	0	540
ANC	ANC	DL	NGD	225						0	0	0	0	0
ANC	ANC	DL	752	184						0	0	0	0	0
ANC	ANC	DL	738	160			1.0	2.0	1.0	0	0	160	320	160
ANC	ANC	DL	738	160						0	0	0	0	0
ANC	ANC	SY	738	162	1.0		1.0	2.0	2.0	162	0	162	324	324
ANC	ANC	SY	73G	129		1.0				0	129	0	0	0
		Subtotal			4.0	5.0	6.0	7.0	8.0	831	931	1049	1187	1344
Aspen										**Target Seat Depa**	0	0	0	0
ASE	ASE	DL	CR7	70						0	0	0	0	0
											0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Atlanta										**Target Seat Depar**	2759	2966	3247	3330
ATL	ATL	DL	757	184	3.0	8.0	6.0	2.0		552	1472	1104	368	0
ATL	ATL	DL	763	262						0	0	0	0	0
ATL	ATL	DL	M80	149						0	0	0	0	0
ATL	ATL	DL	M88	142	3.0					426	0	0	0	0
ATL	ATL	DL	M90	160	1.0	1.0				160	160	0	0	0
ATL	ATL	DL	738	160			2.0	4.0	4.0	0	0	320	640	640
ATL	ATL	DL	738	160	3.0					480	0	0	0	0
ATL	ATL	DL	732	100						0	0	0	0	0
ATL	ATL	DL	320	148			1.0			0	0	148	0	0
ATL	ATL	DL	319	124						0	0	0	0	0
ATL	ATL	DL	D9S	100						0	0	0	0	0
ATL	ATL	DL	NGA	120						0	0	0	0	0
ATL	ATL	DL	321	180				2.0	3.0	0	0	0	360	540
ATL	ATL	DL	NGD	225						0	0	0	0	0
ATL	ATL	DL	CRJ	50						0	0	0	0	0
ATL	ATL	DL	CR7	70						0	0	0	0	0
ATL	ATL	DL	CRJ	50						0	0	0	0	0
ATL	ATL	DL	CR9	76						0	0	0	0	0
ATL	ATL	DL	CR9	76						0	0	0	0	0
ATL	ATL	DL	E70	70						0	0	0	0	0
ATL	ATL	DL	777	278				1.0	1.0	0	0	0	278	278
ATL	ATL	DL	D95	125						0	0	0	0	0
ATL	ATL	DL	76D	262				1.0	2.0	0	0	0	262	524
ATL	ATL	DL	752	184						0	0	0	0	0
ATL	ATL	DL	753	223	1.0	2.0	3.0	2.0	2.0	223	446	669	446	446
ATL	ATL	DL	73W	124						0	0	0	0	0
ATL	ATL	FL	73G	137	3.0					411	0	0	0	0
ATL	ATL	FL	717	117	1.0					117	0	0	0	0
ATL	ATL	WN	73G	137		5.0	4.0	4.0	4.0	0	685	548	548	548
ATL	ATL	WN	738	175			1.0	2.0	2.0	0	0	175	350	350
		Subtotal			15.0	16.0	17.0	18.0	18.0	2369	2763	2964	3252	3326
Appleton										**Target Seat Depar**	275	305	345	391
ATW	ATW	DL	CR7	70				2.0	2.0	0	0	0	140	140
ATW	ATW	DL	CRJ	50	3.0	4.0	3.0	1.0	2.0	150	200	150	50	100
ATW	ATW	DL	NGT	50						0	0	0	0	0
ATW	ATW	DL	SF3	34	2.0					68	0	0	0	0
ATW	ATW	DL	CR9	76	1.0	1.0	2.0	2.0	2.0	76	76	152	152	152
		Subtotal			6.0	5.0	5.0	5.0	6.0	294	276	302	342	392
Watertown										**Target Seat Depar**	76	83	92	103
ATY	ATY	DL	NGT	50						0	0	0	0	0
ATY	ATY	DL	CRJ	50			1.0	1.9	2.1	0	0	50	95	105
ATY	ATY	DL	SF3	34	2.0	2.0	1.0			68	68	34	0	0
		Subtotal			2.0	2.0	2.0	1.9	2.1	68	68	84	95	105
Austin										**Target Seat Depar**	228	266	319	382
AUS	AUS	DL	E75	76						0	0	0	0	0
AUS	AUS	DL	CR9	76	3.0	1.0	2.0	2.0	1.0	228	76	152	152	76
AUS	AUS	DL	319	124			1.0			0	0	124	0	0
AUS	AUS	DL	320	148		1.0			1.0	0	148	0	0	148
AUS	AUS	DL	M80	149						0	0	0	0	0
AUS	AUS	DL	M90	160				1.0	1.0	0	0	0	160	160
AUS	AUS	DL	NGB	150						0	0	0	0	0
AUS	AUS	DL	738	160						0	0	0	0	0
AUS	AUS	DL	NGA	120						0	0	0	0	0
AUS	AUS	DL	CR7	70						0	0	0	0	0
AUS	AUS	DL	M88	142						0	0	0	0	0
		Subtotal			3.0	2.0	3.0	3.0	3.0	228	224	276	312	384
Asheville										**Target Seat Depar**	0	0	0	0
AVL	AVL	DL	CRJ	50						0	0	0	0	0
AVL	AVL	DL	CR9	76						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0		0	0	0	0
Kalamazoo										**Target Seat Depar**	87	95	105	116
AZO	AZO	DL	CR7	70					1.0	0	0	0	0	70
AZO	AZO	DL	CRJ	50	1.0	1.7	2.0	2.0	1.0	50	85	100	100	50
AZO	AZO	DL	CR9	76						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
		Subtotal			1.0	1.7	2.0	2.0	2.0	50	85	100	100	120
Hartford										**Target Seat Depa**	441	500	578	667
BDL	BDL	DL	E75	76			1.0			0	0	76	0	0
BDL	BDL	DL	320	148	1.0		1.0			148	0	148	0	0
BDL	BDL	DL	319	124	1.0	1.0	1.0	2.0	3.0	124	124	124	248	372
BDL	BDL	DL	M80	149						0	0	0	0	0
BDL	BDL	DL	M90	160		2.0	1.0	2.0	1.0	0	320	160	320	160
BDL	BDL	DL	NGA	120						0	0	0	0	0
BDL	BDL	DL	752	184						0	0	0	0	0
BDL	BDL	DL	738	160						0	0	0	0	0
BDL	BDL	DL	CR9	76	2.0					152	0	0	0	0
BDL	BDL	DL	738	160						0	0	0	0	0
BDL	BDL	DL	M88	142						0	0	0	0	0
BDL	BDL	SY	73G	129					1.0	0	0	0	0	129
		Subtotal			4.0	3.0	4.0	4.0	5.0	424	444	508	568	661
Bangor										**Target Seat Depa**	0	0	0	0
BGR	BGR	NW	CRJ	50						0	0	0	0	0
BGR	BGR	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Birmingham										**Target Seat Depa**	73	82	93	105
BHM	BHM	DL	CRJ	50	1.0					50	0	0	0	0
BHM	BHM	DL	319	124				0.4	0.6	0	0	0	50	74
BHM	BHM	DL	CR9	76		1.0	1.0	0.6	0.4	0	76	76	46	30
BHM	BHM	DL	E75	76						0	0	0	0	0
		Subtotal			1.0	1.0	1.0	1.0	1.0	50	76	76	95	105
Billings										**Target Seat Depa**	334	372	423	479
BIL	BIL	DL	320	148						0	0	0	0	0
BIL	BIL	DL	319	124	1.0	2.0	1.0	1.0		124	248	124	124	0
BIL	BIL	DL	M80	149				1.0		0	0	0	149	0
BIL	BIL	DL	M90	160			1.0		1.0	0	0	160	0	160
BIL	BIL	DL	CR9	76				1.0	1.0	0	0	0	76	76
BIL	BIL	DL	738	160					1.0	0	0	0	0	160
BIL	BIL	DL	NGA	120						0	0	0	0	0
BIL	BIL	DL	D95	125						0	0	0	0	0
BIL	BIL	DL	CRJ	50						0	0	0	0	0
BIL	BIL	DL	CR7	70						0	0	0	0	0
BIL	BIL	DL	E75	76	3.0	1.0	1.0	1.0	1.0	228	76	76	76	76
BIL	BIL	SY	738	168						0	0	0	0	0
		Subtotal			4.0	3.0	3.0	4.0	4.0	352	324	360	425	472
Bismark										**Target Seat Depa**	521	574	644	721
BIS	BIS	DL	320	148			1.0			0	0	148	0	0
BIS	BIS	DL	D9S	100						0	0	0	0	0
BIS	BIS	DL	319	124		1.0	1.0	1.0	2.0	0	124	124	124	248
BIS	BIS	DL	M80	149		2.0				0	298	0	0	0
BIS	BIS	DL	M90	160			1.0	1.0	1.0	0	0	160	160	160
BIS	BIS	DL	CR9	76	1.0			3.0	3.0	76	0	0	228	228
BIS	BIS	DL	CRJ	50	5.0	2.0	3.0	1.0		250	100	150	50	0
BIS	BIS	DL	NGA	120						0	0	0	0	0
BIS	BIS	DL	738	160						0	0	0	0	0
BIS	BIS	DL	D95	125	1.0					125	0	0	0	0
BIS	BIS	DL	E75	76				1.0	1.0	0	0	0	76	76
BIS	BIS	SY	738	168						0	0	0	0	0
		Subtotal			7.0	5.0	6.0	7.0	7.0	451	522	582	638	712
Bemidji										**Target Seat Depa**	157	176	201	229
BJI	BJI	CH	BEC	8	1.0	0.7	0.7	0.7	0.7	8	6	6	6	6
BJI	BJI	DL	NGT	50						0	0	0	0	0
BJI	BJI	DL	CR7	70			1.0		1.0	0	0	70	0	70
BJI	BJI	DL	CRJ	50	1.0	3.0	2.0	4.0	3.0	50	150	100	200	150
BJI	BJI	DL	SF3	34	3.0					102	0	0	0	0
		Subtotal			5.0	3.7	3.7	4.7	4.7	160	156	176	206	226

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020	2025	2030	AWDPM Seat Departures 2010	2016	2020	2025	2030
							EA Analysis Pd.					EA Analysis Pd.		
Bloomington										**Target Seat Depar**	54	61	69	79
BMI	BMI	DL	CRJ	50	2.0	1.0	0.4		1.6	100	50	20	0	80
BMI	BMI	DL	CR7	70			0.6	1.0		0	0	42	70	0
		Subtotal			2.0	1.0	1.0	1.0	1.6	100	50	62	70	80
Brookings										**Target Seat Depar**	0	0	0	0
BKX	BKX	ZK	BE1	19						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Nashville										**Target Seat Depar**	340	389	456	532
BNA	BNA	DL	D9S	100						0	0	0	0	0
BNA	BNA	DL	NGA	120						0	0	0	0	0
BNA	BNA	DL	CRJ	50	3.0					150	0	0	0	0
BNA	BNA	DL	CR9	76	1.0					76	0	0	0	0
BNA	BNA	DL	E75	76		1.0	3.0	4.0	3.0	0	76	228	304	228
BNA	BNA	DL	M90	160			1.0		1.0	0	0	160	0	160
BNA	BNA	DL	319	124		1.0				0	124	0	0	0
BNA	BNA	DL	M80	149		1.0				0	149	0	0	0
BNA	BNA	DL	320	148				1.0	1.0	0	0	0	148	148
BNA	BNA	DL	ER4	50	1.0					50	0	0	0	0
BNA	BNA	DL	CR7	70						0	0	0	0	0
BNA	BNA	WN	73G	137						0	0	0	0	0
		Subtotal			5.0	3.0	4.0	5.0	5.0	276	349	388	452	536
Boise										**Target Seat Depar**	289	335	397	467
BOI	BOI	DL	320	148		2.0	1.0			0	296	148	0	0
BOI	BOI	DL	319	124	1.0		1.0			124	0	124	0	0
BOI	BOI	DL	M80	149						0	0	0	0	0
BOI	BOI	DL	NGB	150						0	0	0	0	0
BOI	BOI	DL	738	160				2.0	2.0	0	0	0	320	320
BOI	BOI	DL	CRJ	50						0	0	0	0	0
BOI	BOI	DL	CR9	76	2.0		1.0	1.0	2.0	152	0	76	76	152
		Subtotal			3.0	2.0	3.0	3.0	4.0	276	296	348	396	472
Boston										**Target Seat Depar**	987	1082	1203	1337
BOS	BOS	DL	E75	76		1.0				0	76	0	0	0
BOS	BOS	DL	320	148	3.0	3.0	3.0	2.0	1.0	444	444	444	296	148
BOS	BOS	DL	319	124	1.0			1.0		124	0	0	124	0
BOS	BOS	DL	757	184						0	0	0	0	0
BOS	BOS	DL	M80	149		1.0				0	149	0	0	0
BOS	BOS	DL	NGA	120						0	0	0	0	0
BOS	BOS	DL	NGC	180						0	0	0	0	0
BOS	BOS	DL	738	160					2.0	0	0	0	0	320
BOS	BOS	DL	D95	125						0	0	0	0	0
BOS	BOS	DL	M90	160	1.0		2.0	2.0	2.0	160	0	320	320	320
BOS	BOS	DL	CR9	76						0	0	0	0	0
BOS	BOS	DL	738	160						0	0	0	0	0
BOS	BOS	DL	M88	142						0	0	0	0	0
BOS	BOS	B6	E90	100		2.0	2.0	3.0	3.0	0	200	200	300	300
BOS	BOS	SY	73G	129		1.0	1.0		2.0	0	129	129	0	258
BOS	BOS	SY	738	162	1.0			1.0		162	0	0	162	0
		Subtotal			6.0	8.0	8.0	9.0	10.0	890	998	1093	1202	1346
Brainerd										**Target Seat Depar**	133	153	179	210
BRD	BRD	NW	SF3	33						0	0	0	0	0
BRD	BRD	DL	CR7	70						0	0	0	0	0
BRD	BRD	DL	NGT	50						0	0	0	0	0
BRD	BRD	DL	SF3	34	4.0	1.0				136	34	0	0	0
BRD	BRD	DL	CR9	76				1.0	0.4	0	0	0	76	30
BRD	BRD	DL	CRJ	50		2.0	3.0	2.0	3.6	0	100	150	100	180
BRD	BRD	SY	738	162						0	0	0	0	0
		Subtotal			4.0	3.0	3.0	3.0	4.0	136	134	150	176	210
Baton Rouge										**Target Seat Depar**	0	0	0	0
BTR	BTR	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020	2025	2030	AWDPM Seat Departures 2010	2016	2020	2025	2030
							EA Analysis Pd.					EA Analysis Pd.		
Butte										**Target Seat Depar**	0	0	0	0
BTM	BTM	SY	738	162						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Burlington										**Target Seat Depar**	0	98	111	125
BTV	BTV	DL	E75	76			0.6	0.2		0	0	46	15	0
BTV	BTV	DL	319	124			0.4	0.8	1.0	0	0	50	99	124
BTV	BTV	DL	CRJ	50						0	0	0	0	0
BTV	BTV	DL	CR7	70						0	0	0	0	0
		Subtotal			0.0	0.0	1.0	1.0	1.0	0	0	95	114	124
Buffalo										**Target Seat Depar**	148	159	174	190
BUF	BUF	DL	CR9	76	1.0					76	0	0	0	0
BUF	BUF	DL	CRJ	50						0	0	0	0	0
BUF	BUF	DL	CR7	70						0	0	0	0	0
BUF	BUF	DL	M90	160			1.0	0.3	0.4	0	0	160	48	64
BUF	BUF	DL	M80	149		1.0				0	149	0	0	0
BUF	BUF	DL	319	124						0	0	0	0	0
BUF	BUF	DL	D9S	100						0	0	0	0	0
BUF	BUF	DL	D95	125	1.0					125	0	0	0	0
BUF	BUF	DL	E75	76				1.7	1.6	0	0	0	129	122
		Subtotal			2.0	1.0	1.0	2.0	2.0	201	149	160	177	186
Baltimore										**Target Seat Depar**	661	740	844	961
BWI	BWI	DL	E75	76				2.0	1.0	0	0	0	152	76
BWI	BWI	DL	319	124	2.0		1.0	1.0	1.0	248	0	124	124	124
BWI	BWI	DL	M80	149						0	0	0	0	0
BWI	BWI	DL	NGA	120						0	0	0	0	0
BWI	BWI	DL	D9S	100						0	0	0	0	0
BWI	BWI	DL	D95	125						0	0	0	0	0
BWI	BWI	DL	757	184		1.0				0	184	0	0	0
BWI	BWI	DL	320	148		1.0	2.0	1.0		0	148	296	148	0
BWI	BWI	DL	M90	160	2.0	2.0	2.0	1.0	1.0	320	320	320	160	160
BWI	BWI	DL	738	160					2.0	0	0	0	0	320
BWI	BWI	DL	753	223						0	0	0	0	0
BWI	BWI	DL	CR9	76						0	0	0	0	0
BWI	BWI	DL	738	160						0	0	0	0	0
BWI	BWI	DL	M88	142						0	0	0	0	0
BWI	BWI	WN	73G	137				2.0	2.0	0	0	0	274	274
		Subtotal			4.0	4.0	5.0	7.0	7.0	568	652	740	858	954
Bozeman										**Target Seat Depar**	492	570	678	803
BZN	BZN	DL	CR9	76				1.0		0	0	0	76	0
BZN	BZN	DL	319	124		1.0	1.0	1.0		0	124	124	124	0
BZN	BZN	DL	320	148		2.0	1.0			0	296	148	0	0
BZN	BZN	DL	738	160				1.0	2.0	0	0	0	160	320
BZN	BZN	DL	M80	149			1.0			0	0	149	0	0
BZN	BZN	DL	M90	160	2.0			1.0	2.0	320	0	0	160	320
BZN	BZN	DL	E75	76	1.0	1.0	2.0	2.0	2.0	76	76	152	152	152
		Subtotal			3.0	4.0	5.0	6.0	6.0	396	496	573	672	792
Columbia										**Target Seat Depar**	0	61	69	79
CAE	CAE	NW	CR7	70						0	0	0	0	0
CAE	CAE	NW	CRJ	50						0	0	0	0	0
CAE	CAE	DL	E75	76			0.8	0.9	1.0	0	0	61	68	76
		Subtotal			0.0	0.0	0.8	0.9	1.0	0	0	61	68	76
Akron										**Target Seat Depar**	113	123	135	149
CAK	CAK	DL	CR9	76		0.4	1.0	1.4	2.0	0	30	76	106	152
CAK	CAK	DL	CRJ	50		1.6	1.0	0.6		0	80	50	30	0
		Subtotal			0.0	2.0	2.0	2.0	2.0	0	110	126	136	152
CHI - Chicago										**Target Seat Depar**	5842	6178	6898	7702
MDW	CHI	DL	M80	149		3.0	2.0			0	447	298	0	0
MDW	CHI	DL	320	148			2.0	2.0	1.0	0	0	296	296	148

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
MDW	CHI	DL	319	124						0	0	0	0	0
MDW	CHI	DL	M90	160				3.0	6.0	0	0	0	480	960
MDW	CHI	DL	NGA	120						0	0	0	0	0
MDW	CHI	DL	E75	76	7.0	5.0	4.0	3.0	1.0	532	380	304	228	76
MDW	CHI	DL	CRJ	50						0	0	0	0	0
MDW	CHI	DL	CR7	70						0	0	0	0	0
MDW	CHI	DL	CR9	76	1.0					76	0	0	0	0
MDW	CHI	WN	73G	137	4.0	3.0	8.0	10.0	11.0	548	411	1096	1370	1507
MDW	CHI	WN	717	122		2.0	2.0			0	244	244	0	0
MDW	CHI	WN	733	137	4.0	4.0				548	548	0	0	0
MDW	CHI	WN	735	122						0	0	0	0	0
ORD	CHI	AA	M80	140	2.0	2.0	2.0	1.0		280	280	280	140	0
ORD	CHI	AA	M83	140						0	0	0	0	0
ORD	CHI	AA	738	160	2.0	3.0	3.0	5.0	8.0	320	480	480	800	1280
ORD	CHI	AA	100	87						0	0	0	0	0
ORD	CHI	AA	ER4	50						0	0	0	0	0
ORD	CHI	AA	CR7	70	4.0	3.0	3.0	3.0	2.0	280	210	210	210	140
ORD	CHI	AA	ERD	44						0	0	0	0	0
ORD	CHI	DL	E75	76	4.0	1.0	1.0			304	76	76	0	0
ORD	CHI	DL	M80	149		2.0	1.0			0	298	149	0	0
ORD	CHI	DL	320	148	1.0	3.0	3.0	1.0	1.0	148	444	444	148	148
ORD	CHI	DL	319	124						0	0	0	0	0
ORD	CHI	DL	D9S	100						0	0	0	0	0
ORD	CHI	DL	738	160		1.0	2.0	7.0	9.0	0	160	320	1120	1440
ORD	CHI	DL	M90	160		2.0	2.0	2.0	1.0	0	320	320	320	160
ORD	CHI	DL	NGB	150						0	0	0	0	0
ORD	CHI	DL	D95	125	2.0					250	0	0	0	0
ORD	CHI	DL	757	184						0	0	0	0	0
ORD	CHI	DL	CRJ	50						0	0	0	0	0
ORD	CHI	DL	CR7	70						0	0	0	0	0
ORD	CHI	DL	CR9	76	2.0		1.0			152	0	76	0	0
ORD	CHI	DL	738	160						0	0	0	0	0
ORD	CHI	DL	M88	142						0	0	0	0	0
ORD	CHI	DL	D94	124						0	0	0	0	0
ORD	CHI	UA	733	120						0	0	0	0	0
ORD	CHI	UA	320	144	4.0	4.0	4.0	7.0	6.0	576	576	576	1008	864
ORD	CHI	UA	735	104						0	0	0	0	0
ORD	CHI	UA	319	120	2.0	1.0	2.0		1.0	240	120	240	0	120
ORD	CHI	UA	738	160		4.0	4.0	4.0	5.0	0	640	640	640	800
ORD	CHI	UA	752	182						0	0	0	0	0
ORD	CHI	UA	E70	70	6.0	3.0	2.0	2.0	1.0	420	210	140	140	70
		Subtotal			45.0	46.0	48.0	50.0	53.0	4674	5844	6189	6900	7713
Charleston										**Target Seat Depar**	103	118	138	161
CHS	CHS	DL	320	148				0.7		0	0	0	104	0
CHS	CHS	DL	319	124		0.8	1.0	0.3		0	99	124	37	0
CHS	CHS	DL	M90	160					1.0	0	0	0	0	160
CHS	CHS	DL	CR9	76						0	0	0	0	0
CHS	CHS	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.8	1.0	1.0	1.0	0	99	124	141	160
Cedar Rapids										**Target Seat Depar**	311	341	381	424
CID	CID	DL	CR7	70		3.0	2.0			0	210	140	0	0
CID	CID	DL	NGT	50						0	0	0	0	0
CID	CID	DL	CRJ	50	4.0	2.0	1.0	3.0	1.0	200	100	50	150	50
CID	CID	DL	SF3	34	1.0					34	0	0	0	0
CID	CID	DL	E75	76			2.0	3.0	5.0	0	0	152	228	380
CID	CID	SY	738	168						0	0	0	0	0
		Subtotal			5.0	5.0	5.0	6.0	6.0	234	310	342	378	430
Cleveland										**Target Seat Depar**	469	506	553	603
CLE	CLE	CO	733	120						0	0	0	0	0
CLE	CLE	CO	73G	124						0	0	0	0	0
CLE	CLE	CO	CRJ	50						0	0	0	0	0
CLE	CLE	CO	ERJ	37						0	0	0	0	0
CLE	CLE	CO	ERJ	50	4.0					200	0	0	0	0
CLE	CLE	CO	ER3	37						0	0	0	0	0
CLE	CLE	CO	ER4	50						0	0	0	0	0
CLE	CLE	UA	E70	70						0	0	0	0	0
CLE	CLE	UA	ER4	50		4.0	4.0	4.0	4.0	0	200	200	200	200
CLE	CLE	UA	73G	124						0	0	0	0	0
CLE	CLE	DL	D9S	100						0	0	0	0	0
CLE	CLE	DL	E75	76		3.0	2.0	4.0	4.0	0	228	152	304	304

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
CLE	CLE	DL	CRJ	50	3.0	1.0	3.0	1.0	2.0	150	50	150	50	100
CLE	CLE	DL	NGA	120						0	0	0	0	0
CLE	CLE	DL	319	124						0	0	0	0	0
CLE	CLE	DL	ER4	50	1.0					50	0	0	0	0
CLE	CLE	DL	CR7	70	1.0					70	0	0	0	0
CLE	CLE	DL	CR9	76						0	0	0	0	0
		Subtotal			9.0	8.0	9.0	9.0	10.0	470	478	502	554	604
Charlotte										**Target Seat Depa**	825	948	1116	1309
CLT	CLT	US	733	126						0	0	0	0	0
CLT	CLT	US	320	150	2.0	1.0	1.0	2.0	2.0	300	150	150	300	300
CLT	CLT	US	319	120	2.0	2.0	2.0	3.0	3.0	240	240	240	360	360
CLT	CLT	US	E90	100			2.0		1.0	0	0	200	0	100
CLT	CLT	US	734	144						0	0	0	0	0
CLT	CLT	US	32S	142						0	0	0	0	0
CLT	CLT	US	E75	76		1.0				0	76	0	0	0
CLT	CLT	US	E70	76						0	0	0	0	0
CLT	CLT	US	E75	76						0	0	0	0	0
CLT	CLT	US	CRJ	50						0	0	0	0	0
CLT	CLT	US	CR9	76						0	0	0	0	0
CLT	CLT	US	CRJ	50						0	0	0	0	0
CLT	CLT	US	CRJ	50						0	0	0	0	0
CLT	CLT	US	CR7	70						0	0	0	0	0
CLT	CLT	US	E70	70						0	0	0	0	0
CLT	CLT	US	321	183						0	0	0	0	0
CLT	CLT	DL	E75	76	2.0	2.0	2.0	2.0	1.0	152	152	152	152	76
CLT	CLT	DL	D9S	100						0	0	0	0	0
CLT	CLT	DL	NGA	120						0	0	0	0	0
CLT	CLT	DL	319	124	2.0	1.0	1.0			248	124	124	0	0
CLT	CLT	DL	320	148				1.0	1.0	0	0	0	148	148
CLT	CLT	DL	738	160				1.0	2.0	0	0	0	160	320
CLT	CLT	DL	M80	149						0	0	0	0	0
CLT	CLT	DL	D95	125						0	0	0	0	0
CLT	CLT	DL	M90	160						0	0	0	0	0
CLT	CLT	DL	CR7	70						0	0	0	0	0
CLT	CLT	DL	CR9	76		1.0	1.0			0	76	76	0	0
CLT	CLT	DL	M88	142						0	0	0	0	0
		Subtotal			8.0	8.0	9.0	9.0	10.0	940	818	942	1120	1304
Columbus										**Target Seat Depa**	398	440	495	556
CMH	CMH	DL	CRJ	50	1.0	1.0	2.0			50	50	100	0	0
CMH	CMH	DL	E75	76	2.0	1.0	1.0	3.0	3.0	152	76	76	228	228
CMH	CMH	DL	319	124		1.0	1.0	1.0		0	124	124	124	0
CMH	CMH	DL	D9S	100						0	0	0	0	0
CMH	CMH	DL	M80	149		1.0	1.0			0	149	149	0	0
CMH	CMH	DL	320	148				1.0		0	0	0	148	0
CMH	CMH	DL	738	160					2.0	0	0	0	0	320
CMH	CMH	DL	D95	125	1.0					125	0	0	0	0
CMH	CMH	DL	M90	160						0	0	0	0	0
CMH	CMH	DL	CR7	70						0	0	0	0	0
CMH	CMH	DL	CR9	76	1.0					76	0	0	0	0
CMH	CMH	DL	M88	142						0	0	0	0	0
CMH	CMH	SY	738	162						0	0	0	0	0
LCK	CMH	NW	CR7	70						0	0	0	0	0
		Subtotal			5.0	4.0	5.0	5.0	5.0	403	399	449	500	548
Champaign										**Target Seat Depa**	49	54	59	66
CMI	CMI	NW	CRJ	50						0	0	0	0	0
CMI	CMI	DL	CRJ	50		1.0	1.0	0.6	0.3	0	50	50	30	15
CMI	CMI	DL	CR9	76				0.4	0.7	0	0	0	30	53
		Subtotal			0.0	1.0	1.0	1.0	1.0	0	50	50	60	68
Hancock										**Target Seat Depa**	57	60	64	68
CMX	CMX	DL	CR9	76					0.7	0	0	0	0	53
CMX	CMX	DL	SF3	34		2.0	2.0	2.0		0	68	68	68	0
CMX	CMX	DL	CRJ	50					0.3	0	0	0	0	15
		Subtotal			0.0	2.0	2.0	2.0	1.0	0	68	68	68	68
Colorado Springs										**Target Seat Depa**	175	196	224	255
COS	COS	DL	319	124					1.0	0	0	0	0	124
COS	COS	DL	NGA	120						0	0	0	0	0
COS	COS	DL	320	148						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

			Publ.			AWDPM Aircraft Departures					AWDPM Seat Departures				
								EA Analysis Pd.					EA Analysis Pd.		
	Airport	Market	Carrier	Equip	Seats	2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
	COS	COS	DL	738	160						0	0	0	0	0
	COS	COS	DL	E75	76						0	0	0	0	0
	COS	COS	DL	CRJ	50	1.0	2.0	1.0		1.0	50	100	50	0	50
	COS	COS	DL	CR9	76	1.0	1.0	2.0	3.0	1.0	76	76	152	228	76
			Subtotal			2.0	3.0	3.0	3.0	3.0	126	176	202	228	250
Casper											**Target Seat Depa**	198	219	246	277
	CPR	CPR	NW	CRJ	50						0	0	0	0	0
	CPR	CPR	NW	CRJ	50						0	0	0	0	0
	CPR	CPR	DL	319	124				1.0	1.0	0	0	0	124	124
	CPR	CPR	DL	CRJ	50		1.0		1.0		0	50	0	50	0
	CPR	CPR	DL	E75	76		2.0	3.0	1.0	2.0	0	152	228	76	152
			Subtotal			0.0	3.0	3.0	3.0	3.0	0	202	228	250	276
Cincinnati											**Target Seat Depa**	309	378	469	628
	CVG	CVG	DL	M80	149						0	0	0	0	0
	CVG	CVG	DL	738	160				1.0	2.0	0	0	0	160	320
	CVG	CVG	DL	732	100						0	0	0	0	0
	CVG	CVG	DL	CRJ	50						0	0	0	0	0
	CVG	CVG	DL	CR7	70						0	0	0	0	0
	CVG	CVG	DL	CRJ	50	4.0	3.0				200	150	0	0	0
	CVG	CVG	DL	CR7	70	2.0					140	0	0	0	0
	CVG	CVG	DL	CR9	76						0	0	0	0	0
	CVG	CVG	DL	CR2	50						0	0	0	0	0
	CVG	CVG	DL	ERJ	37						0	0	0	0	0
	CVG	CVG	DL	ER3	37						0	0	0	0	0
	CVG	CVG	DL	E70	70						0	0	0	0	0
	CVG	CVG	DL	320	148						0	0	0	0	0
	CVG	CVG	DL	319	124						0	0	0	0	0
	CVG	CVG	DL	NGB	150						0	0	0	0	0
	CVG	CVG	DL	D9S	125						0	0	0	0	0
	CVG	CVG	DL	ER4	50						0	0	0	0	0
	CVG	CVG	DL	E75	76		2.0	5.0	4.0	4.0	0	152	380	304	304
			Subtotal			6.0	5.0	5.0	5.0	6.0	340	302	380	464	624
Wausau											**Target Seat Depa**	203	222	247	275
	CWA	CWA	NW	SF3	33						0	0	0	0	0
	CWA	CWA	NW	CRJ	50						0	0	0	0	0
	CWA	CWA	NW	CR7	70						0	0	0	0	0
	CWA	CWA	DL	SF3	34	4.0	3.0	2.0			136	102	68	0	0
	CWA	CWA	DL	CRJ	50	1.0	2.0	3.0	5.0	4.0	50	100	150	250	200
	CWA	CWA	DL	NGT	50						0	0	0	0	0
	CWA	CWA	DL	CR9	76					1.0	0	0	0	0	76
	CWA	CWA	DL	CR7	70						0	0	0	0	0
	CWA	CWA	SY	738	162						0	0	0	0	0
			Subtotal			5.0	5.0	5.0	5.0	5.0	186	202	218	250	276
Dayton											**Target Seat Depa**	143	155	169	184
	DAY	DAY	DL	CRJ	50	3.0			2.0	2.0	150	0	0	100	100
	DAY	DAY	DL	CR9	76		2.0	2.0	1.0	1.0	0	152	152	76	76
	DAY	DAY	DL	ER4	50						0	0	0	0	0
	DAY	DAY	DL	CR7	70						0	0	0	0	0
	DAY	DAY	SY	738	162						0	0	0	0	0
			Subtotal			3.0	2.0	2.0	3.0	3.0	150	152	152	176	176
Dubuque											**Target Seat Depa**	84	91	100	111
	DBQ	DBQ	NW	SF3	33						0	0	0	0	0
	DBQ	DBQ	DL	SF3	34		1.0				0	34	0	0	0
	DBQ	DBQ	DL	CRJ	50		1.0	1.8	2.0	2.2	0	50	90	100	110
	DBQ	DBQ	DL	NGT	50						0	0	0	0	0
	DBQ	DBQ	SY	738	162						0	0	0	0	0
			Subtotal			0.0	2.0	1.8	2.0	2.2	0	84	90	100	110
Denver											**Target Seat Depa**	3573	4037	4667	5395
	DEN	DEN	DL	E75	76						0	0	0	0	0
	DEN	DEN	DL	M80	149						0	0	0	0	0
	DEN	DEN	DL	320	148		1.0	1.0		1.0	0	148	148	0	148
	DEN	DEN	DL	319	124		1.0	1.0			0	124	124	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
DEN	DEN	DL	D9S	100						0	0	0	0	0
DEN	DEN	DL	738	160	2.0	1.0	4.0	6.0	4.0	320	160	640	960	640
DEN	DEN	DL	753	223				1.0	3.0	0	0	0	223	669
DEN	DEN	DL	NGB	150						0	0	0	0	0
DEN	DEN	DL	NGC	180						0	0	0	0	0
DEN	DEN	DL	NGD	225						0	0	0	0	0
DEN	DEN	DL	757	184	1.0	1.0				184	184	0	0	0
DEN	DEN	DL	M90	160	5.0	3.0	2.0	1.0		800	480	320	160	0
DEN	DEN	DL	CR9	76						0	0	0	0	0
DEN	DEN	DL	738	160						0	0	0	0	0
DEN	DEN	DL	M88	142						0	0	0	0	0
DEN	DEN	SY	737	162						0	0	0	0	0
DEN	DEN	SY	738	162					1.0	0	0	0	0	162
DEN	DEN	UA	733	120						0	0	0	0	0
DEN	DEN	UA	320	144	3.0	2.0	3.0	3.0	3.0	432	288	432	432	432
DEN	DEN	UA	735	104						0	0	0	0	0
DEN	DEN	UA	319	120						0	0	0	0	0
DEN	DEN	UA	738	160		3.0	4.0	6.0	7.0	0	480	640	960	1120
DEN	DEN	UA	752	182						0	0	0	0	0
DEN	DEN	UA	CRJ	50						0	0	0	0	0
DEN	DEN	UA	CRJ	50						0	0	0	0	0
DEN	DEN	UA	CR7	64						0	0	0	0	0
DEN	DEN	UA	E70	70	2.0	2.0	1.0			140	140	70	0	0
DEN	DEN	WN	73G	137	1.0	3.0	6.0	7.0	8.0	137	411	822	959	1096
DEN	DEN	WN	733	137	2.0	3.0				274	411	0	0	0
DEN	DEN	WN	735	122						0	0	0	0	0
DEN	DEN	F9	CR7	70						0	0	0	0	0
DEN	DEN	F9	E70	70						0	0	0	0	0
DEN	DEN	F9	E70	70						0	0	0	0	0
DEN	DEN	F9	73S	138						0	0	0	0	0
DEN	DEN	F9	737	138						0	0	0	0	0
DEN	DEN	F9	73A	138						0	0	0	0	0
DEN	DEN	F9	733	138						0	0	0	0	0
DEN	DEN	F9	319	132	3.0	2.0	2.0	2.0	2.0	396	264	264	264	264
DEN	DEN	F9	CS3	130			2.0	3.0	3.0	0	0	260	390	390
DEN	DEN	F9	318	114	1.0					114	0	0	0	0
DEN	DEN	F9	320	162		3.0	2.0	2.0	3.0	0	486	324	324	486
DEN	DEN	F9	E90	99	1.0					99	0	0	0	0
		Subtotal			21.0	25.0	28.0	31.0	35.0	2896	3576	4044	4672	5407
Dallas/Fort Worth										**Target Seat Depa**	1663	1900	2221	2588
DFW	DFW	AA	M80	140	3.0	5.0	5.0	3.0		420	700	700	420	0
DFW	DFW	AA	738	160	1.0	1.0	2.0	4.0	8.0	160	160	320	640	1280
DFW	DFW	AA	100	87						0	0	0	0	0
DFW	DFW	AA	M83	140	2.0					280	0	0	0	0
DFW	DFW	AA	ER4	50						0	0	0	0	0
DFW	DFW	AA	CR7	70						0	0	0	0	0
DFW	DFW	AA	ERD	44						0	0	0	0	0
DFW	DFW	DL	CRJ	50						0	0	0	0	0
DFW	DFW	DL	CRJ	50						0	0	0	0	0
DFW	DFW	DL	CR9	76	2.0	1.0	1.0	1.0		152	76	76	76	0
DFW	DFW	DL	M80	142						0	0	0	0	0
DFW	DFW	DL	M90	160			1.0	1.0	1.0	0	0	160	160	160
DFW	DFW	DL	320	148		2.0			1.0	0	296	0	0	148
DFW	DFW	DL	319	124	1.0	1.0		1.0	1.0	124	124	0	124	124
DFW	DFW	DL	738	160			2.0	2.0	3.0	0	0	320	320	480
DFW	DFW	DL	NGB	150						0	0	0	0	0
DFW	DFW	DL	NGC	180						0	0	0	0	0
DFW	DFW	DL	D9S	100						0	0	0	0	0
DFW	DFW	DL	D95	125						0	0	0	0	0
DFW	DFW	DL	CR7	70						0	0	0	0	0
DFW	DFW	DL	M88	142						0	0	0	0	0
DFW	DFW	DL	E75	76	3.0	2.0	2.0	2.0	1.0	228	152	152	152	76
DFW	DFW	SY	737	162						0	0	0	0	0
DFW	DFW	SY	738	162	1.0	1.0	1.0	2.0	2.0	162	162	162	324	324
		Subtotal			13.0	13.0	14.0	16.0	17.0	1526	1670	1890	2216	2592
Duluth										**Target Seat Depa**	415	447	486	530
DLH	DLH	DL	D9S	100						0	0	0	0	0
DLH	DLH	DL	M80	149			1.0			0	0	149	0	0
DLH	DLH	DL	319	124		1.0			1.0	0	124	0	0	124
DLH	DLH	DL	320	148						0	0	0	0	0
DLH	DLH	DL	738	160				1.0	1.0	0	0	0	160	160
DLH	DLH	DL	CR9	76			1.0	2.0	2.0	0	0	76	152	152
DLH	DLH	DL	CR7	70		1.0				0	70	0	0	0
DLH	DLH	DL	NGT	50						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

			Publ.			AWDPM Aircraft Departures					AWDPM Seat Departures				
								EA Analysis Pd.					EA Analysis Pd.		
	Airport	Market	Carrier	Equip	Seats	2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
	DLH	DLH	DL	CRJ	50	7.0	3.0	3.0	2.0	2.0	350	150	150	100	100
	DLH	DLH	DL	D95	125						0	0	0	0	0
	DLH	DLH	DL	SF3	34	1.0					34	0	0	0	0
	DLH	DLH	DL	E75	76		1.0	1.0	1.0		0	76	76	76	0
	DLH	DLH	SY	738	162						0	0	0	0	0
			Subtotal			8.0	6.0	6.0	6.0	6.0	384	420	451	488	536
Durango											**Target Seat Depa**	0	0	0	0
	DRO	DRO	NW	CRJ	50						0	0	0	0	0
	DRO	DRO	DL	CR7	70						0	0	0	0	0
	DRO	DRO	DL	CRJ	50						0	0	0	0	0
			Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Des Moines											**Target Seat Depa**	401	447	507	576
	DSM	DSM	DL	NGA	120						0	0	0	0	0
	DSM	DSM	DL	319	124				1.0	1.0	0	0	0	124	124
	DSM	DSM	DL	CR9	76	3.0	4.0	6.0	5.0	6.0	228	304	456	380	456
	DSM	DSM	DL	CR7	70						0	0	0	0	0
	DSM	DSM	DL	NGT	50						0	0	0	0	0
	DSM	DSM	DL	CRJ	50	3.0	2.0				150	100	0	0	0
	DSM	DSM	DL	SF3	34						0	0	0	0	0
	DSM	DSM	SY	738	162						0	0	0	0	0
			Subtotal			6.0	6.0	6.0	6.0	7.0	378	404	456	504	580
Detroit											**Target Seat Depa**	1594	1732	1906	2098
	DTW	DTW	DL	D9S	100						0	0	0	0	0
	DTW	DTW	DL	D95	125	1.0					125	0	0	0	0
	DTW	DTW	DL	757	184	5.0	2.0	1.0	1.0		920	368	184	184	0
	DTW	DTW	DL	320	148			1.0			0	0	148	0	0
	DTW	DTW	DL	319	124	1.0	1.0			1.0	124	124	0	0	124
	DTW	DTW	DL	753	223	1.0	2.0	2.0	2.0	2.0	223	446	446	446	446
	DTW	DTW	DL	332	243					1.0	0	0	0	0	243
	DTW	DTW	DL	763	262						0	0	0	0	0
	DTW	DTW	DL	NGD	225						0	0	0	0	0
	DTW	DTW	DL	M80	142						0	0	0	0	0
	DTW	DTW	DL	M90	160						0	0	0	0	0
	DTW	DTW	DL	738	160		4.0	6.0	8.0	8.0	0	640	960	1280	1280
	DTW	DTW	DL	NGB	150						0	0	0	0	0
	DTW	DTW	DL	NGC	180						0	0	0	0	0
	DTW	DTW	DL	744	403						0	0	0	0	0
	DTW	DTW	DL	CRJ	50						0	0	0	0	0
	DTW	DTW	DL	752	184						0	0	0	0	0
	DTW	DTW	DL	333	298						0	0	0	0	0
	DTW	DTW	DL	CR7	70						0	0	0	0	0
	DTW	DTW	DL	CR9	76	1.0					76	0	0	0	0
	DTW	DTW	DL	738	160						0	0	0	0	0
	DTW	DTW	DL	M88	142						0	0	0	0	0
	DTW	DTW	DL	E75	76						0	0	0	0	0
			Subtotal			9.0	9.0	10.0	11.0	12.0	1468	1578	1738	1910	2093
Eau Claire											**Target Seat Depa**	0	0	0	0
	EAU	EAU	DL	SF3	34						0	0	0	0	0
	EAU	EAU	DL	CRJ	50						0	0	0	0	0
	EAU	EAU	DL	NGT	50						0	0	0	0	0
	EAU	EAU	SY	738	162						0	0	0	0	0
			Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Vail											**Target Seat Depa**	0	0	0	0
	EGE	EGE	DL	757	184						0	0	0	0	0
	EGE	EGE	DL	NGC	180						0	0	0	0	0
			Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
El Paso											**Target Seat Depa**	132	150	175	205
	ELP	ELP	DL	CRJ	50						0	0	0	0	0
	ELP	ELP	DL	319	124				0.4	1.0	0	0	0	50	124
	ELP	ELP	DL	E75	76		1.7	2.0	1.6	1.0	0	129	152	122	76
	ELP	ELP	DL	CR7	70						0	0	0	0	0
	ELP	ELP	SY	738	162						0	0	0	0	0
			Subtotal			0.0	1.7	2.0	2.0	2.0	0	129	152	171	200

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Fairbanks										**Target Seat Depar**	367	400	443	489
FAI	FAI	DL	757	184	2.0	2.0	2.0			368	368	368	0	0
FAI	FAI	DL	753	223				1.0		0	0	0	223	0
FAI	FAI	DL	738	160				1.0		0	0	0	160	0
FAI	FAI	DL	321	180					2.0	0	0	0	0	360
FAI	FAI	SY	738	162			0.2	0.4	0.8	0	0	32	65	130
		Subtotal			2.0	2.0	2.2	2.4	2.8	368	368	400	448	490
Fargo										**Target Seat Depar**	607	673	760	858
FAR	FAR	DL	CRJ	50	2.0					100	0	0	0	0
FAR	FAR	DL	CR9	76	1.0	2.0	1.0	1.0	1.0	76	152	76	76	76
FAR	FAR	DL	E75	76	3.0	2.0	2.0	1.0	1.0	228	152	152	76	76
FAR	FAR	DL	CR7	70						0	0	0	0	0
FAR	FAR	DL	738	160				1.0	2.0	0	0	0	160	320
FAR	FAR	DL	D9S	100						0	0	0	0	0
FAR	FAR	DL	M80	149		2.0	1.0			0	298	149	0	0
FAR	FAR	DL	M90	160						0	0	0	0	0
FAR	FAR	DL	320	148	1.0		2.0	3.0	1.0	148	0	296	444	148
FAR	FAR	DL	319	124					2.0	0	0	0	0	248
FAR	FAR	DL	NGB	150						0	0	0	0	0
FAR	FAR	DL	NGA	120						0	0	0	0	0
FAR	FAR	DL	D95	125						0	0	0	0	0
FAR	FAR	SY	738	162						0	0	0	0	0
		Subtotal			7.0	6.0	6.0	6.0	7.0	552	602	673	756	868
Fresno										**Target Seat Depar**	0	0	0	164
FAT	FAT	DL	319	124						0	0	0	0	0
FAT	FAT	DL	738	160					1.0	0	0	0	0	160
FAT	FAT	DL	CR7	70						0	0	0	0	0
FAT	FAT	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	1.0	0	0	0	0	160
Kalispell										**Target Seat Depar**	289	336	402	480
FCA	FCA	DL	E75	76			1.0	1.0	1.0	0	0	76	76	76
FCA	FCA	DL	319	124	2.0	1.0	2.0		2.0	248	124	248	0	248
FCA	FCA	DL	320	148						0	0	0	0	0
FCA	FCA	DL	M90	160		1.0		2.0	1.0	0	160	0	320	160
FCA	FCA	DL	CR7	70						0	0	0	0	0
FCA	FCA	DL	CR9	76						0	0	0	0	0
		Subtotal			2.0	2.0	3.0	3.0	4.0	248	284	324	396	484
Fort Lauderdale										**Target Seat Depar**	180	204	235	271
FLL	FLL	SY	738	168						0	0	0	0	0
FLL	FLL	DL	738	160						0	0	0	0	0
FLL	FLL	DL	M80	149						0	0	0	0	0
FLL	FLL	DL	320	148	1.0				1.0	148	0	0	0	148
FLL	FLL	DL	319	124				2.0	1.0	0	0	0	248	124
FLL	FLL	DL	757	184		1.0	1.1			0	184	202	0	0
FLL	FLL	DL	NGB	150						0	0	0	0	0
FLL	FLL	DL	321	180						0	0	0	0	0
FLL	FLL	DL	753	223						0	0	0	0	0
FLL	FLL	WN	73G	137						0	0	0	0	0
		Subtotal			1.0	1.0	1.1	2.0	2.0	148	184	202	248	272
Fort Collins										**Target Seat Depar**	0	0	0	0
FNL	FNL	SY	738	162		0.0	0.0	0.0	0.0	0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Flint										**Target Seat Depar**	82	87	94	101
FNT	FNT	DL	CR9	76						0	0	0	0	0
FNT	FNT	DL	CR7	70						0	0	0	0	0
FNT	FNT	DL	CRJ	50	1.0	2.0	2.0	2.0	2.0	50	100	100	100	100
		Subtotal			1.0	2.0	2.0	2.0	2.0	50	100	100	100	100
Fort Dodge										**Target Seat Depar**	42	45	49	53
FOD	FOD	DL	CRJ	50					1.0	0	0	0	0	50

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020	2025	2030	AWDPM Seat Departures 2010	2016	2020	2025	2030
							EA Analysis Pd.					EA Analysis Pd.		
FOD	FOD	DL	SF3	34	2.0	1.3	1.3	1.4		68	44	44	48	0
FOD	FOD	DL	NGT	50						0	0	0	0	0
		Subtotal			2.0	1.3	1.3	1.4	1.0	68	44	44	48	50
Sioux Falls										**Target Seat Depa**	573	652	758	879
FSD	FSD	DL	CRJ	50	6.0					300	0	0	0	0
FSD	FSD	DL	SF3	34						0	0	0	0	0
FSD	FSD	DL	NGT	50						0	0	0	0	0
FSD	FSD	DL	CR7	70	1.0			1.0		70	0	0	70	0
FSD	FSD	DL	CR9	76		2.0	2.0	3.0	3.0	0	152	152	228	228
FSD	FSD	DL	E75	76		2.0	3.0			0	152	228	0	0
FSD	FSD	DL	M80	149		1.0	1.0	1.0		0	149	149	149	0
FSD	FSD	DL	M90	160				1.0	2.0	0	0	0	160	320
FSD	FSD	DL	320	148						0	0	0	0	0
FSD	FSD	DL	738	160				1.0	2.0	0	0	0	160	320
FSD	FSD	DL	NGA	120						0	0	0	0	0
FSD	FSD	DL	D9S	100						0	0	0	0	0
FSD	FSD	DL	319	124		1.0	1.0			0	124	124	0	0
FSD	FSD	DL	D95	125	1.0					125	0	0	0	0
FSD	FSD	SY	738	162						0	0	0	0	0
		Subtotal			8.0	6.0	7.0	7.0	7.0	495	577	653	767	868
Fort Wayne										**Target Seat Depa**	95	105	117	130
FWA	FWA	NW	CRJ	50						0	0	0	0	0
FWA	FWA	DL	CRJ	50	1.0	2.0	2.0	1.0		50	100	100	50	0
FWA	FWA	DL	CR7	70				1.0	2.0	0	0	0	70	140
		Subtotal			1.0	2.0	2.0	2.0	2.0	50	100	100	120	140
Spokane										**Target Seat Depa**	522	578	650	732
GEG	GEG	DL	M80	149		1.0				0	149	0	0	0
GEG	GEG	DL	320	148	1.0	2.0	2.0			148	296	296	0	0
GEG	GEG	DL	738	160				3.0	2.0	0	0	0	480	320
GEG	GEG	DL	319	124			1.0		2.0	0	0	124	0	248
GEG	GEG	DL	NGB	150						0	0	0	0	0
GEG	GEG	DL	NGA	120						0	0	0	0	0
GEG	GEG	DL	M90	160	3.0		1.0	1.0	1.0	480	0	160	160	160
GEG	GEG	DL	CR9	76						0	0	0	0	0
GEG	GEG	DL	M88	142						0	0	0	0	0
GEG	GEG	DL	E75	76		1.0				0	76	0	0	0
		Subtotal			4.0	4.0	4.0	4.0	5.0	628	521	580	640	728
Grand Forks										**Target Seat Depa**	401	440	491	547
GFK	GFK	DL	D9S	100						0	0	0	0	0
GFK	GFK	DL	M80	149				1.0		0	0	0	149	0
GFK	GFK	DL	CRJ	50	6.0	2.0	2.0	1.0		300	100	100	50	0
GFK	GFK	DL	CR7	70			1.0	1.0		0	0	70	70	0
GFK	GFK	DL	SF3	34						0	0	0	0	0
GFK	GFK	DL	CR9	76						0	0	0	0	0
GFK	GFK	DL	E75	76		4.0	2.0	3.0	4.0	0	304	152	228	304
GFK	GFK	DL	319	124			1.0		2.0	0	0	124	0	248
GFK	GFK	DL	D95	125	1.0					125	0	0	0	0
		Subtotal			7.0	6.0	6.0	6.0	6.0	425	404	446	497	552
Grand Junction										**Target Seat Depa**	74	83	96	110
GJT	GJT	DL	319	124		0.6	0.7	0.8	0.9	0	74	87	99	112
GJT	GJT	DL	CR7	70						0	0	0	0	0
		Subtotal			0.0	0.6	0.7	0.8	0.9	0	74	87	99	112
Gulfport										**Target Seat Depa**	0	0	0	0
GPT	GPT	SY	738	162		0.0	0.0	0.0	0.0	0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Grand Rapids, MN										**Target Seat Depa**	0	0	0	0
GPZ	GPZ					0.0	0.0	0.0	0.0	0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Green Bay										**Target Seat Depa**	453	497	554	617
GRB	GRB	DL	319	124		1.0				0	124	0	0	0
GRB	GRB	DL	738	160					1.0	0	0	0	0	160
GRB	GRB	DL	D9S	100						0	0	0	0	0
GRB	GRB	DL	M80	149		1.0	2.0			0	149	298	0	0
GRB	GRB	DL	CRJ	50	2.0	2.0	1.0	2.0		100	100	50	100	0
GRB	GRB	DL	CR7	70						0	0	0	0	0
GRB	GRB	DL	CR9	76		1.0	2.0	2.0	4.0	0	76	152	152	304
GRB	GRB	DL	D95	125	1.0					125	0	0	0	0
GRB	GRB	DL	320	148				2.0	1.0	0	0	0	296	148
GRB	GRB	DL	E75	76	2.0					152	0	0	0	0
		Subtotal			5.0	5.0	5.0	6.0	6.0	377	449	500	548	612
Grand Island, NE										**Target Seat Depa**	0	0	0	0
GRI	GRI	SY	738	162		0.0	0.0	0.0	0.0	0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Grand Rapids, MI										**Target Seat Depa**	633	700	788	887
GRR	GRR	DL	D9S	100						0	0	0	0	0
GRR	GRR	DL	M80	149						0	0	0	0	0
GRR	GRR	DL	CRJ	50	2.0	2.0				100	100	0	0	0
GRR	GRR	DL	CR7	70						0	0	0	0	0
GRR	GRR	DL	CR9	76		1.0	2.0	2.0	1.0	0	76	152	152	76
GRR	GRR	DL	320	148		2.0	1.0	1.0		0	296	148	148	0
GRR	GRR	DL	NGA	120						0	0	0	0	0
GRR	GRR	DL	D95	125	4.0					500	0	0	0	0
GRR	GRR	DL	M90	160			2.0	2.0	2.0	0	0	320	320	320
GRR	GRR	DL	319	124						0	0	0	0	0
GRR	GRR	DL	738	160		1.0		1.0	3.0	0	160	0	160	480
GRR	GRR	DL	M88	142						0	0	0	0	0
GRR	GRR	DL	D94	125						0	0	0	0	0
GRR	GRR	DL	E75	76			1.0			0	0	76	0	0
GRR	GRR	SY	738	162						0	0	0	0	0
		Subtotal			6.0	6.0	6.0	6.0	6.0	600	632	696	780	876
Greensboro/Highpoint/Winston-Salem										**Target Seat Depa**	61	67	75	85
GSO	GSO	DL	CRJ	50						0	0	0	0	0
GSO	GSO	DL	E75	76		1.0	1.0	1.0	1.0	0	76	76	76	76
		Subtotal			0.0	1.0	1.0	1.0	1.0	0	76	76	76	76
Greenville										**Target Seat Depa**	0	0	61	69
GSP	GSP	DL	E75	76				1.0	1.0	0	0	0	76	76
GSP	GSP	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	1.0	1.0	0	0	0	76	76
Great Falls										**Target Seat Depa**	118	127	138	150
GTF	GTF	SY	738	162						0	0	0	0	0
GTF	GTF	DL	CR9	76						0	0	0	0	0
GTF	GTF	DL	319	124						0	0	0	0	0
GTF	GTF	DL	E75	76	2.0	1.6	1.7	1.8	2.0	152	122	129	137	152
		Subtotal			2.0	1.6	1.7	1.8	2.0	152	122	129	137	152
Hayden										**Target Seat Depa**	0	0	0	0
HDN	HDN	DL	319	124						0	0	0	0	0
HDN	HDN	DL	738	160						0	0	0	0	0
HDN	HDN	DL	E75	76						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Hibbing										**Target Seat Depa**	91	98	106	115
HIB	HIB	DL	SF3	34	3.0	3.0	3.0	3.0		102	102	102	102	0
HIB	HIB	DL	CRJ	50					2.3	0	0	0	0	115
HIB	HIB	SY	738	162						0	0	0	0	0
		Subtotal			3.0	3.0	3.0	3.0	2.3	102	102	102	102	115

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Helena										**Target Seat Depar**	104	116	132	150
HLN	HLN	DL	319	124		0.6	1.0	1.0		0	74	124	124	0
HLN	HLN	DL	CRJ	50						0	0	0	0	0
HLN	HLN	DL	CR7	70						0	0	0	0	0
HLN	HLN	DL	CR9	76	1.0	0.4			2.0	76	30	0	0	152
		Subtotal			1.0	1.0	1.0	1.0	2.0	76	105	124	124	152
Honolulu										**Target Seat Depar**	260	285	317	351
HNL	HNL	DL	333	298		0.9	1.0	1.0	1.2	0	268	298	298	358
HNL	HNL	DL	763	262						0	0	0	0	0
HNL	HNL	DL	764	246						0	0	0	0	0
HNL	HNL	DL	NGC	180						0	0	0	0	0
		Subtotal			0.0	0.9	1.0	1.0	1.2	0	268	298	298	358
Huron										**Target Seat Depar**	0	0	0	0
HON	HON	DL	SF3	34						0	0	0	0	0
HON	HON	DL	NGT	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Harlingen										**Target Seat Depar**	55	64	76	90
HRL	HRL	SY	737	168						0	0	0	0	0
HRL	HRL	SY	738	162		0.1	0.4			0	16	65	0	0
HRL	HRL	SY	73G	129		0.3		0.6	0.7	0	39	0	77	90
		Subtotal			0.0	0.4	0.4	0.6	0.7	0	55	65	77	90
HOU - Houston										**Target Seat Depar**	861	978	1138	1323
HOU	HOU	SY	738	162		1.0	1.0	1.0	1.0	0	162	162	162	162
IAH	HOU	CO	M80	144						0	0	0	0	0
IAH	HOU	CO	733	130						0	0	0	0	0
IAH	HOU	CO	735	104	1.0					104	0	0	0	0
IAH	HOU	CO	73G	124						0	0	0	0	0
IAH	HOU	CO	738	160						0	0	0	0	0
IAH	HOU	CO	739	173						0	0	0	0	0
IAH	HOU	CO	CRJ	50						0	0	0	0	0
IAH	HOU	CO	ERJ	50	5.0					250	0	0	0	0
IAH	HOU	CO	ER4	50						0	0	0	0	0
IAH	HOU	CO	CR7	70						0	0	0	0	0
IAH	HOU	UA	319	120			2.0	1.0	1.0	0	0	240	120	120
IAH	HOU	UA	ER4	50		5.0	4.0	5.0	4.0	0	250	200	250	200
IAH	HOU	UA	320	144		1.0				0	144	0	0	0
IAH	HOU	UA	738	160				1.0	2.0	0	0	0	160	320
IAH	HOU	DL	CR9	76	3.0	2.0	2.0	1.0	2.0	228	152	152	76	152
IAH	HOU	DL	E75	76	1.0	2.0	3.0	3.0	3.0	76	152	228	228	228
IAH	HOU	DL	M80	149						0	0	0	0	0
IAH	HOU	DL	320	148				1.0	1.0	0	0	0	148	148
IAH	HOU	DL	NGA	120						0	0	0	0	0
IAH	HOU	DL	319	124						0	0	0	0	0
IAH	HOU	DL	D9S	100						0	0	0	0	0
IAH	HOU	DL	D95	125						0	0	0	0	0
IAH	HOU	DL	M90	160						0	0	0	0	0
IAH	HOU	DL	CR7	70						0	0	0	0	0
IAH	HOU	DL	M88	142						0	0	0	0	0
IAH	HOU	SY	738	162						0	0	0	0	0
		Subtotal			10.0	11.0	12.0	13.0	14.0	658	860	982	1144	1330
Huntsville										**Target Seat Depar**	68	78	91	105
HSV	HSV	NW	CRJ	50						0	0	0	0	0
HSV	HSV	DL	E75	76		1.0	1.0	1.2	1.4	0	76	76	91	106
		Subtotal			0.0	1.0	1.0	1.2	1.4	0	76	76	91	106
Wichita										**Target Seat Depar**	120	132	147	164
ICT	ICT	DL	CR9	76			1.0	2.0	2.0	0	0	76	152	152
ICT	ICT	DL	CR7	70		1.0				0	70	0	0	0
ICT	ICT	DL	CRJ	50	3.0	1.0	1.0			150	50	50	0	0
		Subtotal			3.0	2.0	2.0	2.0	2.0	150	120	126	152	152

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Idaho Falls										**Target Seat Depa**	0	0	0	0
IDA	IDA	DL	CR9	76						0	0	0	0	0
IDA	IDA	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Bullhead City										**Target Seat Depa**	0	0	0	0
IFP	IFP	SY	738	162						0	0	0	0	0
IFP	IFP	SY	73G	129						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Iron Mountain, MI										**Target Seat Depa**	36	39	43	47
IMT	IMT	DL	SF3	34	1.0					34	0	0	0	0
IMT	IMT	DL	CRJ	50		0.7	0.8	0.9	1.0	0	35	40	45	50
IMT	IMT	DL	NGT	50						0	0	0	0	0
		Subtotal			1.0	0.7	0.8	0.9	1.0	34	35	40	45	50
Indianapolis										**Target Seat Depa**	624	689	775	872
IND	IND	DL	M80	149		2.0	1.0			0	298	149	0	0
IND	IND	DL	M90	160	1.0			1.0	1.0	160	0	0	160	160
IND	IND	DL	320	148		1.0	1.0	1.0		0	148	148	148	0
IND	IND	DL	319	124			2.0			0	0	248	0	0
IND	IND	DL	D9S	100						0	0	0	0	0
IND	IND	DL	738	160				2.0	4.0	0	0	0	320	640
IND	IND	DL	NGA	120						0	0	0	0	0
IND	IND	DL	NGC	180						0	0	0	0	0
IND	IND	DL	E75	76		1.0	2.0	2.0	1.0	0	76	152	152	76
IND	IND	DL	D95	125	1.0					125	0	0	0	0
IND	IND	DL	757	184						0	0	0	0	0
IND	IND	DL	CRJ	50	2.0	2.0				100	100	0	0	0
IND	IND	DL	CR9	76						0	0	0	0	0
IND	IND	DL	738	160						0	0	0	0	0
IND	IND	DL	M88	142	1.0					142	0	0	0	0
IND	IND	DL	D94	125						0	0	0	0	0
		Subtotal			5.0	6.0	6.0	6.0	6.0	527	622	697	780	876
International Falls										**Target Seat Depa**	117	126	137	149
INL	INL	NW	SF3	33						0	0	0	0	0
INL	INL	NW	CRJ	50						0	0	0	0	0
INL	INL	NW	CRJ	50						0	0	0	0	0
INL	INL	DL	SF3	34	3.0	2.0	1.0	1.0		102	68	34	34	0
INL	INL	DL	CRJ	50		1.0	2.0	2.0	3.0	0	50	100	100	150
INL	INL	DL	CR9	76						0	0	0	0	0
		Subtotal			3.0	3.0	3.0	3.0	3.0	102	118	134	134	150
Ironwood										**Target Seat Depa**	0	0	0	0
IWD	IWD	ZK	BE1	19						0	0	0	0	0
IWD	IWD	DL	SF3	34						0	0	0	0	0
IWD	IWD	DL	NGT	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Jackson Hole										**Target Seat Depa**	119	140	168	202
JAC	JAC	DL	319	124	1.0	1.0			1.6	124	124	0	0	198
JAC	JAC	DL	320	148			1.0			0	0	148	0	0
JAC	JAC	DL	738	160				1.0		0	0	0	160	0
		Subtotal			1.0	1.0	1.0	1.0	1.6	124	124	148	160	198
Jackson										**Target Seat Depa**	68	75	84	94
JAN	JAN	NW	CRJ	50						0	0	0	0	0
JAN	JAN	DL	CR9	76		1.0	1.0	1.0	0.6	0	76	76	76	46
JAN	JAN	DL	319	124					0.4	0	0	0	0	50
		Subtotal			0.0	1.0	1.0	1.0	1.0	0	76	76	76	95
Jacksonville										**Target Seat Depa**	214	241	277	318

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
JAX	JAX	NW	E75	76						0	0	0	0	0
JAX	JAX	NW	757	180						0	0	0	0	0
JAX	JAX	NW	320	148						0	0	0	0	0
JAX	JAX	NW	319	124						0	0	0	0	0
JAX	JAX	NW	D9S	100						0	0	0	0	0
JAX	JAX	NW	E90	100						0	0	0	0	0
JAX	JAX	NW	CR7	70						0	0	0	0	0
JAX	JAX	NW	CRJ	50						0	0	0	0	0
JAX	JAX	DL	E75	76	2.0	1.0	1.0			152	76	76	0	0
JAX	JAX	DL	CRJ	50						0	0	0	0	0
JAX	JAX	DL	M80	149		1.0				0	149	0	0	0
JAX	JAX	DL	738	160			1.0	1.0	2.0	0	0	160	160	320
JAX	JAX	DL	319	124				1.0		0	0	0	124	0
JAX	JAX	DL	CR7	70						0	0	0	0	0
JAX	JAX	DL	CR9	76						0	0	0	0	0
		Subtotal			2.0	2.0	2.0	2.0	2.0	152	225	236	284	320
Jamestown										**Target Seat Depar**		52	56	62	67
JMS	JMS	DL	SF3	34	2.0	1.6	1.7	1.8		68	54	58	61	0
JMS	JMS	DL	CRJ	50					1.4	0	0	0	0	70
JMS	JMS	ZK	BE1	19						0	0	0	0	0
		Subtotal			2.0	1.6	1.7	1.8	1.4	68	54	58	61	70
Juneau										**Target Seat Depar**		0	0	348	383
JNU	JNU	NW	CRJ	50						0	0	0	0	0
JNU	JNU	DL	321	180				1.9	2.1	0	0	0	342	378
		Subtotal			0.0	0.0	0.0	1.9	2.1	0	0	0	342	378
Lansing										**Target Seat Depar**		80	87	96	106
LAN	LAN	NW	DC9	78						0	0	0	0	0
LAN	LAN	NW	D9S	100						0	0	0	0	0
LAN	LAN	NW	D95	125						0	0	0	0	0
LAN	LAN	NW	E90	100						0	0	0	0	0
LAN	LAN	NW	CR9	76						0	0	0	0	0
LAN	LAN	NW	CR7	70						0	0	0	0	0
LAN	LAN	NW	CRJ	50						0	0	0	0	0
LAN	LAN	DL	CR9	76		1.0				0	76	0	0	0
LAN	LAN	DL	CR7	70						0	0	0	0	0
LAN	LAN	DL	CRJ	50	1.0		1.8	2.0	2.0	50	0	90	100	100
		Subtotal			1.0	1.0	1.8	2.0	2.0	50	76	90	100	100
Las Vegas										**Target Seat Depar**		1227	1418	1684	1997
LAS	LAS	US	320	150						0	0	0	0	0
LAS	LAS	US	319	124						0	0	0	0	0
LAS	LAS	US	320	150						0	0	0	0	0
LAS	LAS	HP	757	190						0	0	0	0	0
LAS	LAS	HP	733	134						0	0	0	0	0
LAS	LAS	HP	320	150						0	0	0	0	0
LAS	LAS	HP	319	124						0	0	0	0	0
LAS	LAS	MG	727	173						0	0	0	0	0
LAS	LAS	DL	753	223					1.0	0	0	0	0	223
LAS	LAS	DL	757	184	2.0	1.0	1.0			368	184	184	0	0
LAS	LAS	DL	76D	262						0	0	0	0	0
LAS	LAS	DL	764	246						0	0	0	0	0
LAS	LAS	DL	320	148	3.0	3.0	1.0	2.0		444	444	148	296	0
LAS	LAS	DL	738	160			2.0	3.0	2.0	0	0	320	480	320
LAS	LAS	DL	321	180				1.0	4.0	0	0	0	180	720
LAS	LAS	DL	NGD	225						0	0	0	0	0
LAS	LAS	DL	M90	160	1.0	1.0	2.0			160	160	320	0	0
LAS	LAS	DL	319	124				1.0		0	0	0	124	0
LAS	LAS	DL	738	160						0	0	0	0	0
LAS	LAS	WN	73G	137		2.0	2.0	2.0	3.0	0	274	274	274	411
LAS	LAS	SY	737	162						0	0	0	0	0
LAS	LAS	SY	738	162		1.0	1.0	2.0	2.0	0	162	162	324	324
LAS	LAS	SY	73G	129	1.0					129	0	0	0	0
		Subtotal			7.0	8.0	9.0	11.0	12.0	1101	1224	1408	1678	1998
Lubbock										**Target Seat Depar**		0	0	0	0
LBB	LBB	NW	CR7	70						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Lexington										**Target Seat Depa**	89	98	109	121
LEX	LEX	DL	CR7	70						0	0	0	0	0
LEX	LEX	DL	CRJ	50		1.8	2.0	2.0	1.0	0	90	100	100	50
LEX	LEX	DL	E75	76					1.0	0	0	0	0	76
		Subtotal			0.0	1.8	2.0	2.0	2.0	0	90	100	100	126
Little Rock										**Target Seat Depa**	65	72	82	92
LIT	LIT	NW	E75	76						0	0	0	0	0
LIT	LIT	NW	D9S	100						0	0	0	0	0
LIT	LIT	NW	CRJ	50						0	0	0	0	0
LIT	LIT	NW	CR7	70						0	0	0	0	0
LIT	LIT	NW	CRJ	50						0	0	0	0	0
LIT	LIT	DL	CR7	70						0	0	0	0	0
LIT	LIT	DL	CRJ	50					2.0	0	0	0	0	100
LIT	LIT	DL	E75	76		1.0	1.0	1.0		0	76	76	76	0
		Subtotal			0.0	1.0	1.0	1.0	2.0	0	76	76	76	100
Lincoln										**Target Seat Depa**	183	203	230	261
LNK	LNK	NW	SF3	33						0	0	0	0	0
LNK	LNK	NW	CRJ	50						0	0	0	0	0
LNK	LNK	NW	CRJ	50						0	0	0	0	0
LNK	LNK	NW	E90	100						0	0	0	0	0
LNK	LNK	NW	CR7	70						0	0	0	0	0
LNK	LNK	DL	CR7	70						0	0	0	0	0
LNK	LNK	DL	CRJ	50	4.0	2.0	4.0	3.0	2.0	200	100	200	150	100
LNK	LNK	DL	E75	76		1.0		1.0	2.0	0	76	0	76	152
		Subtotal			4.0	3.0	4.0	4.0	4.0	200	176	200	226	252
LOS - Los Angeles										**Target Seat Depa**	2365	2526	2855	3225
LAX	LOS	DL	757	184		2.0	1.0			0	368	184	0	0
LAX	LOS	DL	320	148	2.0		1.0	1.0	1.0	296	0	148	148	148
LAX	LOS	DL	319	124						0	0	0	0	0
LAX	LOS	DL	753	223	3.0	2.0	1.0	1.0		669	446	223	223	0
LAX	LOS	DL	76D	262		1.0	1.0	1.0	1.0	0	262	262	262	262
LAX	LOS	DL	764	246						0	0	0	0	0
LAX	LOS	DL	738	160	1.0	1.0	2.0	3.0	2.0	160	160	320	480	320
LAX	LOS	DL	321	180				1.0	3.0	0	0	0	180	540
LAX	LOS	DL	NGD	225						0	0	0	0	0
LAX	LOS	DL	744	403						0	0	0	0	0
LAX	LOS	DL	M90	160						0	0	0	0	0
LAX	LOS	DL	752	184						0	0	0	0	0
LAX	LOS	DL	738	160						0	0	0	0	0
LAX	LOS	SY	738	162		2.0	2.0	3.0	2.0	0	324	324	486	324
LAX	LOS	SY	73G	129	1.0				2.0	129	0	0	0	258
LAX	LOS	WN	73G	137			2.0	2.0	2.0	0	0	274	274	274
LAX	LOS	F9	319	132						0	0	0	0	0
ONT	LOS	DL	319	124						0	0	0	0	0
ONT	LOS	DL	738	160		2.0	2.0	2.0	3.0	0	320	320	320	480
SNA	LOS	DL	320	148					1.0	0	0	0	0	148
SNA	LOS	DL	319	124	3.0					372	0	0	0	0
SNA	LOS	DL	738	160		3.0	3.0	3.0	3.0	0	480	480	480	480
SNA	LOS	DL	NGA	120						0	0	0	0	0
		Subtotal			10.0	13.0	15.0	17.0	20.0	1626	2360	2535	2853	3234
La Crosse										**Target Seat Depa**	213	235	264	297
LSE	LSE	DL	CR7	70						0	0	0	0	0
LSE	LSE	DL	CRJ	50	5.0	3.6	3.0	4.0	3.0	250	180	150	200	150
LSE	LSE	DL	NGT	50						0	0	0	0	0
LSE	LSE	DL	SF3	34						0	0	0	0	0
LSE	LSE	DL	E75	76		0.4	1.0	1.0	2.0	0	30	76	76	152
LSE	LSE	DL	CR9	76						0	0	0	0	0
LSE	LSE	DL	NGA	120						0	0	0	0	0
LSE	LSE	SY	738	162						0	0	0	0	0
		Subtotal			5.0	4.0	4.0	5.0	5.0	250	210	226	276	302
Saginaw										**Target Seat Depa**	39	42	45	47
MBS	MBS	DL	CR9	76						0	0	0	0	0
MBS	MBS	DL	CRJ	50	1.0	1.0	1.0	1.0	1.0	50	50	50	50	50
MBS	MBS	DL	CR7	70						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
		Subtotal			1.0	1.0	1.0	1.0	1.0	50	50	50	50	50
Kansas City										**Target Seat Depa**	882	986	1123	1278
MCI	MCI	DL	D9S	100						0	0	0	0	0
MCI	MCI	DL	D95	125	4.0					500	0	0	0	0
MCI	MCI	DL	319	124	1.0	2.0	1.0	1.0		124	248	124	124	0
MCI	MCI	DL	738	160					3.0	0	0	0	0	480
MCI	MCI	DL	320	148				2.0		0	0	0	296	0
MCI	MCI	DL	M80	149		1.0	1.0	1.0		0	149	149	149	0
MCI	MCI	DL	M90	160	1.0	3.0	1.0		2.0	160	480	160	0	320
MCI	MCI	DL	NGA	120						0	0	0	0	0
MCI	MCI	DL	CR9	76			2.0	2.0	1.0	0	0	152	152	76
MCI	MCI	DL	CRJ	50						0	0	0	0	0
MCI	MCI	DL	CR7	70						0	0	0	0	0
MCI	MCI	DL	753	223						0	0	0	0	0
MCI	MCI	DL	M88	142						0	0	0	0	0
MCI	MCI	DL	E75	76						0	0	0	0	0
MCI	MCI	WN	73G	137			3.0	3.0	3.0	0	0	411	411	411
MCI	MCI	YX	FRJ	32						0	0	0	0	0
MCI	MCI	YX	717	88						0	0	0	0	0
		Subtotal			6.0	6.0	8.0	9.0	9.0	784	877	996	1132	1287
Orlando										**Target Seat Depa**	813	928	1082	1259
MCO	MCO	FL	73G	137						0	0	0	0	0
MCO	MCO	FL	717	117						0	0	0	0	0
MCO	MCO	DL	757	184	2.0		2.0			368	0	368	0	0
MCO	MCO	DL	320	148	2.0	2.0		1.0		296	296	0	148	0
MCO	MCO	DL	753	223						0	0	0	0	0
MCO	MCO	DL	319	124		1.0		2.0		0	124	0	248	0
MCO	MCO	DL	738	160			1.0	1.0		0	0	160	160	0
MCO	MCO	DL	763	262						0	0	0	0	0
MCO	MCO	DL	764	246						0	0	0	0	0
MCO	MCO	DL	321	180					4.0	0	0	0	0	720
MCO	MCO	DL	NGD	225						0	0	0	0	0
MCO	MCO	DL	M90	160						0	0	0	0	0
MCO	MCO	DL	738	160						0	0	0	0	0
MCO	MCO	DL	M88	142						0	0	0	0	0
MCO	MCO	WN	73G	137			2.0	2.0	2.0	0	0	274	274	274
MCO	MCO	WN	733	137		2.0				0	274	0	0	0
MCO	MCO	SY	737	162						0	0	0	0	0
MCO	MCO	SY	738	162						0	0	0	0	0
MCO	MCO	SY	73G	129	1.0	1.0	1.0	2.0	2.0	129	129	129	258	258
		Subtotal			5.0	6.0	6.0	8.0	8.0	793	823	931	1088	1252
Mason City										**Target Seat Depa**	97	106	117	128
MCW	MCW	DL	CRJ	50				1.0	2.6	0	0	0	50	130
MCW	MCW	DL	SF3	34	3.0	3.0	3.0	2.0		102	102	102	68	0
		Subtotal			3.0	3.0	3.0	3.0	2.6	102	102	102	118	130
Harrisburg										**Target Seat Depa**	0	101	112	123
MDT	MDT	DL	CR9	76				1.0	1.0	0	0	0	76	76
MDT	MDT	DL	CRJ	50			2.0	1.0	1.0	0	0	100	50	50
MDT	MDT	DL	CR7	70						0	0	0	0	0
		Subtotal			0.0	0.0	2.0	2.0	2.0	0	0	100	126	126
Memphis										**Target Seat Depa**	747	941	1193	1656
MEM	MEM	DL	CR9	76	1.0	1.0	2.0			76	76	152	0	0
MEM	MEM	DL	D9S	100						0	0	0	0	0
MEM	MEM	DL	D95	125	1.0					125	0	0	0	0
MEM	MEM	DL	320	148		1.0		1.0	2.0	0	148	0	148	296
MEM	MEM	DL	319	124	1.0	3.0				124	372	0	0	0
MEM	MEM	DL	753	223				1.0		0	0	0	223	0
MEM	MEM	DL	738	160	2.0		2.0	4.0	4.0	320	0	320	640	640
MEM	MEM	DL	M80	149		1.0	1.0			0	149	149	0	0
MEM	MEM	DL	M90	160			2.0			0	0	320	0	0
MEM	MEM	DL	NGA	120						0	0	0	0	0
MEM	MEM	DL	321	180				1.0	4.0	0	0	0	180	720
MEM	MEM	DL	CRJ	50						0	0	0	0	0
MEM	MEM	DL	CR7	70						0	0	0	0	0
MEM	MEM	DL	738	160						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

			Publ.			AWDPM Aircraft Departures					AWDPM Seat Departures				
								EA Analysis Pd.					EA Analysis Pd.		
	Airport	Market	Carrier	Equip	Seats	2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
	MEM	MEM	DL	M88	142						0	0	0	0	0
	MEM	MEM	DL	D94	125						0	0	0	0	0
	MEM	MEM	DL	E75	76						0	0	0	0	0
			Subtotal			5.0	6.0	7.0	7.0	10.0	645	745	941	1191	1656
Manchester											**Target Seat Depa**	127	142	163	187
	MHT	MHT	DL	CR9	76			2.0	2.0	1.2	0	0	152	152	91
	MHT	MHT	DL	319	124		1.0			0.8	0	124	0	0	99
	MHT	MHT	DL	CR7	70						0	0	0	0	0
			Subtotal			0.0	1.0	2.0	2.0	2.0	0	124	152	152	190
Miami											**Target Seat Depa**	549	612	695	789
	MIA	MIA	AA	M80	140						0	0	0	0	0
	MIA	MIA	AA	738	160	1.0	1.0	1.0	1.0	1.0	160	160	160	160	160
	MIA	MIA	AA	M83	140						0	0	0	0	0
	MIA	MIA	NW	757	180						0	0	0	0	0
	MIA	MIA	NW	320	148						0	0	0	0	0
	MIA	MIA	NW	319	124						0	0	0	0	0
	MIA	MIA	DL	757	184						0	0	0	0	0
	MIA	MIA	DL	320	148	2.0					296	0	0	0	0
	MIA	MIA	DL	319	124				2.0	1.0	0	0	0	248	124
	MIA	MIA	DL	321	180					1.0	0	0	0	0	180
	MIA	MIA	DL	738	160				1.0	1.0	0	0	0	160	160
	MIA	MIA	DL	M90	160		2.0	2.0			0	320	320	0	0
	MIA	MIA	DL	753	223						0	0	0	0	0
	MIA	MIA	DL	738	160						0	0	0	0	0
	MIA	MIA	DL	M88	142						0	0	0	0	0
	MIA	MIA	SY	738	162		0.4			1.0	0	65	0	0	162
	MIA	MIA	SY	73G	129			1.0	1.0		0	0	129	129	0
			Subtotal			3.0	3.4	4.0	5.0	5.0	456	545	609	697	786
Milwaukee											**Target Seat Depa**	1983	2131	2315	2516
	MKE	MKE	DL	D9S	100						0	0	0	0	0
	MKE	MKE	DL	D95	125	3.0					375	0	0	0	0
	MKE	MKE	DL	320	148		2.0	2.0	3.0	2.0	0	296	296	444	296
	MKE	MKE	DL	319	124	2.0	2.0		1.0		248	248	0	124	0
	MKE	MKE	DL	757	184						0	0	0	0	0
	MKE	MKE	DL	M80	149		2.0	2.0			0	298	298	0	0
	MKE	MKE	DL	M90	160	2.0	2.0	2.0	3.0	3.0	320	320	320	480	480
	MKE	MKE	DL	738	160			2.0	2.0	3.0	0	0	320	320	480
	MKE	MKE	DL	321	180					1.0	0	0	0	0	180
	MKE	MKE	DL	NGA	120						0	0	0	0	0
	MKE	MKE	DL	CR9	76						0	0	0	0	0
	MKE	MKE	DL	CRJ	50						0	0	0	0	0
	MKE	MKE	DL	CR7	70						0	0	0	0	0
	MKE	MKE	DL	738	160						0	0	0	0	0
	MKE	MKE	DL	D94	125						0	0	0	0	0
	MKE	MKE	DL	M88	142						0	0	0	0	0
	MKE	MKE	DL	E75	76	1.0					76	0	0	0	0
	MKE	MKE	YX	CRJ	50						0	0	0	0	0
	MKE	MKE	YX	717	88						0	0	0	0	0
	MKE	MKE	YX	FRJ	32						0	0	0	0	0
	MKE	MKE	YX	FRJ	32						0	0	0	0	0
	MKE	MKE	YX	ERJ	50	3.0					150	0	0	0	0
	MKE	MKE	YX	E70	76	2.0					152	0	0	0	0
	MKE	MKE	FL	73G	137						0	0	0	0	0
	MKE	MKE	FL	717	117	3.0					351	0	0	0	0
	MKE	MKE	F9	319	132		1.0	1.0	1.0	1.0	0	132	132	132	132
	MKE	MKE	F9	CS3	130			1.0	2.0	3.0	0	0	130	260	390
	MKE	MKE	F9	320	162		3.0	3.0	3.0	3.0	0	486	486	486	486
	MKE	MKE	F9	ERJ	50		1.0				0	50	0	0	0
	MKE	MKE	F9	ER3	32						0	0	0	0	0
	MKE	MKE	F9	E70	76		2.0	2.0	1.0	1.0	0	152	152	76	76
	MKE	MKE	F9	E90	99						0	0	0	0	0
			Subtotal			16.0	15.0	15.0	16.0	17.0	1672	1982	2134	2322	2520
Moline											**Target Seat Depa**	163	178	196	216
	MLI	MLI	DL	CR9	76			1.0		1.0	0	0	76	0	76
	MLI	MLI	DL	CR7	70						0	0	0	0	0
	MLI	MLI	DL	CRJ	50	3.0	3.2	2.0	4.0	3.0	150	160	100	200	150
	MLI	MLI	SY	738	162						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020	2025	2030	AWDPM Seat Departures 2010	2016	2020	2025	2030
							EA Analysis Pd.					EA Analysis Pd.		
		Subtotal			3.0	3.2	3.0	4.0	4.0	150	160	176	200	226
Mobile										**Target Seat Depar**	0	0	0	0
MOB	MOB	SY	738	162						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Minot										**Target Seat Depar**	332	362	398	438
MOT	MOT	DL	CR9	76						0	0	0	0	0
MOT	MOT	DL	320	148				1.0		0	0	0	148	0
MOT	MOT	DL	D9S	100						0	0	0	0	0
MOT	MOT	DL	M80	149			1.0			0	0	149	0	0
MOT	MOT	DL	738	160					1.0	0	0	0	0	160
MOT	MOT	DL	319	124						0	0	0	0	0
MOT	MOT	DL	CRJ	50	2.0	2.0	3.0	2.0	1.0	100	100	150	100	50
MOT	MOT	DL	E75	76	3.0	3.0	1.0	2.0	3.0	228	228	76	152	228
		Subtotal			5.0	5.0	5.0	5.0	5.0	328	328	375	400	438
Marquette										**Target Seat Depar**	94	103	114	126
MQT	MQT	DL	SF3	34						0	0	0	0	0
MQT	MQT	DL	CRJ	50		2.0	2.0	2.3	2.6	0	100	100	115	130
MQT	MQT	DL	CRJ	50	2.0					100	0	0	0	0
		Subtotal			2.0	2.0	2.0	2.3	2.6	100	100	100	115	130
Madison										**Target Seat Depar**	531	595	680	776
MSN	MSN	DL	D9S	100						0	0	0	0	0
MSN	MSN	DL	320	148		1.0	1.0	2.0	1.0	0	148	148	296	148
MSN	MSN	DL	319	124	1.0					124	0	0	0	0
MSN	MSN	DL	M80	149			1.0			0	0	149	0	0
MSN	MSN	DL	738	160		1.0			2.0	0	160	0	0	320
MSN	MSN	DL	NGA	120						0	0	0	0	0
MSN	MSN	DL	CRJ	50	2.0					100	0	0	0	0
MSN	MSN	DL	E75	76		2.0	3.0	3.0	2.0	0	152	228	228	152
MSN	MSN	DL	D95	125	3.0					375	0	0	0	0
MSN	MSN	DL	M90	160				1.0	1.0	0	0	0	160	160
MSN	MSN	DL	CR7	70						0	0	0	0	0
MSN	MSN	DL	CR9	76		1.0	1.0			0	76	76	0	0
MSN	MSN	DL	M88	142						0	0	0	0	0
MSN	MSN	SY	738	162						0	0	0	0	0
		Subtotal			6.0	5.0	6.0	6.0	6.0	599	536	601	684	780
Missoula										**Target Seat Depar**	167	189	220	254
MSO	MSO	DL	319	124			1.0		2.0	0	0	124	0	248
MSO	MSO	DL	M80	149				1.0		0	0	0	149	0
MSO	MSO	DL	NGA	120						0	0	0	0	0
MSO	MSO	DL	E75	76	2.0	2.0	1.0	1.0		152	152	76	76	0
MSO	MSO	DL	738	160						0	0	0	0	0
		Subtotal			2.0	2.0	2.0	2.0	2.0	152	152	200	225	248
New Orleans										**Target Seat Depar**	124	137	153	171
MSY	MSY	DL	CR9	76		1.7	1.8	2.0	1.6	0	129	137	152	122
MSY	MSY	DL	D9S	100						0	0	0	0	0
MSY	MSY	DL	NGA	120						0	0	0	0	0
MSY	MSY	DL	320	148						0	0	0	0	0
MSY	MSY	DL	M90	160						0	0	0	0	0
MSY	MSY	DL	319	124					0.4	0	0	0	0	50
MSY	MSY	DL	753	223						0	0	0	0	0
MSY	MSY	DL	E75	76	2.0					152	0	0	0	0
MSY	MSY	WN	73G	137						0	0	0	0	0
MSY	MSY	SY	738	168						0	0	0	0	0
		Subtotal			2.0	1.7	1.8	2.0	2.0	152	129	137	152	171
Montrose										**Target Seat Depar**	0	0	0	0
MTJ	MTJ	DL	CR9	76						0	0	0	0	0
MTJ	MTJ	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Myrtle Beach										**Target Seat Depar**	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
MYR	MYR	DL	CR9	76						0	0	0	0	0
MYR	MYR	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
NYC - New York										**Target Seat Depar**	3097	3260	3619	4018
EWR	NYC	CO	733	130						0	0	0	0	0
EWR	NYC	CO	735	104						0	0	0	0	0
EWR	NYC	CO	73G	124						0	0	0	0	0
EWR	NYC	CO	738	160						0	0	0	0	0
EWR	NYC	CO	ERJ	50	6.0					300	0	0	0	0
EWR	NYC	CO	ER4	50						0	0	0	0	0
EWR	NYC	CO	E70	70						0	0	0	0	0
EWR	NYC	UA	ER4	50		5.0	5.0	4.0	4.0	0	250	250	200	200
EWR	NYC	UA	738	160					2.0	0	0	0	0	320
EWR	NYC	UA	319	120		1.0	1.0	2.0		0	120	120	240	0
EWR	NYC	DL	E75	76	1.0	1.0	1.0	1.0		76	76	76	76	0
EWR	NYC	DL	320	148		1.0	1.0	2.0	1.0	0	148	148	296	148
EWR	NYC	DL	319	124	1.0	1.0			1.0	124	124	0	0	124
EWR	NYC	DL	M80	149						0	0	0	0	0
EWR	NYC	DL	M90	160		1.0	2.0	2.0	2.0	0	160	320	320	320
EWR	NYC	DL	738	160					1.0	0	0	0	0	160
EWR	NYC	DL	D9S	100						0	0	0	0	0
EWR	NYC	DL	D95	125	1.0					125	0	0	0	0
EWR	NYC	DL	757	184						0	0	0	0	0
EWR	NYC	DL	CRJ	50						0	0	0	0	0
EWR	NYC	DL	CR7	70						0	0	0	0	0
EWR	NYC	DL	CR9	76		1.0	1.0			0	76	76	0	0
EWR	NYC	DL	738	160	1.0					160	0	0	0	0
EWR	NYC	DL	M88	142	1.0					142	0	0	0	0
EWR	NYC	DL	NGA	120						0	0	0	0	0
HPN	NYC	DL	CRJ	50						0	0	0	0	0
HPN	NYC	DL	CR9	76						0	0	0	0	0
JFK	NYC	DL	CRJ	50						0	0	0	0	0
JFK	NYC	DL	CR7	70						0	0	0	0	0
JFK	NYC	DL	CR9	76	2.0	2.0	1.0	1.0		152	152	76	76	0
JFK	NYC	DL	320	148						0	0	0	0	0
JFK	NYC	DL	319	124			2.0	1.0	1.0	0	0	248	124	124
JFK	NYC	DL	M90	160		1.0		1.0	1.0	0	160	0	160	160
JFK	NYC	DL	738	160				1.0	1.0	0	0	0	160	160
JFK	NYC	DL	321	180					1.0	0	0	0	0	180
JFK	NYC	DL	NGA	120						0	0	0	0	0
JFK	NYC	DL	D95	125						0	0	0	0	0
JFK	NYC	DL	767	262						0	0	0	0	0
JFK	NYC	DL	757	184						0	0	0	0	0
JFK	NYC	DL	752	184						0	0	0	0	0
JFK	NYC	DL	M80	149	1.0	1.0	1.0			149	149	149	0	0
JFK	NYC	DL	E75	76	1.0					76	0	0	0	0
JFK	NYC	B6	E90	100		2.0	3.0	3.0	4.0	0	200	300	300	400
JFK	NYC	SY	738	162	1.0	0.4	0.6	1.0	1.0	162	65	97	162	162
JFK	NYC	SY	73G	129		0.6	0.4			0	77	52	0	0
LGA	NYC	AA	M80	140						0	0	0	0	0
LGA	NYC	AA	738	160				1.0	1.0	0	0	0	160	160
LGA	NYC	AA	CR7	70		4.0	4.0	3.0	3.0	0	280	280	210	210
LGA	NYC	DL	320	148	2.0	3.0	3.0	1.0		296	444	444	148	0
LGA	NYC	DL	319	124	2.0					248	0	0	0	0
LGA	NYC	DL	M80	149		2.0	1.0			0	298	149	0	0
LGA	NYC	DL	M90	160		1.0	2.0	2.0	1.0	0	160	320	320	160
LGA	NYC	DL	738	160		1.0	1.0	2.0	2.0	0	160	160	320	320
LGA	NYC	DL	757	184						0	0	0	0	0
LGA	NYC	DL	321	180				2.0	4.0	0	0	0	360	720
LGA	NYC	DL	CR9	76						0	0	0	0	0
LGA	NYC	DL	738	160						0	0	0	0	0
LGA	NYC	DL	M88	142	3.0					426	0	0	0	0
LGA	NYC	DL	E75	76						0	0	0	0	0
		Subtotal			24.0	29.0	30.0	30.0	31.0	2436	3099	3265	3632	4028
Kahului										**Target Seat Depar**	134	152	176	204
OGG	OGG	DL	76D	262		0.6	0.6	0.7	0.8	0	157	157	183	210
OGG	OGG	DL	NGC	180						0	0	0	0	0
		Subtotal			0.0	0.6	0.6	0.7	0.8	0	157	157	183	210
Oklahoma City										**Target Seat Depar**	134	148	167	189
OKC	OKC	DL	CRJ	50	2.0	2.7		2.0	1.4	100	135	0	100	70
OKC	OKC	DL	CR7	70	1.0					70	0	0	0	0
OKC	OKC	DL	E75	76						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

			Publ.			AWDPM Aircraft Departures					AWDPM Seat Departures				
								EA Analysis Pd.					EA Analysis Pd.		
	Airport	Market	Carrier	Equip	Seats	2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
	OKC	OKC	DL	CR9	76			2.0	1.0	1.6	0	0	152	76	122
			Subtotal			3.0	2.7	2.0	3.0	3.0	170	135	152	176	192
Omaha											**Target Seat Depa**	714	788	884	992
	OMA	OMA	DL	CRJ	50	2.0	3.0				100	150	0	0	0
	OMA	OMA	DL	CR7	70	2.0					140	0	0	0	0
	OMA	OMA	DL	E75	76						0	0	0	0	0
	OMA	OMA	DL	CR9	76	1.0		4.0	3.0	2.0	76	0	304	228	152
	OMA	OMA	DL	D9S	100						0	0	0	0	0
	OMA	OMA	DL	320	148						0	0	0	0	0
	OMA	OMA	DL	319	124	1.0	2.0				124	248	0	0	0
	OMA	OMA	DL	M80	149		1.0				0	149	0	0	0
	OMA	OMA	DL	M90	160		1.0	3.0	1.0	1.0	0	160	480	160	160
	OMA	OMA	DL	738	160				2.0	2.0	0	0	0	320	320
	OMA	OMA	DL	321	180				1.0	2.0	0	0	0	180	360
	OMA	OMA	DL	D95	125	2.0					250	0	0	0	0
	OMA	OMA	DL	M88	142						0	0	0	0	0
	OMA	OMA	DL	D94	125						0	0	0	0	0
	OMA	OMA	DL	E75	76						0	0	0	0	0
	OMA	OMA	SY	738	162						0	0	0	0	0
			Subtotal			8.0	7.0	7.0	7.0	7.0	690	707	784	888	992
Norfolk											**Target Seat Depa**	90	100	113	128
	ORF	ORF	DL	CRJ	50						0	0	0	0	0
	ORF	ORF	DL	319	124				1.0	1.0	0	0	0	124	124
	ORF	ORF	DL	E75	76	2.0	0.8	0.7			152	61	53	0	0
	ORF	ORF	DL	M80	149		0.2	0.3			0	30	45	0	0
	ORF	ORF	DL	CR9	76						0	0	0	0	0
	ORF	ORF	DL	M88	142						0	0	0	0	0
			Subtotal			2.0	1.0	1.0	1.0	1.0	152	91	98	124	124
West Palm Beach											**Target Seat Depa**	162	185	217	254
	PBI	PBI	DL	738	160		1.0				0	160	0	0	0
	PBI	PBI	DL	757	184			1.0			0	0	184	0	0
	PBI	PBI	DL	319	124				2.0	2.0	0	0	0	248	248
	PBI	PBI	SY	738	162						0	0	0	0	0
	PBI	PBI	SY	73G	129						0	0	0	0	0
			Subtotal			0.0	1.0	1.0	2.0	2.0	0	160	184	248	248
Portland, OR											**Target Seat Depa**	970	1150	1385	1750
	PDX	PDX	DL	738	160					2.0	0	0	0	0	320
	PDX	PDX	DL	757	184	1.0	2.0	2.0			184	368	368	0	0
	PDX	PDX	DL	319	124						0	0	0	0	0
	PDX	PDX	DL	320	148						0	0	0	0	0
	PDX	PDX	DL	753	223	2.0	2.0	1.0	1.0		446	446	223	223	0
	PDX	PDX	DL	321	180				2.0	3.0	0	0	0	360	540
	PDX	PDX	DL	NGD	225						0	0	0	0	0
	PDX	PDX	DL	M90	160	2.0		1.0	1.0		320	0	160	160	0
	PDX	PDX	DL	738	160				1.0	1.0	0	0	0	160	160
	PDX	PDX	DL	752	184						0	0	0	0	0
	PDX	PDX	AS	73G	124			2.0		2.0	0	0	248	0	248
	PDX	PDX	AS	738	160				2.0	2.0	0	0	0	320	320
	PDX	PDX	SY	738	162		1.0	1.0	1.0	1.0	0	162	162	162	162
			Subtotal			5.0	5.0	7.0	8.0	11.0	950	976	1161	1385	1750
Philadelphia											**Target Seat Depa**	1214	1337	1495	1672
	PHL	PHL	US	737	126						0	0	0	0	0
	PHL	PHL	US	733	126						0	0	0	0	0
	PHL	PHL	US	320	142		1.0	1.0	1.0	1.0	0	142	142	142	142
	PHL	PHL	US	734	144						0	0	0	0	0
	PHL	PHL	US	32S	150						0	0	0	0	0
	PHL	PHL	US	319	124	2.0	1.0			1.0	248	124	0	0	124
	PHL	PHL	US	E70	76						0	0	0	0	0
	PHL	PHL	US	E75	76	2.0	2.0	2.0	1.0	1.0	152	152	152	76	76
	PHL	PHL	US	CRJ	50						0	0	0	0	0
	PHL	PHL	US	CRJ	50						0	0	0	0	0
	PHL	PHL	US	CRJ	50						0	0	0	0	0
	PHL	PHL	US	E70	72						0	0	0	0	0
	PHL	PHL	US	321	183			1.0	1.0	1.0	0	0	183	183	183
	PHL	PHL	US	E90	99		1.0	1.0	2.0	1.0	0	99	99	198	99

Table 5.8

MSP Domestic Departure Projections by Market

	Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
	PHL	PHL	WN	73G	137						0	0	0	0	0
	PHL	PHL	DL	E75	76	1.0	1.0	1.0	1.0	1.0	76	76	76	76	76
	PHL	PHL	DL	D9S	100						0	0	0	0	0
	PHL	PHL	DL	738	160				1.0	1.0	0	0	0	160	160
	PHL	PHL	DL	M80	149						0	0	0	0	0
	PHL	PHL	DL	M90	160		2.0	2.0	2.0	2.0	0	320	320	320	320
	PHL	PHL	DL	321	180						0	0	0	0	0
	PHL	PHL	DL	320	148			1.0		1.0	0	0	148	0	148
	PHL	PHL	DL	319	124	2.0					248	0	0	0	0
	PHL	PHL	DL	D95	125						0	0	0	0	0
	PHL	PHL	DL	757	184	1.0					184	0	0	0	0
	PHL	PHL	DL	CRJ	50						0	0	0	0	0
	PHL	PHL	DL	CR7	70						0	0	0	0	0
	PHL	PHL	DL	753	223		1.0	1.0	1.0	1.0	0	223	223	223	223
	PHL	PHL	DL	CR9	76	1.0	1.0				76	76	0	0	0
	PHL	PHL	DL	738	160						0	0	0	0	0
	PHL	PHL	DL	M88	142						0	0	0	0	0
	PHL	PHL	SY	73G	129				1.0	1.0	0	0	0	129	129
			Subtotal			9.0	10.0	10.0	11.0	12.0	984	1212	1343	1507	1680
Phoenix											**Target Seat Depa**	1958	2213	2554	2942
	PHX	PHX	US	733	134						0	0	0	0	0
	PHX	PHX	US	320	150		2.0	1.0	1.0	2.0	0	300	150	150	300
	PHX	PHX	US	321	183	1.0	1.0	2.0	3.0	4.0	183	183	366	549	732
	PHX	PHX	US	319	124	1.0	1.0	1.0	1.0		124	124	124	124	0
	PHX	PHX	US	752	190						0	0	0	0	0
	PHX	PHX	US	733	126						0	0	0	0	0
	PHX	PHX	US	320	142	2.0					284	0	0	0	0
	PHX	PHX	US	319	120						0	0	0	0	0
	PHX	PHX	WN	73G	137		1.0	4.0	5.0	6.0	0	137	548	685	822
	PHX	PHX	WN	733	137		2.0				0	274	0	0	0
	PHX	PHX	WN	735	122						0	0	0	0	0
	PHX	PHX	WN	717	122		1.0	1.0			0	122	122	0	0
	PHX	PHX	SY	737	162						0	0	0	0	0
	PHX	PHX	SY	738	162						0	0	0	0	0
	PHX	PHX	SY	73G	129						0	0	0	0	0
	PHX	PHX	DL	738	160		1.0	1.0			0	160	160	0	0
	PHX	PHX	DL	M80	149						0	0	0	0	0
	PHX	PHX	DL	M90	160		3.0	3.0	2.0		0	480	480	320	0
	PHX	PHX	DL	NGA	120						0	0	0	0	0
	PHX	PHX	DL	320	148	6.0		1.0		1.0	888	0	148	0	148
	PHX	PHX	DL	319	124			1.0			0	0	124	0	0
	PHX	PHX	DL	757	184		1.0				0	184	0	0	0
	PHX	PHX	DL	753	223					1.0	0	0	0	0	223
	PHX	PHX	DL	76D	262						0	0	0	0	0
	PHX	PHX	DL	321	180				4.0	4.0	0	0	0	720	720
	PHX	PHX	DL	NGD	225						0	0	0	0	0
	PHX	PHX	DL	752	184						0	0	0	0	0
	PHX	PHX	DL	738	160						0	0	0	0	0
			Subtotal			10.0	13.0	15.0	16.0	18.0	1479	1964	2222	2548	2945
Peroia											**Target Seat Depa**	99	107	118	130
	PIA	PIA	DL	SF3	34						0	0	0	0	0
	PIA	PIA	DL	CR9	76				1.0	1.0	0	0	0	76	76
	PIA	PIA	DL	CRJ	50	2.0	2.0	2.0	1.0	1.0	100	100	100	50	50
			Subtotal			2.0	2.0	2.0	2.0	2.0	100	100	100	126	126
Pierre											**Target Seat Depa**	59	65	72	81
	PIR	PIR	DL	CRJ	50				0.3	1.6	0	0	0	15	80
	PIR	PIR	DL	SF3	34	2.0	2.0	2.0	1.7		68	68	68	58	0
			Subtotal			2.0	2.0	2.0	2.0	1.6	68	68	68	73	80
Pittsburgh											**Target Seat Depa**	394	429	474	523
	PIT	PIT	DL	CRJ	50	1.0	2.0				50	100	0	0	0
	PIT	PIT	DL	E75	76		1.0	2.0	2.0	3.0	0	76	152	152	228
	PIT	PIT	DL	D9S	100						0	0	0	0	0
	PIT	PIT	DL	738	160					1.0	0	0	0	0	160
	PIT	PIT	DL	319	124	1.0		1.0	2.0		124	0	124	248	0
	PIT	PIT	DL	NGA	120						0	0	0	0	0
	PIT	PIT	DL	320	148		1.0			1.0	0	148	0	0	148
	PIT	PIT	DL	M90	160						0	0	0	0	0
	PIT	PIT	DL	M80	149						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
PIT	PIT	DL	D95	125						0	0	0	0	0
PIT	PIT	DL	757	184						0	0	0	0	0
PIT	PIT	DL	CR7	70	1.0					70	0	0	0	0
PIT	PIT	DL	CR9	76	2.0	1.0	2.0	1.0		152	76	152	76	0
PIT	PIT	DL	M88	142						0	0	0	0	0
		Subtotal			5.0	5.0	5.0	5.0	5.0	396	400	428	476	536
Emmet County, MI										**Target Seat Depar**	0	0	0	0
PLN	PLN	DL	SF3	34						0	0	0	0	0
PLN	PLN	DL	CRJ	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Pensacola										**Target Seat Depar**	0	0	0	0
PNS	PNS	DL	CRJ	50						0	0	0	0	0
PNS	PNS	DL	E75	76						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Pasco										**Target Seat Depar**	101	116	138	162
PSC	PSC	DL	E75	76		0.4	0.2		1.7	0	30	15	0	129
PSC	PSC	DL	319	124		0.6	0.8	0.6	0.3	0	74	99	74	37
PSC	PSC	DL	320	148				0.4		0	0	0	59	0
PSC	PSC	DL	CR9	76	1.0					76	0	0	0	0
PSC	PSC	SY	738	162						0	0	0	0	0
		Subtotal			1.0	1.0	1.0	1.0	2.0	76	105	114	134	166
Palm Springs										**Target Seat Depar**	0	0	0	0
PSP	PSP	DL	738	160						0	0	0	0	0
PSP	PSP	DL	NGA	120						0	0	0	0	0
PSP	PSP	DL	319	124						0	0	0	0	0
PSP	PSP	DL	320	148						0	0	0	0	0
PSP	PSP	SY	738	162						0	0	0	0	0
PSP	PSP	SY	73G	129						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Providence										**Target Seat Depar**	148	162	181	201
PVD	PVD	DL	NGA	120						0	0	0	0	0
PVD	PVD	DL	CR9	76		1.0	1.0	1.0	1.0	0	76	76	76	76
PVD	PVD	DL	CRJ	50						0	0	0	0	0
PVD	PVD	DL	CR7	70						0	0	0	0	0
PVD	PVD	DL	320	148						0	0	0	0	0
PVD	PVD	DL	M90	160						0	0	0	0	0
PVD	PVD	DL	319	124	1.0			0.6	1.0	124	0	0	74	124
PVD	PVD	DL	M88	142						0	0	0	0	0
PVD	PVD	DL	E75	76		1.0	1.0	0.4		0	76	76	30	0
		Subtotal			1.0	2.0	2.0	2.0	2.0	124	152	152	181	200
Portland, ME										**Target Seat Depar**	0	0	0	98
PWM	PWM	DL	CR9	76					0.6	0	0	0	0	46
PWM	PWM	DL	319	124					0.4	0	0	0	0	50
		Subtotal			0.0	0.0	0.0	0.0	1.0	0	0	0	0	95
Rapid City										**Target Seat Depar**	432	479	541	611
RAP	RAP	DL	CR9	76		1.0	2.0		2.0	0	76	152	0	152
RAP	RAP	DL	CRJ	50	4.0	2.0	1.0	2.0		200	100	50	100	0
RAP	RAP	DL	M80	149						0	0	0	0	0
RAP	RAP	DL	D9S	100						0	0	0	0	0
RAP	RAP	DL	319	124	1.0	2.0	1.0	1.0		124	248	124	124	0
RAP	RAP	DL	M90	160			1.0	2.0	2.0	0	0	160	320	320
RAP	RAP	DL	D95	125						0	0	0	0	0
RAP	RAP	DL	320	148					1.0	0	0	0	0	148
		Subtotal			5.0	5.0	5.0	5.0	5.0	324	424	486	544	620
Raleigh-Durham										**Target Seat Depar**	384	445	527	621
RDU	RDU	DL	CR9	76	2.0	1.0				152	76	0	0	0
RDU	RDU	DL	M80	149		1.0	2.0			0	149	298	0	0
RDU	RDU	DL	M90	160		1.0		1.0	1.0	0	160	0	160	160

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020	2025	2030	AWDPM Seat Departures 2010	2016	2020	2025	2030
							EA Analysis Pd.					EA Analysis Pd.		
RDU	RDU	DL	320	148	1.0		1.0		1.0	148	0	148	0	148
RDU	RDU	DL	319	124	1.0			3.0		124	0	0	372	0
RDU	RDU	DL	738	160					2.0	0	0	0	0	320
RDU	RDU	DL	NGA	120						0	0	0	0	0
RDU	RDU	DL	D9S	100						0	0	0	0	0
RDU	RDU	DL	D95	125						0	0	0	0	0
RDU	RDU	DL	CR7	70						0	0	0	0	0
RDU	RDU	DL	M88	142						0	0	0	0	0
RDU	RDU	DL	E75	76						0	0	0	0	0
		Subtotal			4.0	3.0	3.0	4.0	4.0	424	385	446	532	628
Greater Rockford Airport										**Target Seat Depar**	0	1	1	1
RFD	RFD	SY	738	162		0.0	0.0	0.0	0.0	0	0	1	1	1
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	1	1	1
Rhinelander										**Target Seat Depar**	135	149	167	188
RHI	RHI	DL	SF3	34	4.0	1.0				136	34	0	0	0
RHI	RHI	DL	CRJ	50		2.0	3.0	2.0	2.0	0	100	150	100	100
RHI	RHI	DL	CR9	76				1.0	1.0	0	0	0	76	76
		Subtotal			4.0	3.0	3.0	3.0	3.0	136	134	150	176	176
Richmond										**Target Seat Depar**	81	92	106	123
RIC	RIC	DL	CRJ	50						0	0	0	0	0
RIC	RIC	DL	319	124			0.3	0.6	1.0	0	0	37	74	124
RIC	RIC	DL	CR9	76						0	0	0	0	0
RIC	RIC	DL	E75	76	1.0	1.0	0.7	0.4		76	76	53	30	0
		Subtotal			1.0	1.0	1.0	1.0	1.0	76	76	90	105	124
Reno										**Target Seat Depar**	132	149	173	200
RNO	RNO	DL	320	148			1.0			0	0	148	0	0
RNO	RNO	DL	319	124		1.0				0	124	0	0	0
RNO	RNO	DL	738	160						0	0	0	0	0
RNO	RNO	DL	M90	160						0	0	0	0	0
RNO	RNO	DL	NGA	120						0	0	0	0	0
RNO	RNO	DL	321	180				1.0	1.0	0	0	0	180	180
RNO	RNO	SY	738	162					0.1	0	0	0	0	16
		Subtotal			0.0	1.0	1.0	1.0	1.1	0	124	148	180	196
Roanoke										**Target Seat Depar**	0	0	0	0
ROA	ROA	DL	CR7	70						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Rochester, NY										**Target Seat Depar**	95	104	114	125
ROC	ROC	DL	CRJ	50	1.0					50	0	0	0	0
ROC	ROC	DL	CR7	70						0	0	0	0	0
ROC	ROC	DL	CR9	76		0.6	0.4	0.2		0	46	30	15	0
ROC	ROC	DL	319	124		0.4	0.6	0.8	1.0	0	50	74	99	124
ROC	ROC	DL	E75	76						0	0	0	0	0
		Subtotal			1.0	1.0	1.0	1.0	1.0	50	95	105	114	124
Rochester, MN										**Target Seat Depar**	246	267	307	353
RST	RST	DL	CRJ	50	4.0	5.0	4.0	3.0	3.0	200	250	200	150	150
RST	RST	DL	CR7	70			1.0			0	0	70	0	0
RST	RST	DL	E75	76						0	0	0	0	0
RST	RST	DL	NGT	50						0	0	0	0	0
RST	RST	DL	SF3	34	1.0					34	0	0	0	0
RST	RST	DL	D9S	100						0	0	0	0	0
RST	RST	DL	M80	149						0	0	0	0	0
RST	RST	DL	319	124					1.0	0	0	0	0	124
RST	RST	DL	CR9	76				2.0	1.0	0	0	0	152	76
RST	RST	SY	738	162						0	0	0	0	0
		Subtotal			5.0	5.0	5.0	5.0	5.0	234	250	270	302	350
Fort Myers										**Target Seat Depar**	194	217	259	309
RSW	RSW	DL	M80	149						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
RSW	RSW	DL	M90	160						0	0	0	0	0
RSW	RSW	DL	757	184		1.0				0	184	0	0	0
RSW	RSW	DL	320	148	1.0				1.0	148	0	0	0	148
RSW	RSW	DL	319	124			1.8	2.0		0	0	223	248	0
RSW	RSW	DL	738	160					1.0	0	0	0	0	160
RSW	RSW	DL	321	180						0	0	0	0	0
RSW	RSW	DL	753	223						0	0	0	0	0
RSW	RSW	DL	M88	142						0	0	0	0	0
RSW	RSW	SY	737	162						0	0	0	0	0
RSW	RSW	SY	738	162						0	0	0	0	0
RSW	RSW	SY	73G	129						0	0	0	0	0
		Subtotal			1.0	1.0	1.8	2.0	2.0	148	184	223	248	308
San Diego										**Target Seat Depa**	813	874	997	1137
SAN	SAN	DL	757	184			1.0			0	0	184	0	0
SAN	SAN	DL	320	148	1.0	1.0				148	148	0	0	0
SAN	SAN	DL	319	124					1.0	0	0	0	0	124
SAN	SAN	DL	738	160	1.0	2.0	2.0	2.0	2.0	160	320	320	320	320
SAN	SAN	DL	321	180				2.0	3.0	0	0	0	360	540
SAN	SAN	DL	NGA	120						0	0	0	0	0
SAN	SAN	DL	NGD	225						0	0	0	0	0
SAN	SAN	DL	M90	160	2.0	2.0	2.0	1.0		320	320	320	160	0
SAN	SAN	DL	738	160						0	0	0	0	0
SAN	SAN	WN	73G	137						0	0	0	0	0
SAN	SAN	SY	737	162						0	0	0	0	0
SAN	SAN	SY	738	162		0.2	0.3	1.0	1.0	0	32	49	162	162
SAN	SAN	SY	73G	129	1.0					129	0	0	0	0
		Subtotal			5.0	5.2	5.3	6.0	7.0	757	820	873	1002	1146
San Antonio										**Target Seat Depa**	251	288	338	394
SAT	SAT	DL	NGA	120						0	0	0	0	0
SAT	SAT	DL	E75	76	2.0			3.0	3.0	152	0	0	228	228
SAT	SAT	DL	M80	149						0	0	0	0	0
SAT	SAT	DL	M90	160			1.0			0	0	160	0	0
SAT	SAT	DL	319	124	1.0	2.0	1.0	1.0		124	248	124	124	0
SAT	SAT	DL	738	160					1.0	0	0	0	0	160
SAT	SAT	DL	320	148						0	0	0	0	0
SAT	SAT	DL	CR7	70						0	0	0	0	0
SAT	SAT	DL	CR9	76						0	0	0	0	0
SAT	SAT	DL	M88	142						0	0	0	0	0
		Subtotal			3.0	2.0	2.0	4.0	4.0	276	248	284	352	388
Savannah										**Target Seat Depa**	0	0	0	103
SAV	SAV	DL	319	124					0.8	0	0	0	0	99
SAV	SAV	DL	CR9	76						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.8	0	0	0	0	99
South Bend										**Target Seat Depa**	64	67	74	82
SBN	SBN	DL	CRJ	50	2.0	0.4	0.3			100	20	15	0	0
SBN	SBN	DL	CR7	70						0	0	0	0	0
SBN	SBN	DL	E75	76		0.6	0.7	1.0	1.0	0	46	53	76	76
		Subtotal			2.0	1.0	1.0	1.0	1.0	100	66	68	76	76
Louisville										**Target Seat Depa**	225	238	266	298
SDF	SDF	DL	CRJ	50	2.0					100	0	0	0	0
SDF	SDF	DL	CR7	70	1.0					70	0	0	0	0
SDF	SDF	DL	E75	76	1.0	1.0	3.0	2.0	4.0	76	76	228	152	304
SDF	SDF	DL	NGA	120						0	0	0	0	0
SDF	SDF	DL	D9S	100						0	0	0	0	0
SDF	SDF	DL	D95	125						0	0	0	0	0
SDF	SDF	DL	319	124				1.0		0	0	0	124	0
SDF	SDF	DL	CR9	76						0	0	0	0	0
SDF	SDF	DL	M80	149		1.0				0	149	0	0	0
		Subtotal			4.0	2.0	3.0	3.0	4.0	246	225	228	276	304
Seattle										**Target Seat Depa**	2510	2594	2804	2839
SEA	SEA	NW	747	349						0	0	0	0	0
SEA	SEA	NW	757	180						0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
SEA	SEA	NW	320	148						0	0	0	0	0
SEA	SEA	NW	319	124						0	0	0	0	0
SEA	SEA	NW	333	298						0	0	0	0	0
SEA	SEA	NW	753	224						0	0	0	0	0
SEA	SEA	AS	738	160		3.0	4.0	5.0	5.0	0	480	640	800	800
SEA	SEA	AS	73G	124						0	0	0	0	0
SEA	SEA	AS	739	172						0	0	0	0	0
SEA	SEA	AS	738	160	2.0					320	0	0	0	0
SEA	SEA	WN	73G	137						0	0	0	0	0
SEA	SEA	DL	319	124						0	0	0	0	0
SEA	SEA	DL	738	160			1.0	2.0	2.0	0	0	160	320	320
SEA	SEA	DL	753	223	6.0	6.0	5.0	5.0	5.0	1338	1338	1115	1115	1115
SEA	SEA	DL	757	184	2.0	2.0	2.0			368	368	368	0	0
SEA	SEA	DL	320	148						0	0	0	0	0
SEA	SEA	DL	76D	262						0	0	0	0	0
SEA	SEA	DL	321	180				1.0	1.0	0	0	0	180	180
SEA	SEA	DL	NGD	225						0	0	0	0	0
SEA	SEA	DL	M90	160						0	0	0	0	0
SEA	SEA	DL	738	160						0	0	0	0	0
SEA	SEA	DL	M88	142						0	0	0	0	0
SEA	SEA	SY	738	162	1.0	2.0	2.0		1.0	162	324	324	0	162
SEA	SEA	SY	73G	129	1.0			3.0	2.0	129	0	0	387	258
		Subtotal			12.0	13.0	14.0	16.0	16.0	2317	2510	2607	2802	2835
SFO - San Francisco										**Target Seat Depar**	2205	2393	2762	3276
OAK	SFO	B6	320	156						0	0	0	0	0
OAK	SFO	WN	73G	137				2.0	2.0	0	0	0	274	274
SJC	SFO	DL	320	148					1.0	0	0	0	0	148
SJC	SFO	DL	319	124		1.0	2.0	2.0	1.0	0	124	248	248	124
SJC	SFO	DL	738	160					1.0	0	0	0	0	160
SJC	SFO	DL	NGA	120						0	0	0	0	0
SJC	SFO	DL	NGB	150						0	0	0	0	0
SJC	SFO	DL	321	180						0	0	0	0	0
SJC	SFO	DL	M90	160	2.0	2.0	2.0	2.0	2.0	320	320	320	320	320
SJC	SFO	SY	73G	129				1.0	1.0	0	0	0	129	129
SFO	SFO	DL	320	148	2.0					296	0	0	0	0
SFO	SFO	DL	319	124	1.0	2.0				124	248	0	0	0
SFO	SFO	DL	753	223	2.0	2.0	2.0	1.0	1.0	446	446	446	223	223
SFO	SFO	DL	738	160	1.0		3.0	3.0	3.0	160	0	480	480	480
SFO	SFO	DL	757	184	1.0	1.0				184	184	0	0	0
SFO	SFO	DL	321	180				2.0	3.0	0	0	0	360	540
SFO	SFO	DL	NGD	225						0	0	0	0	0
SFO	SFO	DL	76D	262						0	0	0	0	0
SFO	SFO	DL	M90	160		3.0	3.0	2.0	1.0	0	480	480	320	160
SFO	SFO	DL	738	160						0	0	0	0	0
SFO	SFO	SY	738	162	1.0	1.0	1.0	1.0	2.0	162	162	162	162	324
SFO	SFO	SY	73G	129						0	0	0	0	0
SFO	SFO	UA	320	144			1.0	1.0	2.0	0	0	144	144	288
SFO	SFO	UA	319	120	1.0	2.0	1.0	1.0	1.0	120	240	120	120	120
		Subtotal			11.0	14.0	15.0	18.0	21.0	1812	2204	2400	2780	3290
Springfield, MO										**Target Seat Depar**	118	133	153	176
SGF	SGF	DL	CRJ	50	1.0	1.0	1.0		2.0	50	50	50	0	100
SGF	SGF	DL	CR9	76		1.0	1.0	2.0	1.0	0	76	76	152	76
SGF	SGF	SY	738	162						0	0	0	0	0
BKG	SGF	SY	738	162						0	0	0	0	0
		Subtotal			1.0	2.0	2.0	2.0	3.0	50	126	126	152	176
San Juan										**Target Seat Depar**	7	7	8	9
SJU	SJU	DL	757	184		0.0	0.0	0.0		0	7	7	7	0
SJU	SJU	DL	738	160						0	0	0	0	0
SJU	SJU	DL	321	180					0.0	0	0	0	0	7
SJU	SJU	SY	738	168						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	7	7	7	7
Salt Lake City										**Target Seat Depar**	1076	1170	1353	1563
SLC	SLC	DL	733	128						0	0	0	0	0
SLC	SLC	DL	M90	160	2.0	2.0	2.0	2.0	1.0	320	320	320	320	160
SLC	SLC	DL	738	160		2.0	3.0	2.0	2.0	0	320	480	320	320
SLC	SLC	DL	757	184	1.0	1.0	2.0			184	184	368	0	0
SLC	SLC	DL	320	148	2.0					296	0	0	0	0
SLC	SLC	DL	319	124		2.0				0	248	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
SLC	SLC	DL	321	180				4.0	6.0	0	0	0	720	1080
SLC	SLC	DL	NGD	225						0	0	0	0	0
SLC	SLC	DL	CR7	70						0	0	0	0	0
SLC	SLC	DL	CRJ	50						0	0	0	0	0
SLC	SLC	DL	CRJ	50						0	0	0	0	0
SLC	SLC	DL	CR7	70						0	0	0	0	0
SLC	SLC	DL	CR9	76	1.0					76	0	0	0	0
SLC	SLC	DL	738	160						0	0	0	0	0
SLC	SLC	DL	M88	142						0	0	0	0	0
		Subtotal			6.0	7.0	7.0	8.0	9.0	876	1072	1168	1360	1560
Sacramento										**Target Seat Depar**	517	559	642	736
SMF	SMF	DL	738	160				3.0	2.0	0	0	0	480	320
SMF	SMF	DL	757	184		2.0				0	368	0	0	0
SMF	SMF	DL	321	180						0	0	0	0	0
SMF	SMF	DL	320	148	1.0		1.0		2.0	148	0	148	0	296
SMF	SMF	DL	319	124			2.0		1.0	0	0	248	0	124
SMF	SMF	DL	M90	160	2.0	1.0	1.0	1.0		320	160	160	160	0
		Subtotal			3.0	3.0	4.0	4.0	5.0	468	528	556	640	740
Springfield, IL										**Target Seat Depar**	0	0	0	49
SPI	SPI	DL	CRJ	50					1.0	0	0	0	0	50
		Subtotal			0.0	0.0	0.0	0.0	1.0	0	0	0	0	50
Sarasota										**Target Seat Depar**	0	0	0	0
SRQ	SRQ	DL	319	124						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Saint Cloud										**Target Seat Depar**	1	1	1	1
STC	STC	DL	CRJ	50						0	0	0	0	0
STC	STC	DL	SF3	34						0	0	0	0	0
STC	STC	DL	NGT	50						0	0	0	0	0
STC	STC	SY	738	162						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
St. Louis										**Target Seat Depar**	1275	1342	1489	1652
STL	STL	AA	M80	140						0	0	0	0	0
STL	STL	AA	738	160						0	0	0	0	0
STL	STL	AA	ER4	50						0	0	0	0	0
STL	STL	AA	ERD	44						0	0	0	0	0
STL	STL	WN	717	122		1.0	1.0			0	122	122	0	0
STL	STL	WN	73G	137	1.0	2.0	3.0	5.0	5.0	137	274	411	685	685
STL	STL	WN	733	137	2.0	1.0				274	137	0	0	0
STL	STL	WN	735	122						0	0	0	0	0
STL	STL	DL	CRJ	50		1.0				0	50	0	0	0
STL	STL	DL	CR7	70						0	0	0	0	0
STL	STL	DL	CR9	76	2.0		1.0	1.0		152	0	76	76	0
STL	STL	DL	D9S	100						0	0	0	0	0
STL	STL	DL	319	124		2.0	1.0	1.0		0	248	124	124	0
STL	STL	DL	M80	149		3.0	2.0	2.0		0	447	298	298	0
STL	STL	DL	M90	160			2.0	2.0	2.0	0	0	320	320	320
STL	STL	DL	321	180					1.0	0	0	0	0	180
STL	STL	DL	738	160					2.0	0	0	0	0	320
STL	STL	DL	D95	125	3.0					375	0	0	0	0
STL	STL	DL	320	148	1.0				1.0	148	0	0	0	148
STL	STL	DL	753	223						0	0	0	0	0
STL	STL	DL	738	160						0	0	0	0	0
STL	STL	DL	M88	142						0	0	0	0	0
STL	STL	DL	D94	125						0	0	0	0	0
STL	STL	DL	E75	76						0	0	0	0	0
		Subtotal			9.0	10.0	10.0	11.0	11.0	1086	1278	1351	1503	1653
St. Thomas										**Target Seat Depar**	2	2	2	2
STT	STT	SY	738	162		0.0	0.0	0.0	0.0	0	2	2	2	2
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	2	2	2	2

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	2020 (EA Analysis Pd.)	2025 (EA Analysis Pd.)	2030	AWDPM Seat Departures 2010	2016	2020 (EA Analysis Pd.)	2025 (EA Analysis Pd.)	2030
Sioux City										**Target Seat Depa**	165	171	187	204
SUX	SUX	DL	SF3	34						0	0	0	0	0
SUX	SUX	DL	CR9	76		1.0	1.0	1.0	2.0	0	76	76	76	152
SUX	SUX	DL	CRJ	50	3.0	2.0	2.0	2.0	1.0	150	100	100	100	50
SUX	SUX	DL	D9S	125						0	0	0	0	0
		Subtotal			3.0	3.0	3.0	3.0	3.0	150	176	176	176	202
Syracuse										**Target Seat Depa**	98	106	115	125
SYR	SYR	DL	D95	125						0	0	0	0	0
SYR	SYR	DL	319	124		0.4	0.6	1.0	1.0	0	50	74	124	124
SYR	SYR	DL	CR9	76		0.6	0.4			0	46	30	0	0
		Subtotal			0.0	1.0	1.0	1.0	1.0	0	95	105	124	124
Toledo										**Target Seat Depa**	110	117	126	137
TOL	TOL	DL	CR9	76			1.0	1.0	1.0	0	0	76	76	76
TOL	TOL	DL	CRJ	50		2.0	1.0	1.0	1.0	0	100	50	50	50
		Subtotal			0.0	2.0	2.0	2.0	2.0	0	100	126	126	126
TPA - Tampa										**Target Seat Depa**	362	391	448	514
PIE	TPA	SY	738	162		0.3	0.3	0.3	0.3	0	49	49	49	49
TPA	TPA	FL	73G	137						0	0	0	0	0
TPA	TPA	WN	73G	137						0	0	0	0	0
TPA	TPA	DL	757	184			1.0			0	0	184	0	0
TPA	TPA	DL	320	148	2.0			1.0	1.0	296	0	0	148	148
TPA	TPA	DL	319	124				2.0		0	0	0	248	0
TPA	TPA	DL	753	223						0	0	0	0	0
TPA	TPA	DL	738	160		2.0	1.0		2.0	0	320	160	0	320
TPA	TPA	DL	321	180						0	0	0	0	0
TPA	TPA	DL	NGD	225						0	0	0	0	0
TPA	TPA	DL	M90	160						0	0	0	0	0
TPA	TPA	DL	738	160						0	0	0	0	0
TPA	TPA	DL	M88	142						0	0	0	0	0
TPA	TPA	SY	738	162						0	0	0	0	0
TPA	TPA	SY	73G	129						0	0	0	0	0
		Subtotal			2.0	2.3	2.3	3.3	3.3	296	369	393	445	517
Tulsa										**Target Seat Depa**	111	117	131	147
TUL	TUL	DL	CRJ	50	3.0	2.0	1.0	1.0		150	100	50	50	0
TUL	TUL	DL	CR7	70						0	0	0	0	0
TUL	TUL	DL	CR9	76			1.0	1.0	2.0	0	0	76	76	152
		Subtotal			3.0	2.0	2.0	2.0	2.0	150	100	126	126	152
Tucson										**Target Seat Depa**	140	154	179	208
TUS	TUS	DL	320	148						0	0	0	0	0
TUS	TUS	DL	319	124	1.0				1.7	124	0	0	0	211
TUS	TUS	DL	738	160						0	0	0	0	0
TUS	TUS	DL	M80	149		1.0	1.0			0	149	149	0	0
TUS	TUS	DL	321	180				1.0		0	0	0	180	0
TUS	TUS	DL	M88	142						0	0	0	0	0
TUS	TUS	SY	738	162						0	0	0	0	0
TUS	TUS	SY	73G	129						0	0	0	0	0
		Subtotal			1.0	1.0	1.0	1.0	1.7	124	149	149	180	211
Traverse City										**Target Seat Depa**	223	236	264	295
TVC	TVC	DL	CRJ	50	2.0					100	0	0	0	0
TVC	TVC	DL	320	148				1.0	2.0	0	0	0	148	296
TVC	TVC	DL	CR7	70						0	0	0	0	0
TVC	TVC	DL	CR9	76						0	0	0	0	0
TVC	TVC	DL	319	124	1.0	2.0	2.0	1.0		124	248	248	124	0
		Subtotal			3.0	2.0	2.0	2.0	2.0	224	248	248	272	296
Thief River Falls										**Target Seat Depa**	0	0	0	0
TVF	TVF	NW	SF3	33						0	0	0	0	0
TVF	TVF	DL	SF3	34						0	0	0	0	0
TVF	TVF	DL	NGT	50						0	0	0	0	0
		Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 5.8

MSP Domestic Departure Projections by Market

Airport	Market	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Knoxville										**Target Seat Depa**	71	76	87	100
TYS	TYS	NW	CRJ	50						0	0	0	0	0
TYS	TYS	NW	CR7	70						0	0	0	0	0
TYS	TYS	DL	CRJ	50	1.0				2.0	50	0	0	0	100
TYS	TYS	DL	CR7	70						0	0	0	0	0
TYS	TYS	DL	CR9	76		1.0	1.0	1.0		0	76	76	76	0
		Subtotal			1.0	1.0	1.0	1.0	2.0	50	76	76	76	100
WAS - Washington										**Target Seat Depa**	1839	1997	2302	2649
DCA	WAS	DL	320	148	1.0	2.0	1.0	1.0	1.0	148	296	148	148	148
DCA	WAS	DL	319	124	1.0	2.0	2.0	1.0		124	248	248	124	0
DCA	WAS	DL	M80	149	2.0					298	0	0	0	0
DCA	WAS	DL	M90	160	1.0	2.0	2.0	2.0	2.0	160	320	320	320	320
DCA	WAS	DL	NGA	120						0	0	0	0	0
DCA	WAS	DL	757	184						0	0	0	0	0
DCA	WAS	DL	738	160	2.0		1.0	2.0	1.0	320	0	160	320	160
DCA	WAS	DL	321	180				1.0	3.0	0	0	0	180	540
DCA	WAS	DL	CR9	76						0	0	0	0	0
DCA	WAS	DL	738	160						0	0	0	0	0
DCA	WAS	DL	M80	142		1.0	1.0			0	142	142	0	0
DCA	WAS	DL	E75	76						0	0	0	0	0
IAD	WAS	DL	320	148					2.0	0	0	0	0	296
IAD	WAS	DL	319	124		3.0	2.0	2.0	1.0	0	372	248	248	124
IAD	WAS	DL	M80	149						0	0	0	0	0
IAD	WAS	DL	D95	125						0	0	0	0	0
IAD	WAS	DL	757	183						0	0	0	0	0
IAD	WAS	DL	738	160						0	0	0	0	0
IAD	WAS	DL	321	180						0	0	0	0	0
IAD	WAS	DL	D9S	100						0	0	0	0	0
IAD	WAS	DL	E75	76	4.0		1.0	2.0	2.0	304	0	76	152	152
IAD	WAS	DL	CRJ	50						0	0	0	0	0
IAD	WAS	DL	CR9	76						0	0	0	0	0
IAD	WAS	B6	E90	100			2.0	3.0	3.0	0	0	200	300	300
IAD	WAS	SY	738	168					1.0	0	0	0	0	168
IAD	WAS	SY	73G	129	1.0	1.0	1.0	1.0		129	129	129	129	0
IAD	WAS	UA	CRJ	50						0	0	0	0	0
IAD	WAS	UA	319	120		1.0	1.0	2.0	2.0	0	120	120	240	240
IAD	WAS	UA	E70	70		3.0	3.0	2.0	3.0	0	210	210	140	210
		Subtotal			12.0	15.0	17.0	19.0	21.0	1483	1837	2001	2301	2658
Fayetteville										**Target Seat Depa**	142	159	191	228
XNA	XNA	DL	CRJ	50	3.0			1.0		150	0	0	50	0
XNA	XNA	DL	CR7	70						0	0	0	0	0
XNA	XNA	DL	CR9	76		2.0	2.0	2.0	3.0	0	152	152	152	228
XNA	XNA	DL	M90	160						0	0	0	0	0
		Subtotal			3.0	2.0	2.0	3.0	3.0	150	152	152	202	228
		Total			577.0	605.7	655.9	715.7	773.6	58940	68351	75496	86000	97779

(a) Table 5.7.

Sources: As noted and HNTB analysis.

Table 5.9

MSP Domestic Air Carrier Fleet Mix by Carrier
Scheduled Average weekday Peak Month Departures

				EA Analysis Period		Long Term
Carrier	Equipment	2010	2016	2020	2025	2030
AA	100					
	738	4.0	5.0	6.0	11.0	18.0
	CR7	4.0	7.0	7.0	6.0	5.0
	ER4					
	ERD					
	M80	5.0	7.0	7.0	4.0	
	M83	2.0				
AA Total		15.0	19.0	20.0	21.0	23.0
AS	738	2.0	3.0	6.0	9.0	9.0
	739		1.0			
	73G			2.0		2.0
AS Total		2.0	4.0	8.0	9.0	11.0
B6	320					
	E90		4.0	7.0	9.0	10.0
B6 Total			4.0	7.0	9.0	10.0
CH	BEC	1.0	0.7	0.7	0.7	0.7
CH Total		1.0	0.7	0.7	0.7	0.7
CO	733					
	735	1.0				
	738					
	ERJ	15.0				
CO Total		16.0				
DL	319	36.0	50.4	46.2	52.5	51.5
	320	39.0	38.0	39.0	38.1	36.0
	321				27.9	59.1
	332					1.0
	333		0.9	1.0	1.0	1.2
	738	13.0	23.0	45.0	86.0	118.0
	752					
	753	18.0	19.0	16.0	17.0	16.0
	757	21.0	29.0	24.1	3.0	
	763					
	777				1.0	1.0
	76D		1.6	1.6	2.7	3.8
	CR7	9.0	5.0	5.6	6.0	6.0
	CR9	40.0	41.7	64.6	65.6	66.2
	CRJ	121.0	92.7	81.1	80.6	81.6
	D94					
	D95	31.0				
	D9S					
	E75	54.0	59.2	71.4	75.0	74.1
	ER4	2.0				
	M80	3.0	34.2	25.3	7.0	
	M88	8.0				
	M90	30.0	42.0	55.0	53.3	50.4
	SF3	44.0	27.9	20.0	13.9	
DL Total		469.0	464.6	495.9	530.6	565.9
F9	318	1.0				
	319	3.0	3.0	3.0	3.0	3.0
	320		6.0	5.0	5.0	6.0

Table 5.9

MSP Domestic Air Carrier Fleet Mix by Carrier
Scheduled Average weekday Peak Month Departures

				EA Analysis Period		Long Term
Carrier	Equipment	2010	2016	2020	2025	2030
F9	CS3			3.0	5.0	6.0
	E70		2.0	2.0	1.0	1.0
	E90	1.0				
	ERJ		1.0			
F9 Total		5.0	12.0	13.0	14.0	16.0
FL	717	4.0				
	73G	3.0				
FL Total		7.0				
SY	737					
	738	6.0	10.4	11.8	15.7	19.2
	73G	6.0	4.9	4.4	9.6	12.7
SY Total		12.0	15.3	16.2	25.3	31.9
UA	319	3.0	5.0	7.0	6.0	5.0
	320	7.0	7.0	8.0	11.0	11.0
	738		7.0	8.0	11.0	16.0
	752					
	E70	8.0	8.0	6.0	4.0	4.0
	ER4		14.0	13.0	13.0	12.0
UA Total		18.0	41.0	42.0	45.0	48.0
US	319	5.0	4.0	3.0	4.0	4.0
	320	4.0	4.0	3.0	4.0	5.0
	321	1.0	1.0	3.0	4.0	5.0
	E70					
	E75	2.0	3.0	2.0	1.0	1.0
	E90		1.0	3.0	2.0	2.0
	ERJ					
US Total		12.0	13.0	14.0	15.0	17.0
WN	717		4.0	4.0		
	733	8.0	12.0			
	735					
	738			1.0	2.0	2.0
	73G	6.0	16.0	34.0	44.0	48.0
WN Total		14.0	32.0	39.0	46.0	50.0
YX	717					
	E70	2.0				
	ERJ	3.0				
YX Total		5.0				
	Total	577.0	605.7	655.9	715.7	773.6

Sources: Table 5.8 and HNTB analysis.

Attachment 6

Detailed International Passenger Forecasts

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Table 6.1

Projected International Passenger Growth Rates for U.S.

	FAA (a)	Airbus (b)	Boeing (c)	Average
U.S. - Canada	3.4%		2.8%	3.1%
U.S. - Mexico/Central America	4.4%		4.1%	4.2%
U.S. - Caribbean	4.4%		4.1%	4.2%
U.S. - South America	4.4%		6.8%	5.6%
U.S. - Europe	3.9%	4.0%	4.3%	4.1%
U.S. - Africa	3.9%		7.3%	5.6%
U.S. - Middle East	5.4%	7.1%	7.2%	6.6%
U.S. - Asia	5.4%	5.2%	5.1%	5.2%
U.S. - Oceania	5.4%		4.9%	5.1%

(a) FAA Aerospace Forecasts: Fiscal Year 2010-2030.
(b) Airbus, Global Market Forecast: 2010-2029.
(c) Boeing, Current Market Outlook 2010-2029.

Sources: As noted and HNTB analysis.

Table 6.2

Existing (2009) Breakout of MSP International Originations by World Region

	US Flag (a)	Foreign Flag (b)	Total
Canada			107,724
Mexico & CA			248,930
Caribbean			60,010
S America			23,080
Europe			116,087
Africa			2,610
Middle East			4,950
Asia			65,640
Oceania			2,130
US Gateways			13,120
			644,281

(a) USDOT, Origin-Destination Survey, as compiled by DataBase Products, inc. Not shown to preserve confidentiality.

(b) Estimated at 90 percent of enplanements. Not shown to preserve confidentiality.

Sources: As noted and HNTB analysis.

Table 6.3

Projected International Passenger Originations at MSP

	2009 (a)	2010 (b)	2015 (c)	2016 (c)	EA Analysis Period 2020 (c)	EA Analysis Period 2025 (c)	Long Term 2030 (c)	U.S. Average (d)	MSP Average (e)
Income Growth Rate (f)								1.9%	1.7%
Canada	107,724	116,803	140,221	144,339	162,059	187,298	216,468	3.1%	2.9%
U.S. - Mexico/Central America	248,930	272,938	346,456	360,633	423,384	517,394	632,278	4.2%	4.1%
U.S.-Caribbean	60,010	65,798	83,521	86,938	102,066	124,729	152,424	4.2%	4.1%
U.S. South America	23,080	25,634	34,704	36,593	45,233	58,955	76,840	5.6%	5.4%
U.S. - Europe	116,087	127,070	159,947	166,212	193,826	234,882	284,633	4.1%	3.9%
U.S.- Africa	2,610	2,899	3,927	4,141	5,120	6,676	8,706	5.6%	5.5%
U.S.- Middle East	4,950	5,548	7,863	8,367	10,728	14,636	19,969	6.6%	6.4%
U.S.-Asia	65,640	72,652	96,669	101,577	123,831	158,624	203,195	5.2%	5.1%
U.S.- Oceania	2,130	2,356	3,122	3,277	3,982	5,080	6,481	5.1%	5.0%
Other	13,120	14,430	18,602	19,423	23,085	28,650	35,556	4.6%	4.4%
Base (g)	644,281	706,128	895,030	931,500	1,093,314	1,336,925	1,636,550		4.5%

(a) Table 6.2.
(b) 2009 geographic breakout applied to 2010 originations.
(c) Assumed to grow at MSP rate from 2009.
(d) Table 6.1.
(e) US average growth rate plus difference between MSP and US income growth rates. Applied to 2010 estimates.
(f) Table 1.8.
(g) Sum of regional forecasts.

Sources: As noted and HNTB analysis.

Table 6.4

Forecast of International Hubbing Ratio at MSP

Year	Originations (a)	Enplanements (b)	International Hubbing Ratio (c)
1990		102,673	
1991		124,125	
1992		144,255	
1993		170,544	
1994		166,114	
1995		256,669	
1996		276,575	
1997		419,048	
1998	n/a	519,395	
1999	n/a	575,079	
2000	n/a	644,096	
2001	544,189	558,276	
2002	502,422	551,203	
2003	499,471	572,691	
2004	595,452	677,318	
2005	618,977	790,806	1.278
2006	654,297	692,757	1.059
2007	709,046	980,460	1.383
2008	718,963	1,264,507	1.759
2009	644,281	1,059,969	1.645
2010	706,128	1,141,442	1.556
2015			1.488
2016			1.468
EA Analysis Period			
2020			1.431
2025			1.358
Average Annual Growth Rate			
2010-2025			-0.9%
Long Term			
2030			1.289
Average Annual Growth Rate			
2010-2030			-0.9%

(a) Table A.2.1.
(b) Table A.2.2.
(c) Table 5.2.
(d) Assumed to change at same rate as domestic hubbing ratio.

Sources: As noted and HNTB analysis.

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

Market	2009	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
Canada (a)	107,724	121,325	140,221	144,588	162,059	187,298	216,468
U.S. - Mexico/Central America (a)	248,930	283,506	346,456	361,842	423,384	517,394	632,278
U.S.-Caribbean (a)	60,010	68,345	83,521	87,230	102,066	124,729	152,424
U.S. South America (a)	23,080	26,627	34,704	36,810	45,233	58,955	76,840
U.S. - Europe (a)	116,087	131,990	159,947	166,723	193,826	234,882	284,633
U.S.- Africa (a)	2,610	3,011	3,927	4,165	5,120	6,676	8,706
U.S.- Middle East (a)	4,950	5,763	7,863	8,436	10,728	14,636	19,969
U.S.-Asia (a)	65,640	75,465	96,669	102,101	123,831	158,624	203,195
U.S.- Oceania (a)	2,130	2,447	3,122	3,294	3,982	5,080	6,481
Other (a)	13,120	14,989	18,602	19,498	23,085	28,650	35,556
FAA Load Factor (b)							
U.S. (Canada)	80.4	81.6	82.5	82.6	82.9	83.1	*83.2*
Atlantic	78.9	81.8	81.9	81.9	82.1	82.4	*82.6*
Latin America	76.8	78.2	78.6	78.6	78.6	78.6	78.6
Pacific	78.3	81.0	81.0	81.1	81.3	81.6	*81.8*
Originations - Top Down (c)	644,281	733,467	895,030	934,687	1,093,314	1,336,925	1,636,550
Enplanements - Top Down (c)	1,059,969	1,141,442	1,331,485	1,378,006	1,564,092	1,815,444	2,109,421
Ratio of Enplanements/Outbound Passengers (e)	0.9634	0.9634	0.9634	0.9634	0.9634	0.9634	0.9634
Outbound Passengers - Top Down (f)	1,100,231	1,184,799	1,382,060	1,430,349	1,623,503	1,884,402	2,189,546
Outbound Passengers - Bottom Up (g)	1,100,231	1,149,991	1,381,037	1,430,325	1,623,457	1,884,321	2,189,419
Adjustment Factor for Outbound Passengers (h)	1.00000	0.86728	0.80601	0.80729	0.75051	0.73601	0.70046
Outbound Passengers - Bottom Up - Canada (g)	416,042	474,284	514,938	531,823	554,158	628,089	690,847
Outbound Passengers - Bottom Up - non-PC (i)	70,668	69,027	63,430	65,510	68,261	77,368	85,098
Outbound Passengers - Bottom Up - Mex & CA (g)	188,359	186,049	260,576	272,581	298,870	358,176	422,527
Outbound Passengers - Bottom Up - Mex. City (g)	-	-	39,497	41,317	44,944	53,862	62,643
Outbound Passengers - Bottom Up - Carib. (g)	19,904	19,660	27,845	29,128	31,685	37,973	44,163
Outbound Passengers - Bottom Up - Europe (g)	349,089	344,230	427,953	446,793	486,816	582,038	671,256
Outbound Passengers - Bottom Up - Asia (g)	126,837	125,768	149,725	150,000	251,928	278,045	360,625
Outbound Passengers - Bottom Up - Other (g)	684,189	675,707	866,099	898,501	1,069,299	1,256,232	1,498,571
Ratio of Outbound Passengers to Originations	1.7077	1.6153	1.5441	1.5303	1.4849	1.4095	1.3379
Seat Departures (j)	1,430,209	1,505,939	1,736,730	1,798,544	2,027,989	2,351,155	2,722,441
Enplanements - Bottom Up - Canada (k)	400,817	456,928	496,095	512,361	533,879	605,105	665,566
Enplanements - Bottom Up - Non PC canada (k)	68,082	66,501	61,109	63,113	65,763	74,537	81,984
Enplanements - Bottom Up - Mex & CA (k)	181,466	179,241	251,040	262,606	287,933	345,069	407,065
Enplanements - Bottom Up - Mexico City (k)	-	-	38,052	39,805	43,299	51,891	60,351
Enplanements - Bottom Up - Carib. (k)	19,176	18,941	26,826	28,062	30,526	36,583	42,547
Enplanements - Bottom Up - Europe (k)	336,314	331,633	412,292	430,443	469,001	560,739	646,692
Enplanements - Bottom Up - Asia (k)	122,196	121,165	144,246	144,511	242,708	267,870	347,428
Mexico and Central America							
Regional Index							
ACA Regional Index (l)	100	114	139	145	170	208	254
ACA Distance (m)		1975	1975		1975	1975	1975
ACA Outbound Passengers (p)	1673	1652	1877	1963	2136	2559	2977
ACA Load Factor (q)	81.7%	83.2%	83.6%	83.6%	83.6%	83.6%	83.6%
ACA Seat Departures (r)	2048	148	2245	2348	2554	3061	3560
ACA AWDPM Seat Departures (s)		0	0	0	0	0	0
BZE Regional Index (l)	100	114	139	145	170	208	254
BZE Distance (m)		1906	1906		1906	1906	1906
BZE Outbound Passengers (p)	0	0	0	0	2361	2830	3291
BZE Load Factor (q)	0.0%	0.0%	0.0%	0.0%	83.6%	83.6%	83.6%
BZE Seat Departures (r)	0	0	0	0	2824	3385	3936
BZE AWDPM Seat Departures (s)		0	0	0	0	0	0
CUN Regional Index (l)	100	114	139	145	170	208	254
CUN Distance (m)		1683	1683		1683	1683	1683
CUN Outbound Passengers (p)	108423	107094	121628	127231	138400	165864	192903
CUN Load Factor (q)	83.4%	84.9%	85.4%	85.4%	85.4%	85.4%	85.4%
CUN Seat Departures (r)	129965	108186	142455	149018	162099	194265	225934
CUN AWDPM Seat Departures (s)		0	0	0	0	0	0
CZM Regional Index (l)	100	114	139	145	170	208	254
CZM Distance (m)		1717	1717		1717	1717	1717
CZM Outbound Passengers (p)	12266	12116	13760	14394	15657	18764	21823
CZM Load Factor (q)	82.7%	84.2%	84.7%	84.7%	84.7%	84.7%	84.7%
CZM Seat Departures (r)	14828	10710	16253	17002	18494	22164	25777
CZM AWDPM Seat Departures (s)		0	0	0	0	0	0

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

						EA Analysis Period		Long Term
Market		2009	2010	2015	2016	2020	2025	2030
LIR	Regional Index (l)	100	114	139	145	170	208	254
LIR	Distance (m)		2406	2406		2406	2406	2406
LIR	Outbound Passengers (p)	0	0	0	0	0	0	5961
LIR	Load Factor (q)	0.0% ##	0.0%	0.0%	0.0%	0.0%	0.0%	79.6%
LIR	Seat Departures (r)	0	0	0	0	0	0	7492
LIR	AWDPM Seat Departures (s)		0	0	0	0	0	0
MEX	Regional Index (l)	100	114	139	145	170	208	254
MEX	Distance (m)		1786	1786		1786	1786	1786
MEX	Outbound Passengers (p)	0	0	39497	41317	44944	53862	62643
MEX	Load Factor (q)	0.0% ##	0.0%	79.6%	79.6%	79.6%	79.6%	79.6%
MEX	Seat Departures (r)	0	1736	49645	51932	56490	67700	78737
MEX	AWDPM Seat Departures (s)		6	166	173	189	226	263
MZT	Regional Index (l)	100	114	139	145	170	208	254
MZT	Distance (m)		1669	1669		1669	1669	1669
MZT	Outbound Passengers (p)	10829	10696	12148	12708	13823	16566	19267
MZT	Load Factor (q)	79.4%	80.9%	81.3%	81.3%	81.3%	81.3%	81.3%
MZT	Seat Departures (r)	13638	12564	14949	15637	17010	20385	23709
MZT	AWDPM Seat Departures (s)		0	0	0	0	0	0
PVR	Regional Index (l)	100	114	139	145	170	208	254
PVR	Distance (m)		1804	1804		1804	1804	1804
PVR	Outbound Passengers (p)	32365	31968	36307	37979	41313	49511	57583
PVR	Load Factor (q)	79.9%	81.4%	81.8%	81.8%	81.8%	81.8%	81.8%
PVR	Seat Departures (r)	40509	33138	44402	46448	50525	60551	70422
PVR	AWDPM Seat Departures (s)		0	0	0	0	0	0
SJD	Regional Index (l)	100	114	139	145	170	208	254
SJD	Distance (m)		1764	1764		1764	1764	1764
SJD	Outbound Passengers (p)	10831	10698	12150	12710	13826	16569	19270
SJD	Load Factor (q)	79.1%	80.6%	81.0%	81.0%	81.0%	81.0%	81.0%
SJD	Seat Departures (r)	13690	12276	15006	15697	17075	20463	23799
SJD	AWDPM Seat Departures (s)		0	0	0	0	0	0
SJO	Regional Index (l)	100	114	139	145	170	208	254
SJO	Distance (m)		2462	2462		2462	2462	2462
SJO	Outbound Passengers (p)	0	0	9779	10229	11127	13335	15509
SJO	Load Factor (q)	0.0% ##	0.0%	79.6%	79.6%	79.6%	79.6%	79.6%
SJO	Seat Departures (r)	0	0	12291	12857	13986	16761	19494
SJO	AWDPM Seat Departures (s)		0	0	0	0	0	0
ZIH	Regional Index (l)	100	114	139	145	170	208	254
ZIH	Distance (m)		1940	1940		1940	1940	1940
ZIH	Outbound Passengers (p)	10291	10165	11544	12076	13136	15743	18309
ZIH	Load Factor (q)	77.7%	79.2%	79.6%	79.6%	79.6%	79.6%	79.6%
ZIH	Seat Departures (r)	13238	8843	14510	15179	16511	19788	23013
ZIH	AWDPM Seat Departures (s)		0	0	0	0	0	0
ZLO	Regional Index (l)	100	114	139	145	170	208	254
ZLO	Distance (m)		1888	1888		1888	1888	1888
ZLO	Outbound Passengers (p)	1681	1660	1886	1973	2146	2572	2991
ZLO	Load Factor (q)	81.1%	82.6%	83.0%	83.0%	83.0%	83.0%	83.0%
ZLO	Seat Departures (r)	2072	1184	2271	2376	2584	3097	3602
ZLO	AWDPM Seat Departures (s)		0	0	0	0	0	0
Carribean								
AUA	Regional Index (l)	100	114	139	145	170	208	254
AUA	Distance (m)		2618	2618		2618	2618	2618
AUA	Outbound Passengers (p)	0	0	2127	2225	2421	2901	3374
AUA	Load Factor (q)	0.0%	0.0%	74.0%	74.0%	74.0%	74.0%	74.0%
AUA	Seat Departures (r)	0	0	2874	3007	3271	3920	4559
AUA	AWDPM Seat Departures (s)		0	0	0	0	0	0
FPO	Regional Index (l)	100	114	139	145	170	208	254
FPO	Distance (m)		1499	1499		1499	1499	1499
FPO	Outbound Passengers (p)	0	0	0	0	0	0	0
FPO	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FPO	Seat Departures (r)	0	0	0	0	0	0	0
FPO	AWDPM Seat Departures (s)		0	0	0	0	0	0
GCM	Regional Index (l)	100	114	139	145	170	208	254
GCM	Distance (m)		1891	1891		1891	1891	1891
GCM	Outbound Passengers (p)	2489	2458	2792	2921	3177	3808	4428
GCM	Load Factor (q)	80.1%	81.5%	82.0%	82.0%	82.0%	82.0%	82.0%
GCM	Seat Departures (r)	3108	2516	3407	3564	3876	4646	5403
GCM	AWDPM Seat Departures (s)		0	0	0	0	0	0

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

						EA Analysis Period		Long Term
Market		2009	2010	2015	2016	2020	2025	2030
MBJ	Regional Index (l)	100	114	139	145	170	208	254
MBJ	Distance (m)		2021	2021		2021	2021	2021
MBJ	Outbound Passengers (p)	12540	12386	14067	14715	16007	19184	22311
MBJ	Load Factor (q)	82.6%	84.1%	84.6%	84.6%	84.6%	84.6%	84.6%
MBJ	Seat Departures (r)	15174	13728	16632	17399	18926	22681	26379
MBJ	AWDPM Seat Departures (s)		0	0	0	0	0	0
NAS	Regional Index (l)	100	114	139	145	170	208	254
NAS	Distance (m)		1627	1627		1627	1627	1627
NAS	Outbound Passengers (p)	0	0	3390	3546	3857	4623	5376
NAS	Load Factor (q)	0.0%	0.0%	74.0%	74.0%	74.0%	74.0%	74.0%
NAS	Seat Departures (r)	0	0	4580	4791	5212	6246	7264
NAS	AWDPM Seat Departures (s)		0	0	0	0	0	0
POP	Regional Index (l)	100	114	139	145	170	208	254
POP	Distance (m)		2160	2160		2160	2160	2160
POP	Outbound Passengers (p)	0	0	0	0	0	0	0
POP	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
POP	Seat Departures (r)	0	0	0	0	0	0	0
POP	AWDPM Seat Departures (s)		0	0	0	0	0	0
PUJ	Regional Index (l)	100	114	139	145	170	208	254
PUJ	Distance (m)		2310	2310	2310	2310	2310	2310
PUJ	Outbound Passengers (p)	3132	3094	3513	3675	3998	4791	5572
PUJ	Load Factor (q)	72.3%	73.6%	74.0%	74.0%	74.0%	74.0%	74.0%
PUJ	Seat Departures (r)	4331	4798	4747	4966	5402	6474	7529
PUJ	AWDPM Seat Departures (s)		0	0	0	0	0	0
SXM	Regional Index (l)	100	114	139	145	170	208	254
SXM	Distance (m)		2537	2537		2537	2537	2537
SXM	Outbound Passengers (p)	1743	1722	1955	2045	2225	2666	3101
SXM	Load Factor (q)	76.4%	77.8%	78.2%	78.2%	78.2%	78.2%	78.2%
SXM	Seat Departures (r)	2280	1620	2499	2614	2844	3408	3964
SXM	AWDPM Seat Departures (s)		0	0	0	0	0	0
Europe								
AMS	Regional Index (l)	100	114	138	144	167	202	245
AMS	Distance (m)		4166	4166		4166	4166	4166
AMS	Outbound Passengers (p)	236639	233345	262796	274365	296533	352401	406418
AMS	Load Factor (q)	87.4%	89.0%	89.4%	89.4%	89.4%	89.4%	89.4%
AMS	Seat Departures (r)	270857	274208	293907	306846	331638	394120	454533
AMS	AWDPM Seat Departures (s)		871	934	975	1054	1253	1445
CDG	Regional Index (l)	100	114	138	144	167	202	245
CDG	Distance (m)		4222	4222		4222	4222	4222
CDG	Outbound Passengers (p)	26639	26268	66261	69178	74767	88854	102474
CDG	Load Factor (q)	82.1%	83.6%	84.0%	84.0%	84.0%	84.0%	84.0%
CDG	Seat Departures (r)	32439	59832	78840	82311	88961	105722	121928
CDG	AWDPM Seat Departures (s)		190	251	262	283	336	387
FCO	Regional Index (l)	100	114	138	144	167	202	245
FCO	Distance (m)		4902	4902		4902	4902	4902
FCO	Outbound Passengers (p)	0	0	0	0	0	0	0
FCO	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCO	Seat Departures (r)	0	0	0	0	0	0	0
FCO	AWDPM Seat Departures (s)		0	0	0	0	0	0
FRA	Regional Index (l)	100	114	138	144	167	202	245
FRA	Distance (m)		4391	4391		4391	4391	4391
FRA	Outbound Passengers (p)	0	0	3600	3759	4062	4828	5568
FRA	Load Factor (q)	0.0%	0.0%	81.3%	81.3%	81.3%	81.3%	81.3%
FRA	Seat Departures (r)	0	0	4426	4621	4994	5935	6845
FRA	AWDPM Seat Departures (s)		0	36	38	41	48	56
KEF	Regional Index (l)	100	114	138	144	167	202	245
KEF	Distance (m)		2944	2944		2944	2944	2944
KEF	Outbound Passengers (p)	16519	16289	18345	19152	20700	24600	28371
KEF	Load Factor (q)	82.0%	83.5%	84.0%	84.0%	84.0%	84.0%	84.0%
KEF	Seat Departures (r)	20136	21648	21850	22811	24655	29300	33791
KEF	AWDPM Seat Departures (s)		176	178	186	201	238	275
LON (Lond	Regional Index (l)	100	114	138	144	167	202	245
LHR	Distance (m)		4015	4015		4015	4015	4015
LHR	Outbound Passengers (p)	69292	68327	76951	80339	86830	103189	119006
LHR	Load Factor (q)	79.5%	80.9%	81.3%	81.3%	81.3%	81.3%	81.3%
LHR	Seat Departures (r)	87187	84846	94607	98772	106752	126865	146311
LHR	AWDPM Seat Departures (s)		243	271	283	306	364	419
MAD	Regional Index (l)	100	114	138	144	167	202	245
MAD	Distance (m)		4332	4332		4332	4332	4332
MAD	Outbound Passengers (p)	0	0	0	0	3924	4663	5378
MAD	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	81.3%	81.3%	81.3%
MAD	Seat Departures (r)	0	0	0	0	4824	5733	6612
MAD	AWDPM Seat Departures (s)		0	0	0	39	47	54

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

						EA Analysis Period		Long Term
Market		2009	2010	2015	2016	2020	2025	2030
DUB	Regional Index (l)	100	114	138	144	167	202	245
DUB	Distance (m)		4586	4586		4586	4586	4586
DUB	Outbound Passengers (p)	0	0	0	0	0	3504	4042
DUB	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	81.3%	81.3%
DUB	Seat Departures (r)	0	0	0	0	0	4308	4969
DUB	AWDPM Seat Departures (s)		0	0	0	0	35	40
South and East Asia								
BKK	Regional Index (l)	100	115	147	156	189	242	310
BKK	Distance (m)		8289	8289		8289	8289	8289
BKK	Outbound Passengers (p)	0	0	0	0	0	0	0
BKK	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BKK	Seat Departures (r)	0	0	0	0	0	0	0
BKK	AWDPM Seat Departures (s)		0	0	0	0	0	0
BOM	Regional Index (l)	100	115	147	156	189	242	310
BOM	Distance (m)		7940	7940		7940	7940	7940
BOM	Outbound Passengers (p)	0	0	0	0	0	0	0
BOM	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BOM	Seat Departures (r)	0	0	0	0	0	0	0
BOM	AWDPM Seat Departures (s)		0	0	0	0	0	0
HKG	Regional Index (l)	100	115	147	156	189	242	310
HKG	Distance (m)		7501	7501		7501	7501	7501
HKG	Outbound Passengers (p)	0	0	0	0	0	0	54525
HKG	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.3%
HKG	Seat Departures (r)	0	0	0	0	0	0	62470
HKG	AWDPM Seat Departures (s)		0	0	0	0	0	361
ICN	Regional Index (l)	100	115	147	156	189	242	310
ICN	Distance (m)		6248	6248		6248	6248	6248
ICN	Outbound Passengers (p)	0	0	0	0	55845	70154	85525
ICN	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	87.3%	87.3%	87.3%
ICN	Seat Departures (r)	0	0	0	0	63982	80376	97987
ICN	AWDPM Seat Departures (s)		0	0	0	185	232	283
KIX	Regional Index (l)	100	115	147	156	189	242	310
KIX	Distance (m)		6187	6187		6187	6187	6187
KIX	Outbound Passengers (p)	290	0	0	0	0	0	0
KIX	Load Factor (q)	72.0%	73.3%	73.6%	73.6%	73.6%	73.6%	73.6%
KIX	Seat Departures (r)	403	0	0		0	0	0
KIX	AWDPM Seat Departures (s)		0	0	0	0	0	0
MNL	Regional Index (l)	100	115	147	156	189	242	310
MNL	Distance (m)		7815	7815		7815	7815	7815
MNL	Outbound Passengers (p)	0	0	0	0	0	0	0
MNL	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MNL	Seat Departures (r)	0	0	0	0	0	0	0
MNL	AWDPM Seat Departures (s)		0	0	0	0	0	0
NRT	Regional Index (l)	100	115	147	156	189	242	310
NRT	Distance (m)		5950	5950		5950	5950	5950
NRT	Outbound Passengers (p)	126135	125768	149725	150000	150000	150000	150000
NRT	Load Factor (q)	85.3%	86.8%	87.3%	87.3%	87.3%	87.3%	87.3%
NRT	Seat Departures (r)	147901	147095	171541	171856	171856	171856	171856
NRT	AWDPM Seat Departures (s)		425	496	497	497	497	497
NGO	Regional Index (l)	100	115	147	156	189	242	310
NGO	Distance (m)		5313	5313		5313	5313	5313
NGO	Outbound Passengers (p)	277	0	0	0	0	0	0
NGO	Load Factor (q)	68.7%	70.0%	70.3%	70.3%	70.3%	70.3%	70.3%
NGO	Seat Departures (r)	403	0	0	0	0	0	0
NGO	AWDPM Seat Departures (s)		0	0	0	0	0	0
PEK	Regional Index (l)	100	115	147	156	189	242	310
PEK	Distance (m)		6300	6300		6300	6300	6300
PEK	Outbound Passengers (p)	0	0	0	0	46083	57891	70575
PEK	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	87.3%	87.3%	87.3%
PEK	Seat Departures (r)	0	0	0	0	52797	66326	80858
PEK	AWDPM Seat Departures (s)		0	0	0	305	384	468
PVG	Regional Index (l)	100	115	147	156	189	242	310
PVG	Distance (m)		6756	6756		6756	6756	6756
PVG	Outbound Passengers (p)	135	0	0	0	0	0	0
PVG	Load Factor (q)	49.8%	50.7%	51.0%	51.0%	51.0%	51.0%	51.0%
PVG	Seat Departures (r)	271	0	0		0	0	0
PVG	AWDPM Seat Departures (s)		0	0	0	0	0	0
SGN	Regional Index (l)	100	115	147	156	189	242	310
SGN	Distance (m)		8396	8396		8396	8396	8396
SGN	Outbound Passengers (p)	0	0	0	0	0	0	0
SGN	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SGN	Seat Departures (r)	0	0	0	0	0	0	0
SGN	AWDPM Seat Departures (s)		0	0	0	0	0	0

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

Market		2009	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
SIN	Regional Index (l)	100	115	147	156	189	242	310
SIN	Distance (m)		9055	9055		9055	9055	9055
SIN	Outbound Passengers (p)	0	0	0	0	0	0	0
SIN	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SIN	Seat Departures (r)	0	0	0	0	0	0	0
SIN	AWDPM Seat Departures (s)		0	0	0	0	0	0
TPE	Regional Index (l)	100	115	147	156	189	242	310
TPE	Distance (m)		7150	7150		7150	7150	7150
TPE	Outbound Passengers (p)	0	0	0	0	0	0	0
TPE	Load Factor (q)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TPE	Seat Departures (r)	0	0	0	0	0	0	0
TPE	AWDPM Seat Departures (s)		0	0	0	0	0	0
Canada								
YEG	Regional Index (l)	100	113	130	134	150	174	201
YEG	Distance (m)		1086	1086		1086	1086	1086
YEG	Outbound Passengers (p)	57522	56186	60350	62328	64946	73611	80966
YEG	Load Factor (q)	68.9%	70.2%	70.5%	70.5%	70.5%	70.5%	70.5%
YEG	Seat Departures (r)	83490	92958	85588	88395	92107	104395	114826
YEG	AWDPM Seat Departures (s)		279	257	266	277	314	345
YOW	Regional Index (l)	100	113	130	134	150	174	201
YOW	Distance (m)		857	857		857	857	857
YOW	Outbound Passengers (p)	0	0	16223	16755	17458	19787	21765
YOW	Load Factor (q)	0.0%	0.0%	79.5%	79.5%	79.5%	79.5%	79.5%
YOW	Seat Departures (r)	0	0	20395	21064	21949	24877	27363
YOW	AWDPM Seat Departures (s)		0	139	143	149	169	186
YQR	Regional Index (l)	100	113	130	134	150	174	201
YQR	Distance (m)		619	619		619	619	619
YQR	Outbound Passengers (p)	32820	32058	34433	35562	37056	42000	46196
YQR	Load Factor (q)	59.9%	61.0%	61.3%	61.3%	61.3%	61.3%	61.3%
YQR	Seat Departures (r)	54790	58179	56167	58009	60445	68509	75354
YQR	AWDPM Seat Departures (s)		161	155	160	167	189	208
YQT	Regional Index (l)	100	113	130	134	150	174	201
YQT	Distance (m)		304	304		304	304	304
YQT	Outbound Passengers (p)	10210	9973	0	0	0	0	0
YQT	Load Factor (q)	45.5%	46.3%	46.5%	46.5%	46.5%	46.5%	46.5%
YQT	Seat Departures (r)	22464	16794	0		0	0	0
YQT	AWDPM Seat Departures (s)		51	0	0	0	0	0
YUL	Regional Index (l)	100	113	130	134	150	174	201
YUL	Distance (m)		950	950		950	950	950
YUL	Outbound Passengers (p)	17661	35474	38102	39352	41004	46475	51118
YUL	Load Factor (q)	77.7%	79.1%	79.5%	79.5%	79.5%	79.5%	79.5%
YUL	Seat Departures (r)	22724	44826	47902	49473	51551	58428	64266
YUL	AWDPM Seat Departures (s)		147	158	163	170	192	211
YVR	Regional Index (l)	100	113	130	134	150	174	201
YVR	Distance (m)		1436	1436		1436	1436	1436
YVR	Outbound Passengers (p)	49079	77669	83424	86159	89778	101755	111922
YVR	Load Factor (q)	78.3%	79.7%	80.2%	80.2%	80.2%	80.2%	80.2%
YVR	Seat Departures (r)	62664	97392	104076	107489	112003	126945	139630
YVR	AWDPM Seat Departures (s)		663	709	732	763	865	951
YWG	Regional Index (l)	100	113	130	134	150	174	201
YWG	Distance (m)		394	394		394	394	394
YWG	Outbound Passengers (p)	88616	86558	92972	96021	100053	113401	124732
YWG	Load Factor (q)	66.8%	68.0%	68.3%	68.3%	68.3%	68.3%	68.3%
YWG	Seat Departures (r)	132741	126236	136077	140539	146441	165978	182562
YWG	AWDPM Seat Departures (s)		354	381	394	410	465	511
YXE	Regional Index (l)	100	113	130	134	150	174	201
YXE	Distance (m)		795	795		795	795	795
YXE	Outbound Passengers (p)	27638	26996	28997	29947	31205	35368	38902
YXE	Load Factor (q)	59.8%	60.9%	61.2%	61.2%	61.2%	61.2%	61.2%
YXE	Seat Departures (r)	46238	56416	47400	48954	51010	57816	63592
YXE	AWDPM Seat Departures (s)		181	152	157	164	186	205
YYC	Regional Index (l)	100	113	130	134	150	174	201
YYC	Distance (m)		1051	1051		1051	1051	1051
YYC	Outbound Passengers (p)	67155	65596	70456	72766	75822	85938	94525
YYC	Load Factor (q)	68.7%	70.0%	70.3%	70.3%	70.3%	70.3%	70.3%
YYC	Seat Departures (r)	97696	97056	100151	103435	107779	122158	134364
YYC	AWDPM Seat Departures (s)		366	378	390	407	461	507

Table 6.5

Scheduled International Market-by-Market Passenger Projections at MSP

Market		2009	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
YYZ	Regional Index (l)	100	113	130	134	150	174	201
YYZ	Distance (m)		679	679		679	679	679
YYZ	Outbound Passengers (p)	65341	83774	89982	92932	96835	109754	120721
YYZ	Load Factor (q)	70.3%	71.6%	72.0%	72.0%	72.0%	72.0%	72.0%
YYZ	Seat Departures (r)	92924	117006	125036	129136	134559	152511	167750
YYZ	AWDPM Seat Departures (s)		391	417	431	449	509	560

(a) Table 6.3.
(b) FAA Aerospace Forecasts: Fiscal Years 2008-2025. extrapolated to 2030.
(c) Table A.5.1.
(d) Sum of originations for individual markets.
(e) Ratio in 2008 assumed to remain constant.
(f) Enplanements divided by ratio of enplanements to outbound passengers.
(g) Sum of outbound passengers for individual markets.
(h) Adjustment factor for individual destination market enplanement/origination ratios so that bottom-up outbound passengers match top-down outbound passengers.
(I) sum for non-pre-cleared Canadian markets.
(j) Sum of annual scheduled seat departures for individual markets.
(k) Outbound passengers multiplied by enplanement to outbound passenger ratio.
(l) Regional growth rate converted to index in which 2007 equals 100.
(m) Distance from MSP to individual market (in statute miles).
(n) Originations assumed to increase at same rate as regional index. Not shown to preserve confidentiality.
(o) Ratio of outbound passengers to originating passengers. Assumed to remain constant in markets with existing non-stop servive. New non-stop markets assumed to have same enplanement/origination ratio as most similar existing non-stop market. Not shown to preserve confidentiality.
(p) Originations multiplied by enplanement/origination ratio.
(q) Load factor assumed to change at same rate as forecasted FAA load factor for that region.
(r) Outbound passengers divided by load factor.
(s) Annual scheduled seat departures divided by 365 days.

Sources: As noted and HNTB analysis.

Table 6.6

US International Seat Departure Thresholds for Nonstop Service: 2007

Geographic Category	US Total Seat Departures (a) Lowest With (b)		Highest Without (c)		Average (d)
International					
Mexico/Central America (tourist)	PVR	928,555	SJD	1,150,289	1,039,422
Mexico/Central America (tourist Seasonal)	ZLO	38,717	SJO	1,038,591	538,654
Mexico/Central America (non-tourist)	MEX	2,812,866	GDL	1,143,490	1,978,178
Caribbean (seasonal)	GCM	464,948	NAS	1,413,725	939,337
Canada	YQR	83,862	YOW	540,477	312,170
South America	N/A		GRU	1,345,042	6,156,966 (e)
Europe	LON	8,036,911	FRA	4,277,021	6,156,966
Africa	N/A		DKR	172,418	6,156,966 (e)
Middle East	N/A		TLV	799,270	6,156,966 (e)
Asia	NRT	5,339,493	ICN	2,189,421	3,764,457
Oceania	N/A		SYD	890,571	3,764,457 (f)

(a) Official Airline Guide.
(b) Smallest market (US scheduled seat departures) in geographic category with non-stop service to MSP.
(c) Largest market (US scheduled seat departures) in geographic category without non-stop service to MSP.
(d) Average of smallest market with non-stop service and largest market without non-stop service.
(e) Assumed to be the same as Europe.
(f) Assumed to be the same as Asia.

Sources: As noted and HNTB analysis.

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
	Mexico and Central America															
	Acapulco												0	0	0	0
	ACA	ACA	CA	DL	320	148						0	0	0	0	0
	ACA	ACA	CA	DL	319	124						0	0	0	0	0
	ACA	ACA	CA	DL	NGA	120						0	0	0	0	0
	ACA	ACA	CA	DL	757	184						0	0	0	0	0
	ACA	ACA	CA	DL	738	160						0	0	0	0	0
	ACA	ACA	CA	DL	NGC	180						0	0	0	0	0
	ACA	ACA	CA	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
	Belize												0	0	0	0
	BZE	BZE	CA	DL	320	148						0	0	0	0	0
	BZE	BZE	CA	DL	319	124						0	0	0	0	0
	BZE	BZE	CA	DL	NGA	120						0	0	0	0	0
	BZE	BZE	CA	DL	757	184						0	0	0	0	0
	BZE	BZE	CA	DL	738	160						0	0	0	0	0
	BZE	BZE	CA	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
	Cancun												0	0	0	0
	CUN	CUN	CA	DL	320	148						0	0	0	0	0
	CUN	CUN	CA	DL	319	124						0	0	0	0	0
	CUN	CUN	CA	DL	NGA	120						0	0	0	0	0
	CUN	CUN	CA	DL	757	184						0	0	0	0	0
	CUN	CUN	CA	DL	738	160						0	0	0	0	0
	CUN	CUN	CA	DL	NGC	180						0	0	0	0	0
	CUN	CUN	CA	DL	NGD	225						0	0	0	0	0
	CUN	CUN	CA	DL	753	223						0	0	0	0	0
	CUN	CUN	CA	DL	73H	160						0	0	0	0	0
	CUN	CUN	CA	RD	738	168						0	0	0	0	0
	CUN	CUN	CA	SY	737	162						0	0	0	0	0
	CUN	CUN	CA	SY	738	162						0	0	0	0	0
	CUN	CUN	CA	SY	73G	129						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
	Cozumel												0	0	0	0
	CZM	CZM	CA	DL	320	148						0	0	0	0	0
	CZM	CZM	CA	DL	319	124						0	0	0	0	0
	CZM	CZM	CA	DL	NGA	120						0	0	0	0	0
	CZM	CZM	CA	DL	757	184						0	0	0	0	0
	CZM	CZM	CA	DL	738	160						0	0	0	0	0
	CZM	CZM	CA	DL	NGC	180						0	0	0	0	0
	CZM	CZM	CA	SY	737	162						0	0	0	0	0
	CZM	CZM	CA	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
	Huatulco												0	0	0	0
	HUX	HUX	CA	SY	738	168						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Liberia													0	0	0	0
	LIR	LIR	CA	DL	320	148						0	0	0	0	0
	LIR	LIR	CA	DL	319	124						0	0	0	0	0
	LIR	LIR	CA	DL	NGA	120						0	0	0	0	0
	LIR	LIR	CA	DL	757	184						0	0	0	0	0
	LIR	LIR	CA	DL	738	160						0	0	0	0	0
	LIR	LIR	CA	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Mexico City													173	189	226	263
	MEX	MEX	CA	AM	M80	142						0	0	0	0	0
	MEX	MEX	CA	AM	757	191						0	0	0	0	0
	MEX	MEX	CA	AM	738	150						0	0	0	0	0
	MEX	MEX	CA	AM	73G	124			0.2	0.6	0.8	0	0	25	74	99
	MEX	MEX	CA	DL	738	160		1.0	1.0	1.0	1.0	0	160	160	160	160
	MEX	MEX	CA	DL	319	124						0	0	0	0	0
				Subtotal			0.0	1.0	1.2	1.6	1.8	0	160	185	234	259
Mazatlan													0	0	0	0
	MZT	MZT	CA	DL	320	148						0	0	0	0	0
	MZT	MZT	CA	DL	319	124						0	0	0	0	0
	MZT	MZT	CA	DL	NGA	120						0	0	0	0	0
	MZT	MZT	CA	DL	757	184						0	0	0	0	0
	MZT	MZT	CA	DL	738	160						0	0	0	0	0
	MZT	MZT	CA	DL	NGC	180						0	0	0	0	0
	MZT	MZT	CA	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Puerto Vallarta													0	0	0	0
	PVR	PVR	CA	RD	738	168						0	0	0	0	0
	PVR	PVR	CA	DL	320	148						0	0	0	0	0
	PVR	PVR	CA	DL	319	124						0	0	0	0	0
	PVR	PVR	CA	DL	NGA	120						0	0	0	0	0
	PVR	PVR	CA	DL	757	183						0	0	0	0	0
	PVR	PVR	CA	DL	738	160						0	0	0	0	0
	PVR	PVR	CA	DL	NGC	180						0	0	0	0	0
	PVR	PVR	CA	SY	737	162						0	0	0	0	0
	PVR	PVR	CA	SY	738	162						0	0	0	0	0
	PVR	PVR	CA	SY	73G	129						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
San Jose del Cabo													0	0	0	0
	SJD	SJD	CA	DL	320	148						0	0	0	0	0
	SJD	SJD	CA	DL	319	124						0	0	0	0	0
	SJD	SJD	CA	DL	NGA	120						0	0	0	0	0
	SJD	SJD	CA	DL	757	184						0	0	0	0	0
	SJD	SJD	CA	DL	738	160						0	0	0	0	0
	SJD	SJD	CA	DL	NGC	180						0	0	0	0	0
	SJD	SJD	CA	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
San Jose													0	0	0	0
	SJO	SJO	CA	DL	320	148						0	0	0	0	0
	SJO	SJO	CA	DL	319	124						0	0	0	0	0
	SJO	SJO	CA	DL	NGA	120						0	0	0	0	0
	SJO	SJO	CA	DL	757	184						0	0	0	0	0
	SJO	SJO	CA	DL	738	160						0	0	0	0	0
	SJO	SJO	CA	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Ixtapa/Zihuatanejo													0	0	0	0
	ZIH	ZIH	CA	DL	320	148						0	0	0	0	0
	ZIH	ZIH	CA	DL	319	124						0	0	0	0	0
	ZIH	ZIH	CA	DL	NGA	120						0	0	0	0	0
	ZIH	ZIH	CA	DL	757	184						0	0	0	0	0
	ZIH	ZIH	CA	DL	738	160						0	0	0	0	0
	ZIH	ZIH	CA	DL	NGC	180						0	0	0	0	0
	ZIH	ZIH	CA	SY	738	162						0	0	0	0	0
	ZIH	ZIH	CA	SY	73G	129						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Manzanillo													0	0	0	0
	ZLO	ZLO	CA	DL	320	148						0	0	0	0	0
	ZLO	ZLO	CA	DL	319	124						0	0	0	0	0
	ZLO	ZLO	CA	DL	NGA	120						0	0	0	0	0
	ZLO	ZLO	CA	DL	757	184						0	0	0	0	0
	ZLO	ZLO	CA	DL	738	160						0	0	0	0	0
	ZLO	ZLO	CA	DL	NGC	180						0	0	0	0	0
	ZLO	ZLO	CA	SY	737	162						0	0	0	0	0
	ZLO	ZLO	CA	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Carribean

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Aruba													0	0	0	0
P	AUA	AUA	CR	DL	320	148						0	0	0	0	0
P	AUA	AUA	CR	DL	319	124						0	0	0	0	0
P	AUA	AUA	CR	DL	NGA	120						0	0	0	0	0
P	AUA	AUA	CR	DL	757	184						0	0	0	0	0
P	AUA	AUA	CR	DL	738	160						0	0	0	0	0
P	AUA	AUA	CR	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Freeport													0	0	0	0
P	FPO	FPO	CR	NW	320	148						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Grand Cayman Island													0	0	0	0
	GCM	GCM	CR	DL	320	148						0	0	0	0	0
	GCM	GCM	CR	DL	319	124						0	0	0	0	0
	GCM	GCM	CR	DL	NGA	120						0	0	0	0	0
	GCM	GCM	CR	DL	757	184						0	0	0	0	0
	GCM	GCM	CR	DL	738	160						0	0	0	0	0
	GCM	GCM	CR	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures 2010	2016	EA Analysis Pd. 2020	2025	2030	AWDPM Seat Departures 2010	2016	EA Analysis Pd. 2020	2025	2030
Montego Bay													0	0	0	0
	MBJ	MBJ	CR	DL	320	148						0	0	0	0	0
	MBJ	MBJ	CR	DL	319	124						0	0	0	0	0
	MBJ	MBJ	CR	DL	NGA	120						0	0	0	0	0
	MBJ	MBJ	CR	DL	757	184						0	0	0	0	0
	MBJ	MBJ	CR	DL	738	160						0	0	0	0	0
	MBJ	MBJ	CR	DL	NGC	180						0	0	0	0	0
	MBJ	MBJ	CR	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Nassau													0	0	0	0
P	NAS	NAS	CR	DL	320	148						0	0	0	0	0
P	NAS	NAS	CR	DL	319	124						0	0	0	0	0
P	NAS	NAS	CR	DL	NGA	120						0	0	0	0	0
P	NAS	NAS	CR	DL	757	184						0	0	0	0	0
P	NAS	NAS	CR	DL	738	160						0	0	0	0	0
P	NAS	NAS	CR	DL	NGC	180						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Puerto Plata													0	0	0	0
	POP	POP	CR	NW	320	148						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Punta Cana													0	0	0	0
	PUJ	PUJ	CR	DL	320	148						0	0	0	0	0
	PUJ	PUJ	CR	DL	319	124						0	0	0	0	0
	PUJ	PUJ	CR	DL	NGA	120						0	0	0	0	0
	PUJ	PUJ	CR	DL	757	184						0	0	0	0	0
	PUJ	PUJ	CR	DL	738	160						0	0	0	0	0
	PUJ	PUJ	CR	DL	NGC	180						0	0	0	0	0
	PUJ	PUJ	CR	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
St. Maarten													0	0	0	0
	SXM	SXM	CR	SY	738	162						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0

Europe

Amsterdam													975	1054	1253	1445
	AMS	AMS	EU	KL	M11	297						0	0	0	0	0
	AMS	AMS	EU	KL	77W	425					1.0	0	0	0	0	425
	AMS	AMS	EU	KL	332	259						0	0	0	0	0
	AMS	AMS	EU	KL	772	327				1.0		0	0	0	327	0
	AMS	AMS	EU	DL	333	298	3.0	2.0	1.0	1.0	1.0	894	596	298	298	298
	AMS	AMS	EU	DL	332	243						0	0	0	0	0
	AMS	AMS	EU	DL	744	386		1.0	2.0	1.0		0	386	772	386	0
	AMS	AMS	EU	DL	763	221						0	0	0	0	0
	AMS	AMS	EU	DL	764	245				1.0		0	0	0	245	0
	AMS	AMS	EU	DL	773	350					2.0	0	0	0	0	700
	AMS	AMS	EU	DL	772	278						0	0	0	0	0
	AMS	AMS	EU	DL	788	202						0	0	0	0	0
	AMS	AMS	EU	DL	767	216						0	0	0	0	0
				Subtotal			3.0	3.0	3.0	4.0	4.0	894	982	1070	1256	1423

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures					AWDPM Seat Departures				
									EA Analysis Pd.					EA Analysis Pd.		
							2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
Paris													262	283	336	387
	CDG	CDG	EU	AF	343	272						0	0	0	0	0
	CDG	CDG	EU	AF	777	264						0	0	0	0	0
	CDG	CDG	EU	AF	332	219				0.6	0.8	0	0	0	131	175
	CDG	CDG	EU	AF	773	325						0	0	0	0	0
	CDG	CDG	EU	DL	333	298						0	0	0	0	0
	CDG	CDG	EU	DL	763	221	1.0					221	0	0	0	0
	CDG	CDG	EU	DL	764	245		1.0				0	245	0	0	0
	CDG	CDG	EU	DL	772	278			1.0			0	0	278	0	0
	CDG	CDG	EU	DL	788	202				1.0	1.0	0	0	0	202	202
	CDG	CDG	EU	DL	763	216						0	0	0	0	0
				Subtotal			1.0	1.0	1.0	1.6	1.8	221	245	278	333	377
Rome													0	0	0	0
	FCO	FCO	EU	NW	333	298						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Frankfurt													38	41	48	56
	FRA	FRA	EU	LH	340	221						0	0	0	0	0
	FRA	FRA	EU	LH	333	221						0	0	0	0	0
	FRA	FRA	EU	LH	350	300						0	0	0	0	0
	FRA	HHN	EU	SY	738	162		0.2	0.3	0.3	0.3	0	32	49	49	49
				Subtotal			0.0	0.2	0.3	0.3	0.3	0	32	49	49	49
Reykjavik													186	201	238	275
	KEF	KEF	EU	FI	752	186						0	0	0	0	0
	KEF	KEF	EU	FI	757	186						0	0	0	0	0
	KEF	KEF	EU	FI	75W	176	1.0	1.0				176	176	0	0	0
	KEF	KEF	EU	FI	788	210			1.0	1.1	1.3	0	0	210	231	273
				Subtotal			1.0	1.0	1.0	1.1	1.3	176	176	210	231	273
London													283	306	364	419
	LGW	LON	EU	SY	738	162						0	0	0	0	0
	STN	LON	EU	SY	738	162		0.4	0.4	0.7	1.0	0	65	65	113	162
	LHR	LON	EU	DL	333	298						0	0	0	0	0
	LHR	LON	EU	DL	332	243						0	0	0	0	0
	LHR	LON	EU	DL	744	386						0	0	0	0	0
	LHR	LON	EU	DL	763	221		1.0				0	221	0	0	0
	LHR	LON	EU	DL	764	246	1.0		1.0	1.0	1.0	246	0	246	246	246
	LHR	LON	EU	DL	772	278						0	0	0	0	0
	LHR	LON	EU	DL	773	350						0	0	0	0	0
	LHR	LON	EU	DL	788	202						0	0	0	0	0
	LHR	LON	EU	DL	767	216						0	0	0	0	0
				Subtotal			1.0	1.4	1.4	1.7	2.0	246	286	311	359	408
Madrid													0	39	47	54
	MAD	MAD	EU	SY	738	162			0.2	0.3	0.3	0	0	32	49	49
				Subtotal			0.0	0.0	0.2	0.3	0.3	0	0	32	49	49
Munich													0	0	35	40
	DUB	DUB	EU	SY	738	162				0.2	0.2	0	0	0	32	32
				Subtotal			0.0	0.0	0.0	0.2	0.2	0	0	0	32	32

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures					AWDPM Seat Departures				
									EA Analysis Pd.					EA Analysis Pd.		
							2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
South and East Asia																
Bangkok													0	0	0	0
	BKK	BKK	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Mumbai													0	0	0	0
	BOM	BOM	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Hong Kong													0	0	0	361
	HKG	HKG	AS	NW	332	243						0	0	0	0	0
	HKG	HKG	AS	DL	772	268						0	0	0	0	0
	HKG	HKG	AS	DL	773	350					1.0	0	0	0	0	350
	HKG	HKG	AS	DL	788	202						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	1.0	0	0	0	0	350
Seoul													0	185	232	283
	ICN	ICN	AS	KE	744	384						0	0	0	0	0
	ICN	ICN	AS	KE	777	261						0	0	0	0	0
	ICN	ICN	AS	KE	788	210				0.2	0.4	0	0	0	42	84
	ICN	ICN	AS	KE	773	291						0	0	0	0	0
	ICN	ICN	AS	DL	788	202			1.0	1.0	1.0	0	0	202	202	202
				Subtotal			0.0	0.0	1.0	1.2	1.4	0	0	202	244	286
Osaka													0	0	0	0
	KIX	KIX	AS	NW	332	243						0	0	0	0	0
	KIX	KIX	AS	NW	744	386						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Manila													0	0	0	0
	MNL	MNL	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Tokyo													497	497	497	497
	NRT	NRT	AS	NH	788	210		0.4	0.6	1.0	1.0	0	84	126	210	210
	NRT	NRT	AS	DL	772	278				1.0	1.0	0	0	0	278	278
	NRT	NRT	AS	DL	773	325						0	0	0	0	0
	NRT	NRT	AS	DL	788	202						0	0	0	0	0
	NRT	NRT	AS	DL	744	403	1.0					403	0	0	0	0
	NRT	NRT	AS	DL	744	386		1.0	1.0			0	386	386	0	0
	NRT	NRT	AS	DL	332	243						0	0	0	0	0
				Subtotal			1.0	1.4	1.6	2.0	2.0	403	470	512	488	488
Tokoname													0	0	0	0
	NGO	NGO	AS	NW	332	243						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Beijing													0	305	384	468
	PEK	PEK	AS	CA	788	210						0	0	0	0	0
	PEK	PEK	AS	CA	359	327			0.1	0.3	0.6	0	0	33	98	196
	PEK	PEK	AS	DL	772	278			1.0	1.0	1.0	0	0	278	278	278
	PEK	PEK	AS	DL	773	325						0	0	0	0	0
	PEK	PEK	AS	DL	788	202						0	0	0	0	0
	PEK	PEK	AS	DL	744	386						0	0	0	0	0
	PEK	PEK	AS	DL	332	243						0	0	0	0	0
				Subtotal			0.0	0.0	1.1	1.3	1.6	0	0	311	376	474

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures					AWDPM Seat Departures				
									EA Analysis Pd.					EA Analysis Pd.		
							2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
Shanghai													0	0	0	0
	PVG	PVG	AS	DL	772	278						0	0	0	0	0
	PVG	PVG	AS	DL	773	325						0	0	0	0	0
	PVG	PVG	AS	DL	788	202						0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Ho Chi Minh													0	0	0	0
	SGN	SGN	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Singapore													0	0	0	0
	SIN	SIN	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Taipei													0	0	0	0
	TPE	TPE	AS									0	0	0	0	0
				Subtotal			0.0	0.0	0.0	0.0	0.0	0	0	0	0	0
Canada																
Edmonton, Canada													266	277	314	345
P	YEG	YEG	CN	DL	320	148					1.0	0	0	0	0	148
P	YEG	YEG	CN	DL	319	124		1.0	1.0	2.0	1.0	0	124	124	248	124
P	YEG	YEG	CN	DL	NGA	120						0	0	0	0	0
P	YEG	YEG	CN	DL	757	183						0	0	0	0	0
P	YEG	YEG	CN	DL	738	160						0	0	0	0	0
P	YEG	YEG	CN	DL	321	180						0	0	0	0	0
P	YEG	YEG	CN	DL	M80	149						0	0	0	0	0
P	YEG	YEG	CN	DL	CR9	76	4.0	2.0	2.0	1.0		304	152	152	76	0
P	YEG	YEG	CN	DL	M90	160						0	0	0	0	0
P	YEG	YEG	CN	DL	CR7	70						0	0	0	0	0
P	YEG	YEG	CN	DL	E75	76					1.0	0	0	0	0	76
				Subtotal			4.0	3.0	3.0	3.0	3.0	304	276	276	324	348
Ottawa													143	149	169	186
P	YOW	YOW	CN	DL	CRJ	50						0	0	0	0	0
P	YOW	YOW	CN	DL	319	124				0.4	0.7	0	0	0	50	87
P	YOW	YOW	CN	DL	E75	76		2.0	2.0	1.6	1.3	0	152	152	122	99
				Subtotal			0.0	2.0	2.0	2.0	2.0	0	152	152	171	186
Regina													160	167	189	208
	YQR	YQR	CN	DL	CRJ	50	4.0	2.4	2.4	1.0	1.0	200	120	120	50	50
	YQR	YQR	CN	DL	E75	76		0.6	0.6	2.0	2.0	0	46	46	152	152
	YQR	YQR	CN	DL	D95	125						0	0	0	0	0
	YQR	YQR	CN	DL	320	148						0	0	0	0	0
	YQR	YQR	CN	DL	319	124						0	0	0	0	0
				Subtotal			4.0	3.0	3.0	3.0	3.0	200	166	166	202	202
Thunder Bay													0	0	0	0
	YQT	YQT	CN	DL	SF3	34						0	0	0	0	0
	YQT	YQT	CN	DL	CRJ	50	2.0					100	0	0	0	0
	YQT	YQT	CN	DL	NGT	50						0	0	0	0	0

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures					AWDPM Seat Departures				
									EA Analysis Pd.					EA Analysis Pd.		
							2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
				Subtotal			2.0	0.0	0.0	0.0	0.0	100	0	0	0	0
Montreal													163	170	192	211
P	YUL	YUL	CN	DL	CR9	76	2.0	2.0	1.6	1.0	1.0	152	152	122	76	76
P	YUL	YUL	CN	DL	CRJ	50						0	0	0	0	0
P	YUL	YUL	CN	DL	319	124			0.4	1.0	1.0	0	0	50	124	124
P	YUL	YUL	CN	DL	CR7	70						0	0	0	0	0
				Subtotal			2.0	2.0	2.0	2.0	2.0	152	152	171	200	200
Vancouver													732	763	865	951
P	YVR	YVR	CN	DL	320	148				1.0	1.0	0	0	0	148	148
P	YVR	YVR	CN	DL	319	124	4.0	4.0	4.0	1.0	3.0	496	496	496	124	372
P	YVR	YVR	CN	DL	NGA	120						0	0	0	0	0
P	YVR	YVR	CN	DL	757	184						0	0	0	0	0
P	YVR	YVR	CN	DL	738	160				2.0	1.0	0	0	0	320	160
P	YVR	YVR	CN	DL	321	180						0	0	0	0	0
P	YVR	YVR	CN	DL	M80	149						0	0	0	0	0
P	YVR	YVR	CN	DL	E75	76						0	0	0	0	0
P	YVR	YVR	CN	DL	CR9	76						0	0	0	0	0
P	YVR	YVR	CN	AC	320	140			2.0	2.0	2.0		0	280	280	280
P	YVR	YVR	CN	AC	319	112		2.0				0	224	0	0	0
				Subtotal			4.0	6.0	6.0	6.0	7.0	496	720	776	872	960
Winnipeg													394	410	465	511
P	YWG	YWG	CN	DL	320	148						0	0	0	0	0
P	YWG	YWG	CN	DL	319	124		2.0	1.0	1.0	1.0	0	248	124	124	124
P	YWG	YWG	CN	DL	NGA	120						0	0	0	0	0
P	YWG	YWG	CN	DL	D9S	100						0	0	0	0	0
P	YWG	YWG	CN	DL	738	160				1.0	1.0	0	0	0	160	160
P	YWG	YWG	CN	DL	NGC	180						0	0	0	0	0
P	YWG	YWG	CN	DL	M80	149			1.0			0	0	149	0	0
P	YWG	YWG	CN	DL	CR9	76	2.0			1.0	3.0	152	0	0	76	228
P	YWG	YWG	CN	DL	CRJ	50	1.0	3.0	3.0	2.0		50	150	150	100	0
P	YWG	YWG	CN	DL	D95	125	1.0					125	0	0	0	0
P	YWG	YWG	CN	DL	CR7	70	1.0					70	0	0	0	0
P	YWG	YWG	CN	WS	73G	136						0	0	0	0	0
				Subtotal			5.0	5.0	5.0	5.0	5.0	397	398	423	460	512
Saskatoon													157	164	186	205
	YXE	YXE	CN	DL	320	148						0	0	0	0	0
	YXE	YXE	CN	DL	319	124						0	0	0	0	0
	YXE	YXE	CN	DL	E75	76		2.0	1.0	1.0	2.0	0	152	76	76	152
	YXE	YXE	CN	DL	CRJ	50	4.0		2.0	2.0	1.0	200	0	100	100	50
	YXE	YXE	CN	DL	CR7	70						0	0	0	0	0
	YXE	YXE	CN	DL	CR9	76						0	0	0	0	0
				Subtotal			4.0	2.0	3.0	3.0	3.0	200	152	176	176	202
Calgary													390	407	461	507
P	YYC	YYC	CN	DL	320	148				1.0	1.0	0	0	0	148	148
P	YYC	YYC	CN	DL	319	124	2.0	2.0	2.0	2.0	1.0	248	248	248	248	124
P	YYC	YYC	CN	DL	E75	76		2.0	2.0	1.0	1.0	0	152	152	76	76
P	YYC	YYC	CN	DL	738	160					1.0	0	0	0	0	160

Table 6.7

International Scheduled Aircraft Departure Projections at MSP

x	Airport	Market	Region	Publ. Carrier	Equip	Seats	AWDPM Aircraft Departures					AWDPM Seat Departures				
									EA Analysis Pd.					EA Analysis Pd.		
							2010	2016	2020	2025	2030	2010	2016	2020	2025	2030
P	YYC	YYC	CN	DL	CRJ	50						0	0	0	0	0
P	YYC	YYC	CN	DL	NGA	120						0	0	0	0	0
P	YYC	YYC	CN	DL	CR7	70						0	0	0	0	0
P	YYC	YYC	CN	DL	CR9	76	1.0					76	0	0	0	0
P	YYC	YYC	CN	WS	73G	136						0	0	0	0	0
				Subtotal			3.0	4.0	4.0	4.0	4.0	324	400	400	472	508
Toronto													431	449	509	560
P	YYZ	YYZ	CN	AC	CRJ	50						0	0	0	0	0
P	YYZ	YYZ	CN	AC	319	112		1.0	1.0	1.0		0	112	112	112	0
P	YYZ	YYZ	CN	AC	CRJ	50	2.0					100	0	0	0	0
P	YYZ	YYZ	CN	AC	E75	73		1.0	1.0	1.0	3.0	0	73	73	73	219
P	YYZ	YYZ	CN	DL	320	148						0	0	0	0	0
P	YYZ	YYZ	CN	DL	319	124		1.0	1.0	1.0	1.0	0	124	124	124	124
P	YYZ	YYZ	CN	DL	NGA	120						0	0	0	0	0
P	YYZ	YYZ	CN	DL	D9S	100						0	0	0	0	0
P	YYZ	YYZ	CN	DL	738	160						0	0	0	0	0
P	YYZ	YYZ	CN	DL	NGC	180						0	0	0	0	0
P	YYZ	YYZ	CN	DL	M80	149						0	0	0	0	0
P	YYZ	YYZ	CN	DL	CR9	76	1.0	1.0	2.0	2.0	3.0	76	76	152	152	228
P	YYZ	YYZ	CN	DL	CRJ	50	4.0	1.0		1.0		200	50	0	50	0
P	YYZ	YYZ	CN	DL	CR7	70						0	0	0	0	0
P	YYZ	YYZ	CN	WS	73G	140						0	0	0	0	0
				Subtotal			7.0	5.0	5.0	6.0	7.0	376	435	461	511	571
				Total			42.0	41.0	44.8	49.3	53.7	4459	5202	6160	7040	8157

(a) AAD Seat Departures from Table 6.5

Sources: As noted and HNTB analysis.

Table 6.8

MSP International Air Carrier Fleet Mix by Carrier
Scheduled Average Weekday Peak Month Departures

				EA Analysis Period		Long Term
Carrier	Equipment	2010	2016	2020	2025	2030
AC	319		3.0	1.0	1.0	
	320			2.0	2.0	2.0
	CRJ	2.0				
	E75		1.0	1.0	1.0	3.0
AC Total		2.0	4.0	4.0	4.0	5.0
AF	332				0.6	0.8
AF Total					0.6	0.8
AM	738					
	73G			0.2	0.6	0.8
AM Total				0.2	0.6	0.8
CA	359			0.1	0.3	0.6
CA Total				0.1	0.3	0.6
DL	319	6.0	10.0	9.4	8.4	8.7
	320				2.0	3.0
	332					
	333	3.0	2.0	1.0	1.0	1.0
	738		1.0	1.0	4.0	4.0
	744	1.0	2.0	3.0	1.0	
	753					
	763	1.0	1.0			
	764	1.0	1.0	1.0	2.0	1.0
	767					
	772			2.0	2.0	2.0
	773					3.0
	788			1.0	2.0	2.0
	CR7	1.0				
	CR9	10.0	5.0	5.6	5.0	7.0
	CRJ	15.0	6.4	7.4	6.0	2.0
	D95	1.0				
	E75		6.6	5.6	5.6	7.3
	M80			1.0		
	SF3					
DL Total		39.0	35.0	38.0	39.0	41.0
FI	752					
	788			1.0	1.1	1.3
	75W	1.0	1.0			
FI Total		1.0	1.0	1.0	1.1	1.3
KE	744					
	788				0.2	0.4
KE Total					0.2	0.4
KL	332					
	772				1.0	
	77W					1.0
KL Total					1.0	1.0
NH	788		0.4	0.6	1.0	1.0
NH Total			0.4	0.6	1.0	1.0
SY	737					
	738		0.6	0.9	1.5	1.8
	73G					
SY Total			0.6	0.9	1.5	1.8
	Total	42.0	41.0	44.8	49.3	53.7

Sources: Table 6.7 and HNTB analysis.

Attachment 7

Non-Scheduled Passenger Forecasts

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Table 7.1

Forecast of Annual Domestic and International Charter Enplanements at MSP

Year	Domestic (a)	International (a)	Total (b)
1995	n/a	n/a	501,792
1996	n/a	n/a	481,532
1997	n/a	n/a	465,628
1998	n/a	n/a	635,290
1999	n/a	n/a	650,350
2000	n/a	n/a	399,683
2001	n/a	n/a	280,609
2002	n/a	n/a	365,023
2003	115,050	118,642	233,692
2004	110,185	150,913	240,250
2005	94,267	111,708	205,975
2006	57,642	93,770	151,412
2007	41,874	43,641	85,515
2008	16,990	15,386	32,376
2009	9,640	17,085	26,725
2010	4,736	-	4,736
2015	2,658	2,658	5,316
2016	2,732	2,732	5,464
EA Analysis Period			
2020	3,041	3,041	6,081
2025	3,478	3,478	6,956
Average Annual Growth Rate			
2010-2025	-2.0%	n/a	2.6%
Long Term			
2030	3,980	3,980	7,960
Average Annual Growth Rate			
2010-2030	-0.9%	n/a	2.6%

(a) Historical data from monthly activity reports. Future domestic/international passenger traffic assumed to be evenly split based on general historical experience.
(b) Assumed to inrease at same rate as scheduled enplanements.

Sources: As noted and HNTB analysis.

Table 7.2

Forecast of MSP Domestic Non-Scheduled (Charter) Annual Departures and Fleet Mix

Aircraft	Capacity Seats (a)	2008	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
			Annual (b)					
BOMBARDIER BD-700	14	1	-	-		-	-	-
CESSNA CITATION III	7	1	-	-		-	-	-
CESSNA CITATION X	8	1	-	-		-	-	-
EMB-135 Embraer	13	1	-	-		-	-	-
DC-9-15/15F MD	50	3	4	-		-	-	-
DC-9-30 MD	74	3	2	-		-	-	-
MD-80/DC-9-80 MD	146	8	10	8	7	6	5	4
727-200 Boeing	148	66	-					
737-100/200 Boeing	104	11	6					
737-300 Boeing	114	3	-					
737-400 Boeing	78	42	19	11	12	13	14	15
737-700/LR	18	1	-					
737-800/900 <7-1-02 Boeing	173	15	8	4	5	6	8	9
757-200 Boeing	165	6	-					
767-300/ER Boeing	264	1	2	2	2	3	4	6
MD-11	365	-	-	-		-	-	-
Total Departures		163	51	25	26	28	31	34
Total Operations (c)		306	103	50	52	56	62	68
Enplanements (d)		16,990	4,736	2,658	2,732	3,041	3,478	3,980
Load Factor (e)		92.4%	81.3%	81.3%	81.3%	81.3%	81.3%	81.3%
Seat Departures (f)		18,397	5,826	3,270	3,361	3,740	4,279	4,896

(a) Existing fleet mix data from USDOT T-100 database.

(b) Annual departures by aircraft type estimated so that seat departures sum to estimate of seat departures derived from enplanements and load factor.

(c) Departures multiplied by two.

(d) Table 7.1.

(e) Assumed to remain constant.

(f) Enplanements divided by load factor.

Sources: As noted and HNTB analysis.

Table 7.3

Forecast of International Non-Scheduled (Charter) Annual Departures and Fleet Mix at MSP

Aircraft	Capacity Seats (a)	2008	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
			Annual (b)					
BOMBARDIER BD-700 GLOBA	12	1		-			-	-
727-200 Boeing	154	92		-		-	-	-
737-100/200 Boeing	122	1		-		-	-	-
737-300	114	-				-	-	-
737-400 Boeing	68	6						
737-700/LR >4-1-01 Boeing	18	1						
737-800/900 <7-1-02 Boeing	173	2		10	10	11	11	12
757-200 Boeing	165	-		6	6	6	6	7
767-300/ER Boeing	264			2	2	3	5	6
Total Departures		103	-	18	18	20	22	25
Total Operations (c)		230	-	36	36	40	44	50
Enplanements (d)		15,386	-	2,658	2,732	3,041	3,478	3,980
Load Factor (e)		78.2%	78.2%	78.2%	78.2%	78.2%	78.2%	78.2%
Seat Departures (f)		19,667	-	3,397	3,492	3,887	4,446	5,087

(a) Existing fleet mix data from USDOT T-100 database.

(b) Annual departures by aircraft type estimated so that seat departures sum to estimate of seat departures derived from enplanements and load factor.

(c) Departures multiplied by two.

(d) Table 7.1.

(e) Assumed to remain constant.

(f) Enplanements divided by load factor.

Sources: As noted and HNTB analysis.

Table 7.4

Forecast of MSP Annual Domestic and International Charter Aircraft Operations

Year	Domestic (a)	International (b)	Total
1995	n/a	n/a	6,832
1996	n/a	n/a	8,750
1997	n/a	n/a	8,350
1998	n/a	n/a	11,531
1999	n/a	n/a	10,600
2000	n/a	n/a	5,959
2001	n/a	n/a	4,090
2002	n/a	n/a	4,833
2003	2,578	2,154	4,732
2004	2,235	1,558	3,793
2005	2,248	1,631	3,879
2006	1,846	1,387	3,233
2007	821	611	1,432
2008	306	230	536
2010	103	-	103
2015	50	36	86
2016	52	36	88
EA Analysis Period			
2020	56	40	96
2025	62	44	106
Average Annual Growth Rate			
2010-2025	-3.3%	n/a	0.2%
Long Term			
2030	68	50	118
Average Annual Growth Rate			
2010-2030	-2.1%	n/a	0.7%

(a) Historical data from Monthly Activity Reports. Forecast data from Table 7.2.
(b) Historical data from Monthly Activity Reports. Forecast data from Table 7.3.

Sources: As noted and HNTB analysis.

Attachment 8

Detailed Cargo Forecasts

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Table 8.1

Historical and Projected Enplaned Cargo Tonnage at MSP

Year	Passenger Carrier (a)			Cargo Carrier (b)			Total (c)			US Domestic RTMs (mil.) (d)		US Domestic ASMs (e)	MSP Projected Seat Departures (f)	Ratio of MSP All-Cargo Tonnage to U.S. RTMs (g)
	Freight	Mail	Total	Freight	Mail	Total	Freight	Mail	Total	Passenger	Cargo			
1990	40,110	42,479	82,589	64,617	3,379	67,996	104,727	45,858	150,585					
1992	53,498	51,350	104,848	66,401	4,629	71,030	119,899	55,979	175,878					
1995	45,927	66,564	112,491	91,412	4,974	96,386	137,339	71,538	208,877					
1999	31,889	55,559	87,448	100,880	13,458	114,338	132,768	69,018	201,786	4,218	9,757	694.7		11.72
2000			-			119,176	140,760	69,563	210,324	4,415	10,283	726.6		11.59
2001	26,411	53,327	79,737	96,994	10,428	107,422	123,405	63,755	187,160	3,946	9,992	732.1		10.75
2002	18,944	34,348	53,292	119,571	-	119,571	138,515	34,348	172,863	3,337	9,630	681.8		12.42
2003	14,802	21,029	35,831	138,829	-	138,829	153,631	21,029	174,660	3,819	11,153	684.2		12.45
2004	20,578	5,174	25,752	136,217	-	136,217	156,795	5,174	161,969	3,300	13,041	730.2		10.45
2005	22,922	5,070	27,992	130,625	-	130,625	153,548	5,070	158,617	3,082	13,008	755.2		10.04
2006	22,073	4,829	26,902	122,591	21	122,612	144,664	4,850	149,514	3,229	12,481	740.2		9.82
2007	20,968	4,157	25,124	115,544	515	116,058	136,511	4,671	141,182	3,023	12,795	752.5	-	9.07
2008	19,608	4,571	24,179	101,428	1,079	102,508	121,037	5,650	126,687	2,153	12,258	750.5	-	8.36
2009	15,392	3,612	19,004	83,101	641	83,742	98,493	4,253	102,746	1,640	10,220	683.8		8.19
2010	17,099	4,844	21,943	88,821	1,170	89,990	105,920	6,013	111,933	1,637	10,372	676.2	20,247,650	8.68
2015			21,683			102,508			124,191	1,699	11,755	788.5	22,479,744	7.69
2016			21,709			102,280			123,989	1,706	12,016	812.7	23,102,049	7.50
EA Analysis Period														
2020			21,540			102,291			123,830	1,742	13,238	926.5	25,591,271	6.81
2025			21,403			102,005			123,408	1,772	14,898	1,082.5	29,207,421	6.04
Average Annual Growth Rate														
2010-2030			-0.1%			0.6%			0.5%	0.4%	1.8%	2.4%	1.8%	-1.8%
Long Term														
2030			21,237			101,465			122,702	1,782	16,724	1,253.6	33,374,152	5.35
Average Annual Growth Rate														
2010-2030			-0.2%			0.6%			0.5%	0.4%	2.4%	3.1%	2.5%	-2.4%

(a) Assumed to increase at same rate as scheduled seat departures adjusted by ratio of FAA projected growth in Revenue Ton Miles (RTMs) on domestic passenger carriers divided by FAA projected growth in U.S. domestic available seat miles (ASMs).

(b) Assumed to increase at same rate as FAA projected growth in RTMs on domestic all-cargo carriers, adjusted by ratio of MSP tonnage to US RTMs.

(c) Sum of passenger and all-cargo carrier tonnage.

(d) FAA Aerospace Forecasts: Fiscal Years 2010-2030.

(e) FAA Aerospace Forecasts: Fiscal Years 2010-2030.

(f) Tables A.4.3 and A.5.2.

(g) Future ratio of MSP all-cargotonnage to US all-cargo RTMs assumed to decline at half of historical rate.

Sources: As noted and HNTB analysis.

Table 8.2

MSP Air Cargo Annual Departures and Fleet Mix Forecast

Aircraft	Capacity (Short Tons) (a)		2004	2008	2010	2015	2016	EA Analysis Period 2020	EA Analysis Period 2025	Long Term 2030
Beech	1.3	2,385	3,532	2,940	3,295	3,200	3,200	3,200	3,200	3,200
Cessna	1.7	0	57	324	0	0	0	0	0	0
Swearingen Metro	2.0		276	18	0	-	-	-	-	-
Lear	2.2		102	217	0	0	0	0	0	0
Other	2.2		22	20	0	-	-	-	-	-
Falcon	2.5		0	0	0	-	-	-	-	-
ATR	4.4	162	0	0	224	250	250	250	250	250
Convair	8.4			3	0	-	-	-	-	-
DC 9-15	10.6	1	8	3	1	-	-	-	-	-
L-188	13.0	1	2	2	1	-	-	-	-	-
Boeing 737-200	14.0		1	160	0	-	-	-	-	-
Boeing 737-500	14.0		0	0	0	-	-	-	-	-
Boeing 737-400	14.0		0	0	0	100	120	230	260	260
DC 9-30	18.0	3	294	3	4	-	-	-	-	-
DC 9-40	18.0		112	106	0	-	-	-	-	-
Boeing 727-100	20.6	1	28	1	1	-	-	-	-	-
Boeing 727-200	27.6	89	1,515	694	123	30	20	-	-	-
Airbus 310	40.1	1	0	179	1	0	0	0	0	0
Boeing 757-200	44.0	313	110	230	432	400	400	400	393	500
DC 8-61	44.3		11	10	0	-	-	-	-	-
DC 8-71	46.5	34	140	65	47	25	20	-	-	-
DC 8-63	49.0	1	186	9	1	-	-	-	-	-
DC 8-73	53.1	266	230	187	367	150	100	-	-	-
Boeing 767-200	54.4	192	77	67	265	260	300	360	410	410
Airbus 300-600	54.4	11	920	815	15	650	650	720	720	650
Boeing 767-300	65.0		4	6	0	-	-	100	160	260
DC 10-10	70.1	508	731	952	701	500	520	402	300	200
DC 10-30	85.3	18	536	20	25	14	0	0	0	-
Boeing 747-100	82.7			10	0	-		-	-	-
MD-11	99.0	541	120	125	747	720	720	720	720	720
Boeing 747F	108.5			0	0	-	-			
Boeing 747-200	109.6		5	16	0	-	-	-	-	-
Boeing 747-400	120.3	1			1	-	-	-	-	-
Boeing 777	103.0				0	-	-			28
Total Departures (b)		4,528	9,019	7,181	6,251	6,299	6,300	6,382	6,413	6,478
Total Operations (c)			14,361	14,361	12,499	12,598	12,600	12,764	12,826	12,956
Cargo Tonnage (d)			126,687	102,508	89,990	102,508	102,280	102,291	102,005	101,465
Load Factor (e)				53.6%	47.3%	53.6%	53.6%	53.6%	53.6%	53.6%
Required All-Cargo Capacity (f)				191,286	190,162	191,286	190,860	190,881	190,348	189,339

(a) FAA Economic Values for Evaluation of Federal Aviation Administration Investment and Regulatory Decisions and HNTB research.
(b) Departures estimated so that available capacity matches required all-cargo capacity.
(c) Departures multiplied by 2.
(d) Table A.8.1.
(e) Assumed to remain constant.
(f) Cargo tonnage divided by load factor.

Sources: As noted and HNTB analysis.

Attachment 9

Detailed General Aviation Forecasts

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Table 9.1

Summary of Civil Aircraft Operations Forecast: Minneapolis-St. Paul International Airport

Year	Single Engine Piston	Multi-Engine Piston	Turboprop	Microjets	Other Jets	Helicopter	Other	Total
Civilian Based Aircraft Forecast (a)								
2008	0	0	0	0	24	0	0	24
2010	0	0	0	1	26	0	0	27
2015	0	0	0	1	29	0	0	30
2020	0	0	0	1	29	0	0	30
2025	0	0	0	1	29	0	0	30
2030	0	0	0	1	29	0	0	30
FAA Forecast of Active Aircraft (b)								
2008	143,782	18,360	8,269	503	11,377	10,176	34,568	227,035
2010	142,024	17,945	8,423	1,211	12,452	11,130	36,584	229,769
2015	139,166	16,931	8,867	3,060	15,065	13,077	41,547	237,713
2020	138,571	15,965	9,361	4,891	17,204	14,501	44,540	245,034
2025	140,213	15,017	9,787	6,705	18,972	15,904	46,498	253,094
2030	141,854	14,068	10,212	8,519	20,739	17,307	48,455	261,154
FAA Forecast of Hours Flown (000's) (c)								
2007								
2008	11,059	2,174	1,960	383	3,987	3,609	1,423	24,596
2010	10,035	1,984	1,909	1,032	4,293	3,866	1,432	24,552
2015	9,579	1,628	1,974	2,515	5,851	4,530	1,741	27,818
2020	10,262	1,565	2,048	3,998	7,115	5,100	2,041	32,129
2025	11,247	1,569	2,135	5,438	8,209	5,673	2,292	36,562
2030	12,233	1,573	2,221	6,878	9,302	6,246	2,543	40,996
Unconstrained Forecast of Total Aircraft Operations (d)								
2008	1,257	1,069	4,726	20	23,573	40	-	30,685
2010	1,141	975	4,603	907	25,124	43	-	32,793
2015	1,089	800	4,759	874	31,568	50	-	39,140
2020	1,166	769	4,939	869	33,613	57	-	41,413
2025	1,278	771	5,146	863	35,167	63	-	43,289
2030	1,390	773	5,354	859	36,457	69	-	44,903
Forecast of Total Aircraft Operations (e)								
2008	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-
2015	828	608	3,617	664	23,996	38	-	29,751
EA Analysis Period								
2020	843	556	3,570	628	24,296	41	-	29,934
2025	886	535	3,567	598	24,373	44	-	30,003
Long Term								
2030	929	517	3,578	574	24,367	46	-	30,011

(a) Table G.6 in Minneapolis-St. Paul Reliever Airports: Activity Forecasts - Technical Report. Extrapolated to 2030.
(b) FAA Aerospace Forecasts: Fiscal Years 2008-2025. Adjusted for higher fuel prices.
(c) FAA Aerospace Forecasts: Fiscal Years 2008-2025. Adjusted for higher fuel prices.
(d) Base year data from ANOMS. Future operations projected to increase at same rate as based aircraft adjusted by estimated change in utilization rate (estimated as FAA ratio of hours flown to active aircraft).
(e) Fleet mix constrained to match general aviation forecast in Table A.9.2.

Sources: As noted and HNTB analysis.

Attachment 10

Hourly AWDPM Distributions

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Table 10.1

Estimated MSP Activity by Hour: July 15, 2010 - Terminal 1

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	3	257	257	2	375	84	5	632	341
0600-0659	15	1230	1175	18	1505	469	33	2735	1644
0700-0759	43	3070	1480	30	1141	381	73	4211	1861
0800-0859	8	608	457	48	2895	1040	56	3503	1497
0900-0959	52	3984	1431	29	2272	929	81	6256	2360
1000-1059	48	3622	1602	44	3635	1644	92	7257	3246
1100-1159	59	5000	2029	11	845	476	70	5845	2505
1200-1259	2	70	54	44	3953	1366	46	4023	1420
1300-1359	55	4575	1986	55	5187	**2438**	**110**	**9762**	**4424**
1400-1459	36	3745	1729	38	2970	1112	74	6715	2841
1500-1559	52	4688	1825	23	1950	1054	75	6638	2879
1600-1659	15	1094	739	53	5519	2352	68	6613	3091
1700-1759	52	**5867**	**2382**	34	3795	1609	86	9662	3991
1800-1859	17	1703	1068	50	3951	1564	67	5654	2632
1900-1959	**71**	5779	2361	18	1212	515	89	6991	2876
2000-2059	1	33	11	**62**	**5545**	2381	63	5578	2392
2100-2159	54	4092	1271	8	764	696	62	4856	1967
2200-2259				5	563	529	5	563	529
2300-2359				11	1091	969	11	1091	969
Total	**583**	**49417**	**21857**	**584**	**49328**	**21768**	**1167**	**98745**	**43625**
Peak	71	5867	2382	62	5545	2438	110	9762	4424
Peak Percent	12.2%	11.9%	10.9%	10.6%	11.2%	11.2%	9.4%	9.9%	10.1%
Peak 60 Min.	80	6686	2763	77	7013	2721	110	9762	4424
Peak Percent	13.7%	13.5%	12.6%	13.2%	14.2%	12.5%	9.4%	9.9%	10.1%

Source: 2010 Gated Flight Schedule and HNTB analysis.

Table 10.2

Estimated MSP Activity by Hour: July 15, 2010 - Terminal 2

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059							0	0	0
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559				1	146	146	1	146	146
0600-0659	**6**	**624**	**624**				6	624	624
0700-0759	4	503	502	1	83	82	5	586	584
0800-0859	3	333	332				3	333	332
0900-0959	1	109	108	1	104	103	2	213	211
1000-1059	1	104	103	2	208	206	3	312	309
1100-1159	1	124	123	2	209	207	3	333	330
1200-1259	2	231	229	1	124	124	3	355	353
1300-1359	1	137	136	**3**	**421**	**420**	4	558	556
1400-1459	5	562	561	**3**	387	386	**8**	**949**	**947**
1500-1559	1	137	136	**3**	390	388	4	527	524
1600-1659	3	386	384	2	254	252	5	640	636
1700-1759	2	254	252	2	298	284	4	552	536
1800-1859	1	137	136	2	274	272	3	411	408
1900-1959	2	301	286	2	261	260	4	562	546
2000-2059	1	124	123	2	227	226	3	351	349
2100-2159	1	149	149	**3**	350	350	4	499	499
2200-2259				2	226	226	2	226	226
2300-2359				**3**	341	341	3	341	341
Total	**35**	**4215**	**4184**	**35**	**4303**	**4273**	**70**	**8518**	**8457**
Peak	6	624	624	3	421	420	8	949	947
Peak Percent	17.1%	14.8%	14.9%	8.6%	9.8%	9.8%	11.4%	11.1%	11.2%
Peak 60 Min.	8	941	940	5	666	664	8	951	948
Peak Percent	22.9%	22.3%	22.5%	14.3%	15.5%	15.5%	11.4%	11.2%	11.2%

Source: 2010 Gated Flight Schedule and HNTB analysis.

Table 10.3

Estimated MSP Activity by Hour: July 15, 2010 - Terminal 1 and Terminal 2

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0			1	160	160	1	160	160
0100-0159	0			0					
0200-0259	0			0					
0300-0359	0			0			0		
0400-0459	0			0			0		
0500-0559	3	257	257	3	521	230	6	778	487
0600-0659	21	1854	1799	18	1505	469	39	3359	2268
0700-0759	47	3573	1982	31	1224	463	78	4797	2445
0800-0859	11	941	789	48	2895	1040	59	3836	1829
0900-0959	53	4093	1539	30	2376	1032	83	6469	2571
1000-1059	49	3726	1705	46	3843	1850	95	7569	3555
1100-1159	60	5124	2152	13	1054	683	73	6178	2835
1200-1259	4	301	283	45	4077	1490	49	4378	1773
1300-1359	56	4712	2122	58	5608	**2858**	**114**	**10320**	**4980**
1400-1459	41	4307	2290	41	3357	1498	82	7664	3788
1500-1559	53	4825	1961	26	2340	1442	79	7165	3403
1600-1659	18	1480	1123	55	**5773**	2604	73	7253	3727
1700-1759	54	**6121**	2634	36	4093	1893	90	10214	4527
1800-1859	18	1840	1204	52	4225	1836	70	6065	3040
1900-1959	73	6080	**2647**	20	1473	775	93	7553	3422
2000-2059	2	157	134	64	5772	2607	66	5929	2741
2100-2159	55	4241	1420	11	1114	1046	66	5355	2466
2200-2259	0			7	789	755	7	789	755
2300-2359	0			14	1432	1310	14	1432	1310
Total	**618**	**53632**	**26041**	**619**	**53631**	**26041**	**1237**	**107263**	**52082**
Peak	73	6121	2647	64	5773	2858	114	10320	4980
Peak Percent	11.8%	11.4%	10.2%	10.3%	10.8%	11.0%	9.2%	9.6%	9.6%
Peak 60 Min.	83	7124	3185	80	7448	3141	114	10320	4980
Peak Percent	13.4%	13.3%	12.2%	12.9%	13.9%	12.1%	9.2%	9.6%	9.6%

Source: 2010 Gated Flight Schedule and HNTB analysis.

Table 10.4

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359							0		
0400-0459							0		
0500-0559	3	461	461	3	480	118	6	941	579
0600-0659	15	1185	1132	19	2052	783	34	3237	1915
0700-0759	44	3351	1604	29	1609	639	73	4960	2243
0800-0859	11	835	667	56	3422	1302	67	4257	1969
0900-0959	59	4779	1680	31	2668	1195	90	7447	2875
1000-1059	58	4693	2119	51	4745	2121	109	9438	4240
1100-1159	60	6269	2726	12	1253	799	72	7522	3525
1200-1259	4	546	293	53	5639	2084	57	6185	2377
1300-1359	58	5973	2699	52	5785	2635	**110**	**11758**	**5334**
1400-1459	38	4505	2027	41	3958	1535	79	8463	3562
1500-1559	55	5882	2423	20	2117	1130	75	7999	3553
1600-1659	16	1484	977	58	**6531**	2644	74	8015	3621
1700-1759	60	6935	2641	41	4537	1981	101	11472	4622
1800-1859	19	2155	1416	58	5182	2160	77	7337	3576
1900-1959	**76**	**7023**	**2913**	21	1730	668	97	8753	3581
2000-2059	3	242	136	**62**	6262	**2747**	65	6504	2883
2100-2159	55	4610	1424	9	972	867	64	5582	2291
2200-2259				6	671	634	6	671	634
2300-2359				11	1115	1095	11	1115	1095
Total	**634**	**60928**	**27338**	**634**	**60888**	**27297**	**1268**	**121816**	**54635**
Peak Hour	76	7023	2913	62	6531	2747	110	11758	5334
Peak Percent	12.0%	11.5%	10.7%	9.8%	10.7%	10.1%	8.7%	9.7%	9.8%
Peak 60 Min.	86	8055	3357	88	8398	3302	113	11867	5345
Peak Percent	13.6%	13.2%	12.3%	13.9%	13.8%	12.1%	8.9%	9.7%	9.8%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.5

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 2
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059									
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559				1	143	143	1	143	143
0600-0659	**9**	926	926	0	0	0	9	926	926
0700-0759	6	640	638	2	232	231	8	872	869
0800-0859	4	388	386	0	0	0	4	388	386
0900-0959	3	288	285	5	460	455	8	748	740
1000-1059	4	420	416	5	504	499	9	924	915
1100-1159	3	320	317	1	106	105	4	426	422
1200-1259	4	476	472	4	465	462	8	941	934
1300-1359	1	135	134	6	762	758	7	897	892
1400-1459	8	**1099**	**1096**	**6**	**808**	**806**	**14**	**1907**	**1902**
1500-1559	3	409	406	5	680	674	8	1089	1080
1600-1659	6	816	811	2	235	233	8	1051	1044
1700-1759	1	134	133	4	536	518	5	670	651
1800-1859	3	366	363	4	488	484	7	854	847
1900-1959	4	523	505	2	256	255	6	779	760
2000-2059	2	225	223	5	572	568	7	797	791
2100-2159	4	467	464	6	632	632	10	1099	1096
2200-2259				3	348	348	3	348	348
2300-2359				4	445	445	4	445	445
Total	**65**	**7632**	**7575**	**65**	**7672**	**7616**	**130**	**15304**	**15191**
Peak Hour	9	1099	1096	6	808	806	14	1907	1902
Peak Percent	13.8%	14.4%	14.5%	9.2%	10.5%	10.6%	10.8%	12.5%	12.5%
Peak 60 Min.	12	1271	1270	8	1033	1028	15	2018	2011
Peak Percent	18.5%	16.7%	16.8%	12.3%	13.5%	13.5%	11.5%	13.2%	13.2%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.6

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1 and Terminal 2
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0			
0200-0259	0	0	0	0	0	0			
0300-0359	0	0	0	0	0	0	0		
0400-0459	0	0	0	0	0	0	0		
0500-0559	3	461	461	4	623	261	7	1084	722
0600-0659	24	2111	2058	19	2052	783	43	4163	2841
0700-0759	50	3991	2242	31	1841	870	81	5832	3112
0800-0859	15	1223	1053	56	3422	1302	71	4645	2355
0900-0959	62	5067	1965	36	3128	1650	98	8195	3615
1000-1059	62	5113	2535	56	5249	2620	**118**	10362	5155
1100-1159	63	6589	3043	13	1359	904	76	7948	3947
1200-1259	8	1022	765	57	6104	2546	65	7126	3311
1300-1359	59	6108	2833	58	6547	**3393**	117	**12655**	**6226**
1400-1459	46	5604	3123	47	4766	2341	93	10370	5464
1500-1559	58	6291	2829	25	2797	1804	83	9088	4633
1600-1659	22	2300	1788	60	6766	2877	82	9066	4665
1700-1759	61	7069	2774	45	5073	2499	106	12142	5273
1800-1859	22	2521	1779	62	5670	2644	84	8191	4423
1900-1959	**80**	**7546**	**3418**	23	1986	923	103	9532	4341
2000-2059	5	467	359	**67**	**6834**	3315	72	7301	3674
2100-2159	59	5077	1888	15	1604	1499	74	6681	3387
2200-2259	0	0	0	9	1019	982	9	1019	982
2300-2359	0	0	0	15	1560	1540	15	1560	1540
Total	**699**	**68560**	**34913**	**699**	**68560**	**34913**	**1398**	**137120**	**69826**
Peak Hour	80	7546	3418	67	6834	3393	118	12655	6226
Peak Percent	11.4%	11.0%	9.8%	9.6%	10.0%	9.7%	8.4%	9.2%	8.9%
Peak 60 Min.	91	8715	3998	93	9074	3956	119	12785	6355
Peak Percent	13.0%	12.7%	11.5%	13.3%	13.2%	11.3%	8.5%	9.3%	9.1%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.7

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359							0		
0400-0459							0		
0500-0559	1	184	184	3	480	118	4	664	302
0600-0659	6	397	366	18	1932	673	24	2329	1039
0700-0759	36	2725	1009	28	1525	566	64	4250	1575
0800-0859	3	205	88	53	3271	1158	56	3476	1246
0900-0959	56	4537	1448	25	2103	663	81	6640	2111
1000-1059	51	3968	1451	44	4092	1516	**95**	8060	2967
1100-1159	52	5411	1917	6	602	206	58	6013	2123
1200-1259	2	326	100	49	5133	1619	51	5459	1719
1300-1359	50	4986	1777	44	4842	1749	94	9828	**3526**
1400-1459	31	3717	1294	35	3446	1072	66	7163	2366
1500-1559	51	5465	2041	14	1473	532	65	6938	2573
1600-1659	8	672	233	51	**5853**	**2024**	59	6525	2257
1700-1759	55	**6405**	2148	33	3605	1110	88	**10010**	3258
1800-1859	10	1049	375	52	4425	1469	62	5474	1844
1900-1959	**69**	6353	**2307**	18	1566	515	87	7919	2822
2000-2059	2	188	85	**54**	5342	1891	56	5530	1976
2100-2159	54	4469	1300	4	503	414	58	4972	1714
2200-2259				2	236	206	2	236	206
2300-2359				3	385	385	3	385	385
Total	**537**	**51057**	**18123**	**537**	**50974**	**18046**	**1074**	**102031**	**36169**
Peak Hour	69	6405	2307	54	5853	2024	95	10010	3526
Peak Percent	12.8%	12.5%	12.7%	10.1%	11.5%	11.2%	8.8%	9.8%	9.7%
Peak 60 Min.	78	7223	2596	80	7466	2376	99	10207	3580
Peak Percent	14.5%	14.1%	14.3%	14.9%	14.6%	13.2%	9.2%	10.0%	9.9%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.8

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 2
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059									
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	2	277	277	1	143	143	3	420	420
0600-0659	**18**	1714	1692	1	120	110	19	1834	1802
0700-0759	14	1266	1233	3	316	304	17	1582	1537
0800-0859	12	1018	965	3	151	144	15	1169	1109
0900-0959	6	530	517	11	1025	987	17	1555	1504
1000-1059	11	1145	1084	12	1157	1104	23	2302	2188
1100-1159	11	1178	1126	7	757	698	18	1935	1824
1200-1259	6	696	665	8	971	927	14	1667	1592
1300-1359	9	1122	1056	**14**	**1705**	**1644**	23	2827	2700
1400-1459	15	**1887**	**1829**	12	1320	1269	**27**	**3207**	**3098**
1500-1559	7	826	788	11	1324	1272	18	2150	2060
1600-1659	14	1628	1555	9	913	853	23	2541	2408
1700-1759	6	664	626	12	1468	1389	18	2132	2015
1800-1859	12	1472	1404	10	1245	1175	22	2717	2579
1900-1959	11	1193	1111	5	420	408	16	1613	1519
2000-2059	3	279	274	13	1492	1424	16	1771	1698
2100-2159	5	608	588	11	1101	1085	16	1709	1673
2200-2259				7	783	776	7	783	776
2300-2359				12	1175	1155	12	1175	1155
Total	**162**	**17503**	**16790**	**162**	**17586**	**16867**	**324**	**35089**	**33657**
Peak Hour	18	1887	1829	14	1705	1644	27	3207	3098
Peak Percent	11.1%	10.8%	10.9%	8.6%	9.7%	9.7%	8.3%	9.1%	9.2%
Peak 60 Min.	19	2147	2070	17	2025	1956	31	3703	3575
Peak Percent	11.7%	12.3%	12.3%	10.5%	11.5%	11.6%	9.6%	10.6%	10.6%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.9

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1 and Terminal 2
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0			
0200-0259	0	0	0	0	0	0			
0300-0359	0	0	0	0	0	0	0		
0400-0459	0	0	0	0	0	0	0		
0500-0559	3	461	461	4	623	261	7	1084	722
0600-0659	24	2111	2058	19	2052	783	43	4163	2841
0700-0759	50	3991	2242	31	1841	870	81	5832	3112
0800-0859	15	1223	1053	56	3422	1302	71	4645	2355
0900-0959	62	5067	1965	36	3128	1650	98	8195	3615
1000-1059	62	5113	2535	56	5249	2620	**118**	10362	5155
1100-1159	63	6589	3043	13	1359	904	76	7948	3947
1200-1259	8	1022	765	57	6104	2546	65	7126	3311
1300-1359	59	6108	2833	58	6547	**3393**	117	**12655**	**6226**
1400-1459	46	5604	3123	47	4766	2341	93	10370	5464
1500-1559	58	6291	2829	25	2797	1804	83	9088	4633
1600-1659	22	2300	1788	60	6766	2877	82	9066	4665
1700-1759	61	7069	2774	45	5073	2499	106	12142	5273
1800-1859	22	2521	1779	62	5670	2644	84	8191	4423
1900-1959	**80**	**7546**	**3418**	23	1986	923	103	9532	4341
2000-2059	5	467	359	**67**	**6834**	3315	72	7301	3674
2100-2159	59	5077	1888	15	1604	1499	74	6681	3387
2200-2259	0	0	0	9	1019	982	9	1019	982
2300-2359	0	0	0	15	1560	1540	15	1560	1540
Total	**699**	**68560**	**34913**	**699**	**68560**	**34913**	**1398**	**137120**	**69826**
Peak Hour	80	7546	3418	67	6834	3393	118	12655	6226
Peak Percent	11.4%	11.0%	9.8%	9.6%	10.0%	9.7%	8.4%	9.2%	8.9%
Peak 60 Min.	91	8715	3998	93	9074	3956	119	12785	6355
Peak Percent	13.0%	12.7%	11.5%	13.3%	13.2%	11.3%	8.5%	9.3%	9.1%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.10

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	3	461	461	3	480	118	6	941	579
0600-0659	16	1259	1206	19	2052	783	35	3311	1989
0700-0759	43	3274	1533	29	1609	639	72	4883	2172
0800-0859	11	835	667	56	3422	1302	67	4257	1969
0900-0959	60	4856	1756	32	2746	1272	92	7602	3028
1000-1059	58	4707	2138	52	4837	2217	**110**	9544	4355
1100-1159	61	6360	2816	12	1253	799	73	7613	3615
1200-1259	4	546	293	53	5639	2084	57	6185	2377
1300-1359	57	5852	2588	51	5682	2541	108	11534	**5129**
1400-1459	38	4505	2027	41	3958	1535	79	8463	3562
1500-1559	55	5882	2423	19	2059	1077	74	7941	3500
1600-1659	16	1526	1023	59	**6631**	**2743**	75	8157	3766
1700-1759	60	**6935**	2641	42	4635	2078	102	**11570**	4719
1800-1859	20	2255	1515	59	5282	2259	79	7537	3774
1900-1959	**77**	7119	**3008**	21	1730	668	98	8849	3676
2000-2059	3	242	136	**61**	6169	2662	64	6411	2798
2100-2159	55	4610	1424	10	1056	951	65	5666	2375
2200-2259				6	671	634	6	671	634
2300-2359				11	1115	1095	11	1115	1095
Total	**637**	**61224**	**27655**	**637**	**61186**	**27617**	**1274**	**122410**	**55272**
Peak	77	7119	3008	61	6631	2743	110	11570	5129
Peak Percent	12.1%	11.6%	10.9%	9.6%	10.8%	9.9%	8.6%	9.5%	9.3%
Peak 60 Min.	87	8151	3452	89	8496	3399	114	11964	5251
Peak Percent	13.7%	13.3%	12.5%	14.0%	13.9%	12.3%	8.9%	9.8%	9.5%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.11

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 2
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059									
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559				1	143	143	1	143	143
0600-0659	**8**	852	852				8	852	852
0700-0759	7	717	709	2	232	231	9	949	940
0800-0859	4	388	386				4	388	386
0900-0959	2	211	209	4	382	378	6	593	587
1000-1059	4	406	397	4	412	403	8	818	800
1100-1159	2	229	227	1	106	105	3	335	332
1200-1259	4	476	472	4	465	462	8	941	934
1300-1359	2	256	245	**7**	**865**	**852**	9	1121	1097
1400-1459	8	**1099**	**1096**	6	808	806	**14**	**1907**	**1902**
1500-1559	3	409	406	6	738	727	9	1147	1133
1600-1659	6	774	765	1	135	134	7	909	899
1700-1759	1	134	133	3	438	421	4	572	554
1800-1859	2	266	264	3	388	385	5	654	649
1900-1959	3	427	410	2	256	255	5	683	665
2000-2059	2	225	223	6	665	653	8	890	876
2100-2159	4	467	464	5	548	548	9	1015	1012
2200-2259				3	348	348	3	348	348
2300-2359				4	445	445	4	445	445
Total	**62**	**7336**	**7258**	**62**	**7374**	**7296**	**124**	**14710**	**14554**
Peak	8	1099	1096	7	865	852	14	1907	1902
Peak Percent	12.9%	15.0%	15.1%	11.3%	11.7%	11.7%	11.3%	13.0%	13.1%
Peak 60 Min.	11	1220	1207	9	1136	1122	16	2139	2122
Peak Percent	17.7%	16.6%	16.6%	14.5%	15.4%	15.4%	12.9%	14.5%	14.6%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.12

Estimated MSP Activity by Hour: Average Weekday July 2020 - Terminal 1 and Terminal 2
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0			
0200-0259	0	0	0	0	0	0			
0300-0359	0	0	0	0	0	0	0		
0400-0459	0	0	0	0	0	0	0		
0500-0559	3	461	461	4	623	261	7	1084	722
0600-0659	24	2111	2058	19	2052	783	43	4163	2841
0700-0759	50	3991	2242	31	1841	870	81	5832	3112
0800-0859	15	1223	1053	56	3422	1302	71	4645	2355
0900-0959	62	5067	1965	36	3128	1650	98	8195	3615
1000-1059	62	5113	2535	56	5249	2620	**118**	10362	5155
1100-1159	63	6589	3043	13	1359	904	76	7948	3947
1200-1259	8	1022	765	57	6104	2546	65	7126	3311
1300-1359	59	6108	2833	58	6547	**3393**	117	**12655**	**6226**
1400-1459	46	5604	3123	47	4766	2341	93	10370	5464
1500-1559	58	6291	2829	25	2797	1804	83	9088	4633
1600-1659	22	2300	1788	60	6766	2877	82	9066	4665
1700-1759	61	7069	2774	45	5073	2499	106	12142	5273
1800-1859	22	2521	1779	62	5670	2644	84	8191	4423
1900-1959	**80**	**7546**	**3418**	23	1986	923	103	9532	4341
2000-2059	5	467	359	**67**	**6834**	3315	72	7301	3674
2100-2159	59	5077	1888	15	1604	1499	74	6681	3387
2200-2259	0	0	0	9	1019	982	9	1019	982
2300-2359	0	0	0	15	1560	1540	15	1560	1540
Total	**699**	**68560**	**34913**	**699**	**68560**	**34913**	**1398**	**137120**	**69826**
Peak	80	7546	3418	67	6834	3393	118	12655	6226
Peak Percent	11.4%	11.0%	9.8%	9.6%	10.0%	9.7%	8.4%	9.2%	8.9%
Peak 60 Min.	91	8715	3998	93	9074	3956	119	12785	6355
Peak Percent	13.0%	12.7%	11.5%	13.3%	13.2%	11.3%	8.5%	9.3%	9.1%

Source: 2020 Gated Flight Schedule and HNTB analysis.

Table 10.13

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1
Alternative 1 - Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	3	479	479	4	621	138	7	1100	617
0600-0659	15	1237	1184	21	2255	809	36	3492	1993
0700-0759	46	3504	1625	31	1708	604	77	5212	2229
0800-0859	12	957	774	58	3991	1532	70	4948	2306
0900-0959	61	5100	1711	32	2955	1287	93	8055	2998
1000-1059	59	5276	2314	53	5054	2217	112	10330	4531
1100-1159	66	6911	2897	14	1420	932	80	8331	3829
1200-1259	5	610	341	57	6415	2353	62	7025	2694
1300-1359	63	6810	2989	57	6344	2828	**120**	13154	**5817**
1400-1459	41	4936	2189	47	4863	2022	88	9799	4211
1500-1559	61	6475	2660	23	2418	1253	84	8893	3913
1600-1659	21	2465	1708	66	**8058**	**3398**	87	10523	5106
1700-1759	67	**8160**	3044	42	5259	2269	109	**13419**	5313
1800-1859	20	2506	1617	61	5818	2302	81	8324	3919
1900-1959	**82**	7939	**3197**	22	1855	807	104	9794	4004
2000-2059	3	292	183	**67**	6553	2829	70	6845	3012
2100-2159	58	4969	1510	9	1016	902	67	5985	2412
2200-2259				6	682	645	6	682	645
2300-2359				12	1247	1200	12	1247	1200
Total	**683**	**68626**	**30422**	**683**	**68692**	**30487**	**1366**	**137318**	**60909**
Peak Clock Hour	82	8160	3197	67	8058	3398	120	13419	5817
Percent	12.0%	11.9%	10.5%	9.8%	11.7%	11.1%	8.8%	9.8%	9.6%
Peak 60 minutes	92	9167	3706	90	9399	3635	122	14093	5840
Percent	13.5%	13.4%	12.2%	13.2%	13.7%	11.9%	8.9%	10.3%	9.6%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.14

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 2
Alternative 1 - Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059							0	0	0
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	0	0	0	1	145	145	1	145	145
0600-0659	9	910	910	0	0	0	9	910	910
0700-0759	5	530	528	2	233	232	7	763	760
0800-0859	7	611	607	2	163	161	9	774	768
0900-0959	4	417	414	7	712	707	11	1129	1121
1000-1059	6	663	658	6	616	610	12	1279	1268
1100-1159	4	447	443	2	233	231	6	680	674
1200-1259	4	490	486	4	481	478	8	971	964
1300-1359	1	169	167	7	923	917	8	1092	1084
1400-1459	**11**	**1407**	**1403**	7	893	891	**18**	**2300**	**2294**
1500-1559	4	526	523	6	816	809	10	1342	1332
1600-1659	8	1115	1109	2	237	235	10	1352	1344
1700-1759	3	359	357	**10**	**1207**	**1188**	13	1566	1545
1800-1859	6	796	792	6	714	709	12	1510	1501
1900-1959	5	656	637	3	390	388	8	1046	1025
2000-2059	2	238	236	5	582	578	7	820	814
2100-2159	4	466	463	6	612	612	10	1078	1075
2200-2259				3	345	345	3	345	345
2300-2359				4	432	432	4	432	432
Total	**83**	**9800**	**9733**	**83**	**9734**	**9668**	**166**	**19534**	**19401**
Peak Clock Hour	11	1407	1403	10	1207	1188	18	2300	2294
Percent	13.3%	14.4%	14.4%	12.0%	12.4%	12.3%	10.8%	11.8%	11.8%
Peak 60 minutes	11	1441	1435	10	1281	1274	19	2446	2437
Percent	13.3%	14.7%	14.7%	12.0%	13.2%	13.2%	11.4%	12.5%	12.6%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.15

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1 and Terminal 2
Alternative 1 - Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	3	479	479	5	766	283	8	1245	762
0600-0659	24	2147	2094	21	2255	809	45	4402	2903
0700-0759	51	4034	2153	33	1941	836	84	5975	2989
0800-0859	19	1568	1381	60	4154	1693	79	5722	3074
0900-0959	65	5517	2125	39	3667	1994	104	9184	4119
1000-1059	65	5939	2972	59	5670	2827	124	11609	5799
1100-1159	70	7358	3340	16	1653	1163	86	9011	4503
1200-1259	9	1100	827	61	6896	2831	70	7996	3658
1300-1359	64	6979	3156	64	7267	**3745**	**128**	14246	**6901**
1400-1459	52	6343	3592	54	5756	2913	106	12099	6505
1500-1559	65	7001	3183	29	3234	2062	94	10235	5245
1600-1659	29	3580	2817	68	**8295**	3633	97	11875	6450
1700-1759	70	8519	3401	52	6466	3457	122	**14985**	6858
1800-1859	26	3302	2409	67	6532	3011	93	9834	5420
1900-1959	**87**	**8595**	**3834**	25	2245	1195	112	10840	5029
2000-2059	5	530	419	**72**	7135	3407	77	7665	3826
2100-2159	62	5435	1973	15	1628	1514	77	7063	3487
2200-2259	0	0	0	9	1027	990	9	1027	990
2300-2359	0	0	0	16	1679	1632	16	1679	1632
Total	**766**	**78426**	**40155**	**766**	**78426**	**40155**	**1532**	**156852**	**80310**
Peak Clock Hour	87	8595	3834	72	8295	3745	128	14985	6901
Percent	11.4%	11.0%	9.5%	9.4%	10.6%	9.3%	8.4%	9.6%	8.6%
Peak 60 minutes	98	9960	4513	97	10305	4325	134	15597	7287
Percent	12.8%	12.7%	11.2%	12.7%	13.1%	10.8%	8.7%	9.9%	9.1%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.16

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1
Alternative 2 - Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	1	160	160	4	621	138	5	781	298
0600-0659	6	454	424	20	2134	698	26	2588	1122
0700-0759	38	2887	1041	30	1624	531	68	4511	1572
0800-0859	3	218	87	54	3725	1274	57	3943	1361
0900-0959	57	4809	1435	25	2344	714	82	7153	2149
1000-1059	52	4562	1658	46	4386	1597	98	8948	3255
1100-1159	57	5981	2017	6	637	215	63	6618	2232
1200-1259	2	327	95	52	5806	1788	54	6133	1883
1300-1359	54	5691	1936	49	5335	1877	**103**	11026	**3813**
1400-1459	34	4106	1415	40	4073	1306	74	8179	2721
1500-1559	56	5773	2019	17	1668	551	73	7441	2570
1600-1659	10	1113	452	56	**6840**	**2277**	66	7953	2729
1700-1759	62	**7495**	2429	33	4164	1255	95	**11659**	3684
1800-1859	10	1245	441	55	5041	1593	65	6286	2034
1900-1959	**74**	7128	**2462**	18	1493	472	92	8621	2934
2000-2059	2	191	87	**58**	5565	1906	60	5756	1993
2100-2159	56	4778	1335	4	517	420	60	5295	1755
2200-2259				2	244	214	2	244	214
2300-2359				4	520	492	4	520	492
Total	**574**	**56918**	**19493**	**574**	**56897**	**19478**	**1148**	**113815**	**38971**
Peak Clock Hour	74	7495	2462	58	6840	2277	103	11659	3813
Percent	12.9%	13.2%	12.6%	10.1%	12.0%	11.7%	9.0%	10.2%	9.8%
Peak 60 minutes	83	8194	2816	82	8461	2571	106	11977	3857
Percent	14.5%	14.4%	14.4%	14.3%	14.9%	13.2%	9.2%	10.5%	9.9%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.17

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 2
Alternative 2 - Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059									
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	**2**	319	319	1	145	145	3	464	464
0600-0659	18	1693	1670	1	121	111	19	1814	1781
0700-0759	13	1147	1112	3	317	305	16	1464	1417
0800-0859	16	1350	1294	6	429	419	22	1779	1713
0900-0959	8	708	690	14	1323	1280	22	2031	1970
1000-1059	13	1377	1314	13	1284	1230	26	2661	2544
1100-1159	13	1377	1323	10	1016	948	23	2393	2271
1200-1259	7	773	732	9	1090	1043	16	1863	1775
1300-1359	10	1288	1220	15	1932	1868	25	3220	3088
1400-1459	18	2237	2177	14	1683	1607	**32**	3920	**3784**
1500-1559	9	1228	1164	12	1566	1511	21	2794	2675
1600-1659	**19**	**2467**	**2365**	12	1455	1356	31	**3922**	3721
1700-1759	8	1024	972	**19**	**2302**	**2202**	27	3326	3174
1800-1859	16	2057	1968	12	1491	1418	28	3548	3386
1900-1959	13	1467	1372	7	752	723	20	2219	2095
2000-2059	3	339	332	14	1570	1501	17	1909	1833
2100-2159	6	657	638	11	1111	1094	17	1768	1732
2200-2259				7	783	776	7	783	776
2300-2359				12	1159	1140	12	1159	1140
Total	**192**	**21508**	**20662**	**192**	**21529**	**20677**	**384**	**43037**	**41339**
Peak Clock Hour	19	2467	2365	19	2302	2202	32	3922	3784
Percent	9.9%	11.5%	11.4%	9.9%	10.7%	10.6%	8.3%	9.1%	9.2%
Peak 60 minutes	20	2543	2470	19	2339	2267	36	4497	4340
Percent	10.4%	11.8%	12.0%	9.9%	10.9%	11.0%	9.4%	10.4%	10.5%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.18

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1 and Terminal 2
Alternative 2 - Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	3	479	479	5	766	283	8	1245	762
0600-0659	24	2147	2094	21	2255	809	45	4402	2903
0700-0759	51	4034	2153	33	1941	836	84	5975	2989
0800-0859	19	1568	1381	60	4154	1693	79	5722	3074
0900-0959	65	5517	2125	39	3667	1994	104	9184	4119
1000-1059	65	5939	2972	59	5670	2827	124	11609	5799
1100-1159	70	7358	3340	16	1653	1163	86	9011	4503
1200-1259	9	1100	827	61	6896	2831	70	7996	3658
1300-1359	64	6979	3156	64	7267	**3745**	**128**	14246	**6901**
1400-1459	52	6343	3592	54	5756	2913	106	12099	6505
1500-1559	65	7001	3183	29	3234	2062	94	10235	5245
1600-1659	29	3580	2817	68	**8295**	3633	97	11875	6450
1700-1759	70	8519	3401	52	6466	3457	122	**14985**	6858
1800-1859	26	3302	2409	67	6532	3011	93	9834	5420
1900-1959	**87**	**8595**	**3834**	25	2245	1195	112	10840	5029
2000-2059	5	530	419	**72**	7135	3407	77	7665	3826
2100-2159	62	5435	1973	15	1628	1514	77	7063	3487
2200-2259	0	0	0	9	1027	990	9	1027	990
2300-2359	0	0	0	16	1679	1632	16	1679	1632
Total	**766**	**78426**	**40155**	**766**	**78426**	**40155**	**1532**	**156852**	**80310**
Peak Clock Hour	87	8595	3834	72	8295	3745	128	14985	6901
Percent	11.4%	11.0%	9.5%	9.4%	10.6%	9.3%	8.4%	9.6%	8.6%
Peak 60 minutes	98	9960	4513	97	10305	4325	134	15597	7287
Percent	12.8%	12.7%	11.2%	12.7%	13.1%	10.8%	8.7%	9.9%	9.1%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.19

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059				1	160	160	1	160	160
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559	3	479	479	4	621	138	7	1100	617
0600-0659	15	1237	1184	21	2255	809	36	3492	1993
0700-0759	45	3427	1555	31	1708	604	76	5135	2159
0800-0859	12	957	774	58	3991	1532	70	4948	2306
0900-0959	61	5100	1711	32	2955	1287	93	8055	2998
1000-1059	58	5204	2248	52	4981	2150	110	10185	4398
1100-1159	66	6911	2897	14	1420	932	80	8331	3829
1200-1259	5	610	341	57	6415	2353	62	7025	2694
1300-1359	62	6689	2878	56	6240	2733	**118**	12929	**5611**
1400-1459	41	4936	2189	47	4863	2022	88	9799	4211
1500-1559	61	6475	2660	22	2360	1200	83	8835	3860
1600-1659	20	2406	1654	65	**7926**	**3281**	85	10332	4935
1700-1759	66	**8022**	2923	42	5259	2269	108	**13281**	5192
1800-1859	20	2506	1617	61	5818	2302	81	8324	3919
1900-1959	**82**	7939	**3197**	22	1855	807	104	9794	4004
2000-2059	3	292	183	**66**	6459	2743	69	6751	2926
2100-2159	58	4969	1510	9	1016	902	67	5985	2412
2200-2259				6	682	645	6	682	645
2300-2359				12	1247	1200	12	1247	1200
Total	**678**	**68159**	**30000**	**678**	**68231**	**30069**	**1356**	**136390**	**60069**
Peak Clock Hour	82	8022	3197	66	7926	3281	118	13281	5611
Percent	12.1%	11.8%	10.7%	9.7%	11.6%	10.9%	8.7%	9.7%	9.3%
Peak 60 minutes	92	9167	3706	90	9399	3548	121	13955	5745
Percent	13.6%	13.4%	12.4%	13.3%	13.8%	11.8%	8.9%	10.2%	9.6%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.20

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 2
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059									
0100-0159									
0200-0259									
0300-0359									
0400-0459									
0500-0559				1	145	145	1	145	145
0600-0659	9	910	910	0	0	0	9	910	910
0700-0759	6	607	598	2	233	232	8	840	830
0800-0859	7	611	607	2	163	161	9	774	768
0900-0959	4	417	414	7	712	707	11	1129	1121
1000-1059	7	735	724	7	689	677	14	1424	1401
1100-1159	4	447	443	2	233	231	6	680	674
1200-1259	4	490	486	4	481	478	8	971	964
1300-1359	2	290	278	8	1027	1012	10	1317	1290
1400-1459	10	1272	1268	6	758	756	**16**	2030	**2024**
1500-1559	4	526	523	7	874	862	11	1400	1385
1600-1659	9	1174	1163	3	369	352	12	**1543**	1515
1700-1759	4	497	478	**10**	**1207**	**1188**	14	1704	1666
1800-1859	6	796	792	6	714	709	12	1510	1501
1900-1959	5	656	637	3	390	388	8	1046	1025
2000-2059	3	373	371	7	811	799	10	1184	1170
2100-2159	4	466	463	6	612	612	10	1078	1075
2200-2259				3	345	345	3	345	345
2300-2359				4	432	432	4	432	432
Total	**88**	**10267**	**10155**	**88**	**10195**	**10086**	**176**	**20462**	**20241**
Peak Clock Hour	10	1272	1268	10	1207	1188	16	2030	2024
Percent	11.4%	12.4%	12.5%	11.4%	11.8%	11.8%	9.1%	9.9%	10.0%
Peak 60 minutes	12	1562	1546	10	1250	1234	19	2432	2413
Percent	13.6%	15.2%	15.2%	11.4%	12.3%	12.2%	10.8%	11.9%	11.9%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.21

Estimated MSP Activity by Hour: Average Weekday July 2025 - Terminal 1 and Terminal 2
No Action Alternative

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	1	160	160	1	160	160
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	3	479	479	5	766	283	8	1245	762
0600-0659	24	2147	2094	21	2255	809	45	4402	2903
0700-0759	51	4034	2153	33	1941	836	84	5975	2989
0800-0859	19	1568	1381	60	4154	1693	79	5722	3074
0900-0959	65	5517	2125	39	3667	1994	104	9184	4119
1000-1059	65	5939	2972	59	5670	2827	124	11609	5799
1100-1159	70	7358	3340	16	1653	1163	86	9011	4503
1200-1259	9	1100	827	61	6896	2831	70	7996	3658
1300-1359	64	6979	3156	64	7267	**3745**	**128**	14246	**6901**
1400-1459	51	6208	3457	53	5621	2778	104	11829	6235
1500-1559	65	7001	3183	29	3234	2062	94	10235	5245
1600-1659	29	3580	2817	68	**8295**	3633	97	11875	6450
1700-1759	70	8519	3401	52	6466	3457	122	**14985**	6858
1800-1859	26	3302	2409	67	6532	3011	93	9834	5420
1900-1959	**87**	**8595**	**3834**	25	2245	1195	112	10840	5029
2000-2059	6	665	554	**73**	7270	3542	79	7935	4096
2100-2159	62	5435	1973	15	1628	1514	77	7063	3487
2200-2259	0	0	0	9	1027	990	9	1027	990
2300-2359	0	0	0	16	1679	1632	16	1679	1632
Total	**766**	**78426**	**40155**	**766**	**78426**	**40155**	**1532**	**156852**	**80310**
Peak Clock Hour	87	8595	3834	73	8295	3745	128	14985	6901
Percent	11.4%	11.0%	9.5%	9.5%	10.6%	9.3%	8.4%	9.6%	8.6%
Peak 60 minutes	98	9960	4513	97	10305	4325	134	15597	7152
Percent	12.8%	12.7%	11.2%	12.7%	13.1%	10.8%	8.7%	9.9%	8.9%

Source: 2025 Gated Flight Schedule and HNTB analysis.

Table 10.22

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	4	635	635	5	938	230	10	1574	865
0600-0659	17	1514	1375	23	2663	994	40	4177	2368
0700-0759	50	4119	1880	34	2038	742	84	6156	2622
0800-0859	14	1224	935	62	4538	1762	76	5762	2697
0900-0959	66	5789	1980	35	3401	1490	100	9191	3470
1000-1059	64	5983	2636	57	5699	2513	121	11682	5149
1100-1159	71	7785	3291	16	1723	1102	87	9508	4393
1200-1259	6	842	461	61	7190	2663	68	8032	3124
1300-1359	68	7674	3405	61	7110	3183	**129**	**14784**	**6588**
1400-1459	44	5569	2465	51	5486	2297	95	11055	4762
1500-1559	66	7304	3025	25	2813	1452	91	10117	4477
1600-1659	23	2863	1946	71	8990	**3812**	94	11853	5758
1700-1759	72	9161	3457	45	5921	2567	117	15082	6024
1800-1859	22	2921	1859	65	6535	2606	88	9457	4465
1900-1959	**88**	**8917**	**3614**	**24**	**2198**	964	112	11115	4578
2000-2059	4	492	297	72	7340	3185	76	7833	3483
2100-2159	63	5645	1755	10	1275	1067	73	6920	2823
2200-2259	0	0	0	7	913	786	7	913	786
2300-2359	0	0	0	14	1530	1396	14	1530	1396
Total	**742**	**78438**	**35016**	**742**	**78583**	**35091**	**1483**	**157021**	**70107**
Peak Clock Hour	88	9161	3614	72	8990	3812	129	15082	6588
Percent	11.9%	11.7%	10.3%	9.7%	11.4%	10.9%	8.7%	9.6%	9.4%
Peak 60 minutes	99	10271	4180	96	10527	4102	131	15870	6621
Percent	13.3%	13.1%	11.9%	13.0%	13.4%	11.7%	8.9%	10.1%	9.4%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.23

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 2
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	0	0	0	0	0	0
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	0	0	0	1	185	185	1	185	185
0600-0659	10	1047	1047	0	0	0	10	1047	1047
0700-0759	5	610	608	2	281	281	8	891	889
0800-0859	8	699	699	2	203	203	10	903	902
0900-0959	4	485	477	8	807	806	12	1292	1282
1000-1059	6	757	757	6	701	699	13	1458	1456
1100-1159	4	518	510	2	280	280	7	798	790
1200-1259	4	566	559	4	553	553	9	1119	1112
1300-1359	1	211	192	8	1039	1038	**9**	**1250**	**1230**
1400-1459	12	1615	**1615**	**8**	1009	1009	19	2624	2624
1500-1559	4	605	602	6	921	918	11	1527	1520
1600-1659	9	**1277**	1276	2	285	285	11	1561	1561
1700-1759	3	421	411	11	**1351**	**1337**	14	1772	1748
1800-1859	6	912	912	6	809	808	13	1722	1720
1900-1959	**5**	749	733	3	454	454	9	1203	1187
2000-2059	2	287	272	5	664	663	8	951	935
2100-2159	4	539	533	6	701	701	11	1240	1234
2200-2259	0	0	0	3	406	406	3	406	406
2300-2359	0	0	0	4	502	502	4	502	502
Total	**90**	**11298**	**11203**	**90**	**11153**	**11128**	**180**	**22451**	**22331**
Peak Clock Hour	12	1615	1615	11	1351	1337	19	2624	2624
Percent	13.1%	14.3%	14.4%	11.9%	12.1%	12.0%	10.7%	11.7%	11.7%
Peak 60 minutes	12	1617	1617	11	1432	1432	20	2747	2747
Percent	13.1%	14.3%	14.4%	11.9%	12.8%	12.9%	11.3%	12.2%	12.3%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.24

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1 and Terminal 2
Alternative 1: Airlines Remain

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	4	635	635	6	1123	415	11	1758	1051
0600-0659	27	2561	2422	23	2663	994	50	5224	3416
0700-0759	55	4728	2487	36	2319	1023	91	7047	3511
0800-0859	21	1923	1633	65	4742	1965	86	6665	3598
0900-0959	70	6274	2456	42	4208	2296	112	10483	4752
1000-1059	70	6739	3394	63	6401	3211	134	13140	6605
1100-1159	75	8303	3801	18	2004	1383	93	10307	5183
1200-1259	11	1408	1020	66	7743	3216	76	9151	4236
1300-1359	69	7885	3597	69	8149	**4220**	**138**	**16034**	**7817**
1400-1459	56	7184	4080	**58**	6495	3306	114	13679	7386
1500-1559	70	7909	3627	32	3734	2371	102	11644	5998
1600-1659	32	**4140**	3222	73	9274	4097	105	13414	7319
1700-1759	75	9582	3868	56	**7272**	3904	131	16854	7772
1800-1859	29	3834	2771	72	7345	3414	101	11178	6184
1900-1959	**93**	9666	**4347**	28	2652	1418	121	12317	5765
2000-2059	6	780	569	77	8005	3849	84	8784	4418
2100-2159	67	6184	2288	17	1977	1768	84	8160	4057
2200-2259	0	0	0	11	1319	1192	11	1319	1192
2300-2359	0	0	0	18	2032	1898	18	2032	1898
Total	**832**	**89736**	**46219**	**832**	**89736**	**46219**	**1663**	**179472**	**92438**
Peak Clock Hour	93	9666	4347	77	9274	4220	138	16854	7817
Percent	11.2%	10.8%	9.4%	9.3%	10.3%	9.1%	8.3%	9.4%	8.5%
Peak 60 minutes	105	11160	5099	104	11464	4858	144	17576	8273
Percent	12.6%	12.4%	11.0%	12.5%	12.8%	10.5%	8.7%	9.8%	9.0%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.25

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	2	228	228	5	909	202	7	1138	430
0600-0659	7	642	520	22	2477	817	29	3119	1338
0700-0759	41	3411	1203	33	1918	633	74	5329	1836
0800-0859	4	382	147	58	4217	1450	62	4600	1597
0900-0959	61	5441	1639	27	2704	832	89	8144	2471
1000-1059	56	5168	1886	49	4939	1803	105	10107	3688
1100-1159	61	6732	2283	7	836	284	68	7568	2567
1200-1259	3	502	156	56	6494	2013	59	6996	2169
1300-1359	58	6412	2193	53	5976	2109	111	12388	4302
1400-1459	37	4666	1617	43	4595	1482	80	9261	3099
1500-1559	60	6503	2285	19	1963	652	79	8466	2937
1600-1659	11	1368	551	60	7625	**2550**	71	8993	3101
1700-1759	67	8400	2739	36	4693	1424	102	13093	4163
1800-1859	11	1514	539	59	5655	1798	70	7169	2337
1900-1959	**79**	**7996**	**2775**	**20**	**1773**	567	**99**	**9769**	**3343**
2000-2059	3	353	147	62	6229	2141	65	6581	2289
2100-2159	60	5406	1528	5	704	509	65	6111	2038
2200-2259	0	0	0	3	406	284	3	406	284
2300-2359	0	0	0	5	707	588	5	707	588
Total	**623**	**65124**	**22437**	**623**	**65101**	**22419**	**1246**	**130225**	**44856**
Peak Clock Hour	79	8400	2775	62	7625	2550	111	13093	4302
Percent	12.7%	12.9%	12.4%	10.0%	11.7%	11.4%	8.9%	10.1%	9.6%
Peak 60 minutes	89	9170	3167	88	9464	2896	114	13480	4370
Percent	14.3%	14.1%	14.1%	14.1%	14.5%	12.9%	9.2%	10.4%	9.7%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.26

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 2
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	0	0	0	0	0	0
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	2	407	407	1	214	214	4	621	621
0600-0659	19	1919	1902	1	186	176	21	2105	2078
0700-0759	14	1317	1285	3	401	390	18	1719	1674
0800-0859	17	1541	1486	7	524	515	24	2065	2001
0900-0959	9	834	818	15	1505	1464	24	2339	2281
1000-1059	14	1571	1508	14	1462	1409	28	3033	2917
1100-1159	14	1571	1518	11	1168	1098	25	2739	2616
1200-1259	8	905	864	10	1249	1203	18	2155	2067
1300-1359	11	1473	1404	16	2173	2111	27	3646	3516
1400-1459	19	2518	2463	15	1900	1824	34	4418	4287
1500-1559	10	1407	1342	13	1771	1718	23	3178	3060
1600-1659	20	2772	**2671**	13	1650	1548	33	4421	4218
1700-1759	9	1182	1130	20	2579	**2479**	29	3761	3609
1800-1859	17	2320	2232	13	1689	1616	30	4009	3847
1900-1959	**14**	**1670**	1572	**8**	**878**	850	22	2548	2423
2000-2059	3	427	421	15	1776	1707	19	2203	2129
2100-2159	7	778	760	12	1272	1259	19	2050	2019
2200-2259	0	0	0	8	912	909	8	912	909
2300-2359	0	0	0	13	1325	1310	13	1325	1310
Total	**208**	**24612**	**23782**	**208**	**24635**	**23800**	**417**	**49246**	**47582**
Peak Clock Hour	20	2772	2671	20	2579	2479	34	4421	4287
Percent	9.8%	11.3%	11.2%	9.8%	10.5%	10.4%	8.3%	9.0%	9.0%
Peak 60 minutes	21	2853	2787	20	2617	2551	39	5062	4910
Percent	10.3%	11.6%	11.7%	9.8%	10.6%	10.7%	9.3%	10.3%	10.3%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.27

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1 and Terminal 2
Alternative 2: Airlines Relocate

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	4	635	635	6	1123	415	11	1758	1051
0600-0659	27	2561	2422	23	2663	994	50	5224	3416
0700-0759	55	4728	2487	36	2319	1023	91	7047	3511
0800-0859	21	1923	1633	65	4742	1965	86	6665	3598
0900-0959	70	6274	2456	42	4208	2296	112	10483	4752
1000-1059	70	6739	3394	63	6401	3211	134	13140	6605
1100-1159	75	8303	3801	18	2004	1383	93	10307	5183
1200-1259	11	1408	1020	66	7743	3216	76	9151	4236
1300-1359	69	7885	3597	69	8149	**4220**	138	16034	7817
1400-1459	56	7184	4080	58	6495	3306	114	13679	7386
1500-1559	70	7909	3627	32	3734	2371	102	11644	5998
1600-1659	32	4140	3222	73	9274	4097	105	13414	7319
1700-1759	75	9582	3868	56	7272	3904	131	16854	7772
1800-1859	29	3834	2771	72	7345	3414	101	11178	6184
1900-1959	**93**	**9666**	**4347**	**28**	**2652**	1418	121	12317	5765
2000-2059	6	780	569	77	8005	3849	84	8784	4418
2100-2159	67	6184	2288	17	1977	1768	84	8160	4057
2200-2259	0	0	0	11	1319	1192	11	1319	1192
2300-2359	0	0	0	18	2032	1898	18	2032	1898
Total	**832**	**89736**	**46219**	**832**	**89736**	**46219**	**1663**	**179472**	**92438**
Peak Clock Hour	93	9666	4347	77	9274	4220	138	16854	7817
Percent	11.2%	10.8%	9.4%	9.3%	10.3%	9.1%	8.3%	9.4%	8.5%
Peak 60 minutes	104	11160	5099	104	11464	4858	144	17576	8273
Percent	12.5%	12.4%	11.0%	12.5%	12.8%	10.5%	8.7%	9.8%	9.0%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.28

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1
No Action

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	4	635	635	5	847	229	10	1483	864
0600-0659	17	1525	1386	23	2663	994	40	4188	2380
0700-0759	49	4032	1798	34	2038	741	82	6070	2538
0800-0859	14	1223	933	62	4537	1761	76	5760	2694
0900-0959	66	5788	1971	35	3400	1489	100	9188	3460
1000-1059	63	5902	2564	56	5618	2438	118	11520	5002
1100-1159	71	7783	3283	16	1722	1101	87	9506	4384
1200-1259	6	841	455	61	7189	2662	67	8030	3116
1300-1359	67	7539	3262	60	6995	3077	**127**	14534	**6339**
1400-1459	44	5602	2497	51	5487	2296	95	11089	4794
1500-1559	66	7302	3020	24	2748	1393	90	10050	4413
1600-1659	22	2818	1906	70	**8843**	**3682**	92	11661	5588
1700-1759	71	**9007**	3312	45	5920	2566	116	**14927**	5877
1800-1859	22	2929	1866	65	6534	2604	88	9463	4470
1900-1959	**88**	8916	**3614**	24	2197	963	112	11112	4577
2000-2059	4	491	280	**71**	7235	3089	75	7726	3369
2100-2159	63	5644	1748	10	1274	1066	73	6918	2814
2200-2259	0	0	0	7	912	785	7	912	785
2300-2359	0	0	0	14	1619	1395	14	1619	1395
Total	**736**	**77978**	**34530**	**736**	**78058**	**34610**	**1472**	**156036**	**69140**
Peak Clock Hour	88	9007	3614	71	8843	3682	127	14927	6339
Percent	12.0%	11.6%	10.5%	9.6%	11.3%	10.6%	8.6%	9.6%	9.2%
Peak 60 minutes	99	10270	4179	96	10526	4005	130	15716	6514
Percent	13.4%	13.2%	12.1%	13.1%	13.5%	11.6%	8.9%	10.1%	9.4%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.29

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 2
No Action

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	0	0	0	0	0	0
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	0	0	0	1	186	186	1	186	186
0600-0659	10	1036	1036	0	0	0	10	1036	1036
0700-0759	7	696	690	2	282	282	9	977	972
0800-0859	8	700	700	2	205	204	10	905	904
0900-0959	4	486	486	8	808	807	12	1294	1293
1000-1059	8	837	830	8	783	774	15	1620	1603
1100-1159	4	519	518	2	282	281	7	801	799
1200-1259	4	567	566	4	554	554	9	1121	1120
1300-1359	2	346	335	9	1154	1144	11	1500	1479
1400-1459	**11**	**1433**	**1433**	6	861	861	**17**	**2294**	**2294**
1500-1559	4	607	607	8	986	978	12	1594	1585
1600-1659	10	1322	1316	3	431	415	13	1753	1731
1700-1759	4	574	557	**11**	**1352**	**1338**	15	1927	1895
1800-1859	7	905	905	6	810	809	13	1715	1714
1900-1959	**5**	750	733	3	455	455	9	1205	1188
2000-2059	3	438	438	8	917	908	11	1355	1347
2100-2159	4	540	540	6	702	702	11	1242	1242
2200-2259	0	0	0	3	407	407	3	407	407
2300-2359	0	0	0	4	503	503	4	503	503
Total	**96**	**11758**	**11689**	**96**	**11678**	**11609**	**191**	**23436**	**23298**
Peak Clock Hour	11	1433	1433	11	1352	1338	17	2294	2294
Percent	11.3%	12.2%	12.3%	11.2%	11.6%	11.5%	9.0%	9.8%	9.8%
Peak 60 minutes	13	1749	1741	11	1398	1389	20	2731	2723
Percent	13.5%	14.9%	14.9%	11.2%	12.0%	12.0%	10.7%	11.7%	11.7%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Table 10.30

Estimated MSP O&D Activity by Hour: Average Weekday July 2030 - Terminal 1 and Terminal 2
No Action

	Departures			Arrivals			Departures and Arrivals		
Hour	Aircraft Dept.	Enplanements	Originations	Aircraft Arr.	Deplanements	Terminations	Aircraft Ops	Passengers	O&D
0000-0059	0	0	0	2	280	280	2	280	280
0100-0159	0	0	0	0	0	0	0	0	0
0200-0259	0	0	0	0	0	0	0	0	0
0300-0359	0	0	0	0	0	0	0	0	0
0400-0459	0	0	0	0	0	0	0	0	0
0500-0559	4	635	635	6	1033	415	11	1668	1051
0600-0659	27	2561	2422	23	2663	994	50	5224	3416
0700-0759	55	4728	2487	36	2319	1023	91	7047	3511
0800-0859	21	1923	1633	65	4742	1965	86	6665	3598
0900-0959	70	6274	2456	42	4208	2296	112	10483	4752
1000-1059	70	6739	3394	63	6401	3211	134	13140	6605
1100-1159	75	8303	3801	18	2004	1383	93	10307	5183
1200-1259	11	1408	1020	66	7743	3216	76	9151	4236
1300-1359	69	7885	3597	69	8149	**4220**	**138**	**16034**	**7817**
1400-1459	55	7036	3930	**57**	6347	3157	112	13383	7088
1500-1559	70	7909	3627	32	3734	2371	102	11644	5998
1600-1659	32	**4140**	3222	73	9274	4097	105	13414	7319
1700-1759	75	9582	3868	56	**7272**	3904	131	16854	7772
1800-1859	29	3834	2771	72	7345	3414	101	11178	6184
1900-1959	**93**	9666	**4347**	28	2652	1418	121	12317	5765
2000-2059	7	928	718	78	8152	3997	86	9081	4715
2100-2159	67	6184	2288	17	1977	1768	84	8160	4057
2200-2259	0	0	0	11	1319	1192	11	1319	1192
2300-2359	0	0	0	18	2122	1898	18	2122	1898
Total	**832**	**89736**	**46219**	**832**	**89736**	**46219**	**1663**	**179472**	**92438**
Peak Clock Hour	93	9666	4347	78	9274	4220	138	16854	7817
Percent	11.2%	10.8%	9.4%	9.4%	10.3%	9.1%	8.3%	9.4%	8.5%
Peak 60 minutes	105	11160	5099	104	11464	4858	144	17576	8124
Percent	12.6%	12.4%	11.0%	12.5%	12.8%	10.5%	8.7%	9.8%	8.8%

Source: 2025 Gated Flight Schedule and HNTB extrapolation.

Attachment 11

Peak Activity Summaries

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LIST OF TABLES **Page**

Table 11.1

Summary of Total Peak Hour Enplanement/Deplanement Activity by Alternative at MSP
Terminal 1

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	14,456,692	n/a	17,895,426	20,150,739	23,031,264
Alternative 2	14,456,692	n/a	14,653,359	16,335,466	18,690,644
No Action	14,456,692	n/a	17,984,722	20,012,039	22,895,004
AWDPM Enplanements					
Alternative 1 (b)	49,417	n/a	60,928	68,626	78,438
Alternative 2 (c)	49,417	n/a	51,057	56,918	65,124
No Action (d)	49,417	n/a	61,224	68,159	77,978
Peak Hour Enplanements (e)					
Alternative 1 (b)	6,686	n/a	8,055	9,167	10,271
Alternative 2 (c)	6,686	n/a	7,223	8,194	9,170
No Action (d)	6,686	n/a	8,151	9,167	10,270
Peak Hour Deplanements (e)					
Alternative 1 (b)	7,013	n/a	8,398	9,399	10,527
Alternative 2 (c)	7,013	n/a	7,466	8,461	9,464
No Action (d)	7,013	n/a	8,496	9,399	10,526
Peak Hour Passengers (e)					
Alternative 1 (b)	9,762	n/a	11,867	14,093	15,870
Alternative 2 (c)	9,762	n/a	10,207	11,977	13,480
No Action (d)	9,762	n/a	11,964	13,955	15,716

(a) Total enplanements less Terminal 2 enplanements for each alternative.
(b) Tables 10.1, 10.4, 10.13, and 10.22.
(c) Tables 10.1, 10.7, 10.16, and 10.25.
(d) Tables 10.1, 10.10, 10.19, and 10.28.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.2

Summary of Total Peak Hour Enplanement/Deplanement Activity by Alternative at MSP Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	1,258,367	n/a	2,283,494	2,932,160	3,380,441
Alternative 2	1,258,367	n/a	5,525,561	6,747,433	7,721,062
No Action	1,258,367	n/a	2,194,198	3,070,860	3,516,702
AWDPM Enplanements					
Alternative 1 (b)	4,215	n/a	7,632	9,800	11,298
Alternative 2 (c)	4,215	n/a	17,503	21,508	24,612
No Action (d)	4,215	n/a	7,336	10,267	11,758
Peak Hour Enplanements (e)					
Alternative 1 (b)	941	n/a	1,271	1,441	1,617
Alternative 2 (c)	941	n/a	2,147	2,543	2,853
No Action (d)	941	n/a	1,220	1,562	1,749
Peak Hour Deplanements (e)					
Alternative 1 (b)	666	n/a	1,033	1,281	1,432
Alternative 2 (c)	666	n/a	2,025	2,339	2,617
No Action (d)	666	n/a	1,136	1,250	1,398
Peak Hour Passengers (e)					
Alternative 1 (b)	951	n/a	2,018	2,446	2,747
Alternative 2 (c)	951	n/a	3,703	4,497	5,062
No Action (d)	951	n/a	2,139	2,432	2,731

(a) Estimated from ADPM enplanements using seasonality factors for Terminal 2 airlines.
(b) Tables 10.2, 10.5, 10.14, and 10.23.
(c) Tables 10.2, 10.8, 10.17, and 10.26.
(d) Tables 10.2, 10.11, 10.20, and 10.29.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.3

Summary of Total Peak Hour Enplanement/Deplanement Activity by Alternative at MSP Terminal 1 and Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	15,715,059	17,639,241	20,178,920	23,082,899	26,411,706
Alternative 2	15,715,059	17,639,241	20,178,920	23,082,899	26,411,706
No Action	15,715,059	17,639,241	20,178,920	23,082,899	26,411,706
AWDPM Enplanements					
Alternative 1 (b)	53,632	n/a	68,560	78,426	89,736
Alternative 2 (c)	53,632	n/a	68,560	78,426	89,736
No Action (d)	53,632	n/a	68,560	78,426	89,736
Peak Hour Enplanements (e)					
Alternative 1 (b)	7,124	n/a	8,715	9,960	11,160
Alternative 2 (c)	7,124	n/a	8,715	9,960	11,160
No Action (d)	7,124	n/a	8,715	9,960	11,160
Peak Hour Deplanements (e)					
Alternative 1 (b)	7,448	n/a	9,074	10,305	11,464
Alternative 2 (c)	7,448	n/a	9,074	10,305	11,464
No Action (d)	7,448	n/a	9,074	10,305	11,464
Peak Hour Passengers (e)					
Alternative 1 (b)	10,320	n/a	12,785	15,597	17,576
Alternative 2 (c)	10,320	n/a	12,785	15,597	17,576
No Action (d)	10,320	n/a	12,785	15,597	17,576

(a) Table A.10.1
(b) Tables 10.3, 10.6, 10.15, and 10.24.
(c) Tables 10.3, 10.9, 10.18, and 10.27.
(d) Tables 10.3, 10.12, 10.21, and 10.30.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.4

Summary of Total Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 1

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	6,536,897	n/a	7,992,467	8,886,709	10,223,270
Alternative 2	6,536,897	n/a	5,201,301	5,594,491	6,439,350
No Action	6,536,897	n/a	8,081,764	8,748,009	10,087,009
AWDPM Originations					
Alternative 1 (b)	21,857	n/a	27,338	30,422	35,016
Alternative 2 (c)	21,857	n/a	18,123	19,493	22,437
No Action (d)	21,857	n/a	27,655	30,000	34,530
Peak Hour Originations (e)					
Alternative 1 (b)	2,763	n/a	3,357	3,706	4,180
Alternative 2 (c)	2,763	n/a	2,596	2,816	3,167
No Action (d)	2,763	n/a	3,452	3,706	4,179
Peak Hour Terminations (e)					
Alternative 1 (b)	2,721	n/a	3,302	3,635	4,102
Alternative 2 (c)	2,721	n/a	2,376	2,571	2,896
No Action (d)	2,721	n/a	3,399	3,548	4,005
Peak Hour O&D Passengers (e)					
Alternative 1 (b)	4,424	n/a	5,345	5,840	6,621
Alternative 2 (c)	4,424	n/a	3,580	3,857	4,370
No Action (d)	4,424	n/a	5,251	5,745	6,514

(a) Total enplanements less Terminal 2 enplanements for each alternative.
(b) Tables 10.1, 10.4, 10.13, and 10.22.
(c) Tables 10.1, 10.7, 10.16, and 10.25.
(d) Tables 10.1, 10.10, 10.19, and 10.28.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.5

Summary of Total Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	1,249,112	n/a	2,266,440	2,912,114	3,351,890
Alternative 2	1,249,112	n/a	5,074,660	6,224,378	7,164,361
No Action	1,249,112	n/a	2,170,868	3,037,361	3,496,051
AWDPM Originations					
Alternative 1 (b)	4,184	n/a	7,575	9,733	11,203
Alternative 2 (c)	4,184	n/a	16,790	20,662	23,782
No Action (d)	4,184	n/a	7,258	10,155	11,689
Peak Hour Originations (e)					
Alternative 1 (b)	940	n/a	1,270	1,435	1,617
Alternative 2 (c)	940	n/a	2,070	2,470	2,787
No Action (d)	940	n/a	1,207	1,546	1,741
Peak Hour Terminations (e)					
Alternative 1 (b)	664	n/a	1,028	1,274	1,432
Alternative 2 (c)	664	n/a	1,956	2,267	2,551
No Action (d)	664	n/a	1,122	1,234	1,389
Peak Hour O&D Passengers (e)					
Alternative 1 (b)	948	n/a	2,011	2,437	2,747
Alternative 2 (c)	948	n/a	3,575	4,340	4,910
No Action (d)	948	n/a	2,122	2,413	2,723

(a) Estimated from ADPM enplanements using seasonality factors for Terminal 2 airlines.
(b) Tables 10.2, 10.5, 10.14, and 10.23.
(c) Tables 10.2, 10.8, 10.17, and 10.26.
(d) Tables 10.2, 10.11, 10.20, and 10.29.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.6

Summary of Total Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 1 and Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	7,795,264	8,946,698	10,275,961	11,818,869	13,603,711
Alternative 2	7,795,264	8,946,698	10,275,961	11,818,869	13,603,711
No Action	7,795,264	8,946,698	10,275,961	11,818,869	13,603,711
AWDPM Originations					
Alternative 1 (b)	26,041	n/a	34,913	40,155	46,219
Alternative 2 (c)	26,041	n/a	34,913	40,155	46,219
No Action (d)	26,041	n/a	34,913	40,155	46,219
Peak Hour Originations (e)					
Alternative 1 (b)	3,185	n/a	3,998	4,513	5,099
Alternative 2 (c)	3,185	n/a	3,998	4,513	5,099
No Action (d)	3,185	n/a	3,998	4,513	5,099
Peak Hour Terminations (e)					
Alternative 1 (b)	3,141	n/a	3,956	4,325	4,858
Alternative 2 (c)	3,141	n/a	3,956	4,325	4,858
No Action (d)	3,141	n/a	3,956	4,325	4,858
Peak Hour O&D Passengers (e)					
Alternative 1 (b)	4,980	n/a	6,355	7,287	8,273
Alternative 2 (c)	4,980	n/a	6,355	7,287	8,273
No Action (d)	4,980	n/a	6,355	7,152	8,124

(a) Table A.10.1.
(b) Tables 10.3, 10.6, 10.15, and 10.24.
(c) Tables 10.3, 10.9, 10.18, and 10.27.
(d) Tables 10.3, 10.12, 10.21, and 10.30.
(e) Peak 60-minute period.

Sources: As noted and HNTB analysis.

Table 11.7

Summary of International Peak Hour Enplanement/Deplanement Activity by Alternative at MSP Terminal 1

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	1,062,403	n/a	1,454,129	1,687,809	1,961,167
Alternative 2	1,062,403	n/a	1,454,129	1,687,809	1,961,167
No Action	1,062,403	n/a	1,454,129	1,687,809	1,961,167
Design Day Enplanements (b)					
Alternative 1	3,684	n/a	5,390	6,256	7,273
Alternative 2	3,684	n/a	5,390	6,256	7,273
No Action	3,684	n/a	5,390	6,256	7,273
Peak Hour Enplanements (c)					
Alternative 1	866	n/a	1,348	1,565	1,818
Alternative 2	866	n/a	1,348	1,565	1,818
No Action	866	n/a	1,348	1,565	1,818
Peak Hour Deplanements (c)					
Alternative 1	1,124	n/a	1,641	1,905	2,214
Alternative 2	1,124	n/a	1,641	1,905	2,214
No Action	1,124	n/a	1,641	1,905	2,214

(a) Total enplanements less Terminal 2 enplanements for each alternative.
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.

Table 11.8

Summary of International Peak Hour Enplanement/Deplanement Activity by Alternative at MSP Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	79,039	n/a	109,963	127,634	148,255
Alternative 2	79,039	n/a	109,963	127,634	148,255
No Action	79,039	n/a	109,963	127,634	148,255
Design Day Enplanements (b)					
Alternative 1	1,577	n/a	2,194	2,547	2,958
Alternative 2	1,577	n/a	2,194	2,547	2,958
No Action	1,577	n/a	2,194	2,547	2,958
Peak Hour Enplanements (c)					
Alternative 1	852	n/a	961	1,115	1,296
Alternative 2	852	n/a	961	1,115	1,296
No Action	852	n/a	961	1,115	1,296
Peak Hour Deplanements (c)					
Alternative 1	438	n/a	629	730	849
Alternative 2	438	n/a	629	730	849
No Action	438	n/a	629	730	849

(a) Ratio of total annual international enplanements to design day enplanements assumed to remain constant.
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.

Table 11.9

Summary of International Peak Hour Enplanement/Deplanement Activity by Alternative at MSP Terminal 1 and Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Enplanements (a)					
Alternative 1	1,141,442	1,331,485	1,564,092	1,815,444	2,109,421
Alternative 2	1,141,442	1,331,485	1,564,092	1,815,444	2,109,421
No Action	1,141,442	1,331,485	1,564,092	1,815,444	2,109,421
Design Day Enplanements (b)					
Alternative 1	5,261	n/a	7,584	8,803	10,231
Alternative 2	5,261	n/a	7,584	8,803	10,231
No Action	5,261	n/a	7,584	8,803	10,231
Peak Hour Enplanements (c)					
Alternative 1	1,010	n/a	1,604	1,862	2,164
Alternative 2	1,010	n/a	1,604	1,862	2,164
No Action	1,010	n/a	1,604	1,862	2,164
Peak Hour Deplanements (c)					
Alternative 1	1,270	n/a	1,787	2,074	2,411
Alternative 2	1,270	n/a	1,787	2,074	2,411
No Action	1,270	n/a	1,787	2,074	2,411

(a) Table A.10.1
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.

Table 11.10

Summary of International Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 1

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	629,184	n/a	986,266	1,212,524	1,492,226
Alternative 2	629,184	n/a	986,266	1,212,524	1,492,226
No Action	629,184	n/a	986,266	1,212,524	1,492,226
Design Day Originations (b)					
Alternative 1	2,271	n/a	3,761	4,413	5,194
Alternative 2	2,271	n/a	3,761	4,413	5,194
No Action	2,271	n/a	3,761	4,413	5,194
Peak Hour Originations (c)					
Alternative 1	727	n/a	993	1,165	1,340
Alternative 2	727	n/a	993	1,165	1,340
No Action	727	n/a	993	1,165	1,340
Peak Hour Terminations (c)					
Alternative 1	947	n/a	1,329	1,559	1,793
Alternative 2	947	n/a	1,329	1,559	1,793
No Action	947	n/a	1,329	1,559	1,793

(a) Total originations less Terminal 2 origiinations for each alternative.
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.

Table 11.11

Summary of International Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	76,944	n/a	107,048	124,401	144,325
Alternative 2	76,944	n/a	107,048	124,401	144,325
No Action	76,944	n/a	107,048	124,401	144,325
Design Day Originations (b)					
Alternative 1	1,577	n/a	2,194	2,550	2,958
Alternative 2	1,577	n/a	2,194	2,550	2,958
No Action	1,577	n/a	2,194	2,550	2,958
Peak Hour Originations (c)					
Alternative 1	852	n/a	961	1,117	1,296
Alternative 2	852	n/a	961	1,117	1,296
No Action	852	n/a	961	1,117	1,296
Peak Hour Terminations (c)					
Alternative 1	438	n/a	629	731	849
Alternative 2	438	n/a	629	731	849
No Action	438	n/a	629	731	849

(a) Ratio of total annual international originations to design day originations assumed to remain constant.
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.

Table 11.12

Summary of International Peak Hour Passenger Origination/Termination Activity by Alternative at MSP Terminal 1 and Terminal 2

			EA Analysis Period		Long Term
	2010	2015	2020	2025	2030
Annual Originations (a)					
Alternative 1	706,128	895,030	1,093,314	1,336,925	1,636,550
Alternative 2	706,128	895,030	1,093,314	1,336,925	1,636,550
No Action	706,128	895,030	1,093,314	1,336,925	1,636,550
Design Day Originations (b)					
Alternative 1	3,848	n/a	5,955	6,957	8,152
Alternative 2	3,848	n/a	5,955	6,957	8,152
No Action	3,848	n/a	5,955	6,957	8,152
Peak Hour Originations (c)					
Alternative 1	871	n/a	1,249	1,527	1,685
Alternative 2	871	n/a	1,249	1,527	1,685
No Action	871	n/a	1,249	1,527	1,685
Peak Hour Terminations (c)					
Alternative 1	1,093	n/a	1,475	1,804	1,990
Alternative 2	1,093	n/a	1,475	1,804	1,990
No Action	1,093	n/a	1,475	1,804	1,990

(a) Table A.10.1
(b) Saturday in March. Does not include pre-cleared international passengers. Values for 2025 and 2030 are extrapolated.
(c) Peak 60 minutes. Does not include pre-cleared passengers. Values for 2025 and 2030 are extrapolated.

Sources: As noted and HNTB analysis.