

2023 GLOBAL BUSINESS AVIATION OUTLOOK ALL SYSTEMS ARE GO

This has been a solid year for business aviation. 2023 aircraft deliveries will reach 2019 levels, which was a decade high. The Honeywell Global Business Aviation Outlook projects 8,500 new business jet deliveries in the next decade.



Honeywell

ABOUT THIS FORECAST

For more than three decades, business aviation professionals have relied on the Honeywell Global Business Aviation Outlook to provide an in-depth view of this dynamic industry. For the 2023 edition of this report, we gathered and analyzed data from global economic forecasts, industry analysts' reports, aircraft manufacturers' development and production schedules, and other sources.

We also interviewed more than 100 nonfractional business aircraft operators who shared their aircraft-purchasing plans and provided other valuable insights about their intentions, preferences and concerns. The survey sample represents a broad cross section of the global business aviation community to create a clear picture of the market and enable us to analyze findings based on region, operating profile, aircraft class and other factors.

This annual process is just one of the methods Honeywell uses to stay in touch with the needs of our customers in this dynamic global industry. The findings inform our business planning efforts, technology development roadmaps and other core processes.

We hope you find the 2023 Outlook interesting and useful.



EXECUTIVE SUMMARY

Demand for business aircraft continues to be strong with business aviation operators planning to acquire an estimated 8,500 new business jets valued at \$278 billion between now and 2033. Those numbers are consistent with the findings of our previous Business Aviation Outlook and signal a positive trend as aircraft original equipment manufacturers reduce their backlogs and surpass pre-COVID 19 delivery levels.

As predicted a year ago, 2023 deliveries will see double digit growth from 610 reported in 2022. In fact, 2023 deliveries reached the highest point we've seen in a single year since 2009, when 850 aircraft rolled off aircraft manufacturers' production lines.

Honeywell foresees 810 new aircraft deliveries in 2024 as the OEM supply chains catch up with demand and reach a higher long-term baseline rate. Deliveries are expected to reach 860 in 2025.

“There is an air of confidence in the industry as operators share ambitious plans to acquire new aircraft and new buyers enter the market. The OEM supply chain is catching up with demand and we foresee several years of growth to reach a higher long-term delivery baseline.”

Heath Patrick President, Honeywell Aerospace Americas Aftermarket



KEY FINDINGS:



Many operators (29%) expect to fly more in 2024 than they did this year, while just 7% think their flight hours will go down. Those numbers haven't changed much from last year's report. We anticipate flight hours will begin to rise again starting in 2025.



Business aircraft purchase plans in the next five years will be equivalent to 19% of the current 2023 fleet, which is up from 16% reported by interviewed operators in last year's survey.

Many of these new jets will replace aircraft already in operators' fleets, but 3% of the purchase plan rates will come from operators increasing the number of aircraft they own.



The pace of new orders for business jets has slowed down while OEMs focus on meeting current demand by **significantly increasing production rates over the next several years.**



Today's passengers expect a better flying experience, creating a strong demand for business jets that can fly them farther, faster and with greater levels of comfort. **The largest business jets (or heavy/long-range business jets) will account for 37% of aircraft sales and more than 68% of value in the next 10 years.**



Finally, **a significant number of companies and individuals plan to wholly own their first aircraft or buy fractional shares for their first time, driving up total demand by about 500 aircraft by 2033** and boosting flying hours by 6%.

An estimated \$50 billion order backlog at the five largest business aviation OEMs has led to 18–24-month delivery lead times.¹ This is reflected in a steady demand for quality used business jets, which 28% of operators expect to purchase in the next five years.

Corporations are putting more effort than ever into their environmental, social and governance (ESG) initiatives, prompting them to also include flight departments in those efforts. For example, 12% of respondents are already using sustainable aviation fuel (SAF) blends to power their aircraft and 39% expect to move to SAF in the coming years. Overall, two-thirds expect to adopt new sustainability measures or increase their current efforts.

Operators feel generally positive about the state of their own flight departments in 2023. About 35% said they expect conditions in their operations to be better in 2024 and 58% said they will say the same.

The Outlook surfaced a number of concerns that could affect flight departments going forward, including the rising costs of fuel, maintenance services, spare parts and insurance. A number of respondents expressed concern about the state of the economy on their organization's flight operations. Others are more concerned about finding and keeping qualified pilots in the face of a growing pilot shortage.



“12% of respondents are already using sustainable aviation fuel (SAF) blends to power their aircraft and 39% expect to move to SAF in the coming years.”

Outlook Survey Respondents

¹ JETNET iQ Pulse – August 8 2023.pdf

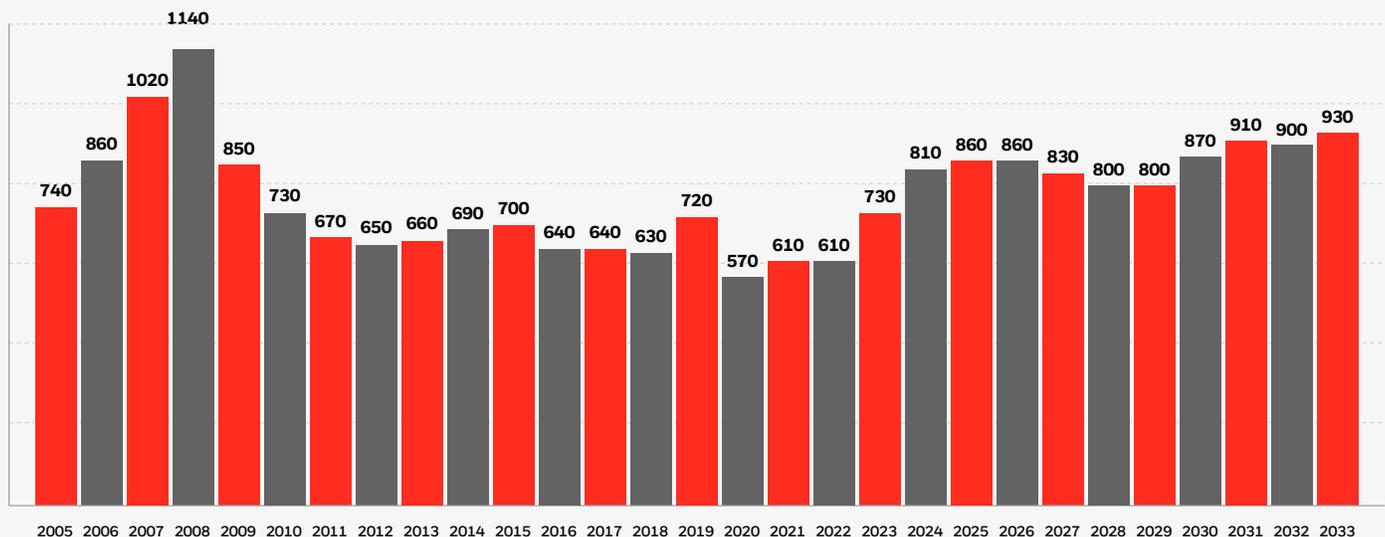
2023 BUSINESS AVIATION OUTLOOK FINDINGS

BUSINESS AVIATION GEARS UP 2023–2025 DELIVERY PLANS

Business aviation is leaving the COVID-19 doldrums behind and setting its sights on a more positive future. That's the conclusion Honeywell draws in its 32nd annual Business Aviation Outlook. This authoritative forecast is based on extensive analysis of reliable industry data, input from aircraft manufacturers and interviews with 100 business aircraft operators.

2023 BUSINESS JET DELIVERY FORECAST

Aircraft Deliveries by Year



Honeywell expects that up to 8,500 new business jets valued at \$278 billion will be delivered between 2024 and 2033. Those numbers are comparable to projections made in the 2022 Outlook.

We also see 2023 as a turning point with a 20% year-over-year increase in new aircraft deliveries, from 610 to 730. In fact, 2023 deliveries were the highest we've seen in a single year since 2009 when 850 aircraft were delivered.

This upward trend is forecast to continue for three years, with 810 deliveries expected in 2024 and 860 in 2025, as operators execute ambitious acquisition plans and OEMs catch up on their considerable backlogs. This upward trend will take the delivery forecast to a new higher baseline and usher in a multiyear period of consistent deliveries in the 800–930 per year range, according to the Outlook.



NEW AND USED BUSINESS JET PURCHASE PLANS TAKE OFF

Companies and individual owner-operators are more bullish on their buying plans in this year's Outlook. As a group, operators plan to make aircraft purchases equivalent to 19% of their current fleets in the next five years. This is up two percentage points from last year and the highest number we've seen since the 2018 Outlook. Operators plan to increase the size of their fleet at a rate totaling 3% of their current fleets – the highest fleet addition rate in a decade.

"I think we will be flying more than in 2023. Business is better, profitability is up and demand for the aircraft is also up."

– BRAZILIAN OPERATOR

"We are switching some aircraft platforms and buying new ones. We also are recruiting new aircrews, but it's getting harder to find pilots."

– U.S. OPERATOR



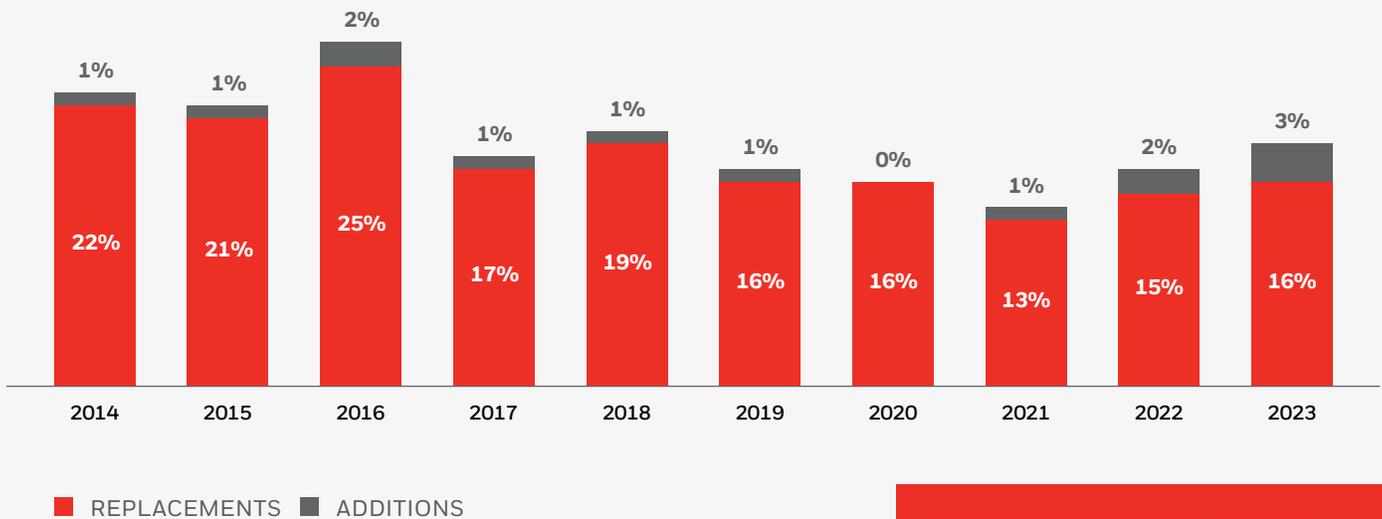
The trend toward more first-time aircraft owners that gained momentum during the global pandemic continues. Honeywell estimates that new owners will account for 500 aircraft purchases and 6% of flying hours over the next decade.



Operators are increasing the size of their current fleets by 3% overall – the highest growth number in a decade

FIVE YEAR PURCHASE PLANS FOR NEW JETS

Replacement & Expansion as a Percentage of Operators' Fleet



2023 PURCHASE PLANS UP TWO PERCENTAGE POINTS VS PREVIOUS YEAR AT 19%



30% of operators expect their aircraft to spend more time in the air in 2024 and 2023 flight activity is expected to finish at least 10% above 2019 levels

There continues to be solid demand – and limited availability – in the used jet market. Operators are looking to replace 27% of their fleets with “new-to-us” used jets, down 1% from last year’s estimate. Not surprisingly, long lead times of 18-24 months from OEMs for new business jets is one factor driving demand for used aircraft.

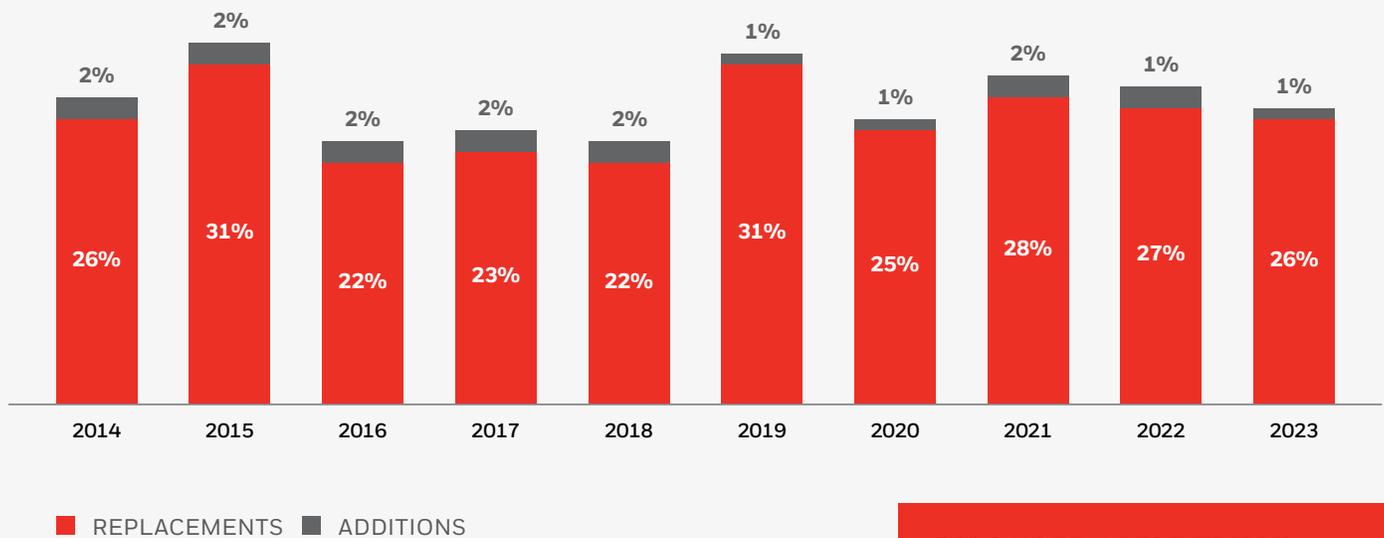
About 30% of operators expect their aircraft to spend more time in the air in 2024, which is roughly comparable to last year’s findings. Just 7% expect to fly less in the year ahead. Nonetheless, 2023 flight activity is expected to finish at least 10% above 2019 levels.

“We’re expanding the fleet and expecting to see more activity in the coming year.”

European Operator

FIVE YEAR PURCHASE PLANS FOR USED JETS

Replacement & Expansion as a Percentage of Operators’ Fleet



2023 USED JETS DEMAND DOWN 1PPT FROM 2022, EQUIVALENT TO 27% FLEET

WHERE IN THE WORLD IS BUSINESS AVIATION GROWING?

The majority of business jets are based in North America and that trend is bound to continue for the foreseeable future. Nearly two-thirds (64%) of new aircraft will land with North American operators in the next five years. Their bullishness may reflect the region's overall optimism since 90% of North American respondents believe the economy will improve or at least stay the same.

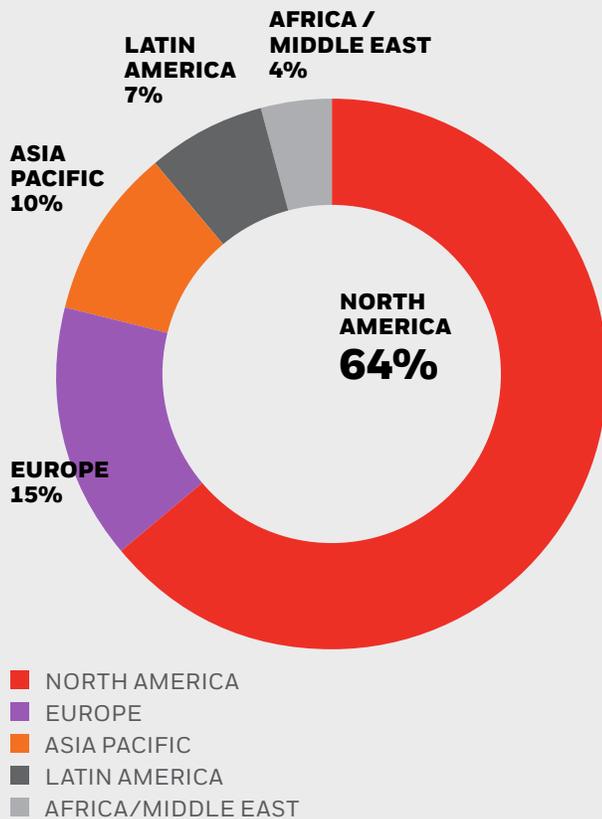
European operators will make up 14% of the five-year new jet deliveries. This is 1 percentage point below last year's share, driven by economic uncertainty and the continent's strong focus on sustainability.

Operators in the Latin American region will make up 5% of global deliveries in the next five years, which also is down slightly from the number reported in the 2022 Outlook. Nearly 70% of Latin American operators report that local economic conditions will remain the same or decline in the near future, making this region the most pessimistic.

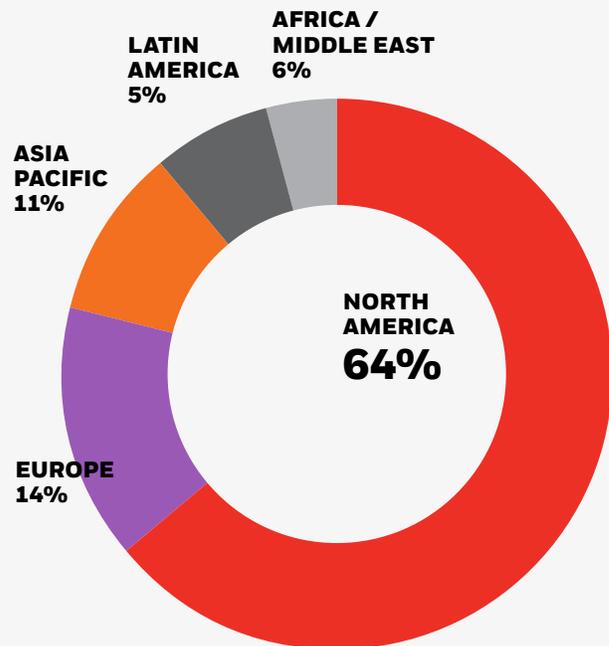
Business aviation is projected to grow slightly in Asia Pacific, Middle East and Africa. APAC will be responsible for 11% of new jet demand over the next five years, up 1 percentage point from last year. Growth is up from 4% in 2022 to 6% in 2023 in the Middle East and Africa.



JET DELIVERIES BY REGION 2022



JET DELIVERIES BY REGION 2023



NORTH AMERICA CONTINUES TO CAPTURE MOST OF THE DEMAND AT 64%

Figure 1 Regional Five-Year Demand for New Jets



LARGER CABIN JETS GROW IN POPULARITY

Aircraft operators continue to show a strong preference for heavy/long-range business jets in the 2023 Outlook. Thirty-seven percent of projected deliveries are for aircraft in this size class, including large cabin, long range, ultra-long range and very high speed ultra-long-range models, along with jet airliner class business aircraft. Investment in heavy/long-range aircraft will account for 68% of delivery value, which is roughly equivalent to the number reported in last year's Outlook.



Aircraft operators show a strong preference for heavy long-range business jets in the 2023 Outlook

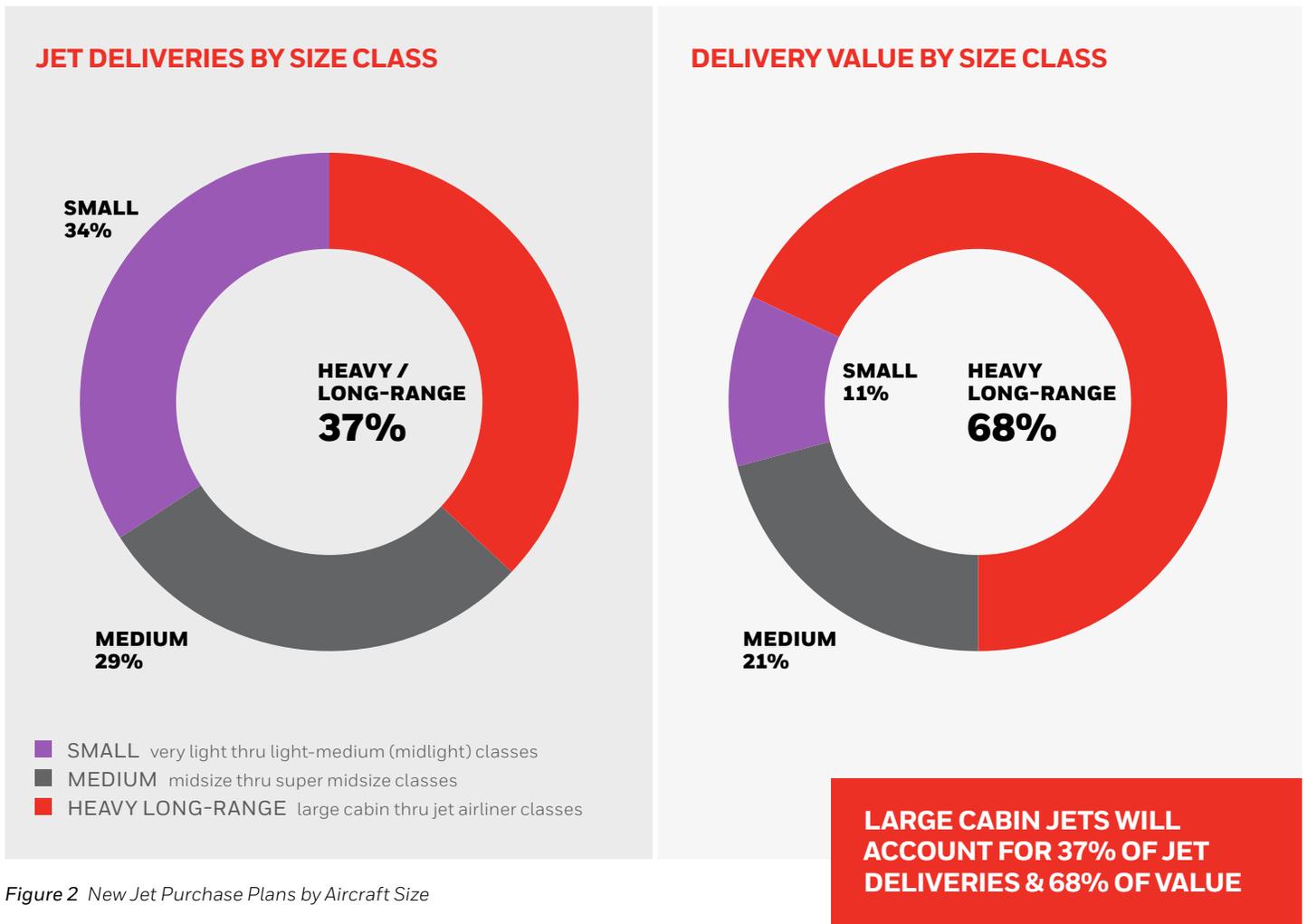


Figure 2 New Jet Purchase Plans by Aircraft Size

MOVING THE NEEDLE ON SUSTAINABILITY

There is strong interest in sustainable aviation fuel (SAF) in the business aviation community, with almost 40% of operators listing SAF as one of their future methods for reducing their flight department's environmental impact. That number is up slightly from last year's findings, but it's about twice as high as response to the same question in the 2021 Outlook.

"We purchased a more fuel-efficient aircraft in 2022."

– U.S. OPERATOR

"It's important to have a sustainable energy source that doesn't take away from the performance of the airplane."

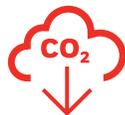
– U.S. OPERATOR

Renewable fuels can reduce carbon emissions by up to 80%² over the lifecycle of their production and use. Their use in jet engines and auxiliary power units (APUs) is one way flight departments can help achieve their corporate parents' sustainability goals, comply with ever-evolving environmental regulations and keep up with industry best practices, including National Business Aviation Association (NBAA) carbon-reduction commitments.

Two-thirds of operators plan to adopt or increase their sustainability efforts moving forward with many (28%) exploring the use of carbon offsets. Some flight departments plan to fly commercial more often, fly at slower cruise speeds or rideshare to reduce carbon emissions. More than 40% currently lack a sustainability program.³



40% of operators list SAF as one of their future methods for reducing their flight department's environmental impact – twice as high as in 2021 Outlook



Two-thirds of operators plan to adopt or increase their sustainability efforts moving forward with many (28%) exploring the use of carbon offsets

² Honeywell Ecofining™ is a proven technology that has been used around the world for years. It produces sustainable aviation fuel (SAF), which helps reduce GHG emissions up to 80% when compared to the emissions from fossil fuels. GHG reductions are based on LCA analyses conducted at Michigan Technological University under the direction of Dr. David Shonnard.

³ [Business Aviation Pledges Net-Zero Carbon By 2050 and Increasing Fuel Efficiency as Part of Renewed Climate Commitments | NBAA – National Business Aviation Association](#)



HONEYWELL COMMITS TO CARBON NEUTRALITY BY 2035

Honeywell helps customers in business aviation and other industries improve safety, efficiency and sustainability. You can read about Honeywell innovations for more sustainable aviation in our [Flight Plan for a Net Zero Future](#) whitepaper.

We also are working to make our own operations and facilities carbon-neutral by 2035 – 15 years ahead of the deadline set in the Paris Agreement. Honeywell greenhouse gas emission intensity is down 90% since we introduced our sustainability system in 2004 and about half our research and development investments for new products are focused on things that will improve environmental, safety and social outcomes for our customers and the planet. To learn more, download our [2023 ESG report](#).

↓ 90%

Honeywell greenhouse gas emission intensity is down 90% since 2004

4 WAYS FLIGHT DEPARTMENTS CAN REDUCE ENVIRONMENTAL IMPACT:



1. BEGIN USING SUSTAINABLE AVIATION FUEL, which can reduce greenhouse gas emissions by as much as 80% compared to conventional jet fuels. Honeywell UOP pioneered the original SAF production process using fats, oils and greases. This year, we announced new processes to make SAF from ethanol and methanol, enabling SAF to be made from crop wastes and even from CO2 that has been recovered from flue gas or air. Our Honeywell HTF series engines, other propulsion engines and APUs are certified now to burn 50-50 SAF blends and will be ready to use 100% SAF by the end of the decade.



2. CONSIDER CARBON OFFSET PROGRAMS that let flight departments offset their environmental footprint by paying to reduce greenhouse gas emissions elsewhere. While this may sound complicated, multiple programs and offset calculators are available online by searching “business jet carbon offsets” or “business jet carbon offset calculator.”



3. FLY THE MOST EFFICIENT FLIGHT PROFILE, which usually means flying the most direct route possible from point to point, using the flight management system and taking advantage of innovations like performance based navigation that help pilots fly the most efficient route.



4. CONSIDER UPGRADING YOUR AIRCRAFT, because new-generation business jets and turboprops have more efficient engines, burn much less fuel and produce fewer emissions. They also come equipped with advanced avionics, communications systems and the cabin amenities business aircraft passengers crave.



HONEYWELL DELIVERS FOR BUSINESS AVIATION OPERATORS

For more than a century Honeywell has been finding ways to make flying safer, more efficient and more comfortable. Today we're a leading provider of aircraft engines and auxiliary power units, cockpit and cabin electronics, wireless connectivity systems, mechanical components and much more for leading [business jets](#) in every class segment, from very light to very high speed ultra-long range.

To hear more about how our products, systems and software solutions can improve your operations, visit us online or contact your Honeywell representative.



For more information

To hear more about how our products, systems and software solutions can improve your operations, visit us online or contact your Honeywell representative aerospace.honeywell.com

Honeywell Aerospace

1944 East Sky Harbor Circle
Phoenix, AZ 85034
aerospace.honeywell.com

N61-3191-000-000 | 01/24
© 2024 Honeywell International Inc.

Honeywell