



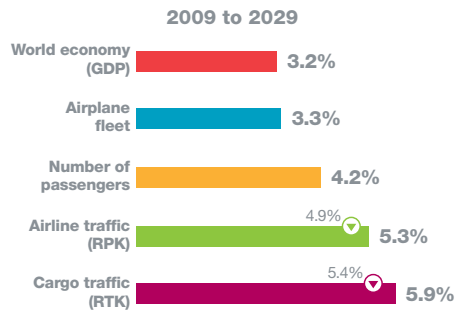
## **Current Market Outlook 2010–2029**



# Forecast on a page

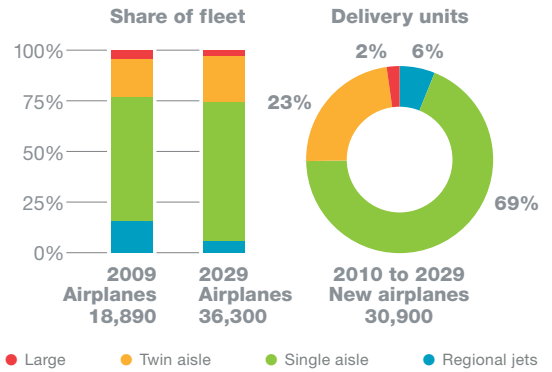


## World regions Market growth rates



▼ The long-term steady state growth rates for the period 2010-2030 due to the dramatic drop in 2009.

## World regions Market value: \$3,590 billion



## World regions Key indicators and new airplane markets

### Growth measures

Regions		Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
World economy (GDP)	%	4.6	2.7	1.9	4.0	4.0	3.3	4.4	3.2
Airline traffic (RPK)	%	6.8	3.4	4.4	7.1	6.9	4.8	5.5	5.3
Cargo traffic (RTK)	%	6.8	5.0	5.0	6.8	6.7	5.7	6.1	5.9
Airplane fleet	%	5.6	1.6	2.8	4.8	4.6	0.6	2.7	3.3
<b>Ratio RPK / GDP</b>		<b>1.5</b>	<b>1.3</b>	<b>2.3</b>	<b>1.8</b>	<b>1.7</b>	<b>1.5</b>	<b>1.3</b>	<b>1.7</b>

### Market size

		Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
Deliveries		10,320	7,200	7,190	2,340	2,180	960	710	30,900
Market value	(\$B)	1,320	700	800	390	210	90	80	3,590
Average value	(\$M)	130	100	110	170	100	90	110	120

### New airplane deliveries

	Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
Large	300	40	160	170	10	30	10	720
Twin aisle	2,840	1,180	1,340	1,000	350	160	230	7,100
Single aisle	6,710	5,180	5,380	1,100	1,800	570	420	21,160
Regional jets	470	800	310	70	20	200	50	1,920
<b>Total</b>	<b>10,320</b>	<b>7,200</b>	<b>7,190</b>	<b>2,340</b>	<b>2,180</b>	<b>960</b>	<b>710</b>	<b>30,900</b>

### Market value (2009 \$B, catalog prices)

	Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
Large	100	10	50	50	4	6	1	220
Twin aisle	660	260	310	250	70	30	50	1,630
Single aisle	550	400	430	90	140	40	30	1,680
Regional jets	10	30	10	2	1	6	2	60
<b>Total</b>	<b>1,320</b>	<b>700</b>	<b>800</b>	<b>390</b>	<b>210</b>	<b>90</b>	<b>80</b>	<b>3,590</b>

### 2009 fleet

	Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
Large	380	110	170	70	0	50	20	800
Twin aisle	1,030	970	650	400	130	180	140	3,500
Single aisle	2,560	3,670	2,980	430	910	630	400	11,580
Regional jets	140	1,840	500	50	90	290	100	3,010
<b>Total</b>	<b>4,110</b>	<b>6,590</b>	<b>4,300</b>	<b>950</b>	<b>1,130</b>	<b>1,150</b>	<b>660</b>	<b>18,890</b>

### 2029 fleet

	Asia Pacific	North America	Europe	Middle East	Latin America	CIS	Africa	World
Large	440	100	200	160	10	40	10	960
Twin aisle	3,150	1,710	1,470	1,020	360	240	310	8,260
Single aisle	8,130	6,410	5,470	1,180	2,300	810	700	25,000
Regional jets	480	780	320	80	100	210	110	2,080
<b>Total</b>	<b>12,200</b>	<b>9,000</b>	<b>7,460</b>	<b>2,440</b>	<b>2,770</b>	<b>1,300</b>	<b>1,130</b>	<b>36,300</b>

Market values above 20 have been rounded to the nearest 10.

## Long-term market—overview



### Air travel market recovering

Air travel, like nearly every other industry, felt the impact of the economic crisis in 2009. Passenger air traffic declined about 2 percent as the worst recession in over six decades gripped the world's economies. But the remarkable resilience of air travel is amply documented in more than 45 years of published editions of the Boeing *Current Market Outlook*.

Commercial aviation has weathered many downturns in the past. Yet recovery has followed quickly as the industry reliably returned to its long-term growth rate of approximately 5 percent per year. We see that same resilience in the first half of 2010 as the industry rebounds from the recent severe downturn. Passenger traffic is projected to rise 6 percent for the year, with similar annual growth rates for 2011 through 2014.

### Purpose of the forecast

The *Current Market Outlook* is our long-term forecast of air traffic volumes and airplane demand. The forecast has several important practical applications. It helps shape our product strategy and provides guidance for our long-term business planning. We have shared the forecast with the public since 1964 to help airlines, suppliers, and the financial community make informed decisions.

We start anew each year so we can factor the effects of current business conditions and developments into our analysis of the long-term drivers of air travel. The forecast details demand for passenger and freighter airplanes, both for fleet growth and for replacement of airplanes that retire during the forecast period. We also project the demand for conversion of passenger airplanes to freighters.

### The shape of the market

Looking back 10 years to our year-2000 forecast for 2009 reveals that our projections for global traffic growth and airplane demand tend to be conservative, often underestimating the total long-term market by 10 to 15 percent. Yet our forecasts of airplane market share by size of airplane have proved to be admirably accurate.

The long-range forecast for 2010 anticipates delivery of 30,900 new airplanes over the next 20 years, valued at \$3.6 trillion. Single-aisle airplanes account for the majority of deliveries—69 percent of the airplanes and 47 percent of the value. Rapidly expanding air service within China and other emerging economies and the spread of low-cost carrier (LCC) business models throughout the world drive this market segment. The twin-aisle market, which includes efficient long-range airplanes such as the Boeing 787 and 777, is the fastest growing segment of the market, accounting for 23 percent of the delivery units and 45 percent of the delivery dollars. High fuel costs are compelling airlines to accelerate replacement of older airplanes. In addition, the increased capabilities of the latest long-range, twin-aisle airplanes create opportunities for operators to take advantage of the ongoing liberalization of air transport markets to open new nonstop routes.

### Market Update: Asia Pacific



#### NEW!

Explore the forecast for the Asia Pacific region in greater detail.

#### Airplanes in service 2009 and 2029

Size	2009	2029
Large	800	960
Twin aisle	3,500	8,260
Single aisle	11,580	25,000
Regional jets	3,010	2,080
<b>Total</b>	<b>18,890</b>	<b>36,300</b>

#### Demand by size 2010 to 2029

Size	New airplanes	Value (\$B)
Large	720	220
Twin aisle	7,100	1,630
Single aisle	21,160	1,680
Regional jets	1,920	60
<b>Total</b>	<b>30,900</b>	<b>3,590</b>

#### Key indicators 2009 to 2029

Growth measures	
World economy Gross domestic product (GDP)	<b>3.2%</b>
Airplane fleet	<b>3.3%</b>
Number of passengers	<b>4.2%</b>
Airline traffic Revenue passenger-kilometers (RPK)	<b>5.3%</b>
Cargo traffic Revenue tonne-kilometers (RTK)	<b>5.9%</b>

#### Demand by region 2010 to 2029

Region	New airplanes	Value (\$B)
Asia Pacific	10,320	1,320
North America	7,200	700
Europe	7,190	800
Middle East	2,340	390
Latin America	2,180	210
CIS*	960	90
Africa	710	80
<b>Total</b>	<b>30,900</b>	<b>3,590</b>

\*Commonwealth of Independent States.

# Market developments



## Near-term environment

The volatility of oil prices, economic growth rates, currency exchange rates, and financing terms and availability over the past few years presented serious challenges to the world's airlines. To meet the realities of the market, airlines reduced global passenger capacity by 2 percent in 2009. Frequencies and unprofitable routes were cut, daily airplane utilization (flight-hours per day) was reduced, and older generation airplanes were parked or scrapped. Airlines worked relentlessly to reduce costs by replacing older, fuel-hungry airplanes and finding more efficient ways to operate. Airlines also pursued new revenue sources, expanding alliances and building ancillary revenue streams.

## Passenger traffic rebounds

Uncertainties linger in the outlook as fuel prices remain volatile, financial markets are stressed, and volcanic eruptions continue. However, near-term industry indicators are improving as the global economy recovers. Global passenger traffic is forecast to grow 6 percent in 2010. The rate and extent of recovery vary from region to region and among the different airline business models, with emerging markets and low-cost carriers leading the pack.

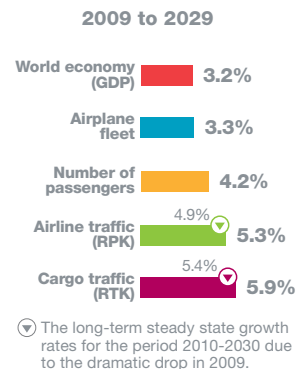
## Air cargo recovering

Air cargo traffic is also recovering after two years of contraction. Led by strong recovery in Asian exports, monthly world air cargo traffic growth turned positive in November 2009 after 18 straight months of decline. Air cargo traffic is now forecast to return to its 2007 peak by the end of 2011.

## Profits revive

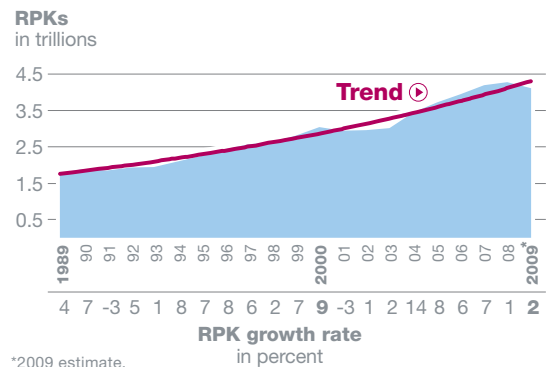
Responding to improving demand, global airline financial performance is forecast to improve to the break-even point in 2010, following a \$10 billion net loss in 2009. Asia-Pacific airlines, reflecting the region's strong economic growth, are forecast to lead the world in profits during 2010, followed closely by North American airlines, which are exercising capacity discipline. Emerging markets are expected to be profitable, led by Latin American airlines. Europe is the only region forecast to lose money in 2010, owing to the lagging economic outlook and airspace disruptions from volcanic ash.

### Market developments Growth rates



### Market developments World air travel since 1989

Source:  
ICAO,  
Scheduled Traffic



### Market developments Airline traffic growth rates

	2009 to 2029					
	Africa	Latin America	Middle East	Europe	North America	Asia Pacific
<b>Asia Pacific</b>	8.7%	6.3%	7.5%	5.6%	4.8%	<b>7.1%</b>
<b>North America</b>	7.3%	5.3%	7.2%	4.8%	<b>2.8%</b>	
<b>Europe</b>	4.6%	4.6%	6.0%	<b>4.1%</b>		
<b>Middle East</b>	6.5%	-	<b>6.0%</b>			
<b>Latin America</b>	5.5%	<b>7.1%</b>				
<b>Africa</b>	<b>5.7%</b>					

# Forecast summary



## GDP growth drives airplane demand

Worldwide economic activity, reflected in the global gross domestic product (GDP), is the most powerful driver of growth in commercial air services and the resultant demand for airplanes. The global GDP is projected to grow at an average of 3.2 percent per year for the next 20 years. Reflecting the economic growth, worldwide passenger traffic will average 5.3 percent growth and cargo traffic will average 5.9 percent growth over the forecast period.

The passenger and cargo traffic growth rates are higher than prior years' forecasts due to traffic declines of 2009. Calculating a 20-year growth rate based on a lower base year traffic figure yields a higher rate. If we neglect the low starting point, it is anticipated that passenger traffic will grow at a rate of 4.9 percent per year and cargo traffic will grow at 5.4 percent per year.

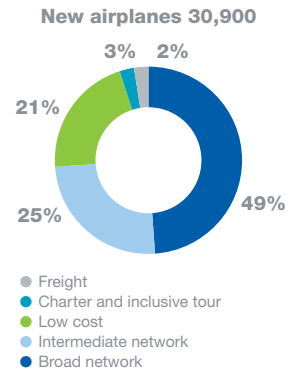
To meet the demand for commercial aviation services, the number of airplanes in the worldwide fleet will grow at an annual rate of 3.2 percent, nearly doubling from around 19,000 airplanes today to over 36,000 airplanes in 2029. Airplane deliveries, for fleet growth and replacement of aging airplanes, will total 30,900 over the next 20 years, with a value of US\$3.6 trillion.

## Diverse demand for air services

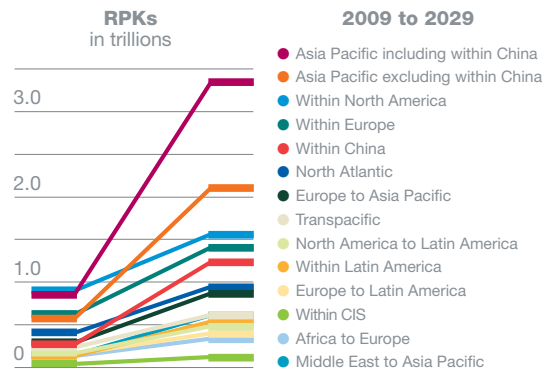
Air transport throughout the world continues to change in response to market opportunities and challenges. New airline business models and the dynamic growth of air travel in the emerging economies throughout the world are diversifying the demand for airplanes. As global air travel declined in 2009, there were still many markets and business models that experienced growth. Over the next 20 years, 77 percent of demand for new airplanes will come from outside North America, with about 34 percent of deliveries going to the Asia Pacific region.

The Boeing forecast continues to predict that the greatest demand for new aircraft, by market value, will come from the United States, followed by China. Remarkably, the United Arab Emirates—with a population of less than 5 million, yet home to several highly competitive airlines—will be the third largest market by value.

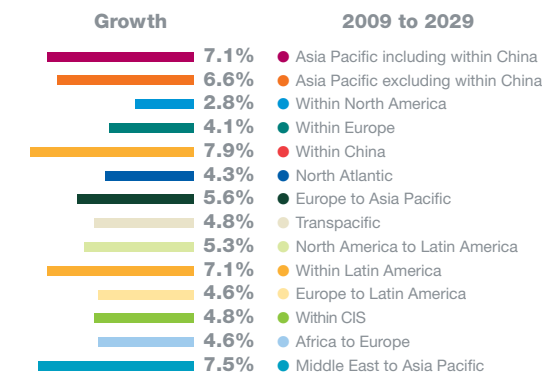
### Forecast summary Market share by airline type



### Forecast summary Passenger traffic development



### Forecast summary Annual traffic growth



# Methodology



## Practical value

Boeing uses the long-term forecast contained in the *Current Market Outlook* to guide product strategy and to develop long-term business planning. We have shared this information with the public since 1964 to help airlines, suppliers, and financiers make informed business decisions.

## Cyclicity in air travel demand

Global and regional economic cycles profoundly affect air travel demand, so it is essential to take the current phase of the economic cycle into account in developing the long-term forecast. When consumer confidence and business confidence fall, as they did during the recession that began in 2008, air travel demand follows suit. But historically, air travel has proved resilient. Perturbations from the long-term trend are typically relatively short lived, lasting about a year. As confidence rises, air travel often surges, surpassing historical average growth rates to return to the long-term trend. Adjusting for the cycle is part of the forecast process.

## The air travel demand forecast process

The air travel demand forecast is developed by constructing and matching both a top-down and a bottom-up approach. Traffic between individual countries is forecast based on economic predictions, growth momentum, historical trends, and projections of the relative openness of bilateral air services and domestic regulation. Government statistics on inbound and outbound tourism receipts help to identify and cross-check trends. We also factor in the potential positive or negative effects of specific developments peculiar to each region, such as population dynamics, shifts toward or away from other modes of transport, including high-speed rail, and emergence of new direct air services between countries.

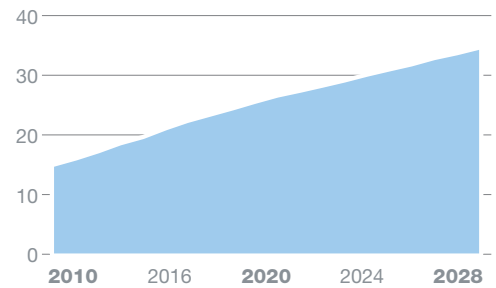
The individual countries are grouped into 11 geographical regions that generate 63 air traffic flows between and within the regions. Next we reconcile the “bottom-up” projection, which is constructed from country-level economic, demographic, air transport, and travel data, with the “top-down” projection, which is obtained by dividing top-level global data into the same regional flows, allowing for shifts in shares between regions. The regional traffic forecasts are then used to help develop the airplane demand forecast.

### Methodology 2010 traffic forecast



Explore the methodology behind the 2010 traffic forecast

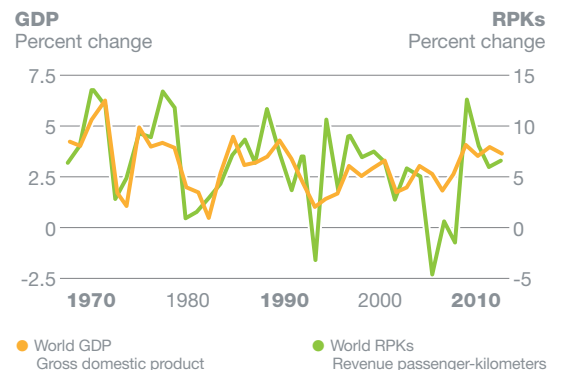
### Methodology Liberalization stimulates demand



● Available Seat Mile (ASM)

### Methodology RPK growth trends GDP

Source:  
ICAO



● World GDP Gross domestic product ● World RPKs Revenue passenger-kilometers



## Methodology — continued

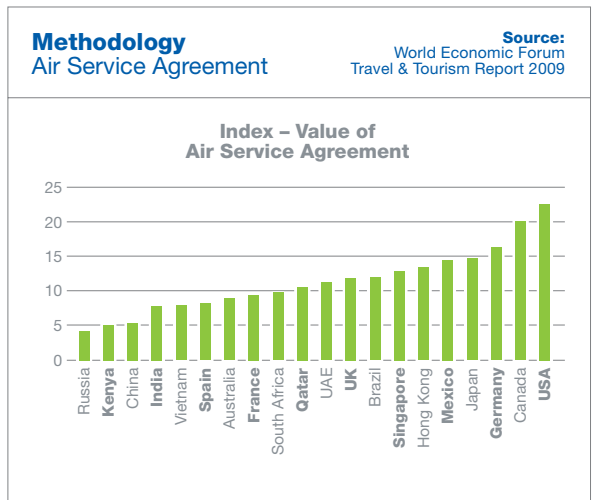
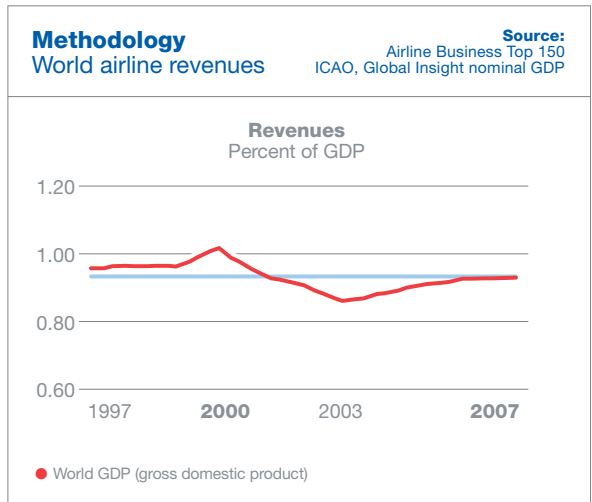
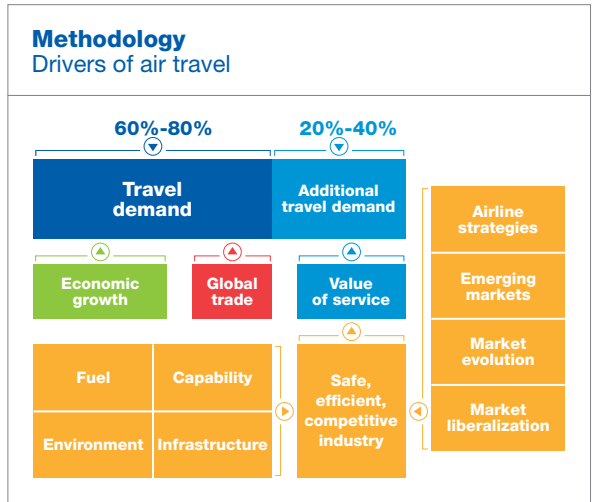
### Drivers of air travel

Growth in air travel, measured in revenue passenger-kilometers (RPK), has historically outpaced economic growth, represented by GDP, by approximately 1.5 to 2.0 percent. This leads us to conclude that about 60 to 80 percent of air travel growth can be attributed to economic growth, which in turn is driven, in part, by international trade. This is consistent with the observation that countries whose economies are tied to trade tend to have higher rates of air travel. Air travel revenues consistently total about 1 percent of GDP in countries around the world, regardless of the size of the national economy. Globally, air travel has historically trended toward this consistent share of GDP, such that countries that are below or above this level will generally move toward it over the long term.

The remaining 20 to 40 percent of air travel growth results from the stimulation provided by the value travelers place on the speed and convenience that only air travel can offer. For example, travelers value choice of arrival and departure times, routings, nonstop flights, choice of carriers, service class, and fares. Liberalization is the primary driver enabling value creation in the global air transport network. Liberalization typically gives rise to a “bump” in traffic demand. Studies suggest that as the relative openness of a country’s bilateral air service rises from the 20th percentile to the 70th, the resulting increase in traffic can boost air travel demand by an additional 30 percent.

Often, economic growth, induced directly and indirectly by improved air services, creates a virtuous circle that leads to further air transport growth, which in turn leads to added economic growth, and so on.

The percentage of air transport growth that comes from economic development compared to the percentage that comes from the value of air travel services is an indicator of the maturity of an air travel market. Although individual regions may exhibit signs of slowing due to maturing markets, other regions continue to grow vigorously. Current global percentages do not indicate that the market is nearing maturity in aggregate.



# Fleet developments



## Fleet size will nearly double

The need to replace older, less efficient airplanes accounts for 44 percent of the projected market for new airplanes. The 2010 forecast anticipates 13,490 airplanes will be replaced over the next 20 years. This reflects rising fuel prices and the increasing economic burden of using older, less capable, and less efficient airplanes. At this replacement rate, 85 percent of the fleet operating in 2029 will have been delivered after 2010.

## Surging demand for single-aisle aircraft

Today, there are 11,580 single-aisle aircraft in operation around the world, representing 61 percent of the total jet fleet. The single-aisle fleet is forecast to more than double, reaching 25,000 airplanes or 69 percent of the total fleet by 2029, largely reflecting the rapid expansion of air services in Asia, the rise of intraregional air travel in emerging economies, and the growth and geographic expansion of the low-cost-carrier model.

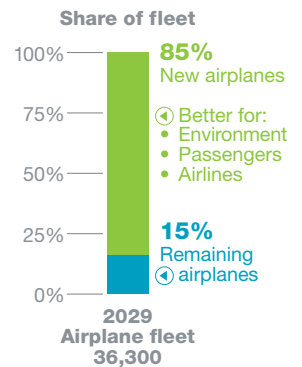
The fastest growing market will be for twin-aisle airplanes. This segment is expected to grow at an average annual rate of 4.4 percent. The twin-aisle fleet will grow from 3,500 airplanes in operation today to 8,260 airplanes in 2029. In 20 years, much of the in-service fleet will be newer aircraft, such as the Boeing 787 and 777, which offer more passenger comfort, improved efficiency, and better environmental performance than the airplanes they replace.

There is expected to be little change to the size of the large aircraft fleet over the long term. The number of large airplanes in the fleet will grow from about 800 today to 960 in 2029. Nearly all the gain in large aircraft is coming from the freighter market. The number of large passenger airplanes in operation today is around 500. The large airplane passenger fleet will remain at approximately that level over the long term.

## Modest upgauging

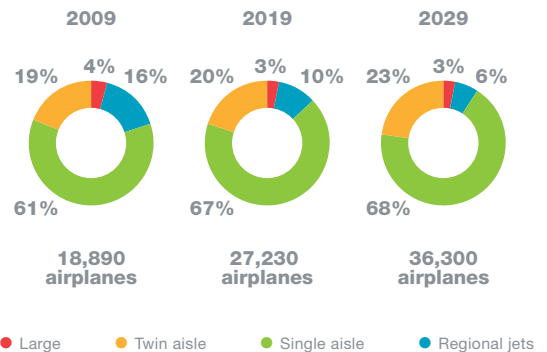
The average seat count of airplanes in the fleet will verge upward incrementally as fuel and operating cost pressures encourage airlines to go to larger seat counts within all airplane size categories. In particular, due to better economics, small regional jets will be replaced with larger RJs and small single-aisle airplanes on short-haul routes. Introduction of the 787 and, eventually, the A350 will spur airlines to trade up as airplanes in the 767 and A330 size category begin to reach retirement age. Within the large airplane segment, airlines will look to upgauge from the 747-400 to the 747-8 or A380.

### Fleet developments 20 years in the future



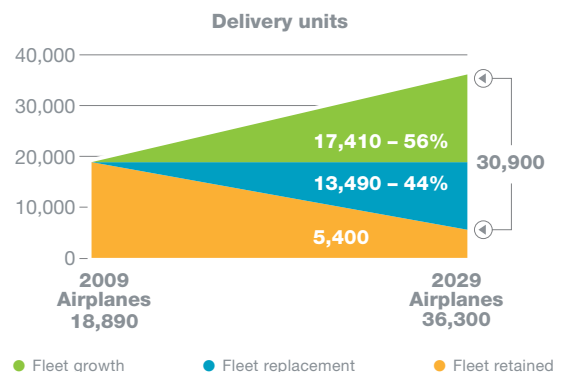
### Fleet developments

World fleet will nearly double by 2029



### Fleet developments

Over half of new deliveries are for growth



# New airplanes



## Resilient single-aisle demand

The short- to medium-haul market has been the fastest growing segment over the last decade, creating a strong demand for single-aisle airplanes. This demand remained resilient even during the economic downturn of 2009. The expansion of low-cost carriers, emerging intra-China demand, and a large need for replacement airplanes will keep the demand for single-aisle airplanes strong into the future.

Among the 30,900 aircraft to be delivered over the next 20 years, 21,160 (69 percent of the units and 47 percent of the value) will be single-aisle airplanes. Demand for single aisles comes not only from growth markets, but also for replacing older aircraft such as the 737 Classics, A320s, and McDonnell Douglas MD-80/90s. It is forecast that there will be a wave of single-aisle aircraft retirements in the 2015 to 2017 timeframe as many of these older aircraft reach 25 years of age—a typical retirement age for jet aircraft.

## Resurgent twin-aisle demand

The next 20 years will see 7,100 new twin-aisle deliveries, which is about 23 percent of the total number of airplane deliveries for the period and 45 percent of the total market value. About 40 percent of the demand for twin aisles will come from the Asia Pacific region. Increasing liberalization and the region's vast geography will promote the opening of new air routes between a growing number of origins and destinations. The imminent introduction of the Boeing 787 Dreamliner and, later of the Airbus A350, is also driving demand, as these new aircraft offer significant efficiency improvements over the aircraft they are replacing.

## Large airplane demand holds steady

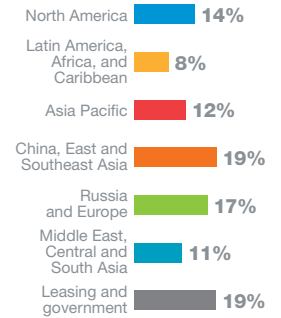
The 720 new large airplanes forecast to be delivered represent only 2 percent of the total aircraft deliveries. Yet with a value of \$220 billion, large airplanes account for 6 percent of the total market value. About 43 percent of the deliveries will go to Asia, with China and Southeast Asia accounting for most of the delivery demand. The Middle East, with its already substantial backlog of aircraft in this category, accounts for another 23 percent of the large airplane market. More than half of those airplanes are already on order. A substantial portion of large airplane demand is for freighters, where freighter operators see the value of efficient and large new-build freighters.

### New airplanes

Boeing order backlog: \$250B



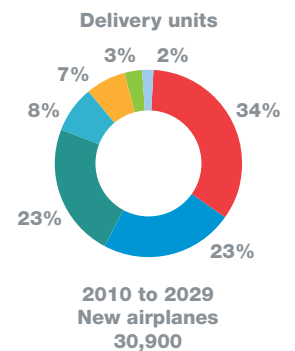
#### 2009 to 2029



### New airplanes

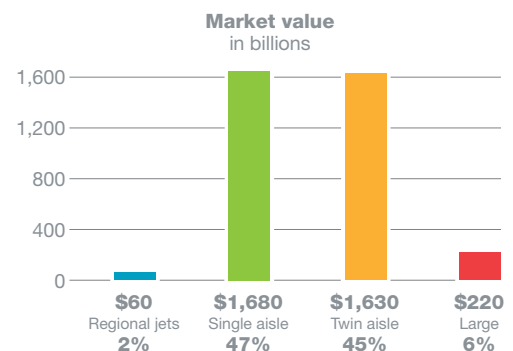
Deliveries by region

Region	New airplanes
● Asia Pacific	10,320
● North America	7,200
● Europe	7,190
● Middle East	2,340
● Latin America	2,180
● CIS	960
● Africa	710
<b>Total</b>	<b>30,900</b>



### New airplanes

Market value: \$3.6 trillion



# Freighter market



## Rebound in air cargo demand

Growing world trade, stringent inventory control standards, increasing demand for transport of perishable and time-sensitive commodities, and the need to replace aging airplanes will create a requirement for 2,490 freighter deliveries over the next 20 years. About 1,750 of these will be conversions from passenger airplanes.

## Strongest demand for standard-body conversion freighters

The largest segment of the freighter market by number of airplanes is standard-body freighters, with a total requirement for 1,080 airplanes. Only 10 will be new, purpose-built freighters, as the reliability and economic advantages of new airplanes are marginal in the standard-body freighter operating environment.

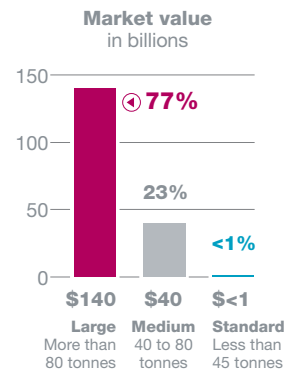
## Express carriers driving medium widebody market

Of the 640 medium widebody freighters to be delivered during the forecast period, 210 will be new purpose-built freighters. This freighter segment is largely driven by express carriers whose cargo tends to be time sensitive. The larger capacity of medium widebody versus standard-body freighters provides operating cost advantages in this market. Though large freighters hold an even greater advantage in range and tonne-mile economics, the lower trip costs of medium widebody freighters provide flexibility to optimize frequencies.

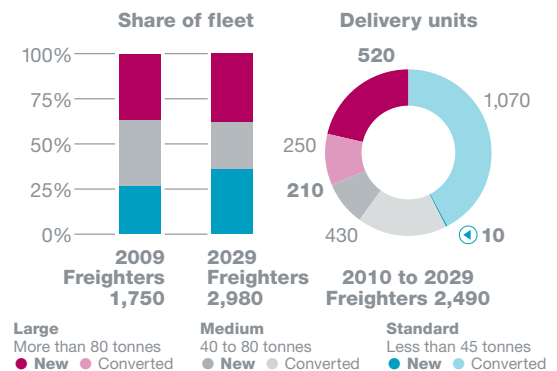
## Intercontinental operations favoring new large freighters

In the large freighter segment, more than half of the deliveries will be for new airplanes. Although the purchase price of converted large freighters is very attractive and conversions will continue to play an important supporting role, the performance and reliability advantages of new, purpose-built freighters are significant for intercontinental cargo operations, where larger, heavier payloads and range are crucial. Of the 770 large freighter deliveries, 520 will be new airplanes.

**Freighter market**  
Market value: \$180 billion

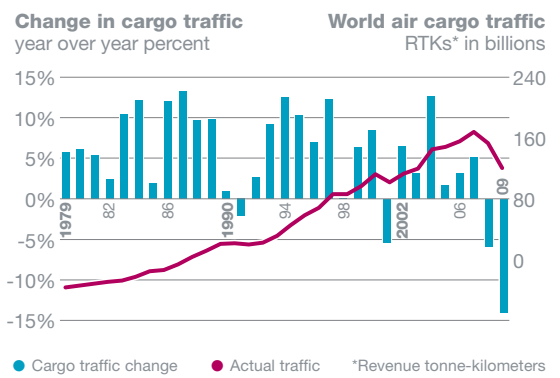


**Freighter market**  
740 new and 1,750 converted



**Freighter market**  
Annual growth: 5.1% since 1979

Source: Boeing, 2009 estimate



# Pilot and technician forecast



## Training requirements

To operate and maintain the airplanes that will be added to the fleet over the next 20 years, the world's airlines will need an additional 466,650 trained pilots and 596,500 maintenance personnel. A significant portion of these new hires will be needed to replace pilots and technicians who will leave the workforce through retirement and attrition over the next two decades. The addition of large numbers of new airplanes to the fleet will require more efficient training and delivery methods, including Web-based learning, paperless curriculums, and strategically located training facilities. In addition, to gain the optimum advantage of the innovative features offered on new airplane models such as the 787 Dreamliner, training will have to be tailored to the new technologies available on those airplanes.

## Pilot demand

Several years ago, airlines in emerging markets began hiring pilots from other countries to fill the need in their own markets. Although this trend has slowed, airlines—particularly those in Asia—will need to be aggressive in creating their own pool of pilots trained in country to keep up with demand.

The largest growth in pilot populations will be in the Asia Pacific region, with a requirement for 180,600 pilots. Within Asia, China will experience the greatest need for pilots, with an expected requirement for 70,600 pilots. North America will need 97,350 pilots; Europe will need 94,800 pilots; Africa will need 13,200 pilots; the Middle East will need 32,700 pilots; Latin America will need 37,000 pilots; and the CIS will need 11,000 pilots.

## Technician demand

The unprecedented fleet growth in emerging markets through 2029 creates a high demand for maintenance personnel. Moreover, new advanced aircraft require new competencies and capabilities. Additional infrastructure will need to be developed, particularly in areas of high growth. To ensure the continued integrity of the system, operators will need innovative approaches to training that are both more relevant and more efficient than current approaches.

The Asia Pacific region will see the greatest growth in maintenance personnel, with a requirement for 220,000 new personnel. Within Asia, China will experience the greatest need, with a requirement for 96,400 maintenance personnel. Europe will need 122,000 new maintenance personnel; North America will need 137,000; Africa and the Middle East will need 59,500 maintenance personnel; Central and South America will need 44,000 maintenance personnel; and the CIS will need 14,000 maintenance personnel.

### Pilot and technician forecast

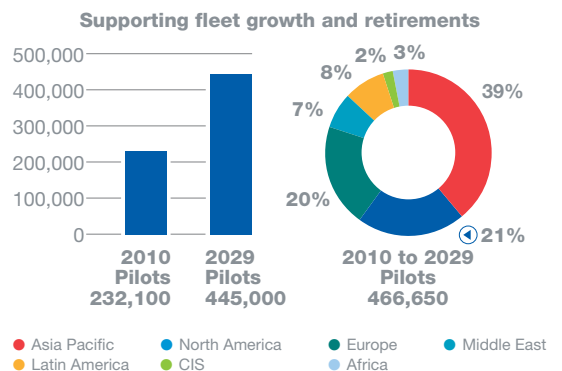
Training to support 30,000 airplane deliveries



A focus on the future generations who will fly and maintain the commercial fleet

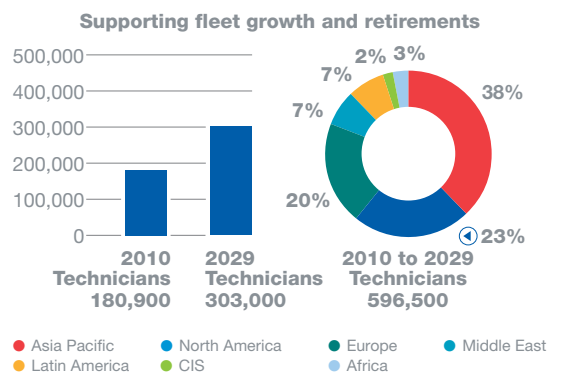
### Pilot and technician forecast

Demand for pilots by 2029



### Pilot and technician forecast

Demand for technicians by 2029





# Asia Pacific



## Growing markets

Most economies in the Asia Pacific region weathered the recent economic downturn well and are growing rapidly again. With China and India leading the growth among emerging markets, the region's economy will grow at a rate of 4.6 percent per year for the next 20 years, significantly outpacing the world's average growth rate. The region will see its share of the world GDP expand from 26 percent today to 34 percent by 2029.

## Rising traffic levels

Half of the world's new traffic added during the next 20 years will be to, from, or within the Asia Pacific region. Total traffic for the region will grow 6.8 percent per year during the period. Driven by economic development and the increasing accessibility of air transport services, traffic within the region will grow faster than traffic to and from other regions. Shorter-haul flying, including domestic travel and international travel within the region, will grow 7.1 percent per year.

The region depends heavily on air cargo to transport goods over difficult terrain and vast stretches of ocean. Some of the world's largest and most efficient cargo operators compete to transport high-value and time-sensitive exports to markets outside the region. Air cargo growth will total 6.8 percent per year during the next 20 years.

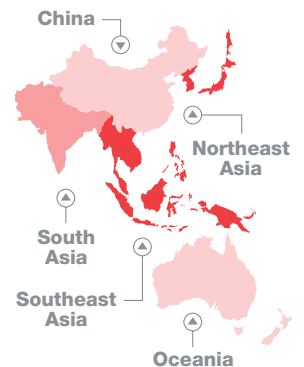
## Liberalization of markets

The structure of the airline industry is changing as regulation loosens and rapid economic growth drives air traffic to increase. Airlines are responding to the changing business conditions in order to compete more effectively. Established airlines are restructuring, forming new business units, and entering agreements with other airlines, to meet market demands. Airlines are evolving new business models, changing operations, and modernizing their fleets in order to compete more efficiently. Low cost airlines are stimulating air travel by gaining market presence and opening new markets. The region's immense growth potential is spurring new airlines and new investors to enter the market.

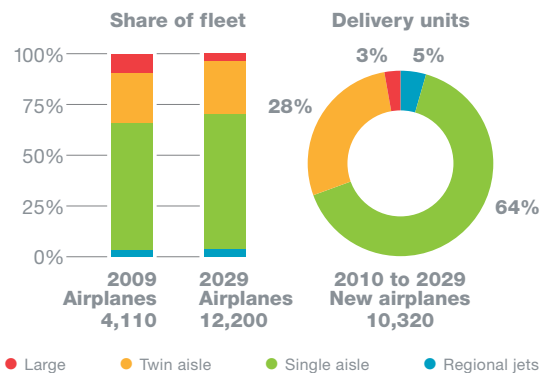
## Strong aircraft demand

Rising passenger and cargo traffic is creating pressure for fleet growth. To modernize their fleets and meet the growing demand for air travel, Asia Pacific airlines will need 10,320 new airplanes, valued at more than \$1.3 trillion, over the next 20 years. The number of airplanes in the Asia Pacific fleet will nearly triple, from 4,110 airplanes in 2009 to 12,200 airplanes in 2029. New airplane manufacturers have seized on the opportunity presented by this huge requirement to develop new competitors for the region's aviation market.

## Market Update: Asia Pacific



## Asia Pacific Market value: \$1,320 billion



## Asia Pacific Key indicators and new airplane markets

Growth measures	
Economy (GDP)	4.6%
Traffic (RPK)	6.8%
Cargo (RTK)	6.8%
Airplane fleet	5.6%

Ratio	
RPK / GDP	1.5

Market size	
Deliveries	10,320
Market value	\$1,320B
Average value	\$130M

	New airplanes	Share by size
Large	300	3%
Twin aisle	2,840	28%
Single aisle	6,710	64%
Regional jets	470	5%
<b>Total</b>	<b>10,320</b>	

	2009 Fleet	2029 Fleet
Large	380	440
Twin aisle	1,030	3,150
Single aisle	2,560	8,130
Regional jets	140	480
<b>Total</b>	<b>4,110</b>	<b>12,200</b>

# China



## Unprecedented urbanization

Three decades into economic reform, China has marched into an era of unprecedented urbanization. The urban population has doubled from 302 million in 1990 to 622 million in 2009 and is projected to approach one billion by 2025. There were 40 large cities that had more than one million residents in 2000. That number tripled to 122 in 2008. The Economist Intelligence Unit (EIU) forecasts that there will be more than 200 large cities by 2025.

Rapid urbanization calls for an integrated modern transportation system, and China's government has responded with intense investment in infrastructure. Six new airports inaugurated commercial services in 2009, followed by another eight in 2010. The expansive (13,000-km) high-speed rail network is expected to commence full operation by 2012 and will greatly facilitate connecting large cities that are close to one another.

## Increasing wealth and income

As reform progresses, Chinese people have accumulated substantial wealth. Sales of residential homes have expanded five-fold since 2000, and the number of private cars has grown by eight times. Measured in 2005 US dollars, China's GDP per capita has increased from \$1,120 in 2000 to \$2,600 in 2009 and is expected to approach the world average of about \$10,000 by 2029.

## Great potential for air travel

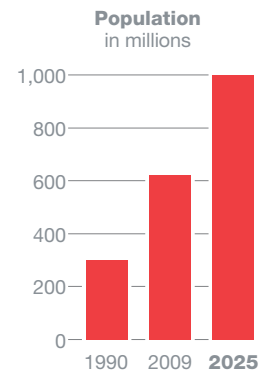
Benefiting from urbanization and rising income, tourism is thriving. Domestic tourism has tripled in the last decade, whereas the number of international outbound Chinese visitors has grown five-fold. As the global economy recovers, international air travel has rebounded strongly. Year-to-date (September 2010) international RPKs by mainland carriers have grown 36 percent over the past year, while domestic traffic grew 19 percent. The Civil Aviation Administration of China envisions one annual trip per capita, on average, by 2030—five times today's figure.

## The world's most dynamic market

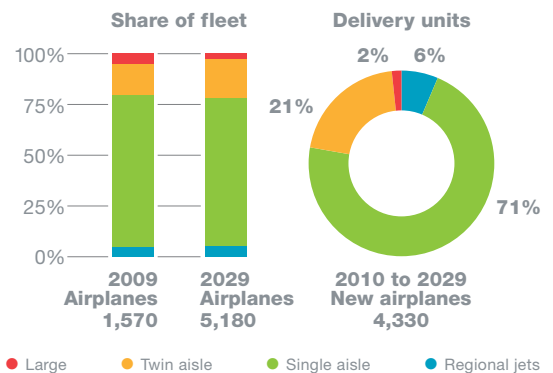
As the world's fastest growing economy, China's GDP is forecast to grow at an average 7.3 percent per year over the next 20 years. Although high-speed rail is competitive in many short-haul (less than 800-km) markets, efficient integration of rail and air modes of transport can stimulate demand for longer haul air travel. China is forecast to take delivery of 4,330 new airplanes—including those from its own developing airplane programs—valued at \$480 billion over the next 20 years. China will remain the largest market for airplanes outside the United States.

### China Urban population

Source:  
NBS of China,  
Economist Intelligence Unit



### China Market value: \$480 billion



### China Key indicators and new airplane markets

Growth measures	
Economy (GDP)	7.3%
Traffic (RPK)	7.6%
Cargo (RTK)	7.4%
Airplane fleet	6.2%

Ratio	
RPK / GDP	1.1

Market size	
Deliveries	4,330
Market value	\$480B
Average value	\$110M

	New airplanes	Share by size
Large	70	2%
Twin aisle	890	21%
Single aisle	3,090	71%
Regional jets	280	6%
<b>Total</b>	<b>4,330</b>	

	2009 Fleet	2029 Fleet
Large	80	130
Twin aisle	240	1,000
Single aisle	1,170	3,770
Regional jets	80	280
<b>Total</b>	<b>1,570</b>	<b>5,180</b>

# South Asia



## At the heart of world air travel growth

South Asia is at the heart of world aviation growth. Travel within the region, measured in revenue passenger kilometers, will grow at an average rate of 9.3 percent. That's faster than internal travel growth in any other region, including China. The region's connections with the rest of the world will also grow rapidly—seven of the world's ten fastest growing traffic flows are associated with South Asia. The region's total air travel increase will account for 10 percent of the world's airline traffic growth over the next 20 years.

## India's airlines adjust to downturn

Although India's demographics and econometrics point squarely in the direction of substantial air transport industry growth, the global economic downturn has forced the nation's airlines to slow their expansion during the past two years. For example, airlines have matched capacity more closely to demand, especially on newly launched international routes. Some new long-haul airplanes have been leased temporarily to carriers in other regions.

Measures like these have proved effective in mitigating the near-term effects of the downturn and will, in the longer term, facilitate the return of leased airplanes to Indian carrier fleets.

## India markets recovering

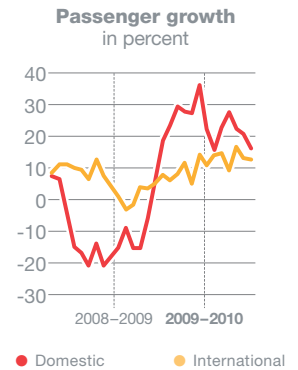
India's domestic and international markets both recovered strongly in the first half of 2010. Traffic levels exceeded those in 2008 and load factors were at record highs. The strong traffic recovery, combined with business rationalization at individual airlines, is expected to sustain the profitability of India's airline industry. Intense competition, both within India and from outside the country, is reshaping how service is provided and is forcing airlines to focus strongly on cost-efficient operations. Competition on international routes will rise as airlines such as SpiceJet, IndiGo, and GoAir reach the five-year point in operations that allows them to expand into international services.

## Pakistan, Bangladesh, and Afghanistan

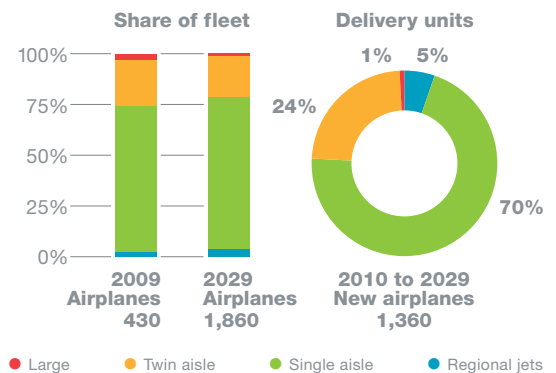
Airlines in Afghanistan, Pakistan, and Bangladesh are actively building for the future by acquiring new airplanes such as the 737, 777, and 787. These new types will meet demand growth from increased international trade and expanding interest in foreign travel. Growth at the government-owned airlines in these countries will be supplemented by the expansion of independent airlines as the economies grow and market access opens.

### South Asia Travel market growth

Source:  
Airports Authority  
of India



### South Asia Market value: \$160 billion



### South Asia Key indicators and new airplane markets

Growth measures	
Economy (GDP)	6.1%
Traffic (RPK)	7.4%
Cargo (RTK)	7.7%
Airplane fleet	7.6%
Ratio	
RPK / GDP	1.2
Market size	
Deliveries	1,360
Market value	\$160B
Average value	\$120M

	New airplanes	Share by size
Large	10	1%
Twin aisle	320	24%
Single aisle	960	70%
Regional jets	70	5%
<b>Total</b>	<b>1,360</b>	
	2009 Fleet	2029 Fleet
Large	10	10
Twin aisle	100	380
Single aisle	310	1,400
Regional jets	10	70
<b>Total</b>	<b>430</b>	<b>1,860</b>

# Northeast Asia



## Economic challenges

As the Northeast Asia economy recovers and begins to expand, the region's GDP is forecast to grow 1.4 percent annually for the next 20 years. This slow growth projection reflects the heavy influence of Japan, where lower birth rates and a declining working-age population are expected to constrain economic expansion. Korea's developing economy will grow at a faster rate as its industrial base broadens.

Because these countries are small geographically and somewhat isolated by water, air travel is important to economic development. Air travel grew rapidly in the 1990s, but dampened during the past decade, owing to Asia's financial crisis, the SARS and H1N1 epidemics, and the global economic downturn. Capacity within Northeast Asia has grown only slightly, with cumulative growth totaling only 8 percent over the past 10 years. Intercontinental capacity between Northeast Asia and North America dropped significantly as direct nonstop service expanded into other markets in the Asia Pacific region. Conversely, capacity between Northeast Asia and other markets in the Asia Pacific region has grown by 37 percent since 1999.

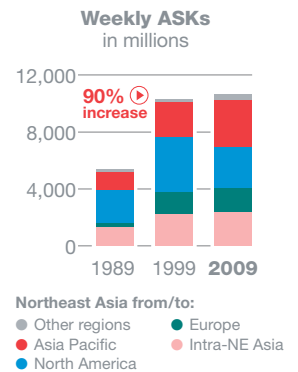
## Easing restrictions

Air travel is forecast to grow 4 percent annually over the next 20 years. Operating restrictions between these countries are gradually easing. Markets with the United States, Europe, China, and other Asia Pacific nations are also liberalizing, encouraging major network carriers and low-cost airlines to open new markets and expand services in existing markets. The combination of rapid economic growth and liberalization will drive passenger traffic with other Asia Pacific countries to grow most quickly. Airport capacity is also increasing, particularly at Tokyo's Haneda and Narita airports. Improved market access; ongoing airport development; increased competition; and expansion of low-cost service to, from, and within the region will nurture air travel growth.

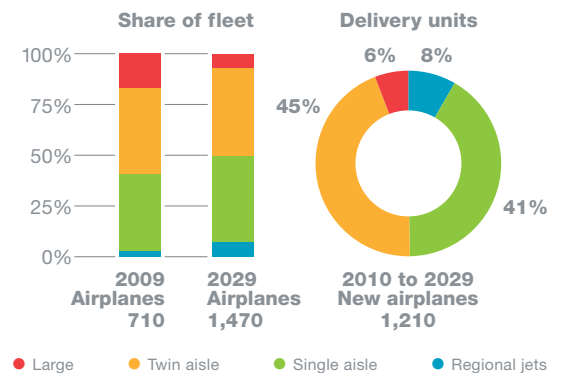
## Aviation growth

Northeast Asia's airlines will need more than 1,200 new airplanes over the next 20 years. Airlines in Japan and South Korea have wisely continued to modernize their fleets, demonstrating their focus on longer term planning. The share of regional jets, including the anticipated Mitsubishi MRJ, is forecast to grow slightly. Single-aisle airplanes for intra- and inter-regional service by major carriers and low-cost airlines will account for 41 percent of new deliveries. New twin-aisle airplanes, with compelling market economics and flexibility to serve long-range markets, will account for 45 percent of new deliveries. The number of large airplanes in the region's fleet is forecast to remain relatively constant, though the fleet share held by large airplanes will decrease, owing to the economic and operational advantages of midsize twin-aisle airplanes.

### Northeast Asia Period of rapid capacity growth



### Northeast Asia Market value: \$190 billion



### Northeast Asia Key indicators and new airplane markets

Growth measures		New airplanes		Share by size
Economy (GDP)	1.4%	Large	70	6%
Traffic (RPK)	4.0%	Twin aisle	540	45%
Cargo (RTK)	6.3%	Single aisle	500	41%
Airplane fleet	3.7%	Regional jets	100	8%
		<b>Total</b>	<b>1,210</b>	
<b>Ratio</b>				
RPK / GDP	2.9			
<b>Market size</b>				
Deliveries	1,210	2009 Fleet	710	2029 Fleet
Market value	\$190B	Large	120	100
Average value	\$160M	Twin aisle	300	640
		Single aisle	270	620
		Regional jets	20	110
		<b>Total</b>	<b>710</b>	<b>1,470</b>

# Southeast Asia



## Competition and expansion

Airlines in Southeast Asia have weathered the global economic downturn better than airlines in most other regions. Low-cost carriers have expanded and gained market share throughout the downturn, and their low fares and new routes will continue to stimulate demand. Legacy carriers are restructuring their operations and finances to become more competitive and to grow as the economy recovers. Regional markets will continue to grow rapidly as the Association of Southeast Asian Nations (ASEAN) strengthens business and leisure ties, within ASEAN and with China and Taiwan. Travelers are also increasingly likely to include multiple stops as the regional network becomes more integrated, and low fares make this more attractive. Southeast Asia has many new airplanes on order to fulfill the resulting growth in demand and to open up new, direct, longer range markets. New, efficient airplanes with greater capabilities and lower operating costs are integral to all the carriers' business strategies.

## Liberalization and infrastructure

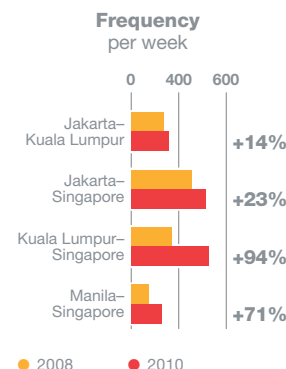
Regulatory changes and infrastructure development are crucial to air travel expansion. Relaxation of market regulation among ASEAN countries and across the strait with Taiwan and China is removing traditional barriers to growth. For example, 270 passenger flights per week are now scheduled between Taiwan and China, where service had been strictly limited to charter flights. Scheduled service will soon increase to more than 400 flights per week. Flights among ASEAN capital cities have also expanded as the steps toward a unified aviation market are realized. With a goal of full aviation unification by 2015, ASEAN governments and airport authorities are eager to develop their aviation infrastructures and capitalize on the increased trade and tourism. Work is under way in many countries to upgrade and expand airports and improve local connectivity.

## Aviation development

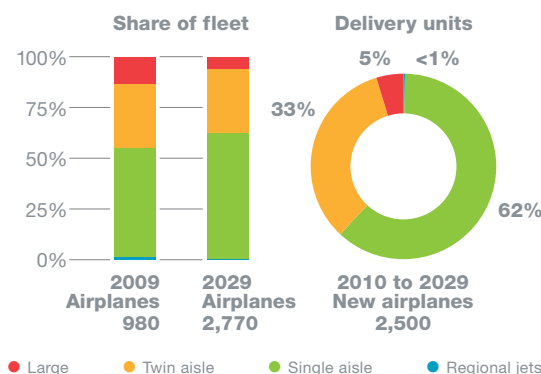
Southeast Asia continues to strengthen its economic community and encourage collaboration. Air transport plays a vital role in the region's relatively high projected GDP growth. More affordable air travel options spur growth across the spectrum of the region's service industries, from tourism to financial services. Well-developed air cargo operations enable efficient shipment of manufactured goods. The air travel growth rate for Southeast Asia is projected to average 6.9 percent per year over the next 20 years. Travel within the region will grow even faster, averaging 8.3 percent annually. Because much of the traffic increase will be flights within Southeast Asia, more than half of new airplane deliveries will be single-aisle airplanes.

### Southeast Asia Frequency growth in largest markets

Source:  
May OAG



### Southeast Asia Market value: \$370 billion



### Southeast Asia Key indicators and new airplane markets

**Growth measures**

Economy (GDP)	4.3%
Traffic (RPK)	6.9%
Cargo (RTK)	6.5%
Airplane fleet	5.3%

**Ratio**

RPK / GDP	1.6
-----------	-----

**Market size**

Deliveries	2,500
Market value	\$370B
Average value	\$150M

**New airplanes**

Size	Count	Share by size
Large	120	5%
Twin aisle	830	33%
Single aisle	1,540	62%
Regional jets	10	<1%
<b>Total</b>	<b>2,500</b>	

**Fleet**

	2009	2029
Large	130	160
Twin aisle	310	880
Single aisle	530	1,720
Regional jets	10	10
<b>Total</b>	<b>980</b>	<b>2,770</b>

# Oceania – Australasia



## Dynamic marketplace

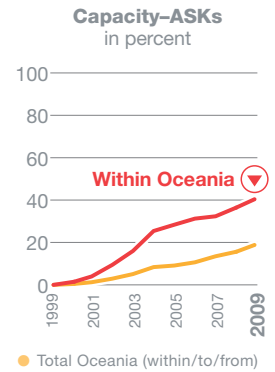
While new players entering Oceania markets continue to keep the level of competition high, the constant evolution of established airline business models is one of the most dynamic aspects of the region. Qantas has met increased competition from its low-cost carrier (LCC) rivals by expanding Jetstar, one of the few successful low-cost subsidiaries, and then extending its operation into Southeast Asia markets. Virgin Blue has made its first jump into long-haul flying with its V Australia subsidiary, but is also considering evolving its short-haul product. Air New Zealand has initiated new passenger service offerings, including changes in cabin class mix and innovative seating arrangements. These established carriers will need to stay nimble and innovative as carriers like Tiger Airways, Emirates, Etihad Airways, Delta, and Continental Airlines take advantage of the liberalization of the Oceania markets over the next several years.

## Future potential

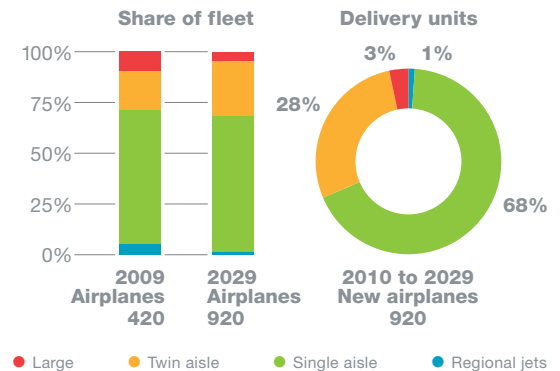
Air transport is crucial to tourism and international trade, which are major drivers of the Oceania region's economy. Although the current travel market is still recovering from the global economic downturn, the potential of the Oceania commercial air market remains great. Air travel growth is forecast to average 6.0 percent per year over the next 20 years, slightly higher than the world average. Significant numbers of new, efficient single-aisle airplanes on order by the region's airlines will support continued expansion of LCC operations. New mid-size twin-aisle airplanes with increased range will enable airlines to open more direct markets and will aid in the development of the low-cost, long-haul business model. As markets liberalize and trade with North America, China, and the Middle East increases, routes to these regions will gradually gain market share from intra-Oceania routes that predominate today.

The greatest incremental traffic growth will be between Oceania and Southeast Asia, due to fewer air service regulations, new trade agreements, and Southeast Asia's prime location as a connecting point to Europe. As of mid-2010, the Association of Southeast Asian Nations, Australia, and New Zealand free trade agreement has gone into force for nine of the twelve countries that signed the original pact in 2009. Europe, with its cultural, political, and person-to-person ties to the region, continues to be an important economic partner, with strong markets for tourism, services, and commercial goods.

### Oceania LCCs gaining market share



### Oceania Market value: \$120 billion



### Oceania Key indicators and new airplane markets

Growth measures		New airplanes		Share by size
Economy (GDP)	2.7%	Large	30	3%
Traffic (RPK)	6.0%	Twin aisle	260	28%
Cargo (RTK)	6.2%	Single aisle	620	68%
Airplane fleet	4.0%	Regional jets	10	1%
		<b>Total</b>	<b>920</b>	
<b>Ratio</b>				
RPK / GDP	2.2			
<b>Market size</b>				
Deliveries	920	2009 Fleet	420	2029 Fleet
Market value	\$120B	Large	40	40
Average value	\$130M	Twin aisle	80	250
		Single aisle	280	620
		Regional jets	20	10
		<b>Total</b>	<b>420</b>	<b>920</b>

# North America



## Mature market with modest domestic growth

Forecast deliveries to North America continue to decline as the region's mature domestic market grows at a modest rate of 2.8 percent over the next 20 years. The majority (78 percent) of new regional-jet and single-aisle deliveries will be for replacement. Growth will be stronger on international services, which will grow 4.9 percent per year, driving demand for 1,180 new efficient twin-aisle airplanes such as the Boeing 787.

## Aging fleets spur replacement demand

After several years of massive losses, the North American industry, led by low-cost carriers, is showing signs of improvement with a small operating profit for 2009. Despite modest profit, traditional network airlines are holding back on large-scale fleet renewals. North America accounts for only 14 percent of the world's backlog. Airplane age will become an issue as fuel-thirsty, older airplanes weigh increasingly on earnings. Increased attention on aviation's impact on global climate change will also be a factor in selecting airplanes that produce less carbon emissions.

## Regional services shifting to larger types

The regional jet fleet continues to feel the pressures of domestic market realities. Relaxed pilot scope clauses make it easier for fleet planners to take advantage of the superior economics of larger regional jets and small single-aisle types. High fuel prices and intense competition have taken a serious toll on small RJ economics. The RJ fleet continues to dwindle, with only 800 new airplane deliveries over the next 20 years. Nearly all of these will be replacement airplanes.

Reflecting the significant advantages in capabilities, fuel efficiency, and maintenance costs of newer types, such as the Boeing Next-Generation 737 family, the North American single-aisle market will grow from 56 percent of the total fleet to 71 percent.

## Consolidation and the rise of new entrants

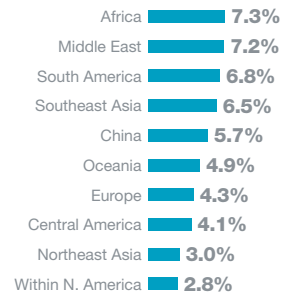
Consolidation continues in the region with dramatic effect on the competitive landscape. Large network carriers are relying on alliances with international carriers and forming joint ventures on certain long-haul routes to capitalize on the strength of their hubs.

Consolidation holds the possibility that combining two or more large carriers would create economies of scale at a time of extreme cost and yield pressure. Consolidation would also enable removal of duplicative services in the domestic market.

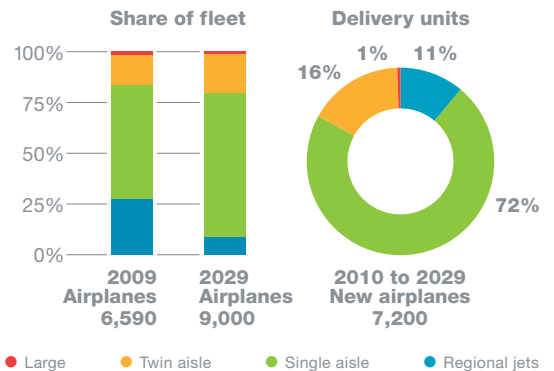
### North America Growth in long-haul routes



#### RPK growth 2009 to 2029



### North America Market value: \$700 billion



### North America Key indicators and new airplane markets

Growth measures	
Economy (GDP)	2.7%
Traffic (RPK)	3.4%
Cargo (RTK)	5.0%
Airplane fleet	1.6%

Ratio	
RPK / GDP	1.3

Market size	
Deliveries	7,200
Market value	\$700B
Average value	\$100M

New airplanes		
Category	Count	Share by size
Large	40	1%
Twin aisle	1,180	16%
Single aisle	5,180	72%
Regional jets	800	11%
<b>Total</b>	<b>7,200</b>	

Fleet		
Category	2009 Fleet	2029 Fleet
Large	110	100
Twin aisle	970	1,710
Single aisle	3,670	6,410
Regional jets	1,840	780
<b>Total</b>	<b>6,590</b>	<b>9,000</b>

# Europe



## Resilient market

The commercial aviation market in Europe remains resilient, despite the economic challenges in the region. European airlines took delivery of 340 jet airplanes in 2009. During the next 20 years, the region’s GDP is expected to grow 1.9 percent annually. Europe is forecast to take delivery of 7,190 new airplanes, valued at \$800 billion over the same period. Single-aisle airplanes will account for 75 percent of the new deliveries, making Europe one of the top regions for single-aisle operations.

The number of airlines operating in Europe has increased by more than 40 percent since 2000. Adapting to the changing business environment, airlines in the region continue to reinvent themselves through mergers and acquisitions, code-share agreements, and new product and service offerings.

Europe’s air transport market continues to liberalize. The European Union and the United States are in the process of implementing phase 2 of the Open Skies agreement. There are also agreements being signed between European countries and Asia.

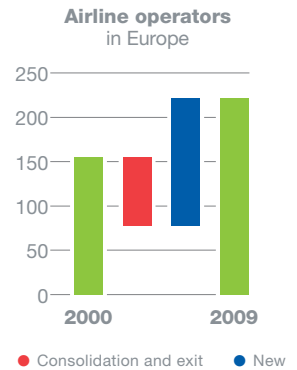
## Environmental responsibility

European airlines take environmental responsibility seriously. They are replacing older airplanes with new, more efficient airplanes. By 2029, only 4 percent of the airplanes currently in service will still be flying. The region’s airlines are also investing in biofuel research and working to improve air and ground operations to reduce fuel use and greenhouse gas emissions. Airplanes on European routes are flying nearly full as airlines achieve historically high load factors. The average distance per flight is rising as most new flights added by Europe’s airlines are on longer range routes.

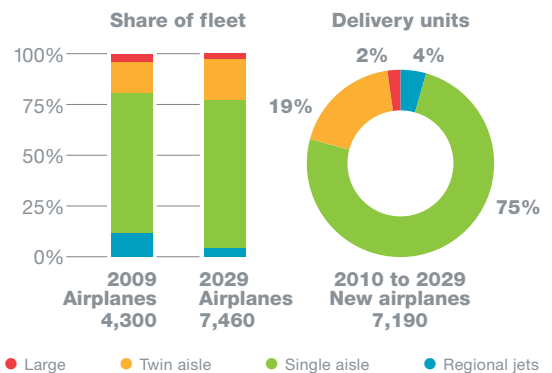
## Airline strategies

Airlines in Europe continue to differentiate as business models shift. In 2000, network carriers provided 73 percent of all capacity. By 2029, the network carrier capacity share is projected to drop to 62 percent. Low-cost carriers have captured most of the capacity growth during the past 10 years and are expected to continue to grow. Larger network carriers are taking advantage of joint ventures with foreign airlines to focus on expansion of longer haul markets. LCCs continue to expand throughout Europe, especially in Central and Eastern Europe. Charter and inclusive tour operators—among the originators of low-cost models—are diversifying to offer seat-only sales, in addition to full travel packages.

### Europe New airlines continue to enter the market



### Europe Market value: \$800 billion



### Europe Key indicators and new airplane markets

**Growth measures**

Economy (GDP)	1.9%
Traffic (RPK)	4.4%
Cargo (RTK)	5.0%
Airplane fleet	2.8%

**Ratio**

RPK / GDP	2.3
-----------	-----

**Market size**

Deliveries	7,190
Market value	\$800B
Average value	\$110M

	New airplanes	Share by size
Large	160	2%
Twin aisle	1,340	19%
Single aisle	5,380	75%
Regional jets	310	4%
<b>Total</b>	<b>7,190</b>	

	2009 Fleet	2029 Fleet
Large	170	200
Twin aisle	650	1,470
Single aisle	2,980	5,470
Regional jets	500	320
<b>Total</b>	<b>4,300</b>	<b>7,460</b>

# Middle East



## Rapid growth in air travel

The Middle East continues to outperform the world in air travel growth. The only region in the world where international traffic increased during 2009, the region achieved a robust growth of 11.2 percent. Traffic remains strong as of the first quarter of 2010, with passenger traffic growing 25 percent and air freight 34 percent. Although the region’s oil wealth is certainly a driving force, the remarkable growth of air travel and growing prominence of Middle East carriers also owes to geography, demographics, improved airplane capabilities, and the airlines’ well-coordinated growth and investment plans. Middle East demographics favor continued air travel growth. Over half the population is under the age of 25—the population segment that will account for much of the future market. By comparison, the average age in the United States, Europe, and China ranges from 35 to 45. Governments across the region are supporting more open access for aviation and investing in aviation infrastructure. Over the next three decades, \$48 billion is committed to airport projects to significantly increase the number of passengers able to visit Dubai, Doha, Jeddah, Abu Dhabi, Cairo, Bahrain, Kuwait, and Muscat.

## Innovative business strategies

New-generation long-range airplanes can reach any point in the world from the Middle East, making the region an ideal connecting point between Europe, Africa, India, and Asia. Gulf airlines using “sixth freedom” agreements, which allow carriage of revenue passengers between two foreign countries with a stop at an airport in the home country, are an attractive, low-cost alternative to nonstop flights offered by European and Asian carriers. Middle East carriers have gained significant market share, with a 64 percent capacity share between the Middle East and South Asia, a 68 percent share to Europe, a 77 percent share to Southeast Asia, and an 80 percent share to Africa.

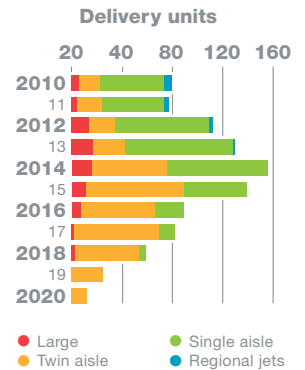
## Large order backlog

The major Arabian Gulf carriers have amassed a prodigious backlog of orders for the long-range airplanes necessary to compete in these markets. Emirates currently has 175 airplanes on order, all of them widebodies. Qatar has 143 airplanes on order, 123 of which are widebodies. And Etihad has a total of 106 on order, including 86 widebodies.

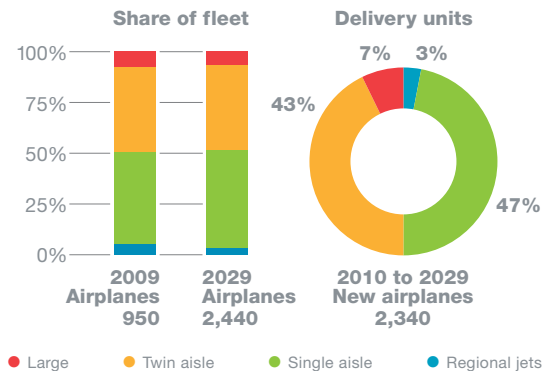
Six new low-cost carriers have emerged in the Middle East since 2003, largely targeting the youthful population and the large migrant worker population from India, Pakistan, Bangladesh, and the Philippines. Flying single-aisle airplanes on short- and medium-haul routes, these carriers have ambitious growth plans. Flydubai has 8 airplanes in service and 44 more on order. Air Arabia has 18 airplanes in service and 44 more on order.

### Middle East Significant backlog

Source:  
Airclaims



### Middle East Market value: \$390 billion



### Middle East Key indicators and new airplane markets

Growth measures		New airplanes		Share by size
Economy (GDP)	4.0%	Large	170	7%
Traffic (RPK)	7.1%	Twin aisle	1,000	43%
Cargo (RTK)	6.8%	Single aisle	1,100	47%
Airplane fleet	4.8%	Regional jets	70	3%
<b>Ratio</b>		<b>Total</b>	<b>2,340</b>	
RPK / GDP	1.8			
<b>Market size</b>				
Deliveries	2,340	2009 Fleet	950	2029 Fleet
Market value	\$390B	Large	70	160
Average value	\$170M	Twin aisle	400	1,020
		Single aisle	430	1,180
		Regional jets	50	80
		<b>Total</b>	<b>950</b>	<b>2,440</b>

# Latin America



## Transformational growth

Total air travel for Latin America will grow faster than the world average rate during the next 20 years. South American routes will lead the region's growth, reflecting strong economic growth, continued investment in aviation infrastructure, and liberalization of airline ownership and traffic rights. In fact, the South American air travel market will climb to the seventh largest on our table of world regional flows by 2029.

## Business developments

Innovative airline strategies are allowing airlines to meet the strong growth in demand for air travel. Low-fare airlines have made air travel affordable for many new passengers and enabled airlines to capture traffic from rail and bus services. Airlines in the region have also built comprehensive cross-border, regional networks and invested to enhance the scope and quality of international services. The ability to offer attractive long-range services is helping the region's airlines gain market share from global competitors. By 2029, airlines based in Latin America will provide 57 percent of the capacity to, from, and within the region, compared to 46 percent today.

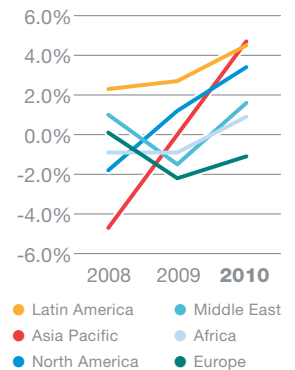
## More productive fleet

In South America, economic growth of 4.0 percent per year will drive air traffic to grow 7.4 percent per year for the next 20 years. In Central America, 3.9 percent economic growth will drive 5.9 percent annual growth in air traffic. The Latin American fleet is becoming considerably more productive as airlines schedule longer flights and introduce more efficient and reliable new airplanes. This will allow the region to accommodate traffic growth of 6.9 percent each year as the number of airplanes grows by only 4.6 percent per year.

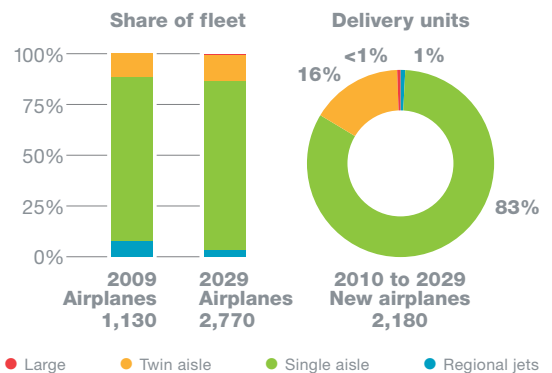
New long-range, highly efficient twin-aisle airplanes, such as the 787 and 777 families, will allow the region's carriers to meet growing demand for air travel to North America and Europe and to develop more extensive networks to Asia, Africa, and Oceania. Extensive use of these airplane types will give Latin American airlines access to a large number of lucrative new international markets.

**Latin America**  
Airline operating profit margin by region

Source:  
IATA



**Latin America**  
Market value: \$210 billion



**Latin America**  
Key indicators and new airplane markets

Growth measures	
Economy (GDP)	4.0%
Traffic (RPK)	6.9%
Cargo (RTK)	6.7%
Airplane fleet	4.6%

Ratio	
RPK / GDP	1.7

Market size	
Deliveries	2,180
Market value	\$210B
Average value	\$100M

	New airplanes	Share by size
Large	10	<1%
Twin aisle	350	16%
Single aisle	1,800	83%
Regional jets	20	1%
<b>Total</b>	<b>2,180</b>	

	2009 Fleet	2029 Fleet
Large	0	10
Twin aisle	130	360
Single aisle	910	2,300
Regional jets	90	100
<b>Total</b>	<b>1,130</b>	<b>2,770</b>

# CIS



## Growth resumes

The economies of the Commonwealth of Independent States (CIS) were recovering from a deep recession during 2009, the effects of the global contraction having been more severe in the region than in other emerging markets. The Russian economy shrank a dramatic 7.9 percent and the Ukrainian economy declined 15.1 percent. As of June 2010, the economic rebound has provided moderate relief.

Air traffic, however, has risen strongly. After a 9.4 percent drop in Russian domestic air traffic during 2009, the first quarter of 2010 showed a 33.5 percent increase, according to the Russian Federal Aviation Agency.

## Potential for domestic growth

There is great potential for growth in Russia's domestic air travel market. More than 150 million people live within a three-hour flight of Moscow. Long distances between cities and underdeveloped highway and rail systems make air travel particularly attractive.

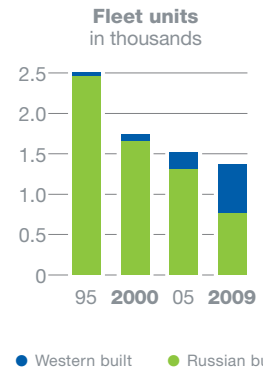
The budget travel market is particularly underserved in the CIS. Low-cost carriers serve only a small percentage of the domestic market, currently accounting for less than 4 percent of domestic airline seats—well below the LCC market share in most regions. With only 5 percent of Russia's population using air services, there are many opportunities for carriers to stimulate the market and win new passengers for air travel.

## More efficient fleet

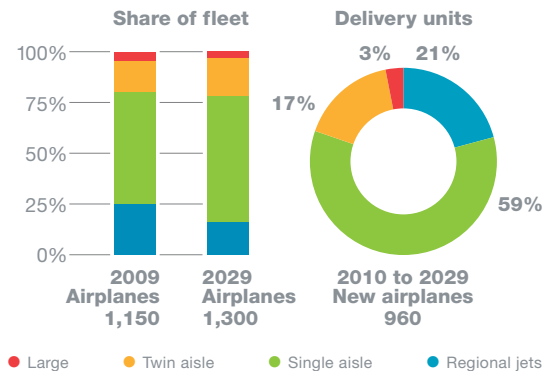
The CIS is the only region where there are fewer aircraft in operation today than there were 15 years ago. This reflects more on the changing composition of the airplane fleet than on the market for air travel. In the mid-1990s, less than 2 percent of the CIS fleet was Western-built aircraft—with only a few dozen Boeing and Airbus airplanes in operation. Today, nearly half of the fleet consists of more efficient Western-built airplanes, which can fly more hours per day than the average airplane of the fleet operating in the 1990s. The switch to more efficient airplanes is allowing carriers to meet market demand with fewer airplanes.

### CIS In-service aircraft

Source:  
Airclaims



### CIS Market value: \$90 billion



### CIS Key indicators and new airplane markets

Growth measures		New airplanes		Share by size	
Economy (GDP)	3.3%	Large	30	3%	
Traffic (RPK)	4.8%	Twin aisle	160	17%	
Cargo (RTK)	5.7%	Single aisle	570	59%	
Airplane fleet	0.6%	Regional jets	200	21%	
		<b>Total</b>	<b>960</b>		
<b>Ratio</b>					
RPK / GDP	1.5				
<b>Market size</b>					
Deliveries	960	2009 Fleet	2009	2029	
Market value	\$90B	Large	50	40	
Average value	\$90M	Twin aisle	180	240	
		Single aisle	630	810	
		Regional jets	290	210	
		<b>Total</b>	<b>1,150</b>	<b>1,300</b>	

# Africa



## Return to profitability

The total economy of the continent of Africa is expected to grow 4.8 percent in 2010, following 2.9 percent growth in 2009. The worldwide recovery has stimulated demand, both for African export commodities and for imports to Africa of telecommunication equipment, machinery, pharmaceuticals, and manufactured goods. Southern Africa, where growth has been weakest, will benefit from a surge of economic activity resulting from the World Cup. West Africa, buoyed by foreign interest in petroleum development, shows the strongest growth on the continent. African airlines are projected to return to profitability for the first time since 2002 in response to the renewed economic activity and bolstered by what IATA Director-General Giovanni Bisignani describes as “a decade of cost-cutting, restructuring, and re-engineering.” Reflecting these developments, projections for African airline profits have been revised from the US\$100-million loss anticipated three months ago to a US\$100-million profit in 2010.

## Continued growth

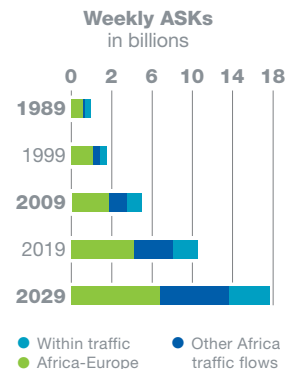
Several trends suggest continued growth in African aviation. The continent’s jet fleet now averages 19.8 years of age in an era when increasing fuel costs require newer, more efficient aircraft. Poorly developed infrastructure over difficult terrain and political instability render intra-African ground transportation problematic. Resource exploitation and tourism will require increased capacity in the future.

## Need for expansion

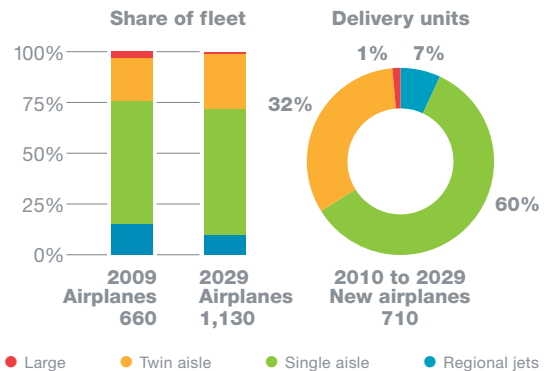
Most of the African fleet is single-aisle airplanes supporting flights within the continent and between North Africa and Europe, traditionally Africa’s principal trading partner. As the demand for African commodities grows and foreign development and tourism increase, African carriers will require a modernized fleet in order to compete on routes historically dominated by foreign carriers.

### Africa Growth in emerging markets

Source:  
August OAG



### Africa Market value: \$80 billion



### Africa Key indicators and new airplane markets

Growth measures	
Economy (GDP)	4.4%
Traffic (RPK)	5.5%
Cargo (RTK)	6.1%
Airplane fleet	2.7%

Ratio	
RPK / GDP	1.3

Market size	
Deliveries	710
Market value	\$80B
Average value	\$110M

	New airplanes	Share by size
Large	10	1%
Twin aisle	230	32%
Single aisle	420	60%
Regional jets	50	7%
<b>Total</b>	<b>710</b>	

	2009 Fleet	2029 Fleet
Large	20	10
Twin aisle	140	310
Single aisle	400	700
Regional jets	100	110
<b>Total</b>	<b>660</b>	<b>1,130</b>

# Passenger traffic



## Airline passenger traffic

Growth by regional flow

Regions	2001	2002	2003	2004	2005	2006	2007	2008	2009	2029	Average growth 2009 to 2029
<b>RPKs in billions</b>											
Africa – Africa	19.9	21.2	22.5	24.0	26.4	29.7	33.9	34.5	36.1	108.6	5.7%
<b>Africa – Europe</b>	<b>96.2</b>	<b>97.2</b>	<b>99.1</b>	<b>105.2</b>	<b>111.3</b>	<b>115.2</b>	<b>122.4</b>	<b>126.1</b>	<b>138.3</b>	<b>340.2</b>	<b>4.6%</b>
Africa – Middle East	10.6	13.2	13.9	13.9	16.4	17.9	19.9	22.9	26.8	94.7	6.5%
<b>Africa – N. America</b>	<b>4.6</b>	<b>4.3</b>	<b>4.4</b>	<b>3.9</b>	<b>3.8</b>	<b>4.8</b>	<b>8.3</b>	<b>8.5</b>	<b>11.8</b>	<b>48.3</b>	<b>7.3%</b>
Africa – S.E. Asia	3.4	3.6	3.7	3.9	4.7	4.8	5.7	5.6	4.6	26.5	9.2%
<b>C. America – C. America</b>	<b>23.0</b>	<b>23.4</b>	<b>24.8</b>	<b>26.0</b>	<b>25.2</b>	<b>26.0</b>	<b>26.9</b>	<b>27.6</b>	<b>26.0</b>	<b>75.4</b>	<b>5.5%</b>
C. America – Europe	69.8	68.1	69.8	75.7	80.1	82.0	85.4	92.1	77.5	171.7	4.1%
<b>C. America – N. America</b>	<b>88.6</b>	<b>87.7</b>	<b>92.0</b>	<b>103.5</b>	<b>104.9</b>	<b>107.9</b>	<b>116.6</b>	<b>118.9</b>	<b>109.5</b>	<b>244.7</b>	<b>4.1%</b>
C. America – S. America	7.2	7.1	7.1	8.3	10.7	12.7	14.9	15.8	17.7	69.3	7.1%
<b>China – China</b>	<b>86.9</b>	<b>101.5</b>	<b>106.9</b>	<b>143.8</b>	<b>163.8</b>	<b>182.4</b>	<b>210.7</b>	<b>227.1</b>	<b>272.4</b>	<b>1,241.3</b>	<b>7.9%</b>
China – Europe	40.2	42.6	37.5	51.2	60.9	73.9	77.4	77.7	74.0	238.1	6.0%
<b>China – N. America</b>	<b>36.2</b>	<b>33.2</b>	<b>24.9</b>	<b>34.4</b>	<b>40.2</b>	<b>48.5</b>	<b>56.4</b>	<b>57.1</b>	<b>50.7</b>	<b>152.9</b>	<b>5.7%</b>
China – N.E. Asia	18.4	24.5	20.1	27.3	29.0	30.0	35.7	33.3	29.8	99.7	6.2%
<b>China – Oceania</b>	<b>12.4</b>	<b>13.2</b>	<b>10.6</b>	<b>15.0</b>	<b>17.1</b>	<b>19.3</b>	<b>20.4</b>	<b>22.3</b>	<b>19.3</b>	<b>66.9</b>	<b>6.4%</b>
China – S.E. Asia	31.7	36.9	27.7	41.2	48.9	48.6	52.1	50.3	47.5	195.3	7.3%
<b>CIS – CIS</b>	<b>43.5</b>	<b>46.9</b>	<b>50.2</b>	<b>54.7</b>	<b>56.0</b>	<b>57.3</b>	<b>57.7</b>	<b>61.2</b>	<b>49.0</b>	<b>125.4</b>	<b>4.8%</b>
CIS – International	48.1	51.4	56.4	63.0	65.2	66.6	74.6	85.5	82.1	206.3	4.7%
<b>Europe – Europe</b>	<b>449.3</b>	<b>453.8</b>	<b>474.7</b>	<b>521.2</b>	<b>561.9</b>	<b>593.3</b>	<b>634.2</b>	<b>660.5</b>	<b>624.9</b>	<b>1,409.1</b>	<b>4.1%</b>
Europe – Middle East	59.8	58.6	58.9	67.7	74.1	88.3	105.2	113.5	132.8	426.9	6.0%
<b>Europe – N. America</b>	<b>373.8</b>	<b>346.0</b>	<b>349.5</b>	<b>375.7</b>	<b>390.7</b>	<b>403.4</b>	<b>420.6</b>	<b>432.4</b>	<b>405.4</b>	<b>946.2</b>	<b>4.3%</b>
Europe – N.E. Asia	55.8	53.3	48.3	59.8	61.0	61.8	68.3	68.6	60.2	124.3	3.7%
<b>Europe – S. America</b>	<b>52.1</b>	<b>49.2</b>	<b>49.5</b>	<b>57.9</b>	<b>65.4</b>	<b>71.7</b>	<b>78.7</b>	<b>84.8</b>	<b>86.0</b>	<b>227.7</b>	<b>5.0%</b>
Europe – S.E. Asia	95.9	96.4	95.0	104.5	111.3	110.3	108.3	108.7	109.7	321.6	5.5%
<b>Europe – S. Asia</b>	<b>27.5</b>	<b>27.6</b>	<b>29.5</b>	<b>35.7</b>	<b>44.3</b>	<b>54.1</b>	<b>54.3</b>	<b>53.5</b>	<b>48.3</b>	<b>190.5</b>	<b>7.1%</b>
Middle East – Middle East	27.1	27.5	28.1	32.0	34.0	36.3	39.6	41.7	48.9	157.2	6.0%
<b>Middle East – N. America</b>	<b>12.0</b>	<b>10.4</b>	<b>9.6</b>	<b>12.6</b>	<b>14.4</b>	<b>19.5</b>	<b>30.1</b>	<b>34.8</b>	<b>44.3</b>	<b>176.7</b>	<b>7.2%</b>
Middle East – S.E. Asia	22.9	24.0	26.4	29.2	33.3	38.3	45.1	45.7	49.8	206.6	7.4%
<b>Middle East – S. Asia</b>	<b>29.9</b>	<b>31.1</b>	<b>33.8</b>	<b>35.6</b>	<b>38.3</b>	<b>44.0</b>	<b>48.8</b>	<b>58.1</b>	<b>63.6</b>	<b>261.0</b>	<b>7.3%</b>
N. America – N. America	812.8	783.5	828.3	927.7	972.3	977.4	1,022.4	974.1	898.1	1,566.4	2.8%
<b>N. America – N.E. Asia</b>	<b>127.5</b>	<b>121.2</b>	<b>103.0</b>	<b>120.8</b>	<b>126.2</b>	<b>122.4</b>	<b>124.1</b>	<b>122.7</b>	<b>112.2</b>	<b>203.7</b>	<b>3.0%</b>
N. America – Oceania	27.6	26.5	25.9	30.1	31.5	32.2	29.5	29.5	30.4	79.4	4.9%
<b>N. America – S. America</b>	<b>44.8</b>	<b>42.7</b>	<b>37.6</b>	<b>39.9</b>	<b>49.9</b>	<b>59.0</b>	<b>66.6</b>	<b>59.1</b>	<b>63.9</b>	<b>239.7</b>	<b>6.8%</b>
N. America – S.E. Asia	29.3	30.5	26.8	33.6	36.5	36.5	42.7	37.4	35.9	126.8	6.5%
<b>N.E. Asia – N.E. Asia</b>	<b>80.2</b>	<b>85.0</b>	<b>86.1</b>	<b>83.6</b>	<b>83.9</b>	<b>84.1</b>	<b>82.0</b>	<b>81.5</b>	<b>88.3</b>	<b>143.2</b>	<b>2.4%</b>
N.E. Asia – Oceania	22.5	24.5	22.8	27.1	25.7	24.6	23.3	20.9	15.2	34.1	4.1%
<b>N.E. Asia – S.E. Asia</b>	<b>47.8</b>	<b>54.4</b>	<b>45.7</b>	<b>61.5</b>	<b>67.1</b>	<b>74.3</b>	<b>79.0</b>	<b>73.9</b>	<b>66.5</b>	<b>232.0</b>	<b>6.4%</b>
Oceania – Oceania	50.7	50.2	55.5	58.8	63.0	67.8	72.6	78.0	74.8	212.2	5.3%
<b>Oceania – S.E. Asia</b>	<b>47.6</b>	<b>46.6</b>	<b>42.0</b>	<b>54.6</b>	<b>60.1</b>	<b>57.3</b>	<b>55.7</b>	<b>65.6</b>	<b>65.9</b>	<b>222.4</b>	<b>6.3%</b>
S. America – S. America	50.8	52.7	47.9	52.9	60.8	72.8	78.8	79.9	91.7	391.5	7.5%
<b>S.E. Asia – S.E. Asia</b>	<b>57.0</b>	<b>60.6</b>	<b>59.4</b>	<b>73.9</b>	<b>82.4</b>	<b>89.2</b>	<b>96.7</b>	<b>89.9</b>	<b>94.7</b>	<b>466.3</b>	<b>8.3%</b>
S.E. Asia – S. Asia	11.6	12.6	12.5	14.9	17.1	19.1	20.0	22.2	20.4	131.4	9.8%
<b>S. Asia – S. Asia</b>	<b>16.6</b>	<b>17.4</b>	<b>17.7</b>	<b>21.3</b>	<b>25.0</b>	<b>29.5</b>	<b>39.1</b>	<b>44.1</b>	<b>43.4</b>	<b>255.5</b>	<b>9.3%</b>
Rest of world	16.0	16.9	18.2	26.7	31.9	38.7	53.9	64.1	71.0	338.7	8.1%
<b>World total</b>	<b>3,289</b>	<b>3,279</b>	<b>3,304</b>	<b>3,754</b>	<b>4,026</b>	<b>4,234</b>	<b>4,539</b>	<b>4,611</b>	<b>4,519</b>	<b>12,596</b>	<b>5.3%</b>

RPK: Revenue passenger-kilometers. The number of fare-paying passengers multiplied by the number of kilometers they fly (i.e., airline traffic).

# Airplanes required



## Passenger and freighter airplanes

Market value and demand by region

### Demand and value by region

Region	\$B Airplanes	
Asia Pacific	1,320	10,320
North America	700	7,200
Europe	800	7,190
Middle East	390	2,340
Latin America	210	2,180
CIS	90	960
Africa	80	710
<b>World</b>	<b>3,590</b>	<b>30,900</b>

### Deliveries by airplane size and region

Region	Regional jets	Single aisle	Twin aisle	Large	Total deliveries
Asia Pacific	470	6,710	2,840	300	10,320
North America	800	5,180	1,180	40	7,200
Europe	310	5,380	1,340	160	7,190
Middle East	70	1,100	1,000	170	2,340
Latin America	20	1,800	350	10	2,180
CIS	200	570	160	30	960
Africa	50	420	230	10	710
<b>World</b>	<b>1,920</b>	<b>21,160</b>	<b>7,100</b>	<b>720</b>	<b>30,900</b>

### Market value by airplane size and region\*

Region	Regional jets	Single aisle	Twin aisle	Large	Total value
Asia Pacific	10	550	660	100	1,320
North America	30	400	260	10	700
Europe	10	430	310	50	800
Middle East	2	90	250	50	390
Latin America	1	140	70	4	210
CIS	6	40	30	6	90
Africa	2	30	50	1	80
<b>World</b>	<b>\$60B</b>	<b>\$1,680B</b>	<b>\$1,630B</b>	<b>\$220B</b>	<b>\$3,590B</b>

\*2009 \$B, catalog prices. Values above 20 have been rounded to the nearest 10.

## Passenger and freighter airplanes

In service and future fleet

### Total airplanes in service

Size	2009	2029
Large*	800	960
Twin aisle	3,500	8,260
Single aisle	11,580	25,000
Regional jets	3,010	2,080
<b>Total</b>	<b>18,890</b>	<b>36,300</b>

### Passenger airplanes in service

Size	2009	2029
Large*	500	510
Twin aisle	2,690	6,920
Single aisle	11,010	23,830
Regional jets	2,940	2,060
<b>Total</b>	<b>17,140</b>	<b>33,320</b>

### Freighter airplanes in service

Size	2009	2029
Large*	470	980
Medium widebody	640	810
Standard body	640	1,190
<b>Total</b>	<b>1,750</b>	<b>2,980</b>

### Airplane demand

Size	\$B Airplanes	
Large*	220	720
Twin aisle	1,630	7,100
Single aisle	1,680	21,160
Regional jets	60	1,920
<b>Total</b>	<b>3,590</b>	<b>30,900</b>

### Passenger airplane demand

Size	\$B Airplanes	
Large*	160	530
Twin aisle	1,510	6,560
Single aisle	1,670	21,150
Regional jets	60	1,920
<b>Total</b>	<b>3,400</b>	<b>30,160</b>

### Freighter airplane demand

Size	\$B Airplanes	
Large*	140	520
Medium widebody	40	210
Standard body	1	10
<b>Total</b>	<b>180</b>	<b>740</b>

\*Large passenger and large freighter categories differ.

# Fleet development



## Passenger and freighter airplanes

Market value and fleet development

### Market by airplane size

Size	Market value 2009 \$B	Market share value	New airplane deliveries	Market share units
Large*	220	6%	720	2%
Medium	910	25%	3,420	11%
Small	720	20%	3,680	13%
<b>Total twin aisle</b>	<b>1,840</b>	<b>51%</b>	<b>7,820</b>	<b>26%</b>
More than 175 seats	300	8%	3,070	10%
90 to 175 seats	1,380	39%	18,090	58%
<b>Total single aisle</b>	<b>1,680</b>	<b>47%</b>	<b>21,160</b>	<b>68%</b>
<b>Total regional jets</b>	<b>60</b>	<b>2%</b>	<b>1,920</b>	<b>6%</b>
<b>Total fleet</b>	<b>3,590</b>	<b>100%</b>	<b>30,900</b>	<b>100%</b>

### Passenger fleet development

Size	End of year 2009	Removed from service	Converted to freighter	New deliveries 2010 to 2029	End of year 2029
Large*	500	520	–	530	510
Medium	1,450	1,280	–	3,090	3,260
Small	1,240	1,050	–	3,470	3,660
<b>Total twin aisle</b>	<b>3,190</b>	<b>2,850</b>	<b>1,070</b>	<b>7,090</b>	<b>7,430</b>
More than 175 seats	1,450	1,090	–	3,060	3,420
90 to 175 seats	9,560	7,240	–	18,090	20,410
<b>Total single aisle</b>	<b>11,010</b>	<b>8,330</b>	<b>680</b>	<b>21,150</b>	<b>23,830</b>
<b>Total regional jets</b>	<b>2,940</b>	<b>2,800</b>	<b>–</b>	<b>1,920</b>	<b>2,060</b>
<b>Total passenger fleet</b>	<b>17,140</b>	<b>13,980</b>	<b>1,750</b>	<b>30,160</b>	<b>33,320</b>

### Freighter fleet development

Size	End of year 2009	Removed from service	Converted to freighter	New deliveries 2010 to 2029	End of year 2029
Large*	470	260	250	520	980
Medium widebody	640	470	430	210	810
Standard body	640	530	1,070	10	1,190
<b>Total freighter fleet</b>	<b>1,750</b>	<b>1,260</b>	<b>1,750</b>	<b>740</b>	<b>2,980</b>

### Total fleet

Size	End of year 2009	Removed from service	Converted to freighter	New deliveries 2010 to 2029	End of year 2029
Passenger fleet	17,140	13,980	1,750	30,160	33,320
Freighter fleet	1,750	1,260	1,750	740	2,980
<b>Total fleet</b>	<b>18,890</b>	<b>15,240</b>	<b>1,750</b>	<b>30,900</b>	<b>36,300</b>

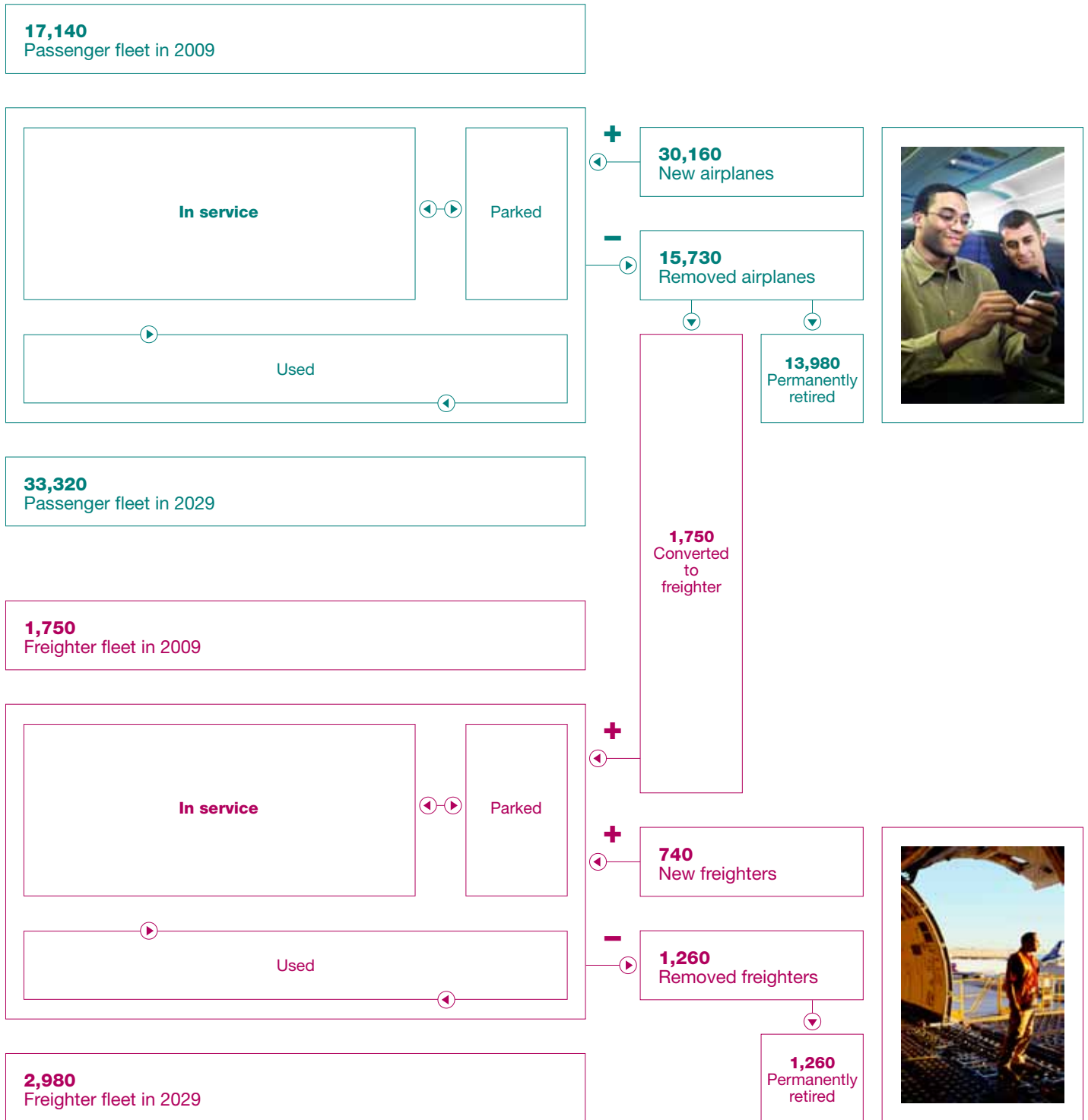
\*Large passenger and large freighter categories differ.

# Flow of airplanes



**Airplane fleet**

How the fleet develops as airplanes are added and removed



## Fleet by region



### Fleet growth By size and region

#### Fleet by airplane size

Size	Airplanes in service 2009	Fleet share 2009	Airplanes in service 2029	Fleet share 2029
Large*	800	4%	960	3%
Medium	1,620	9%	3,830	11%
Small	1,880	10%	4,430	12%
<b>Total twin aisle</b>	<b>4,300</b>	<b>23%</b>	<b>9,220</b>	<b>26%</b>
More than 175 seats	1,660	9%	3,920	10%
90 to 175 seats	9,920	52%	21,080	58%
<b>Total single aisle</b>	<b>11,580</b>	<b>61%</b>	<b>25,000</b>	<b>69%</b>
<b>Total regional jets</b>	<b>3,010</b>	<b>16%</b>	<b>2,080</b>	<b>6%</b>
<b>Total fleet</b>	<b>18,890</b>	<b>100%</b>	<b>36,300</b>	<b>100%</b>

#### Fleet by region in 2009

Region	Regional jets	Single aisle	Twin aisle	Large	Total fleet
Asia Pacific	140	2,560	1,030	380	4,110
North America	1,840	3,670	970	110	6,590
Europe	500	2,980	650	170	4,300
Middle East	50	430	400	70	950
Latin America	90	910	130	0	1,130
CIS	290	630	180	50	1,150
Africa	100	400	140	20	660
<b>World</b>	<b>3,010</b>	<b>11,580</b>	<b>3,500</b>	<b>800</b>	<b>18,890</b>

#### Fleet by region in 2029

Region	Regional jets	Single aisle	Twin aisle	Large	Total fleet
Asia Pacific	480	8,130	3,150	440	12,200
North America	780	6,410	1,710	100	9,000
Europe	320	5,470	1,470	200	7,460
Middle East	80	1,180	1,020	160	2,440
Latin America	100	2,300	360	10	2,770
CIS	210	810	240	40	1,300
Africa	110	700	310	10	1,130
<b>World</b>	<b>2,080</b>	<b>25,000</b>	<b>8,260</b>	<b>960</b>	<b>36,300</b>

\*Large passenger and large freighter categories differ.

## Major traffic flows



### Airline traffic flows By region

#### Airline passenger growth rates 2009 to 2029

RPKs	Africa	Latin America	Middle East	Europe	North America	Asia Pacific
Asia Pacific	8.7%	6.3%	7.5%	5.6%	4.8%	<b>7.1%</b>
North America	7.3%	5.3%	7.2%	4.8%	<b>2.8%</b>	
Europe	4.6%	4.6%	6.0%	<b>4.1%</b>		
Middle East	6.5%	–	<b>6.0%</b>			
Latin America	5.5%	<b>7.1%</b>				
Africa	<b>5.7%</b>					

#### Airline passenger traffic in 2009

RPKs in billions	Africa	Latin America	Middle East	Europe	North America	Asia Pacific
Asia Pacific	14.3	4.0	146.9	292.2	241.1	<b>845.3</b>
North America	11.8	173.4	44.3	405.4	<b>898.1</b>	
Europe	138.3	163.5	132.8	<b>624.9</b>		
Middle East	26.8	–	<b>48.9</b>			
Latin America	2.7	<b>135.4</b>				
Africa	<b>36.1</b>					

#### Airline passenger traffic in 2029

RPKs in billions	Africa	Latin America	Middle East	Europe	North America	Asia Pacific
Asia Pacific	76.5	13.4	620.3	847.5	618.0	<b>3,349.2</b>
North America	48.3	484.4	484.4	946.2	<b>1,566.4</b>	
Europe	340.2	399.5	426.9	<b>1,409.1</b>		
Middle East	94.7	–	<b>157.2</b>			
Latin America	7.9	<b>536.2</b>				
Africa	<b>108.6</b>					

**Bold:** Share within region.

## Traffic by region



### Airline traffic distribution By region

#### Traffic in 2009

RPKs	Asia Pacific	North America	Europe	Middle East	Latin America	Africa
Asia Pacific	<b>55%</b>	14%	17%	37%	1%	4%
North America	16%	<b>51%</b>	23%	11%	36%	3%
Europe	19%	23%	<b>35%</b>	33%	34%	76%
Middle East	10%	2%	8%	<b>12%</b>	–	7%
Latin America	–	10%	9%	–	<b>28%</b>	1%
Africa	<1%	<1%	8%	7%	1%	<b>9%</b>
<b>Total traffic to and from region</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

#### Traffic in 2029

RPKs	Asia Pacific	North America	Europe	Middle East	Latin America	Africa
Asia Pacific	<b>60%</b>	16%	20%	42%	1%	6%
North America	11%	<b>41%</b>	21%	12%	34%	4%
Europe	16%	25%	<b>32%</b>	29%	28%	72%
Middle East	11%	5%	10%	<b>11%</b>	–	8%
Latin America	<1%	13%	9%	–	<b>37%</b>	1%
Africa	1%	<1%	8%	6%	<1%	<b>9%</b>
<b>Total traffic to and from region</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Bold:** Share within region. Sum data down the table only. Excludes other small flows that are not included in the summary table (less than 1% of each region).

### How to read the tables

Read down the selected column; for example:

- In 2009, traffic within North America accounted for 51 percent of the total traffic to, from, and within North America.
- In 2029, traffic from the Middle East to Europe will account for 33 percent of the total traffic to, from, and within the Middle East.

# Airplane categories



## Passenger and freighter

Airplane market sector definitions

### Single-aisle passenger airplanes

#### Regional jets

##### **Antonov An-148**

##### **AVIC ARJ-700**

Avro RJ70, RJ85

BAe 146-100, -200

##### **Bombardier CRJ**

Dornier 328JET

##### **Embraer 170, 175**

##### **Embraer ERJ-135, -140, -145**

Fokker 70, F28

##### **Mitsubishi MRJ**

##### **Sukhoi Superjet 100**

Yakovlev Yak-40

#### 90 to 175 seats

Boeing 717, 727

Boeing 737-100 through -500

##### **Boeing 737-600, -700, -800**

##### **Airbus A318, A319, A320**

Boeing-MDC DC-9, MD-80, -90

##### **AVIC ARJ-900**

BAe 146-300, Avro RJ100

##### **Bombardier CRJ-1000**

##### **Bombardier CS100, CS300**

##### **Embraer 190, 195**

Fokker 100

Ilyushin IL-62

Tupolev TU-154

Yakovlev Yak-42

#### More than 175 seats

Boeing 707, 757

##### **Boeing 737-900ER**

##### **Airbus A321**

##### **Tupolev TU-204, TU-214**

### Twin-aisle passenger airplanes

#### Small

Two class: 230 to 340 seats  
Three class: 180 to 260 seats

##### **Boeing 767, 787**

Boeing-MDC DC-10

Airbus A300, A310

##### **Airbus A330-200**

##### **Airbus A350-800**

Lockheed L-1011

##### **Ilyushin IL-96**

#### Medium

Two class: 340 to 450 seats  
Three class: 260 to 370 seats

##### **Boeing 777**

Boeing-MDC MD-11

##### **Airbus A330-300, A340**

##### **Airbus A350-900, -1000**

Ilyushin IL-86

#### Large\*

Three class: more than 400 seats

##### **Boeing 747-8**

##### **Airbus A380**

### Freighter airplanes

#### Standard body

Less than 45 tonnes

BAe 146

Boeing-MDC DC-8, -9

Boeing 737

Boeing 727

Tupolev TU-204

Boeing 707

Boeing-MDC MD-80

Boeing 757-200

Airbus A318, A319, A320, A321

#### Medium widebody

40 to 80 tonnes

Boeing 767

Lockheed L-1011SF

Boeing-MDC MC-10

Boeing 787

Airbus A330

Boeing 777-A SF

Ilyushin IL-76TD

#### Large\*

More than 80 tonnes

Boeing-MDC MD-11

Boeing 747

Boeing 777

Airbus A340-600 SF

Airbus A350

Ilyushin IL-96T

Antonov An-124

**Bold:** Airplanes in production or launched. Production and conversion (SF) models assumed for each type unless otherwise specified. \*Large passenger and large freighter categories differ.

# Your response



**We value your opinion**

Please provide your name, position, company, and address below, or attach your business card.

**Feedback**

What do you think?

**Your perspective**

- What will be the main factors to affect future air transport markets?
- What will be the likely impact of these factors?

**Your feedback**

- What do you think of web-only access to forecast information (with a PDF for you to print locally)?
- If you have used the interactive forecast database on our Web site, tell us what you think of it.
- What areas would you like to see covered in more detail in the *Current Market Outlook*?
- What additional data would you like us to make available?
- What did you find most valuable?
- Was there anything you disliked?

**Send your comments to us**

Our contact details are below.

**Your comments**

Any other questions or comments?

**Web site**

[www.boeing.com/cmo](http://www.boeing.com/cmo)

**Forecast database**

[www.boeing.com/cmo/data](http://www.boeing.com/cmo/data)

**Contact**

Michael Warner  
Senior Manager  
Market Analysis

**E-mail**

[BoeingCurrentMarketOutlook@Boeing.com](mailto:BoeingCurrentMarketOutlook@Boeing.com)

**Fax**

1.206.766.1022

**Address**

Boeing Commercial Airplanes  
Market Analysis  
P.O. Box 3707, MC 21-28  
Seattle, WA 98124-2207





**Boeing Commercial Airplanes**

Market Analysis  
P.O. Box 3707 MC 21-28  
Seattle, WA 98124-2207  
[www.boeing.com/cmo](http://www.boeing.com/cmo)

The statements contained herein are based on good faith assumptions and provided for general information purposes only. These statements do not constitute an offer, promise, warranty, or guarantee of performance. Actual results may vary depending on certain events or conditions. This document should not be used or relied upon for any purpose other than that intended by Boeing.