



Pilot and Technician Outlook

2023–2042


Africa

New Personnel: 69 K
Pilots: 21 K
Technicians: 22 K
Cabin Crew: 26 K



China

New Personnel: 433 K
Pilots: 134 K
Technicians: 138 K
Cabin Crew: 161 K




Eurasia

New Personnel: 534 K
Pilots: 143 K
Technicians: 156 K
Cabin Crew: 235 K



Latin America

New Personnel: 128 K
Pilots: 38 K
Technicians: 41 K
Cabin Crew: 49 K



Middle East

New Personnel: 215 K
Pilots: 58 K
Technicians: 58 K
Cabin Crew: 99 K



2.3 M
NEW PERSONNEL



649 K NEW PILOTS

690 K NEW TECHNICIANS

938 K NEW CABIN CREW


North America

New Personnel: 429 K
Pilots: 127 K
Technicians: 125 K
Cabin Crew: 177 K



Northeast Asia

New Personnel: 90 K
Pilots: 23 K
Technicians: 28 K
Cabin Crew: 39 K




Oceania

New Personnel: 39 K
Pilots: 10 K
Technicians: 11 K
Cabin Crew: 18 K




South Asia

New Personnel: 120 K
Pilots: 37 K
Technicians: 38 K
Cabin Crew: 45 K



Southeast Asia

New Personnel: 220 K
Pilots: 58 K
Technicians: 73 K
Cabin Crew: 89 K



3.5%
Fleet Growth

48,575
2042 Fleet

6.1%
Traffic Growth

2.6%
GDP Growth



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At a Glance

Air travel demand is outpacing economic growth as domestic markets have fully recovered from the pandemic years, while international traffic is expected to return to pre-pandemic levels by 2024. Effective training and an adequate supply of personnel remain critical to maintain the health, safety and prosperity of the global aviation ecosystem.

The demand for training and related services has shown signs of faster recovery, but the industry still faces lingering challenges in meeting the demand. Among them are insufficient training capacity to support significant personnel shortage and the lag time required to bring personnel online while continuing to prioritize safety. To support the recovery and growth driven by expansion of global fleets, the aviation industry will need a long-term strategy that addresses upcoming labor challenges. Investment in early career development programs and outreach efforts that spark excitement among future aviators will be essential to a healthy aviation market for years to come.

Long-term demand for newly qualified aviation personnel remains strong, as 649,000 new pilots, 690,000 new maintenance technicians and 938,000 new cabin crew members will be needed to fly and maintain the global commercial fleet over the next 20 years.

Methodology

This forecast is limited to the commercial aviation sector, and assumes that air traffic demand will recover to 2019 levels by 2024. Consistent with last year's forecast, this year's outlook does not include business aviation and civil helicopter demand.

New personnel demand is calculated based on a 20-year fleet forecast for commercial aviation aircraft with more than 30 seats. By analyzing fleet growth and replacement, aircraft utilization, attrition rates and regional differences in crewing specific to aircraft type, Boeing's Pilot and Technician Outlook estimates the number of new pilots, maintenance technicians and cabin crew members needed worldwide.

Variations to the forecast can occur on a year-over-year basis as a result of many factors, some of which include changes in regulations, crew productivity and aircraft mix. The forecast does not currently include assumptions for single-pilot commercial airplane operations. However, it does consider impacts from alternative modes of transportation, such as advanced air mobility and high-speed rail. Boeing continues to track the market for indications of regulatory movement and will update our forecast accordingly.

China, Eurasia and North America together will drive over half the personnel demand through 2042.

