

## Forecast Highlights (2018–2038)

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. Since the end of the recession in 2009, U.S. airlines revamped 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 three major mergers in five years. The results of these efforts have been impressive: 2017 marks the eighth consecutive year of profitability for the U.S. airline industry. Looking forward, there is confidence that U.S. airlines have finally transformed from a capital intensive, highly cyclical industry to an industry that generates solid returns on capital and sustained profits.

Fundamentally, over the medium and long term, aviation demand is driven by economic activity, and a growing U.S. and world economy provides the basis for aviation to grow over the long run. The 2018 FAA forecast calls for U.S. carrier passenger growth over the next 20 years to average 1.9 percent per year, slightly slower than last year's forecast. The uptick in passenger growth in 2016-17 will continue into 2018 spurred on by favorable economic conditions in the U.S. and the

world. Oil prices averaged \$48 per barrel in 2017 rising to \$51 in 2018, and our forecast assumes they will increase thereafter to exceed \$100 by 2030 and approach \$119 by the end of the forecast period. The headwinds that have buffeted the global economy during the past few years – uncertainty surrounding “Brexit”, 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 seem to be diminishing. The U.S. economy is showing signs of accelerating, powered by gains in the stock market and should see additional stimulus in 2018 with the passing of the tax cut bill in December 2017.

System traffic in revenue passenger miles (RPMs) is projected to increase by 2.3 percent a year between 2018 and 2038. Domestic RPMs are forecast to grow 1.9 percent a year while International RPMs are forecast to grow significantly faster at 3.2 percent a year. System capacity as measured by available seat miles (ASMs) is forecast to grow in line with the increases in demand. The number of seats per aircraft is growing, especially in the regional jet market, where we expect the number of 50 seat regional jets to fall to just a handful by 2030, replaced by 70-90 seat aircraft.

Although the U.S. and global economy saw growth accelerate in 2017, a combination of higher energy prices and labor cost increases resulted in profits for U.S. airlines falling from 2016's record levels. The FAA expects U.S. carrier profitability to remain steady or increase as solid demand fed by an improving economy offsets rising energy and

labor costs. 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. and global economy.

The long-term outlook for general aviation is stable to optimistic, as growth at the high-end offsets continuing retirements at the traditional low end of the segment. The active general aviation fleet is forecast to remain relatively stable between 2018 and 2038. 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. While the fleet remains level, the number of general aviation hours flown is projected to increase an average of 0.8 percent per year through

2038, 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 that has the potential to increase controller workload. Operations at FAA and contract towers are forecast to grow 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.