

## Forecast Highlights (2016 – 2036)

Since its deregulation in 1978, the U.S. commercial air carrier industry has been characterized by boom-to-bust cycles. The volatility that was associated with these cycles was thought by many to be a structural feature of an industry that was capital intensive but cash poor. However the great recession of 2007-09 marked a fundamental change in the operations and finances of U.S. Airlines. Air carriers fine-tuned their business models to minimize losses by lowering operating costs, eliminating unprofitable routes, and grounding older, less fuel efficient aircraft. To increase operating revenues, carriers initiated new services that customers were willing to purchase and started charging separately for services that were historically bundled in the price of a ticket. The industry experienced an unprecedented period of consolidation with four major mergers in five years. These changes along with capacity discipline exhibited by carriers have resulted in a fifth consecutive year of profitability for the industry in 2015. Looking ahead there is optimism that the industry has been transformed from that of a boom-to-bust cycle to one of sustainable profits.

As the economy recovers from the most serious economic downturn since World War II and the slowest expansion in recent history, aviation will continue to grow over the long run. Fundamentally, over the medium and long term, demand for aviation is driven by economic activity. The 2016 FAA forecast calls for U.S. carrier passenger growth over the next 20 years to average 2.1 percent per year, slightly faster than last year's forecast. The sharp decline in the price of oil in 2015 is a catalyst for a short lived uptick in

passenger growth in 2016. Although oil prices are projected to fall to around \$43 per barrel in 2016, our forecast assumes that they will rise thereafter to exceed \$100 by 2023 and \$150 by the end of the forecast, keeping a lid on U.S. economic growth during the same period. There are a number of headwinds that are buffeting the global economy – the fall in oil prices, recession in Russia and Brazil and inconsistent performance in other emerging economies, a “hard landing” in China, and lack of further stimulus in the advanced economies. The uncertainty over the future course of oil prices is just one more item on the list. Although the U.S. economy has managed to avoid a recession, a prolonged period of faster economic growth (e.g. > 3%) may not be forthcoming.

System traffic in revenue passenger miles (RPMs) is projected to increase by 2.6 percent a year between 2016 and 2036. Domestic RPMs are forecast to grow 2.1 percent a year while International RPMs are forecast to grow almost twice as fast at 3.5 percent a year. U.S. carrier system capacity measure in available seat miles (ASMs) is forecast to grow in line with the increases in demand. The number of seats per aircraft is getting bigger, especially in the regional jet market, where we expect the number of 50 seat regional jets to fall to just a handful by 2023, replaced by 70-90 seat aircraft.

Although the U.S. and global economy continued to sputter in 2015, stable demand and lower energy prices resulted in record profits for U.S. airlines. U.S. carrier profitability should remain steady or increase as the recovery leads to strengthening demand

and increased revenues, while lower energy prices keep operating costs in check. Over the long term, we see a competitive and profitable aviation industry characterized by increasing demand for air travel and airfares growing more slowly than inflation, reflecting over the long term a growing U.S. economy.

The long term outlook for general aviation is favorable, led by gains in turbine aircraft activity. The active general aviation fleet is forecast to increase 0.2 percent a year between 2015 and 2036, equating to an absolute increase in the fleet of about 7,000 units. While steady growth in both GDP and corporate profits results in continued growth of the turbine and rotorcraft fleets, the largest segment of the fleet – fixed wing piston aircraft continues to shrink over the forecast. Although fleet growth is minimal, the number of general aviation hours flown is projected to increase an average of 1.2 percent per year through 2036, as growth in

turbine, rotorcraft, and experimental hours more than offset a decline in fixed wing piston hours.

With increasing numbers of regional and business jets in the nation's skies, fleet mix changes, and carriers consolidating operations in their large hubs, we expect increased activity growth which has the potential to increase controller workload. Operations at FAA and contract towers are forecast to increase 0.9 percent a year over the forecast period with commercial activity growing at five times the rate of non-commercial activity. The growth in U.S. airline and business aviation activity is the primary driver. Large and medium hubs will see much faster increases than small and non-hub airports, largely due to the commercial nature of their operations.