

▶▶▶ FAA AEROSPACE FORECAST FISCAL YEARS 2010 – 2030

Developing forecasts of aviation demand and activity levels continues to be challenging as the aviation industry evolves and prior relationships change. In times of amplified volatility, the process is filled with uncertainty, particularly in the short-term. Even though the highly cyclical U.S. aviation industry went into a downward spiral during 2009, history has shown the demand for air travel is resilient and growth will return. With the start of 2010, the lingering questions are 1) how much economic recovery will be required to jumpstart the industry back to a period of growth, and 2) when will the recovery occur?

By the end of FY 2009, carriers had executed 13 consecutive months of year over year reductions in domestic capacity. The capacity cutbacks were necessary to control costs in the face of plummeting demand for air travel. As the recession deepened carriers instituted fare sales to minimize financial losses. These fare sales led to record high load factors and record declines in yield. The capacity cuts that persisted through 2009 are expected to level off during 2010, with yields expected to turn positive by year end.

Given the current instability in the global economy, there is much uncertainty as to the timing and strength of a recovery in aviation demand. Nevertheless, the FAA has developed a set of assumptions and forecasts consistent with the emerging trends and structural changes currently taking place within the aviation industry. The FAA is confident that these forecasts accurately predict future aviation demand, however due to the large uncertainty of the operating environment the variance around the forecasts is wider than in prior years.

The commercial aviation forecasts and assumptions are developed from econometric models that explain and incorporate emerging trends for the different segments of the industry. In addition the commercial aviation forecasts are considered unconstrained in that they assume there will be sufficient infrastructure to handle the projected levels of activity. These forecasts do not assume further contractions of the industry through bankruptcy, consolidation, or liquidation.

The commercial aviation forecast methodology is a blended one. The starting point for developing the commercial aviation forecasts (air carriers and regionals) is the future schedules published in the Official Airline Guide (OAG). To generate the short-term forecast (two years out) current monthly trends are used in conjunction with published monthly schedules to allow FAA forecasters to develop monthly capacity and demand forecasts for both mainline and regional carriers for fiscal and calendar years 2010-2011. The medium to long-term forecasts (2012-2030) are based on results of econometric models.

The general aviation forecasts rely heavily on discussions with industry experts and the results of the 2008 General Aviation and Part 135 Activity Survey. The assumptions have been updated by FAA analysts to reflect more recent data and developing trends, as well as further information from industry experts.

The FAA also presents the forecasts and assumptions to industry staff and aviation associations, who are asked to comment on the reasonableness of the assumptions and forecasts. Their comments and/or suggestions have been incorporated into the forecasts as appropriate.

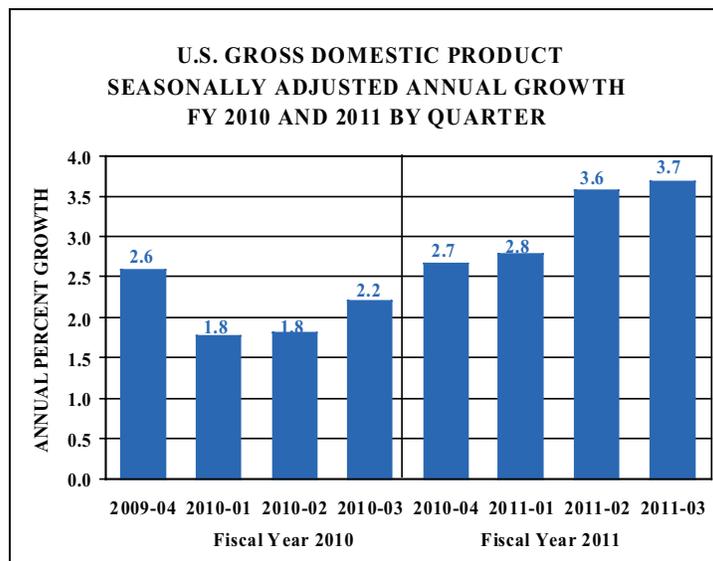
ECONOMIC FORECASTS

For this year’s Aerospace Forecast, the FAA is using economic forecasts developed by Global Insight, Inc. to project domestic aviation demand. Furthermore, the FAA uses world and individual country economic projections provided by Global Insight, Inc. to forecast the demand for international aviation services. Annual historical data and economic forecasts are presented in tabular form in Tables 1 through 4. U.S. economic forecasts are presented on a U.S. government fiscal year (October through September) basis. International forecasts are presented on a calendar year basis.

Data suggest that the bottom of the recession was in June, 2009, and Global Insight expects the pace of the recovery to be slow and not strong enough to halt the decline in jobs until later in 2010. The recovery is not V-shaped, but instead is more W-shaped. It isn’t until 2011 that economic growth moves above 3% on a sustained basis.

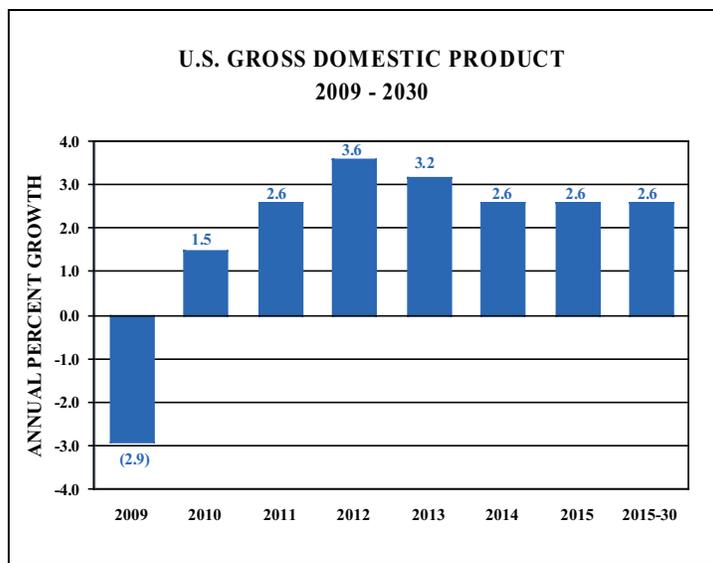
There are a number of key issues surrounding the economy that remain a concern and how these are resolved will determine the future path of the recovery. Among these issues are the size of the federal deficit and taxes, when will the Federal Reserve begin to raise interest rates, when will housing prices begin to recover, and how long will households continue to rein in their spending. The forecast assumes that there will be no additional fiscal stimulus and that the Federal Reserve will continue to keep interest rates at or near zero for most of 2010. The forecast also assumes that the Fed will be able to successfully tighten monetary policy without sending the economy back into recession and that tax rates on both personal income and for corporations will gradually increase from current levels.

Global Insight’s economic forecast has the end of the U.S. recession in the 3Q of FY 2009. The recovery that follows is a relatively weak recovery as credit remains tight and consumer spending is sluggish. On a quarter-by-quarter basis for the next two years U.S. economic growth is projected to range from a low of 1.8 percent in 2Q FY 2010 to a high of 3.7 percent in 4Q FY 2011.

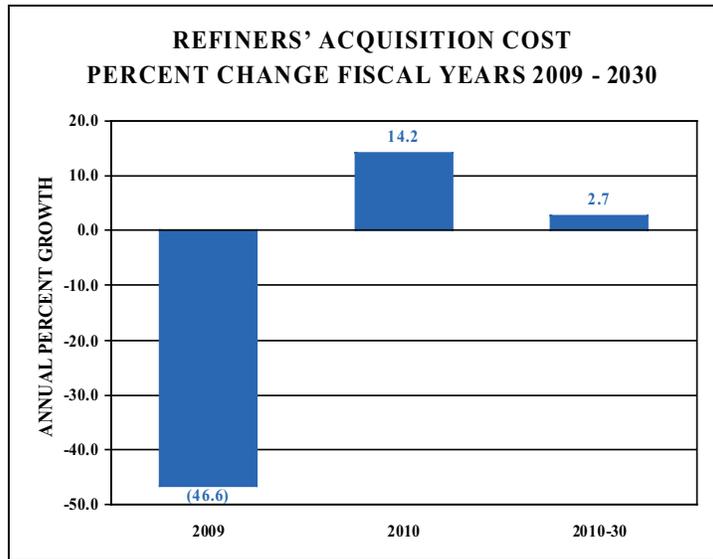


Consumer spending is by far the largest component of the U.S. economy and one of the features of this recession has been the decline in consumer spending. Burdened by high debt and rising unemployment, consumer spending fell in 2009. The recovery in consumer spending is projected to be the weakest of the postwar era, as households struggle to reduce debt burdens and rebuild retirement assets.

In the medium term, between 2011 and 2015, U.S. economic growth is projected to average 3.0 percent per year with rates ranging between 2.6 and 3.6 percent. Consumption growth remains muted as households continue to rebuild their balance sheets and taxes are increased. Beyond 2015 U.S. real GDP growth slows to around 2.6 percent annually for the balance of the forecast period. The long-term stability of the U.S. economic growth is dependent on continued growth in the workforce, the capital stock, and improved productivity. Given the unprecedented amount of both fiscal and monetary support to the economy, a major risk to continued U.S. economic growth is inflation. These inflationary pressures, if unchecked, could force up inflation and bond yields and lessen domestic demand.



Global Insight projects the price of oil, as measured by Refiners' Acquisition Cost, to increase by 14.2 percent after declining by 46.6 percent in 2009. Oil prices are projected to increase steadily to just over \$90 per barrel by 2016 and then increase slightly less than inflation for the balance of the forecast period, reaching \$104.45 per barrel by 2030.

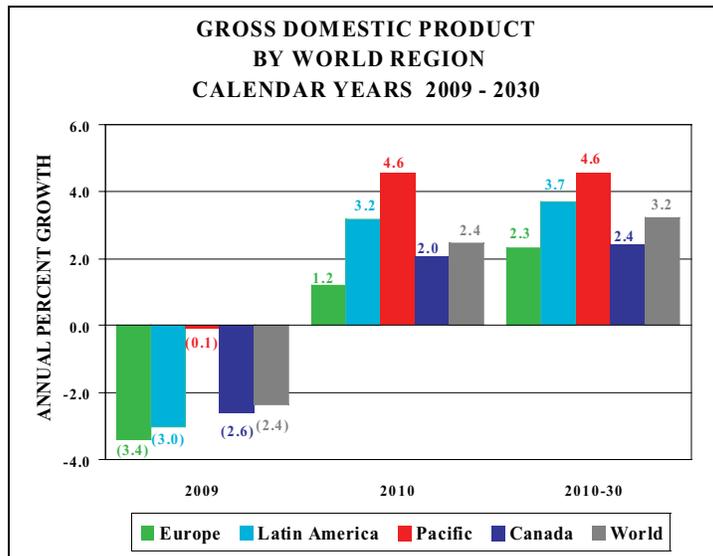


After falling 0.3 percent in FY 2009, the inflation rate (as measured by the CPI) is expected to rise 1.4 percent in 2010 and 1.9 percent in 2011 as the economy recovers and growth accelerates. After 2012 consumer price inflation is projected to remain in a narrow range between 1.7 and 2.0 percent per year for the balance of the forecast.

To reflect the uncertainty in the projection of economic growth, the FAA Aerospace Forecast uses high and low economic growth cases along with the base forecast. The high and low economic growth cases are based on Global Insight's September 2009 long range optimistic and pessimistic forecasts. The high economic growth case incorporates higher population growth, capital spending, and productivity relative to the base case. Due to the higher productivity, inflation is lower than in the base case. Real GDP growth in the high case averages 3.2 percent annually compared to real GDP growth of 2.6 percent annually that is contained in the base case. The low economic growth case incorporates lower population growth, capital spending, and lower productivity than the base case. In contrast, in the low economic case, inflation is higher than in the base case due to lower productivity growth. Real GDP growth in the low case averages 1.7 percent annually over the forecast horizon. Further details about the high and low scenarios can be found in Appendix A.

WORLD ECONOMY

Worldwide economic activity is estimated by Global Insight to have declined by 2.4 percent in 2009, marking the first contraction in global GDP since the Great Depression. The advanced economies (U.S., Canada, Europe, and Japan) posted declines in output ranging from -1.5 percent to -2.9 percent. The emerging market economies grew 0.8 percent, 4.8 points below what they grew in 2008. Many emerging market economies posted declines in real GDP including Mexico, Taiwan, Russia, Turkey, and Ukraine. In 2010, global economic growth is projected to resume (2.5 percent) as stimulus plans in the U.S. and in China provide the basis for recovery. Recovery in Europe is projected to be more gradual than in the U.S. as the housing market corrections have come later and policy actions are more cautious. Beyond 2010 through the balance of the forecast period, world real GDP is projected to increase an average of 3.2 percent per year.



The Asia/Pacific and Latin America regions will continue to have the world’s highest economic growth rates. These regions are expected to see their economic activity grow at annual rates of 4.6 and 3.7 percent a year, respectively, over the forecast period. In Asia, China, with a population of 1.3 billion, is forecast to grow 7.4 percent a year, becoming the world’s second largest economy. India, with a population of 1.2 billion, is projected to see its GDP triple in size, growing at an average rate of 6.2 percent a year during the forecast period. In contrast, Japan (currently the world’s second largest economy) grows at just 0.9 percent a year over the forecast period as structural impediments and an aging population limit growth. Canadian and European GDP growth is anticipated to rise at more moderate rates of 2.4 and 1.7 percent a year, respectively, over the forecast period.

AVIATION TRAFFIC AND ACTIVITY FORECASTS

Total traffic and activity forecasts for commercial air carriers (the sum of mainline and regional carriers) are contained in Tables 5 through 9. These tables contain year-to-year historical data and forecasts.

Mainline air carrier traffic and activity forecasts and the forecast assumptions are contained in Tables 10 through 18, 20, and 22. These tables contain year-to-year historical data and forecasts.

Regional carrier forecasts and assumptions are found in Tables 23 through 26. These tables provide year-to-year historical and forecast data.

Table 19 provides year-to-year historical and forecast data for cargo activity. Table 21 provides year-to-year historical and forecast data for the cargo jet fleet.

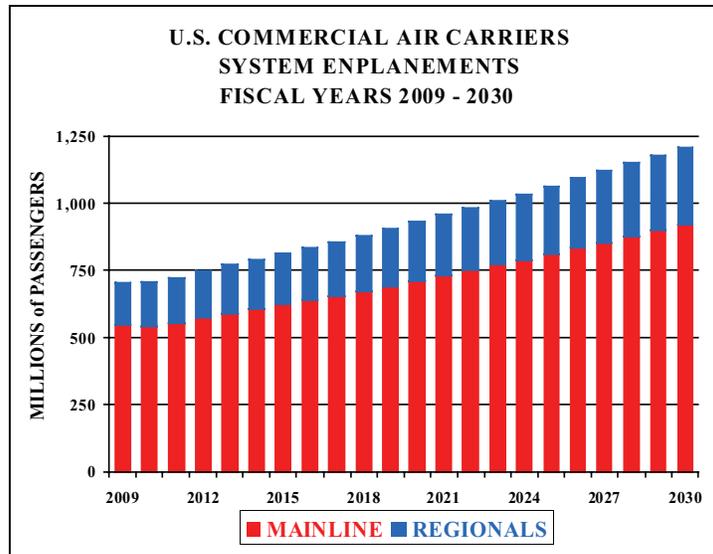
General aviation forecasts are found in Tables 27 through 30. These tables provide year-to-year historical data and forecasts.

Tables 31 through 33 provide forecasts of aircraft activity at FAA and contract facilities.

COMMERCIAL AVIATION FORECASTS

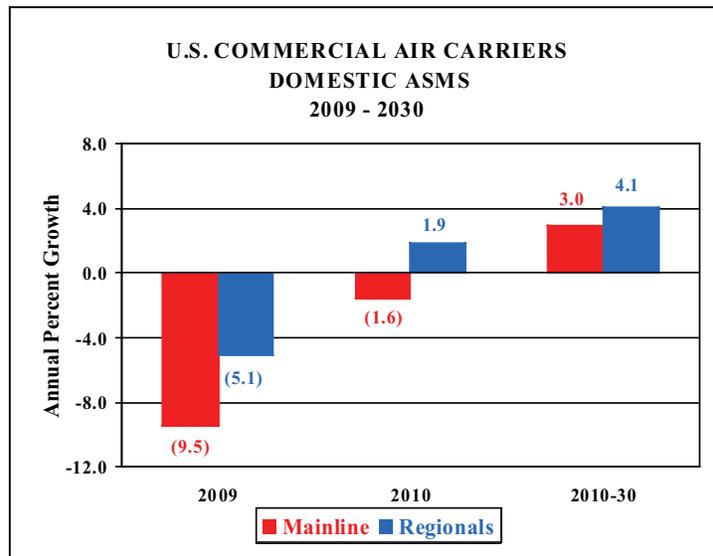
System capacity is projected to shrink 1.6 percent in 2010. In the domestic market, mainline carrier capacity is forecast to shrink for the third consecutive year (down 1.6 percent) while capacity for the regional carriers grows from 2009 levels (up 1.9 percent). In the international sector, capacity is forecast to fall in the Atlantic and Pacific market as growth returns to the Latin market. Mainline carrier system capacity drops 2.0 percent, while regional carrier capacity grows 2.0 percent.

Passenger demand shows slight growth in 2010 with system RPMs forecast to grow 0.3 percent (flat for mainline carriers and up 4 percent for regional carriers) as passenger enplanements increase 0.5 percent (down 0.7 percent for mainline carriers and up 4.6 percent for regional carriers). Growth is projected to accelerate in 2011 with system RPMs and passengers increasing 2.6 and 2.1 percent, respectively, on a capacity increase of 2.5 percent. For the overall forecast period, system capacity is projected to increase an average of 3.4 percent a year. Supported by a growing U.S. economy and falling real yields, system RPMs are projected to increase 3.5 percent a year, with regional carriers (4.2 percent a year) growing faster than mainline carriers (3.4 percent a year). System passengers are projected to increase an average of 2.6 percent a year, with regional carriers growing faster than mainline carriers (3.0 versus 2.5 percent a year). By 2030, U.S. commercial air carriers are projected to fly 1.9 trillion ASMs and transport 1.2 billion enplaned passengers a total of 1.6 trillion passenger miles. Planes will remain crowded, with load factor projected to grow moderately during the early years of the forecast period and then tapering during the mid to latter years, growing by 2.7 points over the forecast period to 82.4 percent in 2030. Passenger trip length is also forecast to increase by more than 221 miles over the forecast to 1,314.5 miles (up 10.5 miles annually). The growth in passenger trip length reflects the faster growth in the relatively longer international and domestic trips as compared to shorter-haul flights.



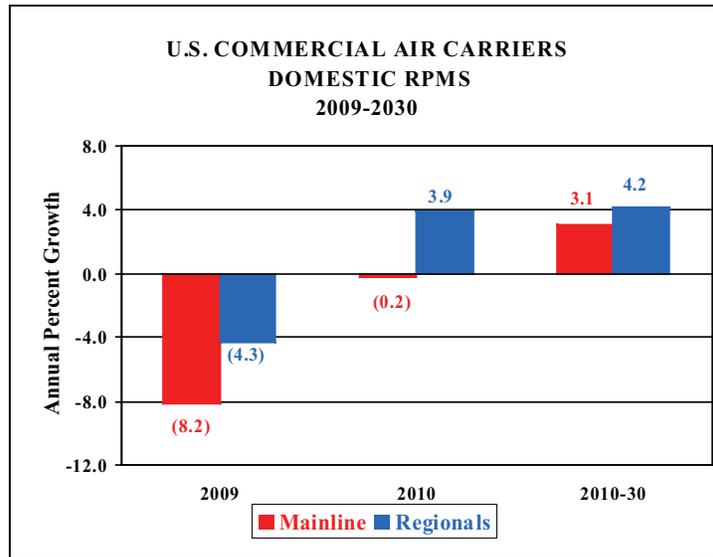
Domestic Markets

After a dramatic decline during FY 2009, domestic capacity in FY 2010 is projected to fall slightly, down 1.1 percent. Following a record reduction of 9.5 percent in 2009, mainline carrier capacity drops 1.6 percent as these carriers show reluctance to increase capacity in a continuing environment of uncertainty. Regional carriers are slated to grow in FY 2010, up 1.9 percent, after posting their first decline in capacity since deregulation during FY 2009. Domestic commercial carrier capacity recovers modestly in 2011 (up 1.6 percent) with mainline carriers growing slower than regional carriers, 1.4 percent versus 2.6 percent, respectively, and then increases at an average annual rate of 3.2 percent for the balance of the forecast (2011-2030). For the entire forecast period (2009–2030), domestic capacity is projected to increase at an average annual rate of 2.9 percent, just slightly faster than economic growth, with mainline carriers growing slower (2.7 percent per year) than the regional carriers (4.0 percent per year).



The slow pace of the economic recovery in the U.S. inhibits RPM growth during the first year of the forecast (up 0.4 percent), with traffic projected to grow faster in the second half of the year. Mainline carrier RPMs are projected to contract 0.2 percent during 2010, while regional carrier RPMs grow 3.9 percent. By 2011, traffic growth improves with RPMs increasing 1.8 percent as consumer confidence improves and corporate travel budgets increase. Driven by continued economic growth and falling real yields, domestic RPM growth for the remainder of the forecast (2011-2030), averages 3.3 percent per year. For the overall forecast period (2009-2030) domestic RPMs are projected to grow an average of 3.1 percent a year. Mainline carriers are projected to grow more slowly than the regional carriers throughout the forecast period (averaging 2.9 versus 4.2 percent a year, respectively).

Enplanements are forecast to grow 0.4 percent in 2010, following a 7.3 percent decline in 2009. Similar to RPMs, passenger volume is expected to pick up in 2011 with the strengthening economy (up 1.8 percent), and then grow at an average rate of 2.6 percent per year for the period 2011-2030. Over the entire forecast period, domestic enplanements are projected to grow at an average annual rate of 2.4 percent with mainline carriers growing more slowly than regional carriers (2.2 versus 3.0 percent a year, respectively).



In spite of record capacity cutbacks triggered by a steep drop in demand, carriers lost pricing power during 2009, with nominal yield falling 8.9 percent (down 8.6 percent in real terms). Despite continued capacity reductions, lackluster demand will keep fares in check in 2010, resulting in a modest increase in nominal yield of 3.9 percent (2.5 percent in real terms). For the entire forecast period, increases in nominal yields are projected to grow at a rate of 1.1 percent a year, while in real terms they are projected to decline an average of 0.8 percent a year. The decline in real yields over the forecast period assumes competition between carriers and convergence of cost structures between network carriers and their low-cost counterparts. The convergence arises from gains in productivity as network carriers retire fuel inefficient aircraft and hold the line on labor costs while low-cost carriers contend with aging fleets, maturing work forces, and unionization.

Domestic commercial carrier activity (departures) at FAA air traffic facilities is projected to grow more slowly than passenger traffic over the forecast period (1.9 percent per year for departures versus 3.1 percent for RPMs). This reflects increased carrier efficiencies in three operational measures—aircraft size, load factor, and trip length.

Domestic aircraft size⁸ increased in 2009 by 1.3 seats to 121.9 seats. The increase was partly driven by a large increase in aircraft size by the regional carriers (up 2.2 seats) and the grounding of older, fuel inefficient aircraft (i.e. MD-80's and 737-300/400/500) by the mainline carriers (up 1.4 seats). The increase in regional aircraft size was caused by the retirement of 50-seat jet aircraft as larger 70-90 seat jet aircraft entered the fleet. Domestic seats per aircraft falls in 2010 (down 0.3 seats) as mainline carriers continue to cut capacity while their regional counterparts grow. Over the course of the forecast, domestic seats per aircraft are projected to gradually increase to 123.6 seats by 2030, an average of 0.1 seats per year.

The FAA's projection of domestic carrier average aircraft size is greatly influenced by carrier fleet plans, publicly known aircraft order books and FAA's expectations of the changing domestic competitive landscape. In the near-term (through 2011), the forecast incorporates several carrier assumptions: 1) mainline carriers desire to constrain ASM capacity growth; 2) network carrier "own metal" service on longer-haul routes; 3) the retirement of older inefficient aircraft (many of which are narrow-body);

8 Defined as seats per mile flown and computed by dividing ASMs by miles flown.

4) the shifting of wide-body and larger narrow-body aircraft to international services, and 5) growing use of 70-90 seat regional jet aircraft.

In the longer-term, network carriers will replace their wide-body and larger narrow-body aircraft in their domestic route networks with smaller, next generation, narrow-body aircraft. In addition, some carriers, such as JetBlue and US Airways, are turning to smaller aircraft, like the 100-seat Embraer 190, to supplement their route structure. The use of smaller narrow-body aircraft allows mainline carriers to better serve their customers by boosting frequency, as well as improve profitability by more closely matching supply (the number of seats) with demand (the number of passengers).

Mainline carrier domestic aircraft size increased in 2009 by 1.4 seats to 151.4 seats, but is projected to fall 0.8 seats in 2010. Domestic aircraft size for mainline carriers is projected to fall to 150.4 seats in 2011 and then gradually increase thereafter for the balance of the forecast. Overall, average aircraft size for the mainline group will increase by only 0.5 seats between 2009 and 2030, going from 151.4 to 151.9.

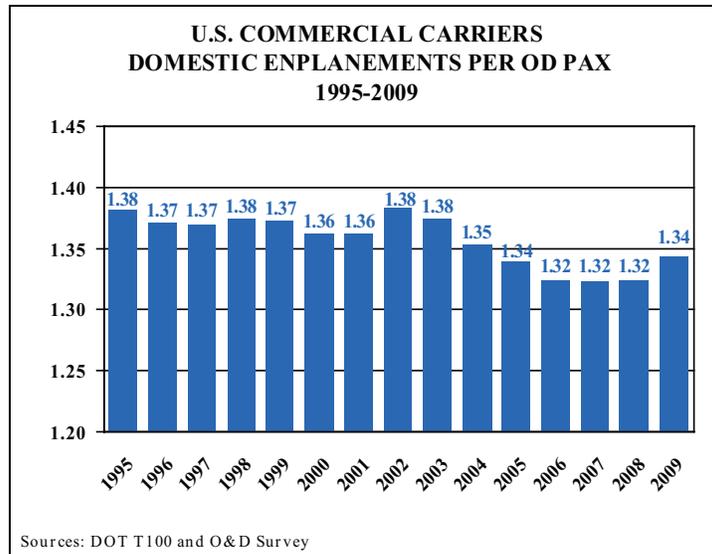
Regional carrier aircraft size flown domestically is projected to grow at a much faster pace than their mainline counterparts. The faster growth in regional aircraft size is stimulated by the wave of 70-90 seat regional jet aircraft that are entering the fleet as well as reductions in the 50 seat and under jet fleet. Regional carriers are better equipped to support operations of their mainline partners by providing capacity that complements market demand. The greater number of the larger 70- and 90-seat regional jets in the fleet coupled with significant 50-seat jet retirements over the next few years increases the average seating capacity of the regional fleet from 55.0 seats in 2009 to 56.8 seats by 2011. Over the course of the forecast, average seats per aircraft for the regional carriers increases by 0.5 seats per year to 65.4 seats in 2030. The changing aircraft fleet mix is narrowing the gap between the size and aircraft types operated by the mainline and regional carriers.

Commercial carrier domestic load factor increased 1.1 points during FY 2009 to an all-time high of 80.4 percent. Pushing load factors to record levels was the mainline carrier group which posted a load factor of 81.3 percent. Load factors for the regional carriers increased 0.6 points to 74.3 percent. In 2010, domestic load factor is forecast to increase 1.2 points to 81.6 percent as mainline and regional carrier load factors rise 1.2 and 1.5 points, respectively. Thereafter, commercial carrier domestic load factor gradually rises to 83.2 percent by 2030.

In 2009 domestic passenger trip length fell 3.4 miles to 870.5 miles, after increasing 3.7 miles in 2008. Passenger trip length is forecast to decline by 0.7 miles in 2010 and by 0.3 miles in 2011 as carriers continue to restructure their networks and realign capacity. After 2011, trip length is projected to steadily increase for the balance of the forecast, reaching 997.2 miles by 2030. The increase in trip length reflects increases in both mainline and regional carrier trip length. Mainline carrier trip length increases as thinner, shorter haul markets are relinquished to regional partners and replaced with flying of longer domestic trips. Regional carrier trip length increases as flying in shorter haul markets is abandoned and/or reduced as more of the larger 70 and 90-seat regional jets penetrate thinner longer-haul markets previously only accessible with mainline equipment.

Another key factor in predicting aviation activity relative to passenger demand is the level of connecting versus non-stop (origin-destination) traffic. However, as the current cycle of U.S. airline industry restructuring unfolds and hub structures change, the impact on local communities and airport activity levels can vary significantly.

The FAA analyzes the ratio of passenger enplanements to origin-destination (O&D) passengers over time to identify changes in connecting versus non-stop traffic. This ratio is an indicator of the tendency of the average passenger to connect during a typical journey. The closer the ratio is to 1.0, the more passengers fly on a point-to-point routing. As the chart below shows, the overall ratio for the U.S. domestic industry varied within a narrow band between 1995 and 2002. After 2002, the ratio trailed downward until the end of 2008. The decline in the ratio during this six year period is characterized by a drop in connectivity by the network carriers and rising passenger share for the low-cost carriers. The uptick in the ratio during 2009 indicates an increase of hubbing by the carriers. The FAA’s forecast recognizes the changing pattern of domestic traffic connectivity and these trends are captured in the forecast’s passenger enplanement totals.



International Markets

U.S. and Foreign Flag Carriers

FAA provides forecasts of total international passenger demand (the sum of U.S. and foreign flag carriers) for travel between the United States and three world travel areas--Atlantic, Latin America (including Mexico and the Caribbean), and Asia/Pacific--as well as for U.S./Canadian transborder traffic. These forecasts are based on historical passenger statistics from the United States Immigration and Naturalization Services (INS) and Transport Canada, and on regional world historical data and economic projections from Global Insight, Inc.

Total passenger traffic between the United States and the rest of the world is estimated to total 147.1 million in CY 2009, 4.7 percent lower than in 2008. As the worldwide economy begins to recover from the recession of 2009, international passengers grow 3.3 percent in 2010. As the world economic recovery gains solid footing in 2011, passenger growth is up 5.0 percent. For the balance of the forecast period, stable worldwide economic growth leads international passenger growth to average 4.2 percent a year, and totaling 347.9 million in 2030.

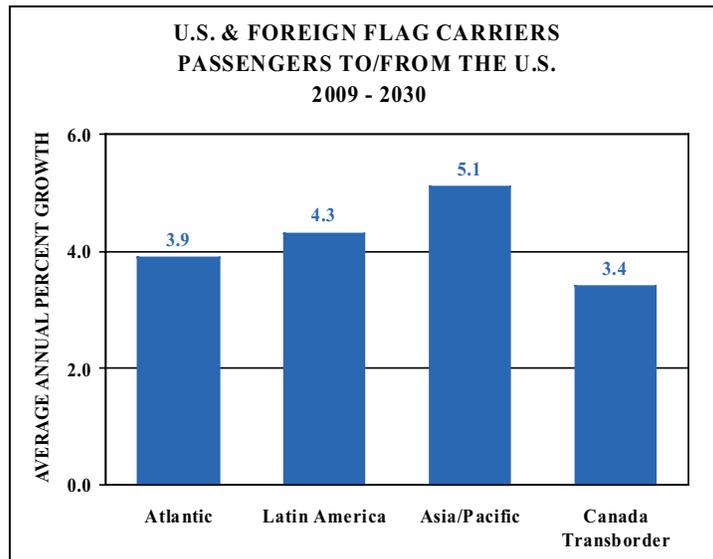
Over the entire forecast period (2009-2030), high economic growth in the Asia-Pacific market drives passenger growth averaging 5.1 percent a year for this region. India, China, and Taiwan (passenger growth of 8.0, 7.9, and 7.8 percent a year, respectively) are forecast to be the fastest growing markets in the region. Growth in the Japan market (the largest and most mature in the region) is projected to be well below the

regional average at 2.4 percent a year.

In the Atlantic region, open skies between the European Union and the United States and increasing non-stop service to Africa and the Middle East helps to fuel passenger growth of 3.9 percent a year over the forecast period. Over the 21-year forecast horizon, average annual passenger growth in the top three Atlantic markets-- the United Kingdom, Germany, and France, is 4.2, 3.6, and 4.1 percent, respectively.

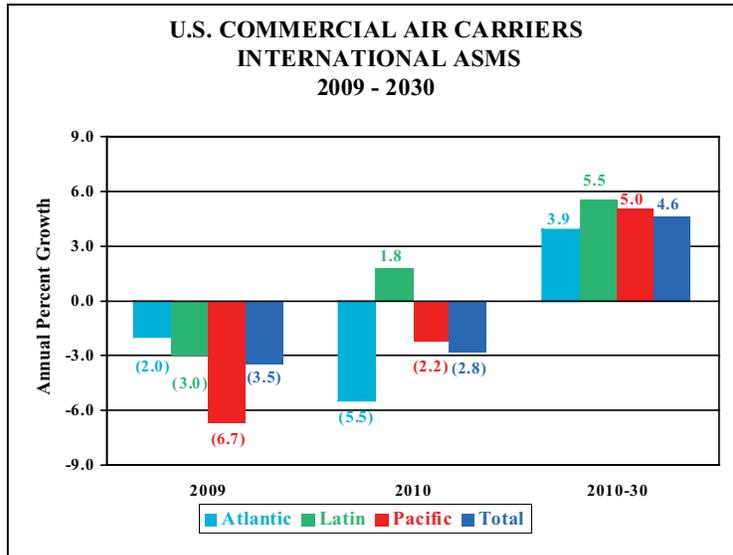
In the Latin America region, passenger growth between 2009 and 2030 is forecast to average 4.3 percent a year. The highest growth is projected for Brazil (average annual growth of 7.0 percent) while the largest market in the region, Mexico, grows at an average of 4.1 percent a year. The slowest rates of growth are projected to occur in the Bahamian and Jamaican markets (averaging growth of 0.5 and 2.6 percent a year, respectively).

Growth in the Canadian transborder market is forecast to be higher than that of the domestic U.S. market (2.4 percent), averaging 3.4 percent a year over the forecast period.

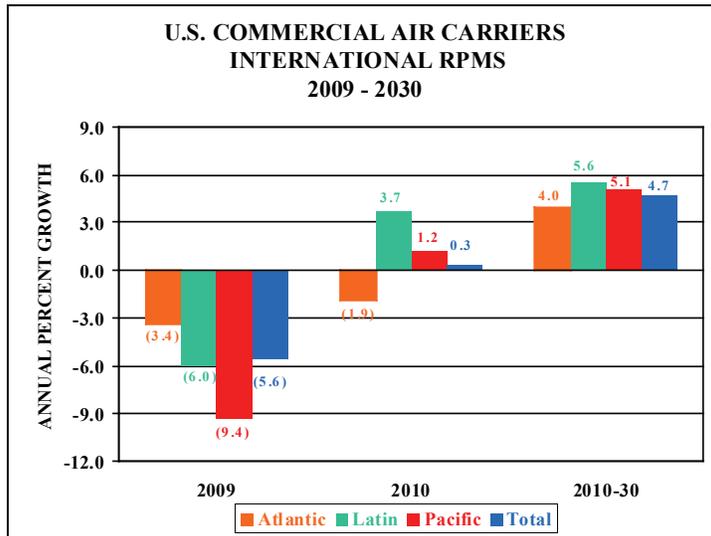


U.S. Flag Air Carriers

In 2009, international U.S. commercial air carrier capacity fell 3.5 percent from 2008 levels. Capacity falls an additional 2.8 percent in 2010 as carriers further cut capacity due to reduced demand for air travel. In the Atlantic and Pacific markets capacity decreases 5.5 and 2.2 percent, respectively, in 2010. Conversely, capacity in the Latin region during the same period grows 1.8 percent reflecting a rebound from the impact of H1N1 flu virus. With a strong economic recovery in the global economies expected for 2011, international capacity grows modestly at 4.7 percent, and averages 4.6 percent a year for the remainder of the forecast period. Strong growth in the medium to long-term portion of the forecast reflects favorable U.S. and world economic activity.



U.S. commercial air carrier international RPMs fell 5.6 percent in 2009 as enplanements decreased 6.6 percent. RPMs are projected to increase slightly in 2010 (up 0.3 percent), as increases in the Latin and Pacific regions offset a modest decline in the Atlantic region. In 2011, U.S. carrier international RPMs increase 4.7 percent led by growth in the Atlantic market (up 5.2 percent) and followed by growth in the Latin (up 4.6 percent) and Pacific markets (up 3.7 percent). For the balance of the forecast, RPMs increase an average 4.7 percent a year with the fastest growth in the Latin region. A similar pattern is forecast for enplanement growth. International enplanements are projected to increase 0.9 percent in 2010, and then grow 4.0 percent in 2011. Over the balance of the forecast period, enplanements are forecast to increase an average of 4.1 percent a year with the fastest growth in Pacific and Latin markets (up 5.0 and 4.4 percent a year, respectively).



The slower growth in U.S. carrier international passengers over the period 2009–2030 (4.0 percent a year) compared to total international passengers (4.2 percent a year) reflects a small decline in market share for U.S. airlines over the forecast period. Forecasts of international demand assume U.S. and foreign flag carriers will benefit from the favorable economic activity in both the United States and world markets.

International load factor for U.S. commercial carriers was 78.1 percent in 2009. Load factor is expected to increase 2.5 points to be 80.6 percent in 2010 as capacity growth lags traffic growth in all three world markets. International load factor is projected to fall 0.1 points in 2011 and rise slowly for the remainder of the forecast to be 81.1 percent in 2030.

International passenger real yields for mainline carriers were down 12.6 percent in 2009. The largest decrease was in the Atlantic market (down 15.1 percent), followed by the Pacific (down 11.8 percent) and Latin market (down 7.8 percent) reflecting a lack of pricing power by U.S. carriers and the significant fall in demand resulting from the global recession. Buoyed by strengthening demand, international real yields are projected to increase 3.1 percent in 2010 and then increase by 4.7 percent in 2011. For the remainder of the forecast period, real yield decreases an average of 1.0 percent a year. In nominal terms, international yields are forecast to increase 4.6 percent in 2010, increase 6.7 percent in 2011 and then grow at an annual rate of 0.9 percent over the remainder of the forecast. The decline in real yields assumes competitive pressures will hold the line on fare increases. In international markets, this takes the form of expanded open sky agreements and global alliances.

Commercial Air Carriers — Air Cargo

Historically, air cargo activity tracks with GDP. Additional factors that have affected the growth in air cargo traffic include the global financial crisis, declining real yields, and globalization. Significant structural changes have occurred in the air cargo industry. Among these changes are the following: air cargo security regulations by the FAA and TSA; market maturation of the domestic express market; modal shift from air to other modes (especially truck); increases in air fuel surcharges; growth in international trade from open skies agreements; use of all-cargo carriers (e.g., FedEx) by the U.S. Postal Service to transport mail; and increased use of mail substitutes (e.g., e-mail).

The forecasts of Revenue Ton Miles (RTMs) are based on several assumptions specific to the cargo industry. First, security restrictions on air cargo transportation will remain in place. Second, most of the shift from air to ground transportation has occurred. Finally, long-term cargo activity will be tied to economic growth.

The forecasts of RTMs were based mainly on models that link cargo activity to GDP. Forecasts of domestic cargo RTMs were developed with real U.S. GDP as the primary driver. Projections of international cargo RTMs were based on growth in world GDP, adjusted for inflation. The distribution of RTMs between passenger carriers and all-cargo carriers was forecast based on an analysis of historic trends in shares, changes in industry structure, and market assumptions.

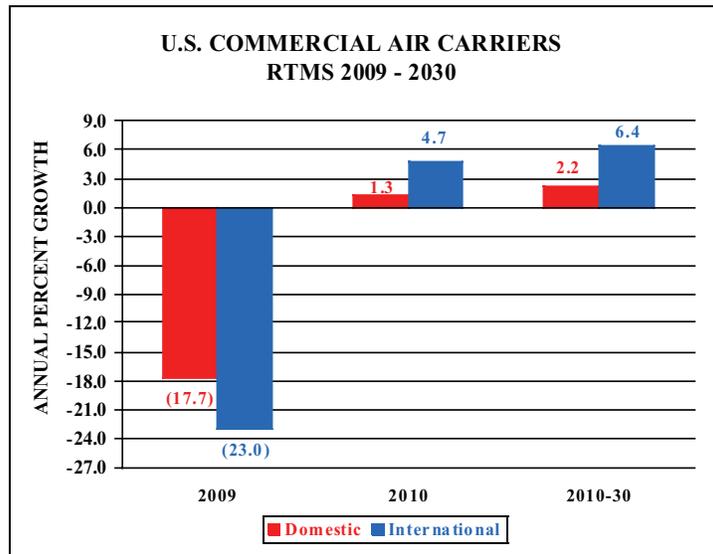
Total RTMs are forecast to grow 3.4 percent in 2010 and again in 2011 by 4.9 percent. For the balance of the forecast period, driven by steady economic growth, total RTMs are forecast to increase at an average

annual rate of 5.1 percent. The forecast of 86.6 billion RTMs in 2030 represents an average annual increase of 5.0 percent over the entire forecast period.

Domestic cargo RTMs are forecast to grow 1.3 percent in 2010 and 2.0 percent in 2011, driven by a slow recovery in the U.S. economy. Between 2011 and 2030, domestic cargo RTMs are forecast to increase at an average annual rate of 2.2 percent. The forecast of 18.5 billion RTMs in 2030 represents an average annual increase of 2.1 percent over the entire forecast period.

The freight/express segment of domestic air cargo is highly correlated with capital spending. Thus, the growth of this segment in the future will be tied to growth in the economy. The mail segment of domestic air cargo will be affected by price and substitution (electronic mail).

The all-cargo carriers have increased their share of domestic cargo RTMs flown from 65.4 percent in 1997 to 86.2 percent in 2009. This is because of significant growth in express service by FedEx and United Parcel Service coupled with a lack of growth of domestic freight/express business for passenger carriers. The all-cargo share is forecast to increase to 90.4 percent by 2030 based on increases in wide-body capacity for all-cargo carriers and security considerations.

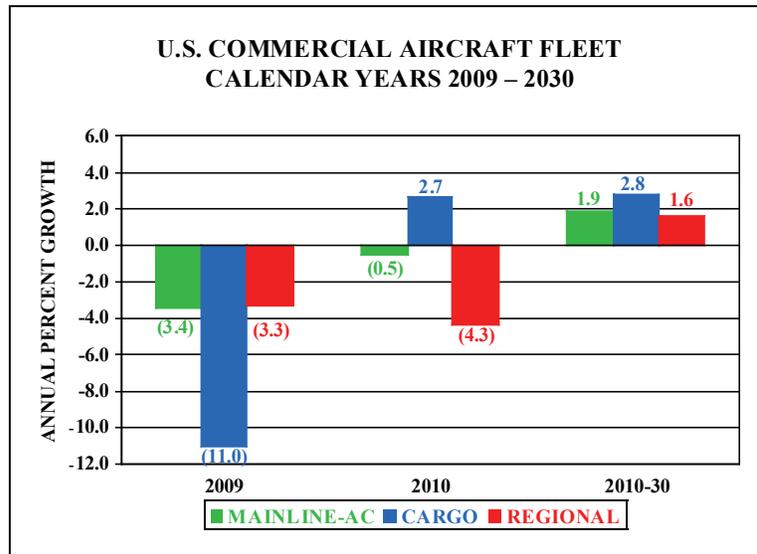


International cargo RTMs are forecasted to rise 4.7 percent in 2010 reflecting a recovery from the global economic downturn and grow 6.6 percent in 2011 as world economic growth rebounds and trade expands. For the balance of the forecast period, international cargo RTMs are forecast to increase an average of 6.3 percent a year based on projected growth in world GDP. The forecast 68.1 billion RTMs in 2030 represents an average annual increase of 6.3 percent over the entire forecast period.

The share of international cargo RTMs flown by all-cargo carriers increased from 63.3 percent in 2008 to 63.6 percent in 2009. Beyond 2009, the all-cargo share of RTMs flown is forecast to increase modestly to 69.9 percent by 2030.

COMMERCIAL AIRCRAFT FLEET

The number of commercial aircraft is forecast to grow from 7,132 in 2009 to 10,274 in 2030, an average annual growth rate of 1.8 percent or 150 aircraft annually. The commercial fleet will shrink by a net 107 aircraft in 2010 after shrinking by 323 aircraft in 2009 as the dramatic fall off in demand and high fuel prices compelled carriers to prune their fleets. In comparison, the US commercial fleet contracted by 262 aircraft between 2000 and 2003, the last downturn in aviation.



The number of passenger jets in the mainline carrier fleet decreased by 129 aircraft in 2009 and is expected to fall another 17 aircraft in 2010 before increasing in 2011 by 40 aircraft. For the period 2010-2030, the mainline air carrier passenger fleet increases an average of 85 aircraft a year, totaling 5,342 aircraft in 2030. The narrow-body fleet (including E-190’s at JetBlue and US Airways) is projected to grow by 60 aircraft annually over the period 2010-2030; the wide-body fleet grows by 25 aircraft a year as the Boeing 787 and Airbus A350’s enter the fleet.

The regional carrier passenger fleet is forecast to decrease by 113 aircraft in 2010 as carriers remove large numbers of 50 seat and smaller regional jets. After 2010, the regional carrier fleet is expected to increase by an average of 45 aircraft (1.6 percent) over the remaining years of the forecast period, totaling 3,401 aircraft in 2030. The number of regional jets (90 seats or fewer) at regional carriers is projected to grow from 1,710 in 2009 to 2,441 in 2030, an average annual increase of 1.7 percent. All the growth in regional jets over the forecast period occurs in the larger 70 and 90-seat aircraft. During the forecast period, all regional jets of 50 or less seats are removed from the fleet, reflecting the relaxation of scope clauses. The turboprop/piston fleet is expected to grow from 902 units in 2009 to 960 in 2030. Turboprop/piston aircraft are expected to account for just 28.2 percent of the regional carrier passenger fleet in 2030, down from a 42.4 percent share in 2009.

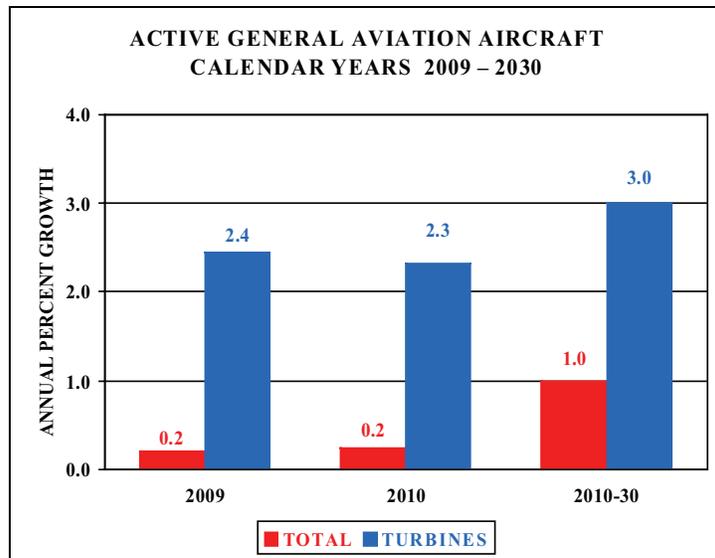
Cargo large jet aircraft are forecast to increase by 55 aircraft over the next 2 years (from 854 to 909 aircraft in 2011), and total 1,531 aircraft in 2030. The narrow-body jet fleet is projected to increase by 10 aircraft a year over the 21-year forecast period as older 757’s and 737’s are converted to cargo service. The wide-body jet fleet is projected to increase by 22 aircraft yearly.

GENERAL AVIATION

The FAA forecasts the fleet and hours flown for single-engine piston aircraft, multi-engine piston, turboprops, turbojets, piston and turbine powered rotorcraft, light sport, experimental and other (which consists of gliders and lighter than air vehicles). The FAA forecasts “active aircraft,”⁹ not total aircraft. The FAA uses estimates of fleet size, hours flown, and utilization from the General Aviation and Part 135 Activity Survey (GA Survey) as baseline figures upon which assumed growth rates can be applied. Beginning with the 2004 GA Survey there were significant improvements to the survey methodology. Coinciding with the changed survey methodology, large changes in many categories were observed, both in the number of aircraft and hours flown. The results of the 2008 GA Survey are consistent with the results of surveys since 2004, reinforcing our belief that the methodological improvements have resulted in superior estimates relative to those in the past. Thus, they are used as the basis for our forecast. Because results from the GA Survey are not published until the following year, the 2008 statistics are the latest available. Figures for 2009 are estimated based on other activity indicators, and the forecasts of activity begin in 2010 and continue through 2030.

The demand for business jet aircraft has grown over the past several years. New product offerings, the introduction of very light jets, and increasing foreign demand have helped to drive this growth. In addition, corporate safety/security concerns for corporate staff, combined with increasing flight delays at some U.S. airports have made fractional, corporate, and on-demand charter flights practical alternatives to travel on commercial flights. Despite the hard impact of the recession felt in the business jet market, the forecast calls for robust growth in the long term outlook and predicts business usage of general aviation aircraft will expand at a faster pace than that for personal/recreational use.

The active general aviation fleet is projected to increase at an average annual rate of 0.9 percent over the 21-year forecast period, growing from an estimated 229,149 in 2009 to 278,723 aircraft by 2030. The more expensive and sophisticated turbine-powered fleet (including rotorcraft) is projected to grow at an average of 3.0 percent a year over the forecast period, with the turbine jet portion increasing at 4.2 percent a year.



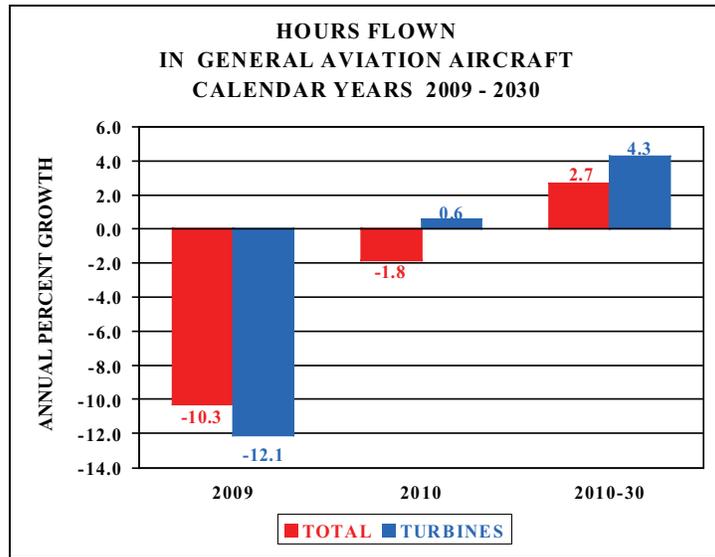
⁹ An active aircraft is one that flies at least one hour during the year.

With the advent of a relatively inexpensive twin-engine very light jet (VLJ), many questions have arisen as to the future impact they may have. The lower acquisition and operating costs of VLJs were believed to have the potential to revolutionize the business jet market, particularly by being able to sustain a true on-demand air-taxi service. While initial forecasts called for over 400 aircraft to be delivered a year, events such as the recession along with the bankruptcy of Eclipse and DayJet have led us to temper more recent forecasts. The worldwide delivery of VLJs this year has held up relatively well compared to the turbine jet market as a whole, helped in large part by the introduction of Embraer's Phenom 100 to the market. Despite that, the impacts of the recession have led to dampened expectations. The current forecast calls for 440 VLJs to enter the US fleet over the next three years, with an average of 216 aircraft a year for the balance of the forecast period.

The number of active piston-powered aircraft (including rotorcraft) is projected to decrease from the 2008 total of 166,514 through 2017, with declines in both single and multi-engine fixed wing aircraft, but with the smaller category of piston-powered rotorcraft growing. Beyond 2017 active piston-powered aircraft are forecast to increase to 172,613 by 2030. Over the forecast period, the average annual increase in piston-powered aircraft is 0.2 percent. Although piston rotorcraft are projected to increase rapidly at 3.4 percent a year, they are a relatively small part of this segment of general aviation aircraft. Single-engine fixed-wing piston aircraft, which are much more numerous, are projected to grow at a much slower rate (0.2 percent respectively) while multi-engine fixed wing piston aircraft are projected to decline 0.8 percent a year. In addition, it is assumed that VLJs and new light sport aircraft could erode the replacement market for traditional piston aircraft at the high and low ends of the market respectively.

Starting in 2005, a new category of aircraft (previously not included in the FAA's aircraft registry counts) was created: "light sport" aircraft. At the end of 2008 a total of 6,811 active aircraft were estimated to be in this category while the forecast assumes the fleet will increase approximately 825 aircraft per year until 2013. Thereafter the rate of increase in the fleet tapers considerably to about 335 per year. By 2030 a total of 16,311 light sport aircraft are projected to be in the fleet.

The number of general aviation hours flown is projected to increase by 2.5 percent yearly over the forecast period. A large portion of this growth will occur in the short term post recession period, where record low utilization rates experienced in 2009 will return to normal trends, particularly in the turbine jet category. As with previous forecasts, much of the long term increase in hours flown reflects strong growth in the rotorcraft and turbine jet category. Hours flown by turbine aircraft (including rotorcraft) are forecast to increase 4.1 percent yearly over the forecast period, compared with 1.1 percent for piston-powered aircraft. Jet aircraft are forecast to account for most of the increase, with hours flown increasing at an average annual rate of 6.1 percent over the forecast period. The large increases in jet hours result mainly from the increasing size of the business jet fleet, along with measured recovery in utilization rates from recession induced record lows. Rotorcraft hours, relatively immune to the economic downturn when compared to other categories, are projected to grow by 3.0 percent yearly. The light sport aircraft category is expected to see increases in hours flown on average of 5.9 percent a year, which is primarily driven by growth in the fleet.



The number of active general aviation pilots (excluding air transport pilots) is projected to be 501,875 in 2030, an increase of over 52,000 (up 0.5 percent yearly) over the forecast period. Commercial pilots are projected to increase from 125,738 in 2009 to 139,100 in 2030, an average annual increase of 0.5 percent. The number of student pilots is forecast to increase at an average annual rate of 0.8 percent over the forecast period, growing from 72,280 in 2009 to 86,050 in 2030. In addition, FAA is projecting that by the end of the forecast period a total of 14,100 sport pilots will be certified. As of December 31, 2009, the number of sport pilot certificates issued was 3,248 reflecting a steady increase in this new “entry level” pilot certificate that was only created in 2005. The number of private pilots is projected to grow at an average yearly rate of 0.2% over the forecast period to total 219,050 in 2030.

FAA WORKLOAD FORECASTS

FAA and Contract Towers

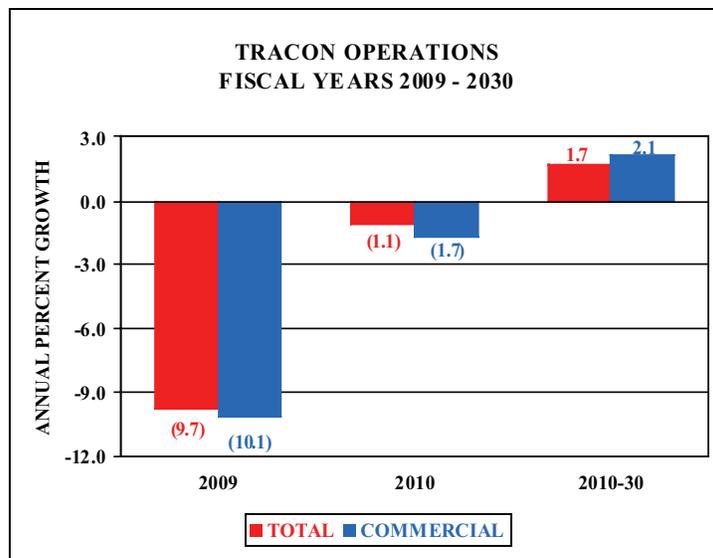
Activity at the 508 FAA (264) and contract towers (244) totaled 52.9 million operations in 2009, down 10.4 percent from 2008. Activity is projected to decrease 2.7 percent in 2010, with declines in both commercial and non-commercial operations. Growth in activity resumes in 2011 (0.8 percent) led by increases in non-commercial activity (up 1.1 percent). For the balance of the forecast, activity grows at an average rate of 1.6 percent per year, reaching 69.6 million operations in 2030.

Most of the growth over the forecast period results from increased commercial aircraft activity (up 1.7 percent annually). Air carrier activity is projected to shrink 2.4 percent in 2010 as carriers continue to cut capacity as the unemployment rate continues to rise. In 2011, air carrier activity is projected to increase 0.7 percent as airline capacity begins to rebound, and grows an average of 2.3 percent per year over the forecast period. Commuter/air taxi operations are forecasted to fall 1.9 percent in 2010 then remain flat in 2011. For the balance of the forecast period, commuter/air taxi operations are projected to increase 1.6 percent per year.

General aviation activity fell 11.7 percent in 2009 with steep declines in both itinerant (down 11.2 percent) and local (down 12.2 percent) activity. Activity is projected to fall again in 2010 (down 3.1 percent) reflecting the residual impact of the 2009 recession and then rise modestly in 2011 and 2012 (up 1.2

percent both years) as falling unemployment promotes the growth of flight hours and operations despite slightly higher oil prices. For the entire forecast period, general aviation activity at towered airports is projected to increase an average of 1.1 percent a year, to 35.1 million operations in 2030. General aviation activity at combined FAA/contract towers grows in line with the modest increase forecasted for general aviation piston hours already cited. Most operations at the smaller towers are in piston aircraft, while those at the largest airports tend to be turbine operations. Military activity rose 1.1 percent in 2009.

Operations¹⁰ at FAA TRACONs (Terminal Radar Approach Control) fell 9.7 percent in 2009, the fifth year in a row. They are projected to decline again in 2010 (down 1.1 percent) as the effects of the recession continue to be felt with decreases in both commercial and non-commercial activity. TRACON operations are forecast to rise 1.0 percent in 2011 before increasing at an average annual rate of 1.7 percent for the balance of the forecast. For the entire forecast period, TRACON operations grow an average of 1.5 percent per year, totaling 54.4 million in 2030.



En Route Centers

The number of IFR aircraft handled at FAA en route traffic control centers decreased 11.6 percent to 40.1 million in 2009, with all user groups posting declines in activity. Activity at en route centers is forecast to decrease by 1.6 percent in 2010 in the wake of decreased commercial and general aviation activity. Growth in en-route activity resumes in 2011 (up 1.4 percent) led by increases in air carrier activity. After 2011, through the balance of the forecast period, en route activity increases 2.5 percent annually, reaching 64.1 million aircraft handled in 2030. Over the entire forecast period, commercial activity is projected to increase at an average annual rate of 2.7 percent, reflecting increases in the commercial fleet and aircraft stage lengths. During the same period, general aviation activity is projected to grow 0.7 percent per year, reflecting modest growth in business aviation. Military activity is held constant at the 2009 activity level throughout the forecast period.

¹⁰ TRACON operations consist of itinerant IFR and VFR arrivals and departures at all airports in the domain of the TRACON as well as IFR and VFR overflights.

