

American Airlines 

American Airlines Sustainability Report 2024



We refer to the airports below by their IATA three-letter codes throughout this report:

- CLT:** Charlotte Douglas International Airport

DCA: Ronald Reagan Washington National Airport

DEN: Denver International Airport

DFW: Dallas Fort Worth International Airport

EWB: Newark Liberty International Airport

JFK: John F. Kennedy International Airport

LAX: Los Angeles International Airport

LGA: LaGuardia International Airport
- LHR:** London Heathrow International Airport

MEX: Mexico City International Airport

MIA: Miami International Airport

ORD: Chicago O'Hare International Airport

PHL: Philadelphia International Airport

RDU: Raleigh-Durham International Airport

SEA: Seattle-Tacoma International Airport

SFO: San Francisco International Airport



About American Airlines and This Report

American Airlines Group Inc. is a holding company whose primary business activity is the operation of a major network carrier headquartered in Fort Worth, Texas, providing scheduled air transportation for passengers and cargo through our mainline operating subsidiary, American Airlines, Inc., and our wholly owned regional airline subsidiaries, Envoy Air Inc., PSA Airlines, Inc. and Piedmont Airlines, Inc., as well as contracted third-party regional carriers. American Airlines Group Inc. and our wholly owned subsidiaries are hereafter referred to collectively as “American.” The term “regional carriers” refers only to those owned by American.

American is committed to providing regular and transparent information about our strategies and performance on the sustainability issues that we believe are most important to our company and stakeholders. This sustainability report includes a discussion of American's approach to managing those sustainability issues, along with highlights of our progress and performance in sustainability in 2024. It covers only the activities of American Airlines Group Inc. that are consolidated for financial reporting, except where specifically indicated otherwise. Unless noted otherwise, the performance data presented in this report are for the 12 months ending December 31, 2024.

This report generally aligns with relevant sections of the [Task Force on Climate-related Financial Disclosures](#) (TCFD) and the standard for the airline industry developed by the [Sustainability Accounting Standards Board](#) (SASB). We view both these reporting frameworks as important indicators of the sustainability issues that many of our stakeholders consider most significant. See [page 96](#) in this report for certain forward-looking statements.



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A Message From Our CEO

I feel privileged to work in an industry, and for a company, that serves the vital role of enabling human connection, broadening horizons and expanding opportunities. Nearly 90% of Americans have taken a commercial flight in their lifetime. In 2024 alone, our company flew more than 225 million customers to destinations around the world.

Over the course of my career, I've witnessed many exciting advances, and I am proud to be part of a pioneering industry that has opened the benefits of air travel to many in such a short period of time. Technological innovation has fueled our industry's progress. And we know that, among the many innovations that will define the next era in aviation, our industry will continue relying on technological advancements to meaningfully reduce our carbon footprint. As we look to that future, further innovation will be critical to keeping air travel widely available and more sustainable.

Finding those new innovations will be no small feat, as it will require enacting the policies and securing the investment needed to bring new technologies to scale at market prices, even as we work to keep travel affordable and strengthen our competitive position.

At American, we're taking steps within our operations and across all the levers we can control to become more fuel efficient and sustainable. Among other things, we're investing in more fuel-efficient aircraft and engines; we're harnessing smart-gating technology and other strategies to reduce unnecessary fuel burn on the ground; and we're advocating for a new, more modern, air traffic control system that will improve routing and make air travel more efficient.



CEO Robert Isom



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But the reality is that, in the absence of concerted, collective action across the public and private sectors, our company — and our industry — will not achieve our sustainability goals.

Building the future of sustainable aviation will require advances in airframe, engine and fuel production technologies, combined with smart policies, significant investment and effective collaboration to bring those technologies to scale. This simply isn't happening at the pace or scale needed. The aircraft American buys today are going to be in service for many years, which means the decisions and investments that we, our industry partners and the public sector make — or fail to make — in 2025 will reverberate to 2050 and beyond. We can't afford to delay.

Another critical part of building a thriving, resilient airline for the future is attracting and retaining the best talent. In 2024, we hired more than 20,000 team members, the vast majority in the United States, in roles including pilots, mechanics, flight attendants, dispatchers, engineers and technologists. We now have more than 140,000 team members and more workers represented by unions than any other U.S. airline. Our team members are the reason American has grown, innovated and succeeded for nearly 100 years — and they will be the key to our success for the next 100 and beyond. Across every level of our organization, we seek out and welcome the broadest pool of talent available. Then we invest in our people to help them develop the skills and expertise our company needs to thrive today and in the future.

Most importantly, our purpose at American Airlines is to care for people on life's journey. This isn't simply a tagline for us. We view it as a solemn responsibility and the why behind what we do every day.

All of us at American hold in our hearts those who were lost in the tragic accident involving American Eagle Flight 5342 earlier this year. I am grateful for the work of our CARE Team, which stepped up to care for the families and loved ones of those on board. And moving forward, our Office of Continued Care and Outreach will focus on supporting those directly affected by this tragedy.

American remains focused on our unwavering commitment to safety, and we continue to work with the U.S. government and the industry to make our aviation system even safer.

I am honored to be a part of the American Airlines team as we continue to live out our purpose and help usher in the next era of aviation.

Robert Isom

Chief Executive Officer

July 2025



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SUSTAINABILITY STRATEGY

We believe that sustainability is critical to running a resilient, profitable enterprise that will thrive over the long term. Our strategy focuses on protecting the safety of team members and customers, attracting and developing top talent, providing a world-class travel experience and positioning American to compete in a low-carbon economy.

We have long recognized the importance of sustainability issues and have developed an integrated and transparent approach to related oversight, management, measurement, assurance and reporting. We believe we are making progress, but we continue to look to best practices within and outside our industry as we refine and strengthen our approach.

Our Priority Sustainability Issues

We periodically conduct sustainability-focused materiality assessment processes that serve as the foundation of our analysis of areas of sustainability risk and opportunity to identify priority sustainability issues. Our most recent process took place in 2023. For more information on our approach to materiality, see [page 97](#).

Through ongoing engagement across our company and with a broad range of external stakeholders, we annually validate and, as needed, refine our assessment

In 2024, American Airlines was named to the [Dow Jones Best-in-Class World Index](#) for the second consecutive year, and we are one of only two passenger airlines included. This index comprises global sustainability leaders as identified by S&P Global through the Corporate Sustainability Assessment. It represents the top 10% of the largest 2,500 companies in the S&P Global Broad Market Index based on long-term economic, environmental and social criteria. American was also included in the [Dow Jones Best-in-Class North America Index](#) for the fourth year in a row.¹

based on the input we receive and on changes in our operating environment. We also continually monitor trends, standards, regulatory developments and practices relevant to our industry to inform our areas of focus. We recognize that the business landscape is evolving rapidly and that we must be ready to address new areas of concern if or when they emerge.

These activities have affirmed our focus on the following priority sustainability issues:

- Safety
- Human capital
- Customer satisfaction and operational performance
- Climate change and fuel efficiency

Driving progress across all these issues is a key objective for American. In addition, responsible sourcing is a topic of growing importance, and this report includes a discussion of our sourcing policies and practices.

¹ The Dow Jones Best-in-Class World Index and Best-in-Class North America Index were formerly known, respectively, as the Dow Jones Sustainability World Index and Sustainability North America Index. Their names were changed in February 2025.



Management and Governance of Sustainability Topics

American takes a coordinated approach to governance of sustainability issues, including climate-related risks and opportunities. It begins with Board-level oversight and extends to our day-to-day operations. American’s CEO, Robert Isom, has ultimate responsibility and authority for the company’s operations, results

Key Roles and Responsibilities

Board Level	Sustainability-Related Focus Area
Full Board	American’s Board of Directors is the company’s ultimate oversight body. It receives regular reports from each of the standing committees, and it also regularly reviews significant issues, such as operational performance, customer satisfaction and labor relations. It also receives periodic briefings from management on our cybersecurity risk management program. The Board is currently made up of 11 independent directors, including a nonexecutive Chair and our CEO.
Audit Committee	The Audit Committee has oversight of our approach to business conduct, compliance and ethics. In this role, it acts on behalf of the Board to oversee the integrity of the company’s financial statements, the independent auditor’s qualifications and independence, and the performance of both American’s internal audit function and our independent auditor. Additionally, this committee oversees ethics and compliance, receiving regular briefings on the topic. It also oversees risk management policies that relate to cybersecurity and artificial intelligence.

and financial performance. The CEO leads our Senior Leadership Team (SLT), which manages the strategic direction of our business, including the priority sustainability issues described in this report. SLT members are, in turn, responsible for managing and implementing the company’s programs in their respective areas.

Board Level	Sustainability-Related Focus Area
Compensation Committee	The Compensation Committee has oversight responsibility for our human capital matters, including compensation and benefits.
Corporate Governance and Public Responsibility (CGPR) Committee	The CGPR Committee has primary oversight of American’s sustainability efforts, including our climate strategy. Its purpose also includes oversight of political activities and the procedures for compliance with significant applicable legal, ethical and regulatory requirements that impact corporate governance and public responsibility.
Finance Committee	The Finance Committee has oversight responsibility for the company’s capital expenditures and commitments, including investments in new aircraft.
Safety Committee	The Safety Committee has oversight responsibility for American’s policies, programs and practices with respect to operational safety and compliance, as well as matters affecting the safety of our customers and employees, including security and public health. Its purpose also includes oversight of the procedures for compliance with significant applicable legal, ethical and regulatory requirements related to safety.



Management Level	Sustainability-Related Focus Area
Safety	American’s Chief Operating Officer (COO), who reports to the CEO and serves on the SLT, is responsible for safety across American, including Airport Operations, Flight Operations, Technical Operations, Inflight and Cargo Operations. The COO is supported by a Vice President, Safety, who leads a team that works in concert with leaders across American to strengthen the company’s safety management practices and performance.
Human Capital	American’s Chief People Officer, who reports to the CEO and serves on the SLT, leads all aspects of our people strategy, including talent and recruitment, compensation and benefits, and learning and development.
Customers	In 2025, we appointed a Chief Customer Officer to lead American’s newly created Customer Experience organization, which drives the strategy and coordinates the implementation of initiatives that define our customers’ journeys. This executive reports to our Vice Chair and Chief Strategy Officer and works closely with our COO, who is responsible for the company’s operational performance.
Environmental Sustainability	American’s Executive Vice President of American Eagle, Corporate Real Estate and Government Affairs, who reports to the CEO and serves on the SLT, is responsible for the company’s environmental sustainability strategy, policies and progress, as well as the company’s broader sustainability reporting and disclosure, including related to climate change. This executive is supported by a Vice President, Sustainability, who leads a team that works in concert with leaders across American to strengthen the company’s sustainability performance.

Climate-related governance

At the management level, the Board has formally assigned our CEO the responsibility for management of our climate change strategy. Our Vice President, Sustainability, coordinates and leads the development of American’s climate strategy with input and guidance from the Sustainability Steering Committee, a cross-functional and cross-operational group of senior leaders charged with assessing the effectiveness of our sustainability strategy, its implementation and further integration of sustainability into American’s strategy and operations.

We have embedded responsibility for specific climate-related issues in senior roles across our company. For example, the Operations team conducts resiliency planning for more frequent and severe weather events, our Fuel Procurement team works to secure cost-effective supplies of sustainable aviation fuel, and our Flight Operations and Fleet Engineering teams are focused on improving fuel efficiency in the air and on the ground.

Climate-related risk management

Through our existing enterprise-wide risk management process, American monitors and manages a broad range of strategic, financial and operational risks, including risks associated with climate change. To inform our understanding of the climate risk landscape, we conducted our first forward-looking climate scenario analysis in 2020, focused on identifying and assessing the physical and transition climate-related risks and opportunities facing the company over the short, medium and long term.

We review and update this work as needed, such as with the more detailed analysis of climate-related risks and opportunities we carried out in 2022 and early 2023. This included adding 1.5°C climate scenarios into our assessment, as



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well as expanding the number of sites included in the physical risk evaluation, exploring geographic regions around the world in which we operate that are projected to experience greater impacts, and examining more closely the effects of potential changes in policy, technologies and markets. We are building on this work in 2025 by re-examining physical risks at our hubs and engaging with DFW, our largest station, to better understand their climate resilience efforts. We also updated the scenarios we use to be consistent with the latest research from the UN Intergovernmental Panel on Climate Change and extended the time horizon for each iteration to better understand our risk.

The insights from this process, conducted in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), continue to inform our climate strategy and are enabling us to more deeply integrate climate risk analysis into our ongoing risk management and business, strategy and financial planning processes. For details, see [page 66](#).

Public Policy and Political Contributions

Political, legislative and regulatory decisions can have a significant impact on American's success, and we have adopted policies that guide our participation in these processes. Reflecting best practices, our [Statement on Public Policy Engagement and Political Participation](#) describes how management and the Board of Directors oversee American's public policy engagement and the policy considerations that influence such engagement.

We do not use corporate funds to contribute to candidates, political party committees or political action committees. On the rare occasion when we use corporate funds to contribute to a state or local ballot initiative or a 501(c)(4) organization, we have committed to disclosing that contribution.

The CGPR Committee oversees the company's major advocacy priorities and activities, political contributions and principal trade association memberships. Our lobbying on climate policy reflects our commitment to reach net zero emissions by 2050.

For more information on American's policies and procedures related to corporate governance and risk, as well as our Standards of Business Conduct, please see our [website](#).





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ENVIRONMENTAL SUSTAINABILITY

We believe that pursuing a low-carbon future is a key business imperative that will allow American to remain competitive. It will position us, and our industry, to continue serving customers for generations to come. While we have made progress, aviation remains one of the most difficult industries to decarbonize.

We firmly believe that our goal to achieve net zero greenhouse gas (GHG) emissions by 2050 is the right and necessary one. However, we acknowledge that achieving it — as well as our intermediate 2030 and 2035 targets — will be a significant challenge. Doing so will depend on meaningful collaboration and investment within our industry and across the public and private sectors. Within our own business and in our engagement with partners, policymakers and other stakeholders, we are working to implement, support and advocate for the operational, policy and technological advances that will enable the transition to low-carbon aviation.

Our climate strategy is shaped around several key levers, all of which will play an important role in enabling us to reduce our emissions. While the ability to implement many of the levers at scale is beyond our control, we are committed to working to improve the efficiency of our own operations and partnering with other businesses, policymakers, scientists and innovators to advance the aviation industry's decarbonization solutions. Our strategy is underpinned by our ongoing analysis of the climate-related risks and opportunities facing our company. For a detailed discussion of our process and findings, see [page 66](#).



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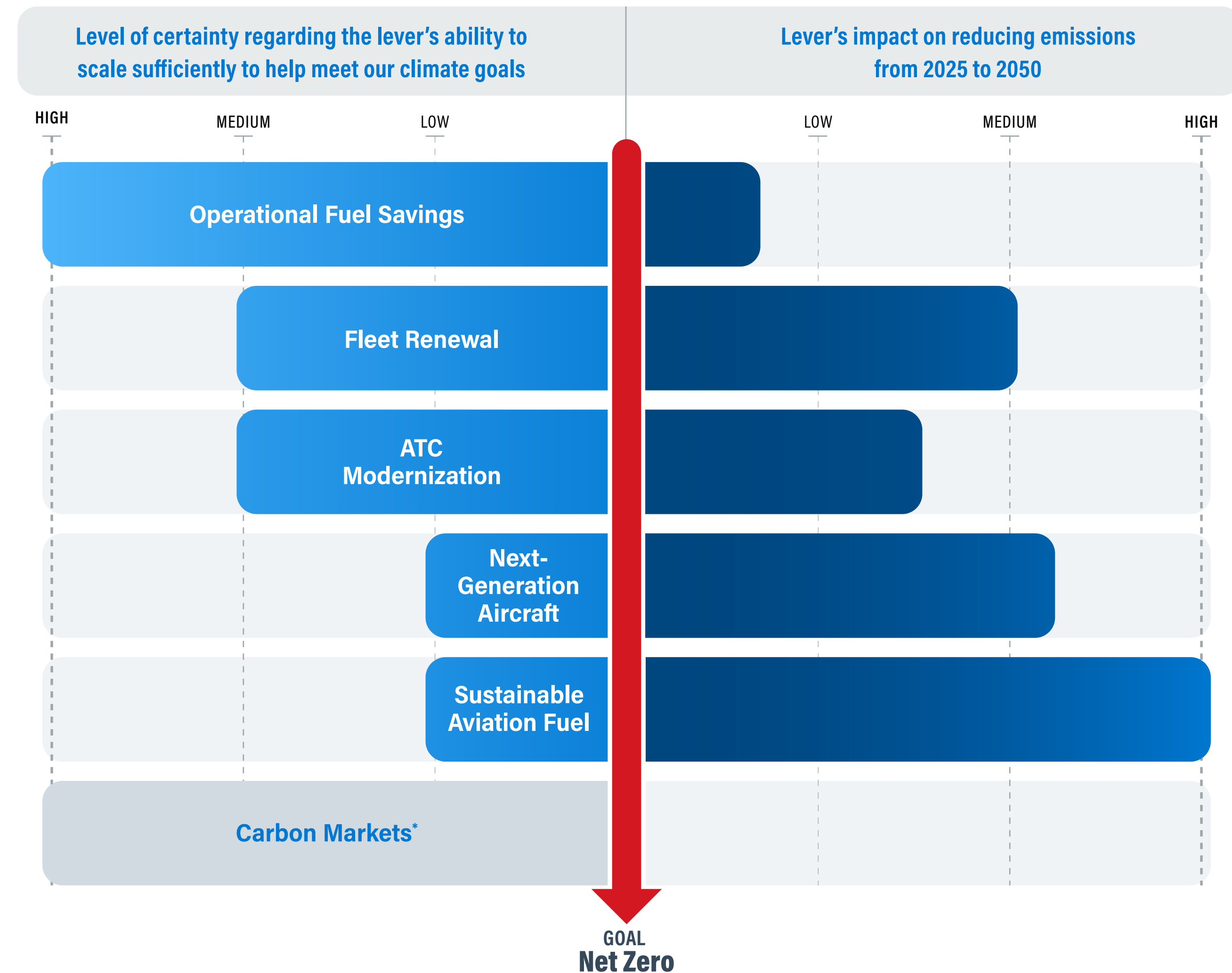
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Levers to Net Zero



Acknowledging Uncertainty on the Path to Net Zero

While American's goal to achieve net zero emissions by 2050 remains unchanged, we recognize that there is uncertainty around our ability to drive progress across the key levers that will enable us to decarbonize. The accompanying infographic illustrates our estimate of each lever's potential decarbonization impact and the degree of certainty regarding its ability to reduce emissions over the next 25 years.

A key challenge for American is that the levers with the greatest emissions-reduction potential also have the lowest degree of certainty in their ability to scale. For example, we believe sustainable aviation fuel (SAF) has the potential to drive significant emissions reductions, but our ability to expand its use within our operations will depend on many factors outside our control, such as policy, investment in feedstock and facilities, and technological developments. Ultimately, the pace at which SAF availability increases and its price premium decreases will play a large role in its future potential to reduce emissions.

As American advances our climate objectives, we will strive to be realistic about the uncertainties inherent in making forecasts. While we expect to adjust our outlook along the way, we will continue, where we are able, to facilitate advancements that support these decarbonization levers and our pathway to net zero.

* Our strategy focuses on in-sector reduction levers, but we recognize the role of market-based mechanisms to address our residual emissions. While the market for these mechanisms continues to evolve, we currently expect to be able to source high-quality offsets for our 2050 net zero goal.

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Aligning Our Capital Investments With Our Net Zero Pathway

More than half of American's capital spending — from the billions of dollars we have invested in our fleet to our ongoing fuel-saving initiatives — enhances our profitability, reliability and accountability, with the added benefit of supporting our GHG reduction targets. **Approximately 55% of our total capital expenditures in 2024 were allocated to efforts that also provide decarbonization benefits.** This percentage is lower than in the years prior largely due to fewer aircraft deliveries, in part stemming from production delays. However, we anticipate accepting more next-generation aircraft, which are more fuel efficient, in 2025.



Spend Type	Strategy Lever	Decarbonization Effort	What We Did in 2024
Capital Expenditures	 Fleet renewal	Putting into service new, more fuel-efficient aircraft and engines	› Took delivery of five aircraft from the Airbus A320neo family and seven aircraft from the Boeing 737 MAX family of aircraft in 2024; expecting the delivery of 38 latest-generation aircraft in 2025
	 Flight operations and efficiency	Retrofitting existing aircraft with measures to improve efficiency	› Replaced steel brakes with lighter carbon brakes on our Boeing 737 fleet, reducing inflight weight › Retrofitted one Boeing 737-800 and kicked off a retrofit program for our Airbus A319 aircraft to increase seating, which reduces emissions on a per-passenger basis
		Electrification of ground service equipment (GSE)	› Added electric units to our GSE fleet in several locations
	 Airspace modernization	Airspace system improvements that increase efficiency	› Completed efforts to equip entire Airbus A321 fleet with Automatic Dependent Surveillance-Broadcast In (ADS-B In) capabilities
Other Investment-Related Commitments	 SAF	Agreements to purchase SAF	› Entered offtake agreement with electrofuels (eFuels) producer Infinium; we expect to take delivery of Infinium SAF as early as 2027
	 Next-generation aircraft	Low- and no-carbon aircraft advancements	› Entered into conditional purchase agreement for 100 hydrogen-electric engines intended to power regional jet aircraft with zero flight emissions apart from water vapor



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Leading the Way in Global Collaboration

In 2024, we hosted the International Air Transport Association (IATA) World Sustainability Symposium in Miami, Florida, bringing together more than 500 stakeholders to advance the policies, partnerships and investments needed to decarbonize commercial aviation. Recognizing that the challenge of net zero is large and complex, this annual forum provides attendees the opportunity to come together across the public and private sectors to share lessons learned, identify areas for near-term collaboration, and align on long-term strategy.

Our Goals and Progress

Our strategy is focused on driving progress across several key levers. Below are the components of our strategy, goals and progress through 2024.

OVERARCHING STRATEGY	› Working across all levers to transition to operating a resilient, competitive and low-carbon airline
GOALS ¹	› Target net zero emissions by 2050 › Reduce GHG emissions intensity by 45% by 2035 ²
2024 HIGHLIGHTS	› 9.3% improvement in fuel efficiency compared with 2013, avoiding nearly 26.8 million metric tons of CO ₂ e › 27,000 metric tons of CO ₂ avoided through use of renewable fuels

STRATEGY LEVER	FLEET RENEWAL AND FUEL EFFICIENCY Operating our modernized fleet and associated operations as efficiently as possible to reduce fuel use and emissions
GOALS ³	Fly 30% of our available seat miles (ASMs) with latest-generation, more fuel-efficient aircraft in 2025
2024 HIGHLIGHTS	Flew 26.3% of ASMs with latest-generation aircraft; approximately \$11.4 billion — or just over 21% — of our revenue in 2024 stemmed from operating these aircraft

1 American has also set a SBTi-validated target to reduce our Scope 2 emissions by 40% by 2035, and we maintained our performance against that goal in 2024.

2 See SBTi Aviation Tool carbon intensity on [page 85](#).

3 Previously, we reported a goal of achieving an absolute reduction of 50 million gallons of jet fuel from fuel efficiency initiatives by 2025 (calculated based on jet fuel use by mainline aircraft in our fleet as of 2019 that continued to be flown). We remain committed to fuel-efficiency initiatives; however, we have decided to retire this goal, as normalizing against changes in utilization, payload and other factors did not produce decision-useful and actionable results.



STRATEGY LEVER	NEXT-GENERATION AIRCRAFT Investing to advance the development of low- and no-carbon aircraft that can be integrated into our fleet
GOALS	› Induct zero-emissions, hydrogen-powered aircraft into our fleet by 2032 or earlier
2024 HIGHLIGHTS	› Became the largest airline to sign a conditional purchase agreement for 100 of ZeroAvia’s hydrogen-electric engines intended to power regional jets, building on our 2022 investment in that company to help advance hydrogen propulsion

STRATEGY LEVER	SUSTAINABLE AVIATION FUEL Purchasing and helping scale SAF production
GOALS ⁴	› Replace 10% of our jet fuel with SAF in 2030
2024 HIGHLIGHTS	› Used 2.9 million gallons of SAF in 2024, representing less than 0.1% of our 2024 total fuel use › Agreed to purchase up to 10 million gallons of SAF from Valero for delivery to ORD by the middle of 2026 ⁵ › Became a founding member of the SAF Coalition, launched by airlines and others in the SAF ecosystem to advocate for the federal incentives and other policies needed to rapidly scale the production of cost-competitive SAF in the United States

4 In addition to our SAF goal, we previously reported a goal related to jet fuel production (upstream). We have set a target of a 40% reduction in average emissions intensity from the production of the jet fuel we purchase by 2035 (as compared to 2019 levels). We remain committed to engaging with our jet fuel suppliers to encourage them to reduce GHG emissions, and we maintained our performance against this goal in 2024.

5 We signed the SAF purchase agreement with Valero in 2025.

STRATEGY LEVER	AIRSPACE EFFICIENCY AND MODERNIZATION Supporting airspace system improvements that increase efficiency while prioritizing safety
GOALS	› Work with policymakers to secure appropriate support for global aviation infrastructure, technology, staffing and services to improve efficiency
2024 HIGHLIGHTS	› Adopted a flight planning optimization technology to increase on-time performance, minimize emissions and promote safety › Continued trial of ADS-B In capability on aircraft, which enables pilots to optimize flight paths, thereby reducing emissions and enhancing safety; equipped entire A321 fleet with ADS-B In capabilities

STRATEGY LEVER	CARBON MARKET Participating in the voluntary carbon market for both in-sector and out-of-sector mechanisms that aim to neutralize aviation’s residual emissions
GOALS	› Utilize carbon offsets and removals after exploring in-sector decarbonization tools
2024 HIGHLIGHTS	› Onboarded new technology tools to help our customers meet their decarbonization goals



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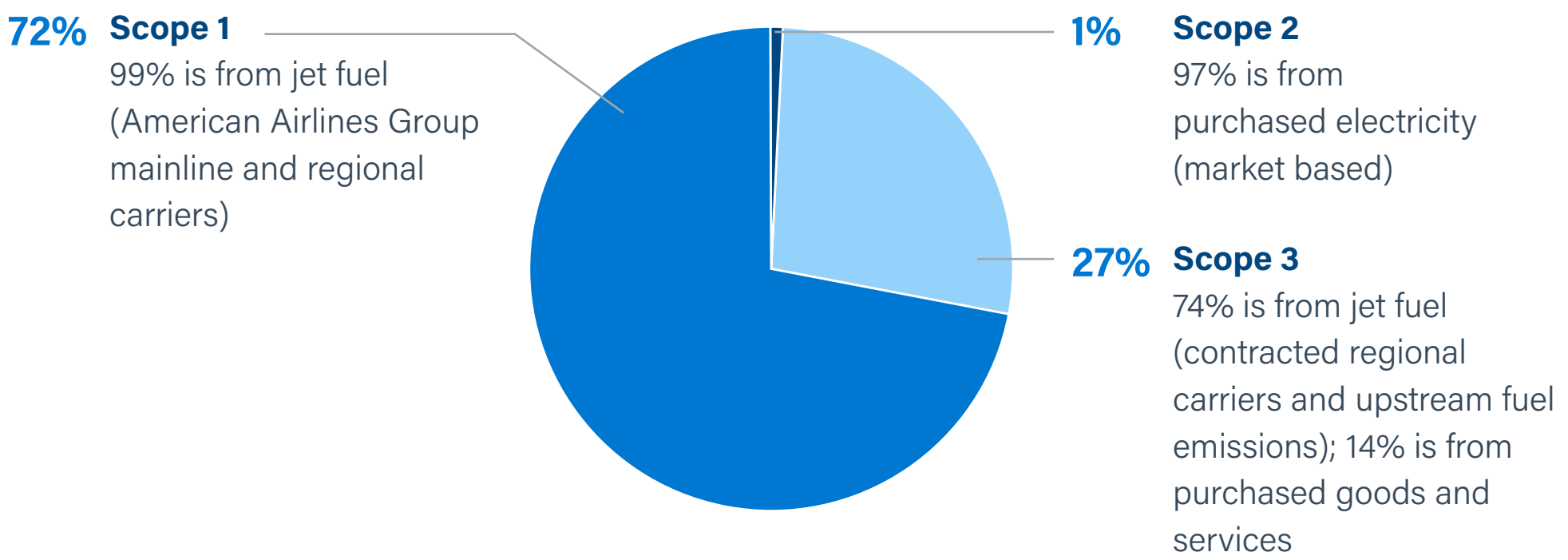
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Our Carbon Footprint

GHG Emissions in 2024 (% by scope)



Allocated Emissions Factors per Revenue Passenger Mile (RPM)⁶

AIRCRAFT	KG CO ₂ e/RPM		AVERAGE MILES TRAVELED
	BUSINESS	ECONOMY	
Regional one-class	—	0.363	286
Regional two-class	0.440	0.247	509
Narrowbody legacy	0.282	0.144	928
Narrowbody latest generation ⁷	0.199	0.101	1,549
Widebody legacy	0.351	0.101	4,192
Widebody latest generation ⁷	0.318	0.089	4,253

Emissions From Renewable Fuels in 2024 (in metric tons)⁸

EMISSIONS CATEGORY	SAF	RENEWABLE DIESEL	ETHANOL	TOTAL
Biogenic emissions (CO ₂)	26,712	1,017	3,179	30,908
Scope 1 emissions from CH ₄ and N ₂ O	209	3	3	216
Scope 3, Category 3	8,406	481	2,289	11,176
In-scope emissions from renewable fuels	8,615	484	2,292	11,392
Avoided emissions through the use of renewable fuels	(24,634)	(821)	(1,947)	(27,402)

6 To estimate the kilograms of CO₂e emissions for a given trip, multiply the applicable factor in the table by the distance of the trip in miles. These factors represent direct (tank-to-wake) emissions, excluding the emissions benefit from voluntary SAF purchases assigned to specific customers.

7 Latest generation aircraft includes the newest, most fuel-efficient aircraft in our fleet: Boeing 737 MAX, Airbus A321neo, Boeing 787-8 and Boeing 787-9. Legacy aircraft encompasses all other mainline aircraft.

8 Emissions figures may reflect rounding.

Fleet Renewal

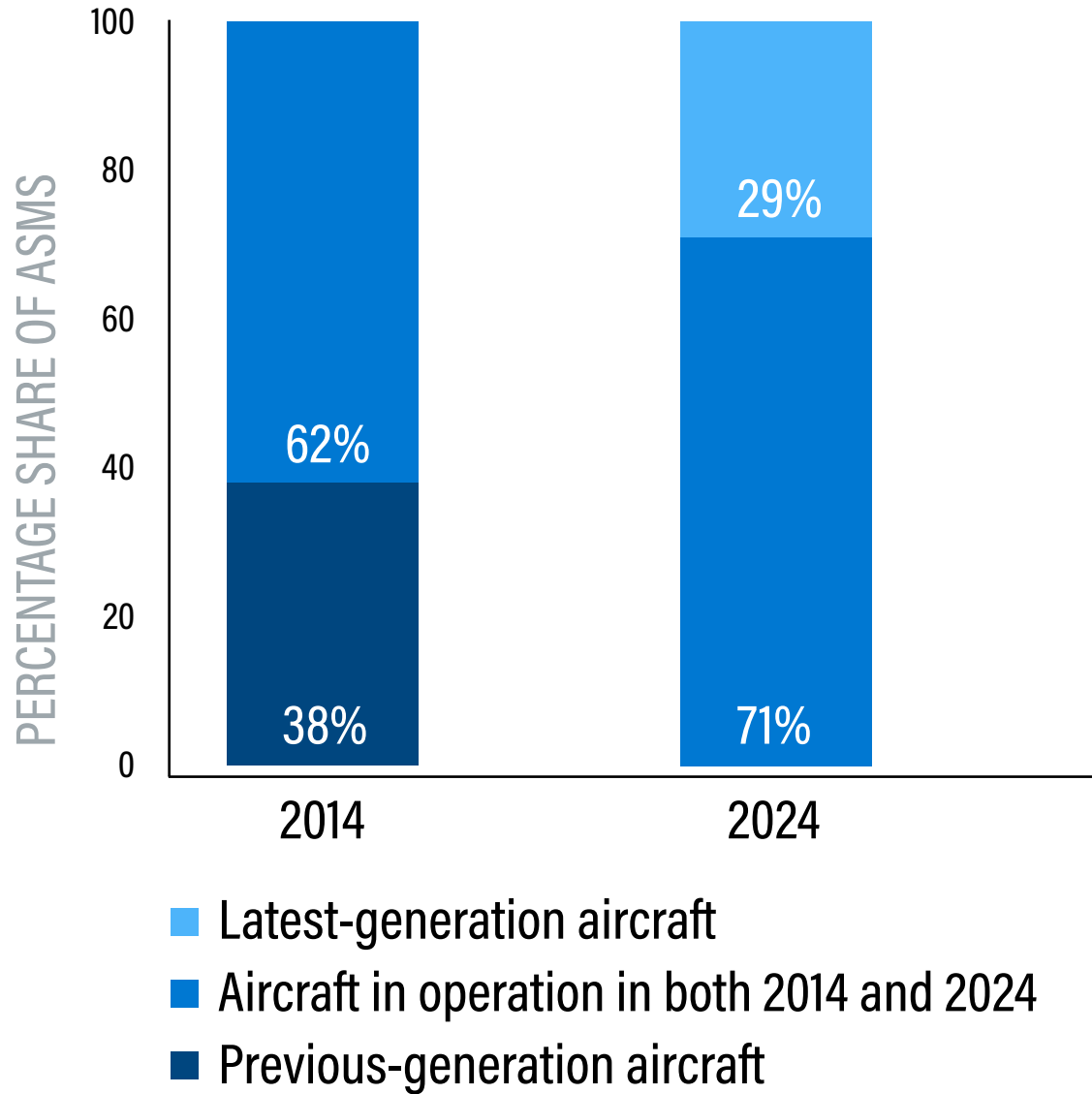
Over the last decade, we have made large capital expenditures as part of one of the most extensive fleet renewal efforts in the history of our industry. In addition to improving the flight experience for our customers, these new aircraft replace older, less fuel-efficient aircraft with newer, more fuel-efficient and quieter ones.

In 2023, we set a goal to fly 30% of our ASMs with latest-generation, more fuel-efficient aircraft in 2025. In 2024, 26% of our ASMs were flown by latest-generation aircraft, up from just 9% in 2019. And we expect to make further progress in 2025. For example, in 2025, we are introducing the Airbus A321XLR aircraft into our fleet. This extra long-range model will allow us to use a narrowbody aircraft with a single aisle on long-haul routes that typically require a larger, widebody aircraft. Improved aerodynamics, lighter-weight materials and latest-generation engines are expected to enable the Airbus A321XLR to serve transatlantic markets using 10% fewer gallons of jet fuel per seat than any aircraft currently in our fleet. The Airbus A321XLR will also enable us to better serve our customers by opening up more destinations that we have not previously been able to serve with widebody aircraft.

Improvement in Fuel Efficiency by Available Seat Mile

As of December 31, 2024, the average age of American’s mainline fleet was 13.8 years — a year less than the industry average, according to [IATA data](#) and a reflection of American’s investment in fleet renewal. Our efforts to continuously update our aircraft help us maintain a younger fleet. Ten years ago, more than a third of our ASMs were made up of aircraft types that have since been retired from our fleet. We have replaced many of those retired aircraft with new, more efficient aircraft types, including the Airbus A321neo and Boeing 787 Dreamliner, as well as the Boeing 737 MAX. These new aircraft flew 29% of American’s mainline ASMs in 2024. Our fleet renewal efforts have contributed significantly to improving fuel efficiency, which is now 13.9 gallons per 1,000 ASMs for our mainline fleet, down from 15.4 gallons per 1,000 ASMs in 2014.

We have made significant investments to improve the efficiency of our regional aircraft fleet, including retiring some of our smallest regional jets and replacing them with larger ones. While larger regional jets are on average more fuel efficient per seat, American still relies on some smaller regional jets to serve smaller communities that do not have the passenger traffic to support larger jets. We remain committed to providing industry-leading regional service to smaller and rural communities, while continuously working to improve the fuel efficiency of this service.



We also offer a luxury motor coach service that enables travel between regional airports and both PHL and ORD. American-ticketed passengers park and clear security at their local community airport, board a luxury motor coach operated by our partner, Landline, and are transported airside-to-airside where they can seamlessly connect onward without the need for rescreening. This reduces the GHG emissions associated with individuals driving or flying to PHL and ORD.

Another method of increasing efficiency is reconfiguring seating to increase the capacity of our aircraft. In 2024, we began adding seating capacity to our Airbus A321T aircraft, which we expect will help lower emissions per seat.



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While we plan to take delivery of another 38 latest-generation aircraft in 2025, including Airbus A321neos, Airbus A321XLRs, Boeing 737 MAX 8s and Boeing 787-9s, we expect the delivery of another 12 aircraft will be further delayed. We now anticipate falling short of our 2025 goal, due to production challenges and subsequent delivery delays from our aircraft suppliers.

Fuel efficiency

One of our largest expenses each year is fuel, which means that making our operations more fuel efficient not only reduces emissions, but also helps us reduce our costs. With much of our fleet renewed over the last decade, we are focused on improving the fuel efficiency of our flight and ground operations. In 2024, we saved more than 11 million gallons of fuel through our initiatives, including single-engine taxiing, increased use of flight optimization systems and electrification of ground support equipment (GSE).

- To reduce the fuel associated with taxiing, we expanded the use of single-engine taxiing and reduced taxi time by optimizing how we assign gates. Since 2021, we have utilized Smart Gating technology developed by American, which uses real-time data to reduce gate conflicts, taxi time and airport congestion. On average, Smart Gating shortens taxi time by 17 hours per day by operating this technology at five of our domestic hubs.
- We are also pursuing opportunities to use more fuel-efficient flight paths and reduce on-the-ground fuel use. We achieved notable fuel savings through use of our flight management system (FMS+) technology across our fleet and, in 2025, we approved its expansion to our Boeing 777 aircraft. This system enables our pilots to see real-time weather and other information in flight to inform adjustments to their flight paths, serving the goals of safety and efficiency.

- At the end of 2024, 23% of our belt loaders, bag tractors and pushouts — which are types of GSE that we use on the ramp — were electric. We are currently working to expand charging stations and the use of electric GSE at DFW and other stations.

One of our greatest opportunities to improve efficiency is reducing the weight of our aircraft. We are implementing a broad range of initiatives — from our multi-year effort to install lighter carbon brakes to rightsizing the amount of water carried on board to meet passenger needs. We continue to seek new opportunities for further weight reductions.



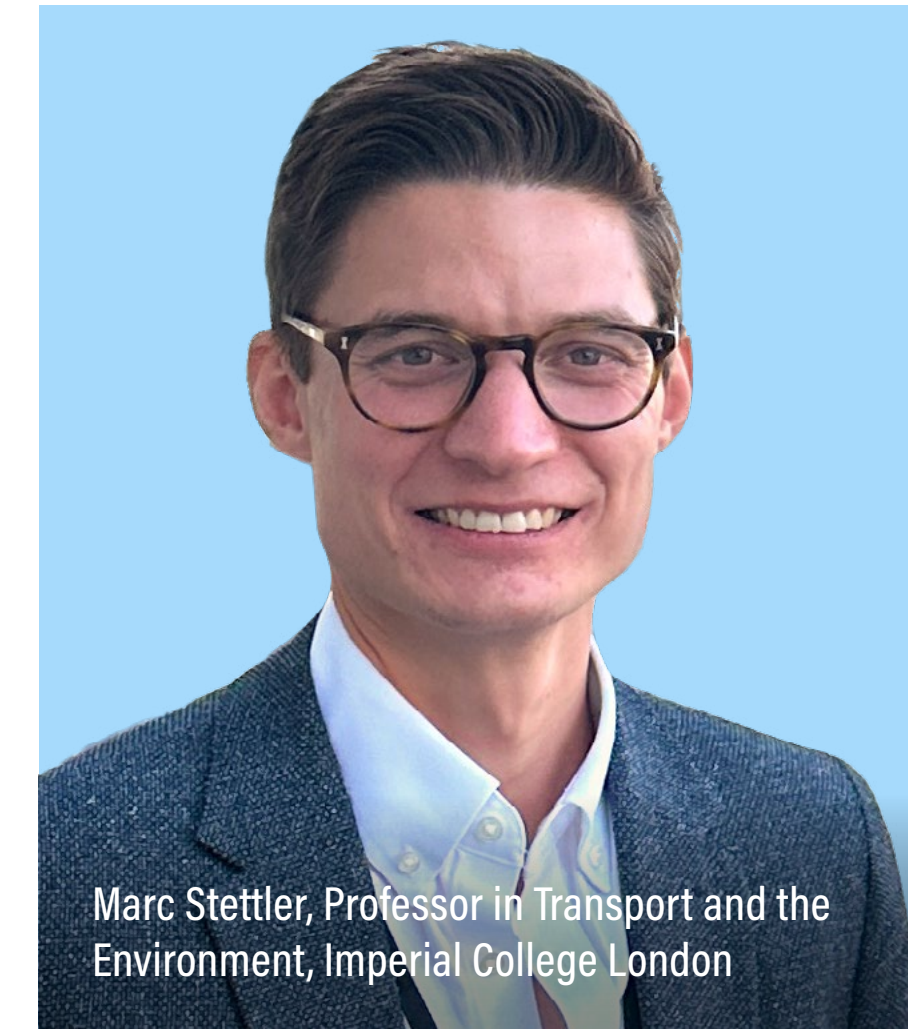
Conducting Cutting-Edge Research on Contrails Avoidance

Contrails — or condensation trails — form when airplanes fly through layers of humidity, and, according to the Intergovernmental Panel on Climate Change (IPCC), may account for a significant portion of aviation's global warming impact. While still in development, contrail avoidance strategies have the potential to be one of the most cost-effective and scalable climate solutions available in the near term.

American is leading efforts to advance contrail avoidance strategies by supporting ongoing scientific studies. Working closely alongside researchers, American lends our expertise in airline operations to support research that aims to test whether contrails can be avoided. In 2023, we participated in a [first-of-its-kind study](#) led by Google Research and Breakthrough Energy that determined commercial flights can verifiably avoid creating a contrail. After laying the groundwork in 2024, we're conducting additional research in 2025 with our Google Research, Breakthrough Energy and Flightkeys partners to find ways to replicate and scale the findings. The goal is to introduce contrail avoidance strategies into flight planning, so that dispatchers can select routes that are at risk of creating persistent contrails. This study builds on our previous work by integrating contrail avoidance into daily airline operations.

In Conversation: Testing and Integrating Contrail Avoidance Strategies

Marc Stettler is Professor in Transport and the Environment in the Department of Civil and Environmental Engineering at Imperial College London. His research evaluates the effect of transport emissions on climate change and air pollution and attempts to develop practical approaches for reducing these impacts. His research on aviation has developed understanding of aircraft engine emissions, how they contribute to contrail formation, and how the climate effects of contrails could be reduced through operational and technology changes. We spoke with Professor Stettler about his work and American's contribution to ongoing trials.



Marc Stettler, Professor in Transport and the Environment, Imperial College London

Why is contrail research so important?

So far the evidence points to contrails being responsible for about half of aviation's climate impact and 1%–2% of warming attributable to all human activities. The good news is that several studies have suggested that the climate impact of contrails could be significantly reduced by relatively minor operational measures. However, these studies have mostly been theoretical, or with small-scale trials. Given what we understand about the pace of climate change, my view is that we should do all we can to accelerate scientific research on contrails and quickly figure out if we can successfully reduce



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their climate impact in real-world operations. To do this, we're working with the aviation industry to translate the scientific evidence we do have into actionable tools and data.

From a scientific perspective, contrails are incredibly interesting — they start with processes happening on tiny particles that are 10,000 times smaller than the width of a human hair, and ultimately contribute to cirrus clouds that stretch over the sky and can be hundreds of kilometers long. Contrails act to trap heat in the atmosphere, which then contribute to the warming of our atmosphere and to climate change. It's a huge challenge to master all of these different processes, and it means that contrails are more complicated to explain compared to other GHGs, like CO₂. However, it's this complexity that also provides opportunity: only about 5% of flights form contrails and if we can understand the conditions under which they do and do not form, we have the potential to reduce an important contributor to climate change.

As a scientist and engineer, there's no other problem I've worked on that has such a high potential to deliver meaningful climate benefits.

What are you focusing on in your research?

My work is focused on understanding the role that aircraft emissions have on contrail formation. This includes exploring how emissions change with different fuel types and engine technologies, and what the downstream impacts on contrails are from those changes. It's important to understand this because fleet profiles are constantly changing, as carriers incorporate newer aircraft into their operations. At the same time, fuels like SAF are also on the rise. While we understand that both more efficient engines and SAF can help reduce emissions, we don't want to ignore any potential impacts they could have on the climate effect of contrails.

Contrails that persist — that is, those that last for a few hours and maybe up to 12 hours or so — are the ones we're concerned about because they have the biggest climate impact. Our work is focusing on predicting when and where these long-lasting contrails will form, how we could adapt flight routes to avoid them, and how they will be affected by new propulsion technologies and fuels.

We use simulation models and images from satellites and ground-based cameras to improve our understanding of how contrails form and evolve. We also use these tools to evaluate how effective any operational or technology changes are.

Why do different aircraft or fuel types create different types of contrails?

Not all flights form contrails and not all contrails have the same impact. An aircraft has to be flying through air that is humid enough and cold enough for a contrail to form and for that contrail to persist. On days when you see contrails streaking across the sky, the atmospheric conditions are just right for those contrails to survive. On other days, when we don't see contrails, it's not that there are no flights; the flights are still happening, but the air is too dry or not cold enough.

When we burn fuel in a combustion engine, be that on the ground in a car or in the sky on a plane, the combustion process leads to the formation of gases, including CO₂ and water vapor, and very tiny particles that are invisible to the human eye. When an aircraft is cruising, the water vapor in the engine exhaust quickly cools down as it mixes with the surrounding air. As it does, it condenses onto the surfaces of the particles, forming water droplets. These droplets quickly freeze into ice particles, and by the time we can see a contrail, we're observing light that has bounced off ice particles.

So, contrail formation depends on the atmospheric conditions but also the amount and type of particles emitted by aircraft engines. When researchers have done measurements behind aircraft at altitude, they have found that when aircraft engines burn different fuels, that can change the amount and size of particles that are in the engine exhaust.

For example, with SAF at high blends, studies have shown that there are fewer contrail ice particles formed. This means that we would expect the contrails formed with SAF to be shorter-lived and not trap as much heat as contrails formed by engines using conventional fuel. While we typically think that SAF offers an opportunity to reduce aircraft GHG emissions, it could also help with reducing contrail warming. But SAF is unlikely to be a full solution because the evidence suggests that contrails will still form



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even when the engines are entirely fueled by it. This means we as scientists need to understand how much of an impact SAF may have on contrails, and what else we will need to make up for any gaps.

We also have to consider the amount of water vapor coming from an aircraft engine that's available to form ice particles. When you have more efficient engines, the temperature of the exhaust is lower when it enters the atmosphere. More efficient engines are more likely to form a contrail. But if that engine is also producing fewer emission particles because it's using newer combustion technology, that could result in fewer contrail ice particles. Contrails with fewer ice crystals tend to be both thinner and shorter-lived, resulting in a potentially lower climate impact.

Theoretically, if you change the characteristics of aircraft engine emissions, that has knock-on consequences on the contrail properties, including the persistence and brightness of the contrail, and in turn, the warming effect. In general, we expect newer engines and SAF to reduce but not eliminate the climate impact of contrails. However, the exact impacts are complicated to estimate because they involve complex atmospheric dynamics, and accurately sensing the initial properties of contrails formed behind aircraft is difficult.

How is American's ongoing trial significant to the next stage of your research?

There's nothing better than learning by doing. This test is important because it allows us to better understand the complexity and interactions of factors at play under normal operating conditions and provides insights that will help to improve our understanding of contrail science and the feasibility of operational contrail avoidance measures in the real world.

Going into this trial, a key challenge to contrail avoidance is accurately forecasting where contrails will form. We also need to predict the trade-offs between taking action — and the increased fuel consumption that may require — and not taking action when we identify a contrail region. By working with American to test in a live environment, we will be able to see how accurate our models are in predicting atmospheric zones where contrails will appear. We will also be able to assess how often pilots are able to effectively execute a flight plan designed for contrail avoidance, which greatly informs the requirements that we set on the forecasts in the future. To evaluate the effectiveness of the actions, we are using satellite images of the test flights to observe which flights formed contrails and when.

Another key factor of this trial is the scale and breadth of testing. By working with a large global partner like American, we are able to test a significant number of flights under a wide range of conditions.

We have worked with American on multiple different stages of research over several years. Because of that, there is a really high degree of collaboration and a good sense of trust among the different organizations involved in this research. American is the one that is flying day-to-day, so as we think about solutions for commercial aviation, it's critical to have American share their honest and informed perspective on what is or isn't working. Being collaborative in this way is what allows us to learn in a real-world environment, helping to advance research that can be scaled for the aviation industry.



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Sustainable Aviation Fuel

SAF is a critical lever for aviation decarbonization, reducing life cycle GHG emissions as a drop-in fuel by as much as 85% today compared to conventional petroleum-based jet fuel. However, there are numerous barriers to widespread adoption in airline operations — namely, limited supply, high costs and insufficient incentives for producers to prioritize SAF — that significantly impact our ability to achieve our interim 2035 and long-term net zero 2050 goals.

Recognizing the importance and urgency of SAF, we have set a goal to replace 10% of our jet fuel use with SAF in 2030, which would avoid approximately 3.5 million metric tons of CO₂. In 2024, we used 2.9 million gallons of neat SAF on our flights, a 9.7% increase over 2023, but still an insignificant volume in the context

of the SAF we need to achieve our goal. We believe that governments have an important role to play, via tax policy, in creating incentives for producers to focus their efforts on SAF. We also believe that there is a clear need for combined private and public sector efforts to further scale SAF at cost-competitive prices for commercial use.

Promoting SAF development

We look to procure commercially feasible SAF for our operations and send market demand signals through future offtake commitments in those limited instances where we can find an exceptional corporate partner. We also work collaboratively within and outside of aviation to support the development of nascent technologies that hold great promise for future production.

American's SAF Sourcing Principles

In determining what SAF to source for our operations, we currently apply the following standards for sustainability:

- Life cycle GHG emissions reductions of at least 50%, inclusive of estimated indirect land use change, compared with conventional jet fuel
- Robust analysis of environmental and social impacts of SAF feedstocks, such as potential effects on food supply
- Completion of our own due diligence, which may include examining sustainability certification, as applicable⁹

Our SAF use and advocacy is also guided by the following principles:

- Maintain strict adherence to jet fuel safety and performance standards
- Engage and collaborate with stakeholders across the private and public sectors to break down barriers to SAF production and distribution
- Undertake robust and transparent emissions accounting and work to further develop and harmonize SAF emissions accounting

⁹ As part of our due diligence, we refer to the Guidance for Responsible Agricultural Supply Chains, developed by the Organisation for Economic Co-operation and Development and the United Nation's Food and Agriculture Organization, in addition to other leading references to help assess, mitigate and manage the sustainability risk of SAF produced using bio-based feedstocks.



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In 2025, American executed a one-year offtake agreement with Valero to take delivery of up to 10 million gallons of SAF at ORD, starting in June 2025. The SAF is produced domestically from waste feedstocks and shipped via commingled pipeline to the Chicago area. In purchasing SAF for use at ORD, American is taking advantage of an innovative policy adopted by the State of Illinois that provides a purchase credit for airlines based on their jet fuel tax liability across a 10-year time frame. Several airlines have purchased SAF for delivery to Illinois, providing evidence of this policy's impact in expanding SAF uplift. This example demonstrates the ability of governments to incentivize more SAF production and use through tax policy. For more information on this Illinois tax incentive, see [page 24](#).

“ At Breakthrough, we see American Airlines as a standout corporate partner because they understand that deploying climate tech isn’t one dimensional. They see the landscape the way we do at Breakthrough — that it requires engagement at every stage of the climate tech lifecycle, from early pilot projects to scaling these technologies across their business.”

— Bill Gates, Founder, Breakthrough Energy
For more information, see [Bill Gates’ 2024 State of the Transition](#)

In partnership with Breakthrough Energy Catalyst, we were also the first airline to sign a long-term offtake agreement with Infinium, an electrofuels (eFuels) producer, in late 2023. Infinium eSAF, produced using waste CO₂ and green electricity, has the potential to reduce life cycle GHG emissions by approximately 90% (relative to the emissions of conventional jet fuel), which is greater than

Connecting the SAF Value Chain

We believe that scaling the SAF market requires all value chain participants — SAF producers, airlines, and travel and cargo customers — to efficiently collaborate to grow the market and help drive down the SAF cost curve. As SAF production is not widespread globally and uptake remains limited to a few airports, it would be impractical for airline customers who want to reduce their emissions to buy physical SAF to use on their specific flights. However, we believe that with the right guardrails in place for credibly and transparently quantifying and tracking the environmental benefits associated with physical SAF use (commonly referred to as SAF attributes), stakeholders not directly connected to the physical fuel supply chain can still support SAF by sharing costs and benefiting from the associated emissions reductions.

American was among the first U.S. airlines to sell a SAF attribute to a customer in early 2021, and in the last few years, we have sold the attributes related to more than 9 million gallons of SAF to our corporate customers.

In early 2025, we expanded our program to manage and distribute SAF environmental attributes to our customers to increase their access to emissions-reduction opportunities and engage them in our decarbonization journey. We are working with Chooose, a company that offers a software platform that connects airlines and their customers to enable the tracking, sale and reporting of SAF environmental attributes. This partnership allows American to simplify and automate the management of the environmental attributes associated with our SAF while maintaining high integrity and traceability.

The platform also allows us to monitor and report on every gallon of SAF used and its associated decarbonization benefits. Initially, our expanded program will allow our cargo customers to track emissions from their shipments, purchase SAF Scope 3 environmental attributes and claim the reductions toward their decarbonization goals. We expect this collaborative model to empower customers to take climate action and to support American in scaling our SAF program through demand-driven engagement.



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the emissions reductions achieved using the SAF currently on the market today. Breakthrough Energy Catalyst — in which American is an anchor partner — has invested \$75 million in Infinium’s power-to-liquid project, which was the first of its kind to achieve final investment decision and expects to deliver SAF to American as early as 2027. American also has an agreement with Citi, a partner of Breakthrough Energy Catalyst, through which American will transfer the associated emissions reduction from the Infinium eSAF directly to Citi — enabling Citi to reduce a portion of its Scope 3 emissions. This multi-stakeholder partnership highlights one way the value chain can collaborate and share in the costs and benefits along the journey to scale SAF.

Advocacy to scale SAF

We continue to advocate for policies aimed at making SAF an economically viable alternative to conventional jet fuel. We support the adoption of policies at all levels of government to expand SAF production while diversifying our fuel sources, which we think will help us derisk our business by building resiliency into our fuel supply chain, support energy security and lower emissions.

New SAF funding sources

Since passenger airlines and our customers pay significant amounts of taxes, fees and other surcharges, we support tax incentives structured in ways that do not further burden our passengers with additional costs. Our preferred approach is to explore ways to align our current tax obligations with initiatives that support SAF production, thereby helping diversify our fuel sources.

For example, in 2023, the State of Illinois enacted a 10-year tax incentive that allows airlines to receive a \$1.50 tax credit for each gallon of SAF used in the state, up to the amount the airline pays in Illinois jet fuel taxes. As a result of this tax credit,



several airlines, including American, plan to take delivery of millions of gallons of SAF in Illinois, and several producers have expressed interest or announced plans to produce SAF in Illinois. We believe this provides evidence of the tax policy’s impact in expanding SAF uplift and demonstrates the ability of governments to incentivize more SAF production and use through tax policy. For more information on our recent offtake agreements, see [page 23](#). This model for funding SAF with existing taxes is promising in helping to expand and accelerate SAF production.



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Longer-term incentives

Before its expiration on December 31, 2024, the U.S. government's 40B blenders tax credit provided a credit at a national level for the use of fuel mixtures that contain SAF and meet a minimum 50% reduction in life cycle GHG emissions, with supplemental credit for exceeding the minimum. While the credit signaled much-needed government support for SAF, the limited duration and the federal government's delay in issuing implementation guidance limited the extent to which the 40B credit could meaningfully incentivize new SAF production and uptake. Similarly, though the 45Z Clean Fuel Production Credit includes SAF, market uncertainty persists. To scale SAF, we believe that the industry needs greater support from federal and state policymakers to firmly establish stakeholder confidence, notably for investors, in the long-term reliability of credits. Ideally, credits would have both a longer duration and create an even more powerful economic incentive for producers.

SAF-focused partnerships

To help advance the significant federal policy changes needed to scale the SAF market, American played a pivotal role in founding the [SAF Coalition](#) in 2024. The SAF Coalition is a nonprofit, nonpartisan alliance of more than 50 airlines, low-carbon fuel companies, feedstock producers, manufacturers, technology developers, airports and others working together to advocate for the development and deployment of SAF in the United States.

Given that strong U.S. federal policy support is essential to helping SAF deliver on its full potential, the SAF Coalition is working with lawmakers in Washington to strengthen policies that scale production, drive investment and position the United States as a global SAF leader. As part of this, the SAF Coalition is working to demonstrate how SAF can enhance U.S. energy security, encourage job growth

and contribute to economic development in rural communities. Examples of policies the SAF Coalition supports include extending and enhancing existing tax credits, making permitting more efficient, improving regulatory guidance to accelerate production and advocating for various feedstocks that will help to rapidly increase SAF supply while supporting our communities.

We also collaborate with the [Center for Climate and Energy Solutions \(C2ES\)](#), an independent, nonpartisan, nonprofit organization that convenes public and private sector stakeholders to inform pragmatic policy solutions, such as those needed to enable the deployment of new, innovative technologies. C2ES works to find common ground among — and regularly engages with — federal and state policymakers across the political spectrum to advance bipartisan policy solutions.

We also participate in the [Low Carbon Fuels Coalition](#), a trade association working to build industry consensus and gain support for U.S. clean fuel standards.





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Next-Generation Aircraft

Historically, each generation of airframes and engines has significantly improved on the fuel efficiency of the prior generation, and we believe the next several generations of aircraft will be critical to reducing our emissions over the long term. Among the next-generation engine technologies under development, hydrogen made from renewable electricity offers significant promise as a new form of propulsion.

In 2022, American made our first strategic investment in ZeroAvia to help advance the development of its hydrogen fuel cell-powered jet engine. ZeroAvia's fuel cell technology, which was named to the [TIME Best Inventions of 2024](#) list, uses green hydrogen to produce electricity through a catalytic chemical reaction, which then powers the motors of the aircraft. The only byproduct of this process is water. ZeroAvia is working to retrofit and linefit its powertrains to existing Federal Aviation Administration (FAA)-certified fixed-wing aircraft, a strategy aimed at simplifying the regulatory process and reducing time to market.

In July 2024, we participated in ZeroAvia's Series C fundraising round and made a conditional purchase agreement for up to 100 engines, which will allow us to retrofit and power our Bombardier CRJ-700 regional jet aircraft with ZeroAvia's hydrogen-electric powertrain.

ZeroAvia is now flying a prototype of its first engine system for smaller aircraft and working toward certification by 2026, with initial routes and operators already confirmed. This work will help expedite the development and certification of the larger engine, targeting regional jet applications over the next few years.

In addition, we are an investor in and customer of Vertical Aerospace, supporting the development of an emissions-free electric vertical takeoff and landing (eVTOL) aircraft. In May 2025, Vertical started phase three of its piloted test program —



wingborne flight testing — where the aircraft operates like a conventional airplane using lift generated by its wings rather than relying solely on rotor thrust. This low-power, quiet and range-efficient mode of flight is key to making electric air travel practical, scalable and economically viable. Vertical has now taken a significant step toward the next major milestone: a full piloted transition flight, which will demonstrate its VX4 aircraft's ability to shift seamlessly between vertical lift and forward cruise — the operating mode it will use in passenger service.

To broaden the aircraft's capabilities, Vertical recently announced a hybrid-electric variant that extends range while maintaining a lower environmental footprint. Across both variants, Vertical is working with established Tier 1 aerospace partners to prioritize safety, certification readiness and scalable production. Vertical is targeting aircraft deliveries to customers following certification in 2028.

Airspace Efficiency and Modernization

We believe it’s critical to continue advancing and scaling the infrastructure, technology, staffing and services necessary to modernize our airspace systems. Modernizing airspace will, in addition to enhancing aviation safety, increase operational efficiency and reduce jet fuel use, avoiding millions of metric tons of CO₂ emissions annually across our industry. American is working collaboratively with the FAA — and advocating through the policymaking process — for resources to accelerate the deployment of new infrastructure, technologies and other measures that place safety as a top priority, are cost-effective and will yield immediate and long-term environmental benefits. This advocacy effort has been successful, and in July 2025, Congress allocated an additional \$12.5 billion for air traffic control infrastructure and modernization investments.



In 2024, we adopted industry-leading flight planning and optimization software that allows us to increase on-time performance, minimize the emissions from our flight plans and promote compliance with the highest safety standards. Our use of this system helped us save 11.8 million gallons of jet fuel in 2024.

Collaboration between airports, the FAA and airlines can help advance airspace modernization. For example, in 2024, CLT, American, the National Air Traffic Controllers Association (NATCA) and other community stakeholders supported a plan to allow divergent headings, creating more potential flight paths that disperse aircraft over a wider area by allowing planes to leave the airport heading in a wider range of directions. Advances like this enhance safety by increasing the separation of aircraft upon departure and will allow American to take more direct flight paths. This will shorten flight times and save fuel, which both reduces our costs and drives down emissions.

We are the first U.S. carrier to partner with the FAA to develop special procedures to use with Automatic Dependent Surveillance-Broadcast In (ADS-B In) navigation, improving flight efficiency and safety. ADS-B In, which is not currently required by the FAA, replaces outdated radar systems to deliver weather and traffic position information directly to the flight deck, allowing pilots to optimize flight paths, particularly in low-visibility conditions, which enhances safety and reduces fuel use. In 2024, American expanded on a set of multi-year ADS-B In trials in conjunction with the FAA, validating the functionality of a Vertical Path Indicator (VPI) update. With the validation of efficiency and safety benefits from this technology, American plans to continue building on our fleet’s ADS-B In capabilities by upgrading to VPI functionality, pending FAA approval. There are now proposals in Congress to mandate the requirement of ADS-B In, and we are closely monitoring those proposals given our broader support of the program.



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Carbon Markets and the Carbon Offsetting and Reduction Scheme for International Aviation

We are focused on reducing emissions in our own operations, but we recognize that the aviation industry is regarded as one of the most difficult to abate. It is not clear that the decarbonization technologies discussed above will exist at the scale and cost needed for us to reach zero GHG emissions by 2050. As a result, we anticipate relying on carbon removal credits to neutralize our residual emissions.

To help advance the availability of high-quality offsets and removals, we are investing in innovation that advances and scales carbon market solutions. We signed terms for a carbon removal purchase agreement with Graphyte, becoming the inaugural customer of its Carbon Casting process, which removes and stores CO₂ permanently and cost-effectively.

Additionally, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), a global market-based measure created in 2016 to address GHG emissions from international aviation, calls for airlines and other aircraft operators, including American, to offset emissions over 2024–2035 that exceed a specified baseline of the same emissions in 2019. The purpose of CORSIA is to

Our partnership with [Cool Effect](#) provides customers the opportunity to purchase carbon offsets voluntarily. Cool Effect uses more than 90% of each offset dollar to fund a portfolio of carbon projects that aim to protect and conserve our planet's resources.

avoid a patchwork of regional and state-specific regulatory regimes, a goal we support. We expect that we will need to purchase carbon offsets to meet our anticipated obligation for CORSIA's first phase, which covers 2024–2026 emissions.

Sustainable Operations

American's environmental sustainability efforts extend across our business, from how we design, build and operate our facilities to the materials we use in our inflight service and cargo operations.

Considering sustainability in the design and operation of our buildings and airport lounges

We continue to integrate cost-competitive renewable energy into our operations. We accomplished our 2025 renewable energy goal two years ahead of schedule by sourcing 2.5 million gigajoules (GJs) of cost-competitive renewable energy to power our operations in 2023. In 2024, we continued to integrate renewable energy by purchasing 679,858 GJs of electricity from renewable sources for our operations in north Texas and at DFW. We also installed and began using a solar energy system at our JFK terminal, avoiding the production of approximately 18 tons of CO₂ in 2024.

We have embedded sustainability into the design and construction of our facilities. Three of our buildings at American's corporate headquarters have received Leadership in Energy and Environmental Design (LEED) Gold certification. Our campus incorporates additional sustainable design elements as well, including 90 acres of preserved woodlands and 9.3 miles of walking trails.

In addition, we incorporate sustainability principles into the design and redesign of our Admirals Club® lounges, using locally sourced materials, natural light and



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energy-efficient LED lighting where we can. Our SFO Admirals Club is LEED Gold certified, our expanded Admirals Club at LGA is LEED Silver certified, and our Admirals Club at DEN is pursuing LEED Gold certification. Our Admirals Club at EWR also incorporates sustainable design elements, including energy-efficient LED lighting and high-efficiency plumbing fixtures.

Reducing Aircraft Noise

American is committed to ongoing engagement with local communities impacted by aircraft noise to understand and address their concerns. In 2024, we received a silver award from the LAX Fly Quieter Program, recognizing our efforts to reduce aircraft noise through voluntary operational and technical measures and community engagement.

We participate in public and private sector collaboration to improve noise dispersion around busy airports. In 2024, American, CLT, NATCA and the local community's noise roundtable partnered to secure the Charlotte City Council's approval of an updated Part 150 Noise Compatibility Study. The study includes recommendations to modernize Charlotte's airspace, as discussed in the Airspace Efficiency and Modernization section starting on page 27, which will provide benefits to the community through equitable noise dispersion and increased aircraft separation. We are awaiting FAA approval of the recommendations and advancement to the next steps in the Environmental Assessment process.

We have voluntarily retrofitted all pre-2014 Airbus A320 jets in our fleet with fuel vent vortex generators, which help reduce aircraft noise. American also continues to meet or exceed International Civil Aviation Organization (ICAO) noise certification standards. ICAO standards currently specify that operators can fly Stage 3, Stage 4 or Stage 5 aircraft. Our mainline and regional fleet meet Stage 4 noise certification levels, and 26% meet Stage 5 noise certification levels, currently the most stringent standard set by ICAO.

We are also working to reduce the environmental impact of the products and services we offer in our Admirals Club lounges. For example, several lounges use reusable flatware, and all others use compostable flatware and other items. In addition, the bottled water we serve to guests is packaged in aluminum bottles, which offers a higher recycling yield than plastic alternatives. For guests who opt to bring their own bottles, we introduced bottle-filling stations as a new part of our design standards. We have also discontinued mailing plastic Admirals Club membership cards and welcome kits, switching to a digital-only approach.

Reducing waste and incorporating recycled materials in our cabin offerings

In evaluating our cabin offerings, we strive to pursue evidence-backed, sustainable alternatives and to maintain the quality and positive experience that our customers expect.

For example, in 2024, we collaborated with textile company John Horsfall on the relaunch of our soft goods program and developed inflight bedding made with recycled materials. Nearly all the pillows, duvets and blankets created for American flights are made with recycled fibers that offer a premium feel for our customers, while filled bedding includes 100% recycled fill. In addition, we transitioned to a reusable zipper bag made of recycled fibers — instead of a plastic bag — for distributing pillows and blankets to customers in Flagship® First, Flagship® Business and Premium Economy. We expect this change to eliminate approximately 25 tons of single-use plastic waste per year, based on our usage in 2024.

American also works to reduce food waste on board by redistributing uneaten cookies and snacks. With operations at CLT, DCA, DFW, ORD, PHL and RDU, the

program recovered 293 tons of snacks in 2024. In addition to reducing food waste, this program has helped American reduce product orders, resulting in lower costs and lower GHG emissions for product logistics.

Transitioning to more sustainable materials in cargo operations

We have continued to use [BioNatur Plastics](#) in our cargo operations to replace traditional plastic stretch wrap and pallet covers. This product line fully biodegrades in approximately eight to 12 years under ordinary landfill conditions — compared with the more than 500 years it can take for normal plastics — and is designed to be fully recyclable in normal waste collection streams. In 2024, American replaced more than 274,000 pounds of traditional plastic with the BioNatur line.

As the first official airline partner of the National Park Foundation (NPF), we are dedicated to preserving America’s national parks through team member volunteer efforts at parks and an initiative that encourages AAdvantage® members to donate miles to support the NPF. We are also committed to helping connect travelers with the beauty and history of the parks, offering more than 500 flights to national parks across the country.

Our Commitment to Prevent Illegal Trafficking of Wildlife

In 2022, American became the first U.S. airline to join the Transport Taskforce of United for Wildlife, an initiative founded by Britain’s Prince William and the Royal Foundation to bring together airline and freight industry experts to raise awareness, identify the sector’s exposure and develop solutions to stop the illegal wildlife trade. Additionally, we have signed on to the 11 commitments outlined in the Buckingham Palace Declaration, which includes taking a zero-tolerance pledge to the illegal wildlife trade, enhancing data systems and innovation, and improving information sharing across the transportation sector.

Our strategy is informed by a risk analysis examining our global network and the smuggling routes of animal products, highlighting specific regions, routes and hotspots within our network that pose high risks of smuggling. Based on this analysis, we are implementing targeted training, providing informational materials and developing robust reporting channels to detect and prevent the illegal trafficking of wildlife. Since wildlife trafficking also overlaps with other crimes, including the illegal trafficking of people and drugs, we believe that our work with the Department of Homeland Security’s Blue Lightning Initiative will help prepare us to respond to these potential risks quickly and efficiently. (See [page 61](#) for more details.)



Nearly 100 million sharks are killed annually due to international shark fin trafficking.



For detailed environmental performance data, see [page 81](#).



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OPERATING SAFELY

In 2024, American Airlines transported more than 225 million passengers to over 350 destinations around the world. We are committed to making the safety of our customers and team members fundamental to every aspect of our operation.

Operating each flight safely is everyone's responsibility at American, and we foster a safety culture that empowers team members to "see something, say something, do something." Our team members are expected to ask questions and to report safety hazards, concerns and incidents without fear of retaliation. If any team member raises a safety concern, immediate action can be taken — up to and including removing an aircraft from service.

Safety Governance and Management

An uncompromising commitment to safety, security and continuous improvement is a shared responsibility — from our Board of Directors to our frontline team members. Our CEO retains ultimate responsibility and authority for safety culture and performance, while the Board's Safety Committee has formal safety oversight responsibilities. (See our Sustainability Strategy section starting on [page 6](#) to learn more.) The Board receives quarterly reports on key safety performance metrics and multiple detailed updates throughout the year, as well as other briefs on an ad hoc basis.

Aircraft Collision Involving Flight 5342 and Our CARE Team Response

On January 29, 2025, 60 passengers, four crew members and three members of the U.S. Army died in a midair collision involving American Eagle Flight 5342 and a military helicopter over the Potomac River. This was the first major U.S. commercial passenger airline accident since 2009, and we are heartbroken by the tragic loss of life and its impact on the loved ones, communities and fellow team members. The investigation into this accident was ongoing at the time this report was published, and flight operator PSA Airlines, a wholly owned subsidiary of American Airlines, Inc. continues to participate as an investigative party member in the National Transportation Safety Board's (NTSB) investigation. We are grateful to the NTSB for its investigation and urgent safety recommendations made on March 11, 2025, to suspend non-essential helicopter traffic near DCA. We also appreciate the Department of Transportation and the Federal Aviation Administration (FAA) for acting quickly to implement these urgent recommendations and for their coordination and support since the accident.

In the face of this unimaginable tragedy, we deployed our Customer Assistance Relief Effort (CARE) Team to support the families and loved ones of the passengers and crew members. More than 220 of these specially trained volunteers, all of whom are American team members, immediately began deploying from 30 locations in North America to Washington, D.C., and Wichita, Kansas, on the night of the accident. Excused from their regular duties while on CARE Team assignment, they worked around the clock to address a wide range of immediate physical and logistical needs for the families and loved ones.

CARE Team responsibilities include being present for the next of kin, friends and family members; coordinating travel arrangements; arranging accommodations such as childcare, elder care or pet care; facilitating and arranging transportation for critical meetings in the weeks following the accident; and obtaining clothes, toiletries and other necessary items.

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American Airlines has had a CARE Team to assist families impacted by air transportation disasters before this was federally mandated by the Family Assistance Act of 1996. All members must complete intensive, multi-day and ongoing training led by American's Emergency Planning and Response team, which has decades of experience in providing and training others on trauma-informed care.

Within the first week after the accident, American wanted to find a way to ensure continued support for the families, team members and communities that were affected. That led us to create a new Office of Continued Care and Outreach (OCCO), led by Jim Carter, a highly respected former executive who spent more than 40 years at American. Through the OCCO, we envision a longer-term approach in our support, acting as a centralized resource and fostering continuity of care.

As the airline industry is heavily regulated, we continually interact with numerous regulators domestically and internationally. Domestically, our primary federal engagements for safety are with the FAA, which regulates U.S. civil aviation, and the Occupational Safety and Health Administration (OSHA), which regulates U.S. workplace safety and health. The collaborative relationships we have developed with these federal authorities allow us to work closely and constructively on key safety- and compliance-related matters. We engage with the corresponding state-level agencies to further support our safety commitments.

We have continued to emphasize transparency in our interactions with our regulators by sharing information that is critical to safety and compliance. We work closely with our FAA Certificate Management Office and openly share the challenges and successes we experience, resulting in better alignment on safety issues across the aviation industry.

Our Safety Management System

Our approach to safety is guided by our Safety Management System (SMS), an organization-wide program for identifying and managing risk.¹ SMS has been incorporated into FAA regulations for all commercial carriers and is expanding to on-demand carriers, maintenance repair stations and airports. In 2009, American became the first U.S. airline to implement a system-wide SMS.

Our SMS emphasizes safety management as a fundamental business process across the enterprise. It involves a full commitment from the most senior leaders to each frontline team member to integrate safety into how we do our jobs. The SMS promotes a culture in which our team members can identify, report and mitigate risks. It encourages robust and repeatable processes with local ownership, driven by data to reduce risks and continuously strengthen safety. We collaborate closely with the FAA to maintain operational safety and actively share best practices with our industry peers, regulators and aerospace manufacturers. The accompanying box highlights the four pillars of our SMS.

Safety Policy

Our corporate Safety Policy, housed in the Safety Policies and Procedures Manual (SPPM), applies to all team members, business partners, contractors and consultants, and it outlines our SMS commitment to various compliance and continuous improvement initiatives. It is part of annual SMS training for all team members. The SPPM is an ever-evolving document, capturing critical updates for the safety of all people in our span of care, while encouraging operation-wide risk management analysis and regulatory compliance across the world.

¹ American's mainline carrier and regional carriers each have their own SMS. The discussion in this report refers specifically to our mainline SMS.



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Our Emergency Response Manual is an integral part of our SMS. It establishes effective and efficient response practices for various types of emergencies, including natural disasters. The manual serves as the governing document for the American Airlines Corporate Emergency Response Plan, which also supports our regional carriers and **one**world business partners. In addition to providing guidelines on preparing for and responding to emergencies, the manual outlines responsibilities for team members and response protocols.

Safety Assurance

The Safety Assurance component of our SMS stipulates how we use data, conduct quality assurance and employ internal oversight to validate the effectiveness of

Our Safety Management System

- 1 Safety Policy**
Establishes senior management's commitment to continuous improvement in the name of safety; defines the methods, processes and organizational structure needed to meet goals
- 2 Safety Assurance**
Evaluates the continued effectiveness of implemented risk control strategies; supports the identification of new hazards
- 3 Safety Risk Management**
Determines the need for, and adequacy of, new or revised risk controls, based on the assessment of acceptable risk
- 4 Safety Promotion**
Conveys proactive and reactive safety initiatives through physical, digital and other communication efforts to drive awareness and encourage a positive safety culture throughout the operation

risk controls and the performance of the SMS. Composed of several individual programs and initiatives, Safety Assurance verifies that risk controls in our operational processes continue to conform to requirements and remain effective in maintaining risks at acceptable levels.

American's Senior Leadership Team, which is led by our CEO and includes our Chief Operating Officer, receives regular updates on team member safety and risks across our system. They are both briefed regularly on injury rates, evaluation of trends and development of safety enhancement programs as well as aircraft damages and other critical safety data.

We want every one of our team members to go home safely at the end of each day. The Safety Department increased its focus on injury reduction in 2024 and has continued this effort in 2025 as we work to provide a safe environment for our team members and customers. We have implemented the following two injury-reduction initiatives to help accomplish these goals:

- **Training Reset.** Lifting injuries account for most employee injuries, both on and off the job. This training, along with annual refresher training, focuses on the fundamentals of safe lifting. By making it a requirement beginning in 2025, we expect to see injury rates decline over time. We train select team members at each job site as instructors, so that they can hold classes and pass on the principles of safe lifting to their colleagues. They are also responsible for conducting periodic audits to confirm that team members are following the principles correctly. These instructors are required to take a revalidation course every 18 months to remain proficient.
- **Return-to-Work.** This process applies to team members returning from restricted duty or off-duty status due to an occupational injury. It includes a thorough injury investigation, conversations with their leader and safety operations partner, and retraining on the fundamentals of safe lifting to prevent reinjury.

Recognizing Team Member Contributions to Safety

In 2024, our annual Safety Champion Award program honored 40 team members from our mainline and wholly owned regional carriers for their dedication to safety in the workplace. These individuals were nominated by their peers and selected by a panel of leaders from across the company as well as by previous award winners. Each Safety Champion received a prize equivalent to \$1,000 and received recognition at an exclusive event with senior leaders. Thousands of team members know what it takes to keep safety a priority throughout American, and they have helped us recognize 65 Safety Champions since this program launched in 2023.



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Safety results

We saw injury rates rise during the first half of 2024 on a year-over-year basis, mainly related to improper lifting, but proactive mitigation programs helped reverse this trend by year-end. They include Training Reset and Return-to-Work, both discussed on [page 35](#). As a result of these initiatives, injury rates decreased in the second half of 2024 and continued to decline through the first half of 2025. We expect this trend to continue for the remainder of 2025.

Sadly, in addition to the tragic collision involving American Eagle Flight 5342 (see [page 32](#) for more information), we had an additional fatality in January 2025 when a single ramp vehicle accident occurred at CLT. Emergency and medical crews responded immediately, but despite their best efforts, the team member involved in the incident succumbed to injuries. Our hearts go out to the team member's family, loved ones and fellow team members in Charlotte. We continue to cooperate closely with the North Carolina Department of Labor as it completes its investigation.

Safety reporting

The overall goal of team member reporting is to improve safety awareness and identify operational deficiencies. We accomplish this, in part, by facilitating an open line of communication between team members and management without fear of retaliation. Potential safety concerns and suggestions identified through our many safety reporting programs are critical to early identification and mitigation of hazards. These reports also allow the company to investigate potential risks and implement corrective actions to resolve confirmed safety and security issues.

When team members identify any safety-related concern, they are encouraged to report the issue through the appropriate channels. Once the concern is received,

trained safety investigators collaborate with operational partners to review the information provided, assess the hazard and develop corrective actions to address the issue as needed. Operational and safety leaders review these reports as part of the broader SMS to determine if system-related risks are developing. We often follow up with reporters to communicate what we learned and what steps we are taking to prevent similar concerns from arising again. We believe that this follow-through and prompt action helps encourage additional reporting, thus creating a robust safety reporting response cycle.

Our most prominent safety reporting initiatives include the following: Aviation Safety Action Programs (ASAPs), Flight Operations Quality Assurance, the International Air Transport Association Operational Safety Audit, Line Operations Safety Audits and the Learning and Improvement Team. Additionally, team members may report concerns of any kind, either named or anonymously, using the EthicsPoint Helpline that is managed by our Business Ethics Office.

Aviation Safety Action Programs

Everyone at American plays a role to keep our people, customers and equipment safe. American pioneered the use of ASAPs, which are voluntary, self-reporting programs designed to identify and reduce safety concerns. They encourage team members to confidentially report potential hazards and errors without concern of fault or fear of punitive action, thus reinforcing a learning culture. ASAP programs are currently in place for Central Load Planning, Dispatch, Airports, Flight, Cabin and Technical Operations workgroups.

These programs led to a variety of safety enhancements in 2024. For example, feedback from our Technical Operations ASAP led to an initiative to streamline maintenance and repair documentation, making it easier for aircraft maintenance technicians to follow procedures with greater consistency. We also now



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participate in an industry-wide working group to discuss maintenance issues and jointly develop best safety practices.

In 2024, we recorded 17,505 ASAP reports, a 14% increase over 2023. We believe that this increase in volume of reporting provides evidence that our team members are comfortable raising concerns and creates more opportunities for us to review and resolve potential safety hazards. The ASAP app we launched in November 2024 gives team members another tool for submitting their ASAP reports. We designed the app with a user-friendly interface to further enhance our safety reporting.

Flight Operations Quality Assurance

Flight Operations Quality Assurance (FOQA) is a voluntary safety program administered jointly by American and the Allied Pilots Association (APA) that uses routinely recorded flight data to proactively identify and address operational risks to enhance safety. We routinely monitor all our flights and use algorithms to look for potential safety risks and trends. The results allow us to monitor aircraft systems and performance, improve flight safety and increase overall operational efficiency and reliability.

In 2022, American became the first U.S. carrier to adopt an application that converts flight data into an animated re-creation that pilots can review on their company-issued tablet immediately following a flight. This tool improves on the concept of crew post-flight debriefing by providing real-time feedback. Turning each flight into a learning opportunity contributes to the Safety Assurance component of our SMS. In March 2024, we expanded the use of this application to make it available to all pilots across our mainline fleet. Our check pilots are also using this application as a training aid in post-flight debriefs.

Among other initiatives, we have collaborated with the APA to provide pilots with airport familiarization videos that they can review prior to flights that involve locations with more challenging arrivals, departures and taxi instructions. These enhanced training tools are filmed from the pilot's point of view and help reduce any associated risks.

Similarly, our Technical Operations teams have also begun analyzing aircraft data in innovative ways to enhance our already rigorous maintenance practices and improve reliability. We are now able to predict potential maintenance issues with even greater accuracy, further reducing the need to take aircraft out of service beyond regularly scheduled downtimes.



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International Air Transport Association Operational Safety Audit

We are a registered participant in the International Air Transport Association Operational Safety Audit (IOSA) program, an internationally recognized evaluation approach designed to assess an airline's operational management and control systems. An IOSA, which takes place every two years, creates a structured methodology with standardized checklists that are comparable on a worldwide basis. That allows consistent auditing across carriers and a straightforward way to compare safety performance.

Line Operations Safety Audits

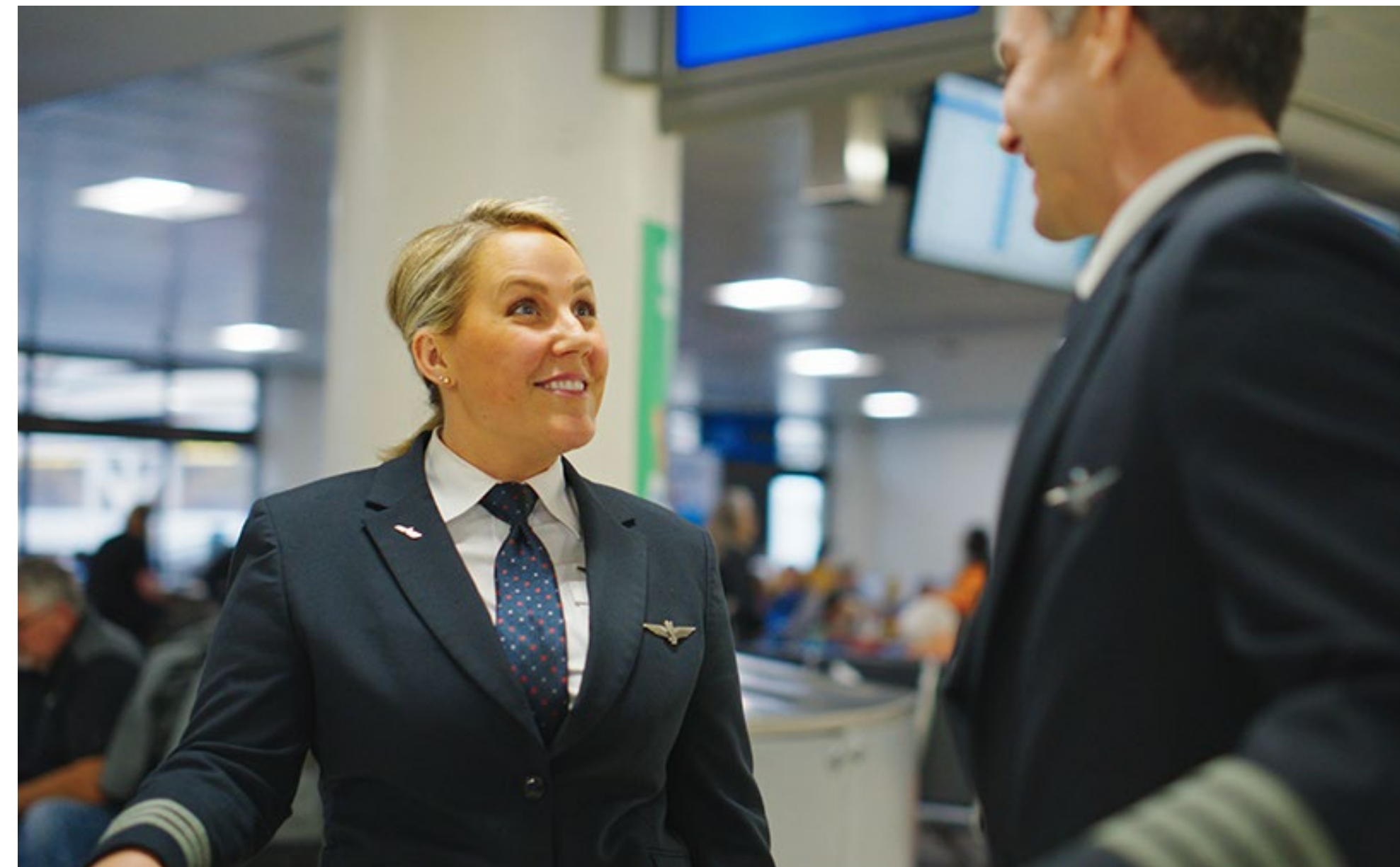
Since launching our continuous Line Operations Safety Audits (LOSA) program for pilots in 2017, we have been sending highly trained pilot observers into the flight deck to better understand work-as-done as opposed to work-as-imagined. Observing our frontline team members in action and gathering safety-related data on environmental conditions, operational complexities and crew performance in real time provides us with valuable insights for enhancing safety and resilience. In 2024, our pilot LOSA observers conducted more than 600 flight deck observations that resulted in improvements in our flight manuals and training. The past year also marked our pilot LOSA program's 5,000th flight deck observation.

American is the only carrier to operate continuous Dispatch and Cabin LOSA programs as well. In 2024, our continuous Dispatch LOSA program conducted more than 190 observations, while our continuous Cabin LOSA program conducted nearly 500 observations. All LOSA data is de-identified, validated and shared through American's SMS. American and the labor union partner for that operational group jointly manage each program. We continue to evaluate the feasibility of bringing LOSA to other operational groups.

Learning and Improvement Team

The overwhelming majority of airline flights conclude safely and without incident. Our Learning and Improvement Team (LIT) studies these flights to collect and analyze data on how American's pilots demonstrate resilience every day.

Although similar in some ways to LOSA, LIT is unique. Both programs observe flight operations, but a significant amount of data collection by LIT is done outside the flight deck through interviews, crew room visits and interactive discussions with line pilots. Combining LIT data with other safety data provides American with a broader picture of the system rather than looking solely at unwanted outcomes.





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Air Safety Investigations Team

Our Air Safety Investigations Team performs a critical role in American's SMS by guiding or supporting comprehensive root-cause analysis investigations on accidents, incidents, injuries and instances of noncompliance with company or regulatory standards. In addition to conducting internal investigations, these highly trained individuals review all industry incidents as defined by Annex 13 of the International Civil Aviation Organization (ICAO) International Standards and Recommended Practices. Thanks to this work, we have been able to proactively identify potential risks to our operation and mitigate them accordingly.



Fatigue Risk Management Team

Fatigue is an ever-present risk and challenge for flight operations. Our Fatigue Risk Management Team helps manage and lower fatigue risk by collecting data from the operational environment and comparing it with scientific knowledge on sleep and fatigue. This ongoing process proactively identifies fatigue risk, implements mitigating strategies and reviews outcomes to enable effective controls. In addition to support we provide for our pilots and operations teams, we are in the process of enhancing our existing fatigue risk management program for flight attendants.

Protecting team members from extreme heat

American is committed to protecting team members across our operations from illness and injury stemming from prolonged exposure to high temperatures. Our Heat Illness Prevention Policy (HIPP) is the framework for our strategy to mitigate risks from extreme heat. The HIPP establishes minimum standards and defines responsibilities for the program manager, local management and individual team members to recognize heat-related hazards, follow safe work practices, report symptoms early and participate in heat illness prevention training. HIPP also allows management to take action over and above these minimum standards to respond to team member needs under locally specific weather conditions. Our safety leaders re-evaluate the HIPP at least annually as part of our continuous improvement process to address new and evolving risks from extreme heat, and we may update it more frequently based on a variety of factors.

Heat safety on the ramp. Annually, and prior to the onset of warmer weather, we send safety alerts about our heat illness program to team members who work outdoors. These alerts include, but are not limited to, hydration best practices, heat stress prevention techniques, ways to recognize the signs and symptoms of heat stress and how to raise concerns with management. We also require frontline team members — including fleet service and flight attendants — to complete heat illness

prevention training annually, and we require frontline leaders to periodically review our heat-illness prevention protocols with their teams that work outdoors.

Among our heat-illness prevention protocols, we provide our ground crews with free access to drinking water, shade and conditioned air. Additionally, new team members and those returning from significant time away from work are gradually introduced to the work environment, which helps support their physical adjustment. We also verify that a team member has fully recovered from any heat-related illness before returning to work. All break rooms and ready rooms are air conditioned. Throughout the heat season, frontline leaders have the flexibility to address station-specific concerns, which may include ordering additional personal protective equipment for team members. We also ask frontline leaders to periodically observe team members for signs of heat stress.

We encourage team members to notify their managers if they experience symptoms of heat stress or suspect a fellow colleague may be suffering from it, so that leaders can take immediate action. We also encourage team members to take breaks when needed. Team members may also submit concerns about heat-related risks through our ASAPs or through our EthicsPoint hotline.

Heat safety in the cabin. To protect customers and team members on board, we use handheld digital thermometers during periods of warm weather to check aircraft temperatures prior to boarding. We have several ways to cool cabins, such as opening air vents, lowering window shades, turning off lights and adjusting recirculation fans. If cabin temperatures continue to rise, we will typically use auxiliary power units to run the aircraft's onboard air conditioning. We do not permit team members or customers to board planes if the cabin temperature exceeds our threshold and will wait until the cabin temperature has dropped before allowing customers and team members on board. Close communication across our airport



operations is critical for confirming when a cabin is ready for boarding, with final authority resting with the captain.

Contractors. We require our business partners to adopt safety protocols to encourage their personnel to work safely and in compliance with applicable safety laws. We expect them to train their workers on the prevention of heat-related injuries. Failure to maintain a safe work environment for their personnel may lead to corrective action, up to and including contract termination.



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Exploring new opportunities to enhance safety

American continues to leverage technology to improve our safety processes. For example, we have been exploring the use of computer vision, a field of artificial intelligence, to improve safety and efficiency during gate turn operations. The arrival and departure of every flight is a process that involves the convergence of aircraft, pilots, fleet service team members, aviation maintenance technicians and multiple vendors. Computer vision involves the installation of video cameras at key locations at the gate and jet bridge to capture the movements of everyone involved — on a 24/7 basis — in deplaning and getting an aircraft ready to depart again safely. Using machine learning, the system can gather valuable data and insights from the captured footage to improve workflow and develop strategies for preventing injuries. We have been testing this technology at both DFW and SEA since 2023 and expanded our trials at both airports in 2024. We will increase the scope of testing at DFW in 2025.

Some safety innovations may be lower-tech in nature, but they can have a substantial impact on the safety of our team members. For example, placing chocks (or wedges) against the wheels of a parked aircraft is a common industry practice to keep the aircraft stationary while performing maintenance or during boarding and deplaning. However, chocks are typically dark in color and could pose a safety hazard if left in unapproved locations. As part of our continuous improvement process, we are re-assessing visibility risk and testing several types of new high-visibility chocks across our system. We use this iterative assessment process before implementing an operational change so that all innovations meet our safety standards and we mitigate risk.

Safety Risk Management

The Safety Risk Management element of our SMS provides a decision-making process for identifying hazards and mitigating risk based on a thorough understanding of our systems and their operating environment. Risk management enables us to consider the risks in our operations and reduce them to an acceptable level. We use the risk management process whenever there is a significant change to our operations, such as delivery of a new type of aircraft or the addition of a new airport to our network. We also apply risk management when our Safety Assurance process identifies a new hazard or ineffective control of an existing hazard.

We use several tools to identify hazards and evaluate the need for new or revised risk controls. The process of risk management is the same regardless of the trigger or event, and our SMS looks at multiple factors for risk. While the FAA requirements are geared toward flight safety, our SMS goes further to evaluate a wider range of global risks, including operational disruptions and ground safety.

SMS and risk rating are evolutionary processes, and we revised our safety risk matrix in 2024 to meet current and expected needs. This update focuses on streamlining the number of risk categories and defining them more clearly, helping us move toward a risk rating process that is both more efficient and easier to use.

Additionally, we expanded the presence of Safety team members at selected hub locations during the busy summer 2024 travel season to evaluate safety procedures and assist airport operations as needed. Their work was so successful that we have deployed part of our Safety team to our hub locations for 2025 as part of a new department: Safety Operations Partners. Among their responsibilities, these team members regularly attend operations meetings, review safety policies and participate in investigations to share lessons learned with colleagues at our Fort Worth headquarters through the SMS process.



Safety Promotion

Our safety promotion activities include training, communications and other actions to reinforce our robust safety culture at every level of the workforce. We want each team member to take responsibility and assume accountability for achieving the highest safety and results. And we encourage team members to report errors, risky decisions or omissions without fear of retaliation.

Safety communications and training

Our safety communications and training activities take many forms. For example, through our long-standing StaySafe communications campaign, we make bulletins and alerts available on lessons learned and ways to prevent team member injuries and equipment damage. We communicate across multiple platforms to reach the greatest number of team members.

In September 2024, we launched a new safety course for customer service managers and crew chiefs at all our hubs and gateways. We designed this three-hour, in-person workshop to help these leaders foster compliance with the safety fundamentals required in the workplace, improve accountability and provide a baseline to create a safety culture. We will expand this training in 2025 to include team members at our other non-hub or gateway airports.

Identifying New Opportunities to Enhance Corporate Security

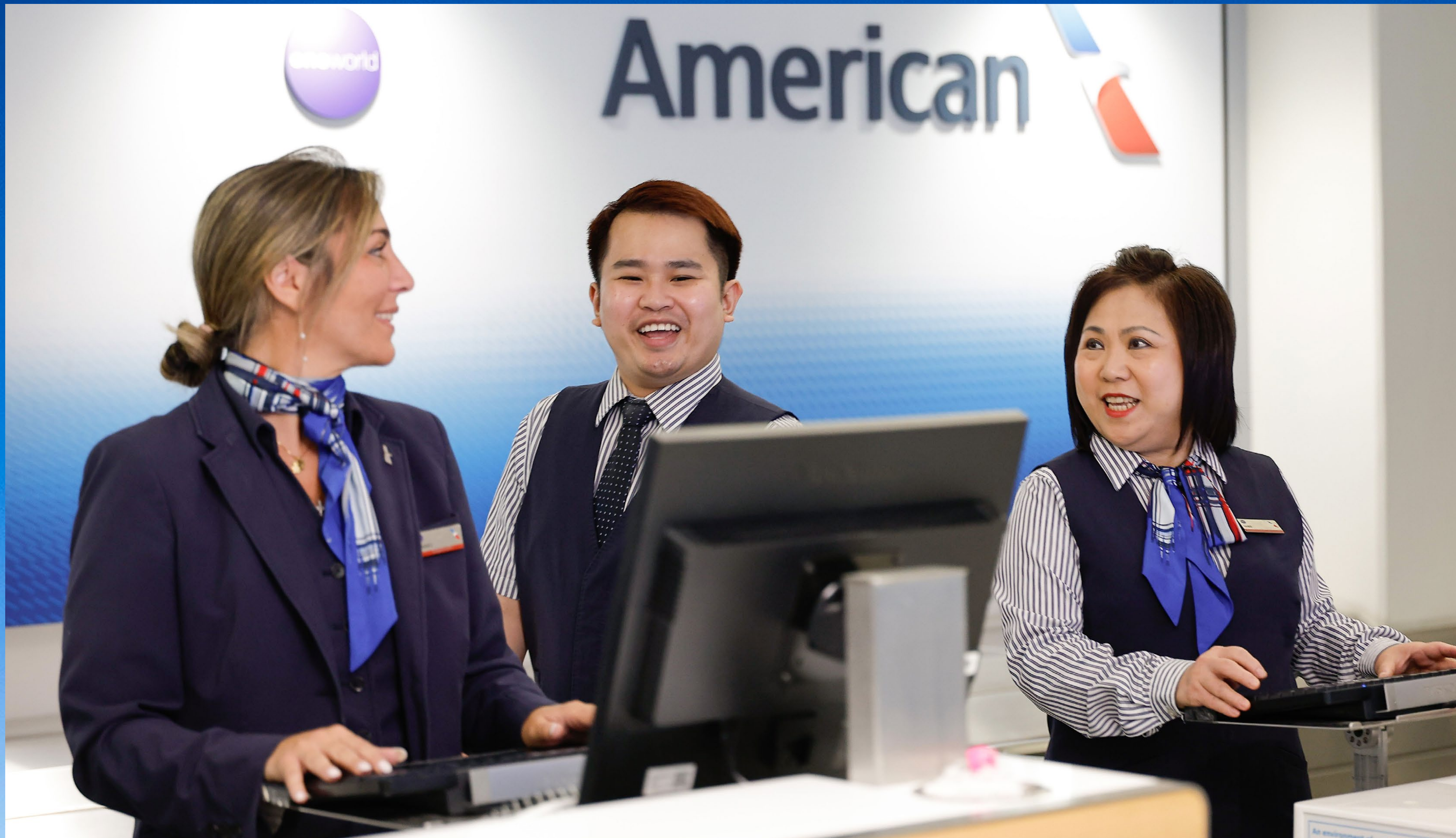
As part of American's comprehensive global security program, we work closely with law enforcement agencies, regulatory bodies and embassies to protect our team members and customers from potential security risks when they are traveling with us around the world. Our security team's efforts are wide-ranging — aimed at enhancing the travel experience while maintaining a high level of security across our operations.

In 2024, we implemented a Security Management System (SeMS) focused on the pillars of security policy, security assurance, security risk management and security promotion. Among its features, our SeMS promotes a culture in which our team members can identify, report, analyze and manage security threats and vulnerabilities. It emphasizes security management as a fundamental business process across our company and involves a commitment from our senior leaders to each frontline team member to integrate security into how we do our jobs. Our SeMS also encourages robust and repeatable processes with local ownership, driven by data to reduce risks and continuously strengthen our approach.

Among other activities, we invested in and deployed new screening technology and additional canine teams in partnership with U.S. and international organizations to combat security issues that cross national borders. American also recently joined the Blue Lightning Initiative to improve our education and process on addressing human trafficking. You can read more about our involvement on [page 61](#).



For detailed safety performance data, see [page 86](#).



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CARING FOR OUR TEAM MEMBERS

At American, our purpose — to care for people on life’s journey — guides every aspect of our operations. With more than 145,000 team members worldwide, we recognize that our people are our most valuable asset and the driving force behind our success. They are dedicated to making every flight safe, every customer experience exceptional and each challenge one that we meet with resilience and innovation.

Throughout 2024, we remained committed to building connections and trust with all who fly with us. By investing in our people, we will continue to create a world-class customer experience, make our culture a competitive advantage and position American to thrive forever.

A Culture of Connection and Engagement

Our purpose extends beyond our customers to the very heart of our organization: our team members. Their dedication, innovation and commitment fuel our success and shape our culture. We continued to honor and support our people through meaningful recognition programs and inclusive initiatives that celebrate their contributions and foster a sense of belonging and connection.

Recognizing the contributions of colleagues

Recognition at American isn’t reserved for special occasions — it’s woven into the fabric of our culture. Through our *Nonstop Thanks* program, team members are empowered to celebrate one another in real time, reinforcing the values and behaviors that drive our collective success.

In 2024, we issued approximately 3 million recognitions across all workgroups, each one a moment of appreciation — a simple yet powerful “thank you” for going above and beyond. Whether acknowledging a colleague’s support, service excellence or a small act of kindness, these recognitions create a culture where appreciation fuels performance, connection and pride.



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Driving engagement through Employee Business Resource Groups

Our culture is grounded in connection — both within our walls and across the communities we serve. Our 20 Employee Business Resource Groups (EBRGs), spanning 165 chapters, create spaces where all team members can build relationships, elevate one another and drive meaningful impact. More than 17,000 team members are actively engaged and act as business accelerators.

Rooted in five strategic pillars — community service, team member engagement, professional development, advancing business priorities and enhancing the customer experience — our EBRGs play a vital role in shaping our culture and supporting our growth. Team member volunteers brought these pillars to life in 2024, hosting more than 600 events designed to engage with the communities we serve, cultivate talent and advance enterprise goals. Whether mentoring, mobilizing for a cause or improving the customer experience, our EBRGs embody our belief that when people feel connected, they contribute with purpose — and that's when the business and culture thrive together.

Competitive Compensation, Benefits and Well-Being

We are proud to offer compensation that reflects the talent, experience and value our people bring. We achieved agreements with four workgroups that included enhanced pay, benefits and quality-of-life improvements.

For our management and support teams, compensation is determined based on their role and the team member's experience, education and skillset. We regularly review pay data in support of fair and consistent compensation for similar roles.

Circle of Excellence Embodies the Best of American

The *Circle of Excellence* represents our highest expression of gratitude and admiration, celebrating team members up to senior managers whose careers have been defined by a legacy of service, leadership and unwavering dedication that goes above and beyond. Examples include advocating on the front line for customers, maintaining the highest safety standards or improving our technology to drive operational performance and profitability.

A panel reviews each application to select finalists, and senior leaders weigh in at the final stage to choose each year's awardees. In 2024, we had more than 1,300 nominations from across the organization, with 100 winners representing all workgroups.





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Offering profit-sharing and long-term incentives

American recognizes the dedication and service of our team members through a robust profit-sharing program. In 2024, we enhanced our plan by doubling the allocation for the first \$2.5 billion of adjusted pretax income to 10% and increasing the allocation above that to 20%. This change benefits an additional 42,000 team members.

In 2025, we increased our 401(k) plan contributions for U.S.-based mainline management and support staff by more than 60%, up to a total of 9% of eligible compensation. This includes an automatic 5% contribution regardless of participation — which is the best in the airline industry. Additionally, we provide a 100% match on contributions up to 4% of pay.

Investing in Families and Future Generations

In 2024, the American Airlines Education Foundation awarded nearly \$1 million in scholarships to dependents of team members. These funds supported students in 10 countries, with additional awards given to first-generation college students. The American Airlines Family Fund also provided \$1.2 million in tax-free grants to more than 700 team members facing natural disasters and other hardships.

Supporting health, well-being and family life

Our comprehensive benefit offerings include medical, dental, vision and prescription coverage. We provide health coverage to more than 200,000 covered lives, including team members, retirees and their eligible dependents. During annual enrollment, approximately 86% of our team members enrolled in medical coverage, which is higher relative to industry benchmarks. Additionally, our dental plans continued to be very popular, with enrollment above 90%. Additional resources include access to a concierge surgery program, telemedicine and free or low-cost medications for chronic conditions.

Our Employee Assistance Program provided confidential 24/7 support and counseling services at eight U.S. airports during the past year. We also offered financial education tools and flexible leave options, including up to 10 weeks of paid maternity leave and up to \$30,000 in adoption and surrogacy reimbursement.

Hiring and Developing Talent

American's success depends on our ability to attract, retain and develop our team members. In 2024, we hired more than 20,000 team members to support our organization in Airport Operations, Technology, Marketing, Finance, Communications

and Commercial. Ensuring that our operations are appropriately staffed to serve the hundreds of thousands of customers who fly American daily is critical to our company's success.

Through programs like the American Airlines Cadet Academy, we are building a pipeline of future aviators. Since 2018, more than 1,200 cadets have joined the program, which provides mentorship, financial support options and a clear path to the flight deck. Our partnership with flight training schools across the country increases access to this opportunity. The Cadet Academy training footprint includes flight schools in the following seven states: Arizona, Florida, Mississippi, New Jersey, North Carolina, Oklahoma and Texas.

To support current team members with aspirations of becoming a pilot, the Elise Eberwein American Airlines Pilot Scholarship awarded two \$50,000 scholarships




in 2024. Those scholarships are part of a 10-year, \$1 million investment that reflects our belief in growing talent from within.

We continued to invest in team members through education and development totaling more than 7 million hours of training — averaging approximately 58 hours per team member. This comprehensive training encompassed various departments, including Airport Operations, Technology, Flight Attendants, Pilots, Technical Operations and our leadership team members. This underscores our commitment to equipping our team members with the skills and knowledge necessary to excel in their roles and serve our customers.

Improving access and awareness to careers in aviation

American understands that developing a pool of talent is essential for our future success. That's why we partner with accredited four-year universities to offer full-time, paid internships for juniors and seniors in good standing. In 2024, we welcomed 180 students from 28 universities, spanning various departments such as Cargo, Customer Planning & Analysis, Finance & Accounting, Procurement & Supply Chain, Revenue Management, Sales & Marketing, and Sustainability. This program is designed to deepen student engagement and strengthen our pipeline for early-career professionals.

In addition to obtaining real-world experience, our interns benefit from exposure to industry leaders and other networking opportunities. Upon completion of the program, many interns join the company to begin the process of building a thriving career at American.



For detailed team members data, see [page 87](#).



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SERVING OUR CUSTOMERS

American's customers can travel to more than 350 destinations globally, and we work to create a world-class travel experience. From our focus on driving operational excellence to enhancing all aspects of the journey, we have made customer satisfaction a priority.

We have made investments in proprietary technologies supporting our planning, execution and — when necessary — recovery. We have also created new benefits for our customers in the form of expanded functionality across our digital channels, improved check-in and boarding processes and a wider range of inflight entertainment offerings. Our commitment to customer satisfaction has been recognized with multiple industry honors, including a prestigious Five Star rating from APEX — the Airline Passenger Experience Association — for the seventh straight year in the Global Airline category, based on verified customer feedback on the overall travel experience.

Demonstrating resilience throughout the year

In 2024, American and our regional partners operated 2.16 million flights, an 8% increase over 2023. With an average of 3,244 flights per day, we operated the largest mainline schedule in our company's history. We also operated our largest



regional schedule since 2019. Revenue passengers rose by 7.5% to 226.4 million, our highest annual volume since American merged with US Airways in 2013.

Despite this significant ramp-up, we achieved a 98.6% completion factor (CF) (the percentage of flights on our schedule that are completed by arriving at their scheduled destination airport) and a 99.9% controllable completion factor (CCF). The latter factors out cancellations related to weather and other events outside our control. We achieved our second-best annual performance on both measures, trailing only our results from 2023. We also continued to build on the substantial improvements we made in 2023 to our mishandled baggage rate (MBR).



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The American team worked hard to deliver for our customers during the peak travel periods in 2024:

- **Fourth of July Holiday:** We posted our best-ever CF for this period and safely transported a record-high number of customers even as we were impacted by Hurricane Beryl and record heat in parts of the United States. Two weeks later, on July 19, we recovered quickly from the CrowdStrike outage that affected IT systems around the world, with our operation largely returning to normal by the end of that day.
- **Labor Day Weekend:** This period posed its share of challenges, with nearly 13 hours of combined ramp closures at our CLT, MIA and DCA hubs, including six hours of severe weather disruptions at CLT in one day. However, we recovered quickly and ended Labor Day weekend with a CCF of more than 99%.
- **Thanksgiving Holiday:** During this travel period, we transported more than 8 million passengers across more than 77,000 flights, a larger schedule than any competitor. We led the industry in on-time departures and mainline CF, and our MBR improved by 14% compared with the previous Thanksgiving. In fact, we recorded our best Thanksgiving period MBR since 2017.
- **Winter Holiday:** We overcame significant obstacles during the period from December 18, 2024, to January 6, 2025. These included thunderstorms that repeatedly disrupted operations at DFW and CLT. These are our two largest hubs and have an outsized impact on our airline. Additionally, a vendor technology issue impacted our ability to dispatch and operate flights across our network for approximately two hours on the morning of December 24. We resolved this issue quickly, and no flight cancellations were attributed to this outage. Even with these challenges, we posted a CF of 97.8% and a CCF of 99.9% for this period.

Focusing on planning, executing and recovering

The following three pillars guide American's operations:

Planning

This includes the work we do to make our operation resilient to any conditions we expect to face. We want our supply chains to be reliable, our staffing to be appropriate and to have the right facilities and equipment in place.

For example, we added 597 new positions from November 2023 to March 2025 at our Tulsa maintenance base. We added nearly 200 other new positions for our base maintenance facilities in Charlotte and Pittsburgh.

In 2024, we also launched a new digital tool that has increased the speed with which we communicate with pilots regarding trip scheduling and changes. Due to its success, we plan to launch a similar tool for flight attendants in 2025.

Executing

We work to invest in people, processes and technology to deliver for our customers consistently. One example is our success in minimizing disruptions to our operations through our proprietary Smart Gating tool. Smart Gating reduces the number of times when an arriving aircraft must wait for an available gate. It uses real-time flight information and other data points to automatically assign arriving aircraft to the nearest available gate with the shortest taxi time. That allows customers to spend less time waiting on the tarmac and gives them more time to make their connections. Smart Gating is available at five of our hubs — CLT, DCA, DFW, MIA and ORD — and it shaved an average of 16 hours per day off taxi times in 2024.



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We have also adopted industry-leading flight planning and optimization tools that enhance our ability to navigate around air turbulence and bad weather as efficiently as possible. We completed our transition to the flight planning tool in late 2024 and increased usage of the optimization tool from approximately 30% to 40% of eligible pilots during the year. Additionally, we modernized the technology supporting our 40 contact centers and consolidated it on a single platform. As a result, we can deploy process improvements more rapidly than in the past to improve both the customer and team member experience.

While we continued to improve our baggage handling in 2024, we acknowledge that there are still times when luggage may be delayed. To make such situations more efficient for our customers, we deployed a virtual Baggage Service Office at all our domestic airports beginning in June 2024. By scanning a QR code in the carousel area or clicking a link that one of our travel professionals provide over the phone, customers traveling domestically (including Puerto Rico and the U.S. Virgin Islands) can create a claim on their own without waiting to speak to a representative in the Baggage Service Office. They can then receive updates on the status of their claim via a virtual bag agent. Approximately 70% of customers who file baggage claims now do so digitally.

Recovering

This encompasses our work to recover from irregular operations more swiftly and efficiently than in the past. Although we can't control the weather, we can control our response. That means getting our crews, aircraft and customers back on track as quickly and safely as possible after a weather event. We continue to allocate more expertise, time and technology to irregular operations management and recovery, including development of a suite of tools to support our efforts.

Our proprietary Hub Efficiency Analytics Tool (HEAT) is one example. Once activated by our Integrated Operations Center, HEAT dynamically adjusts flight schedules to keep customers, crews and aircraft moving and to avoid cancellations when severe weather and other extraordinary situations threaten to disrupt our schedule. Using an advanced algorithm, HEAT weighs a variety of factors such as fullness of flights, customer connections and gate availability — as well as air traffic control and crew constraints — to adjust departure and arrival times on multiple flights in a coordinated manner. Since its launch in 2022, we have used HEAT to prevent thousands of flight cancellations.

HEAT has been used for operations at CLT, DCA, DFW, MIA and PHL, and we deployed it 32 times in 2024. That represents a 14% increase over 2023, as severe weather led to a rise in irregular operations. For example, we used HEAT in January 2024 at PHL to balance the number of inbound flights with outbound flights that required deicing. As a result, we were able to minimize gridlock. During the summer, HEAT usage at CLT reduced diversions by 33% and cancellations by 50%. Also at CLT, HEAT helped us restart operations in a controlled manner after the disruptions caused by Hurricane Helene.

Although we never want to cancel flights, sometimes we have no choice. It is always our aim, though, to get our customers to their destinations as quickly as possible following irregular operations once it is safe to do so. That means making sure our flight crews are where they need to be as well. Our Crew Recovery tool, which we developed internally, helps us get these team members back on schedule and in the right locations quickly and efficiently.

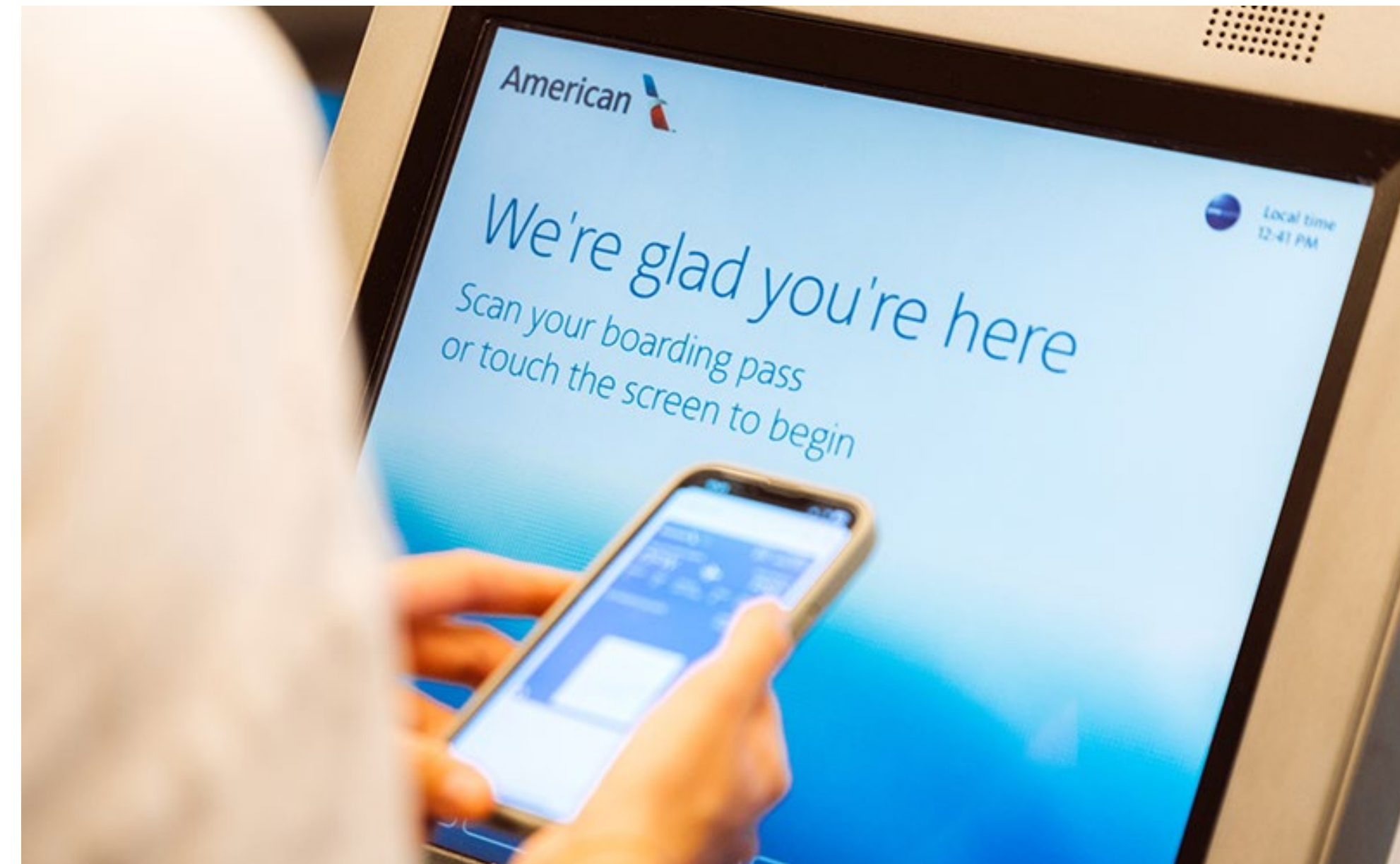
Embracing all aspects of the customer journey

American recognizes that the flight itself is only part of the customer journey, which is why we are working to improve all parts of the travel experience. It typically begins at home as customers interact with us through the American Airlines mobile app, at aa.com or over the phone. The airport experience also plays a major role.

We have found that many customers prefer to handle the easiest aspects of travel on their own, so we continued to put more power in their hands in 2024. As a result, customers can now manage more than 88% of their servicing needs online, compared with 84% at the end of 2023. And the percentage of customers who checked in for their flights using either our mobile app or aa.com climbed from 73% at the end of 2023 to 79% at year-end 2024. Greater online functionality provides the added benefit of freeing up team members in our customer call centers to work with customers who have more complex travel issues.

Among our enhancements, customers who have purchased a Basic Economy ticket now have additional flexibility to modify their flights online when weather conditions or other uncontrollable events affect their travel plans. AAdvantage members who purchase these Basic Economy tickets can also receive a partial credit for future travel when they voluntarily cancel their reservations online. For U.S. customers making changes to their international itineraries, we made digital servicing easier on both our website and app. This resulted in a 15-percentage-point increase in customers opting to modify their international trips online rather than calling one of our contact centers.

Our self-service improvements also empower travelers to request special service when, where and how they want. For example, customers can now store more of this information in their AAdvantage profiles to make future flights easier.



That includes adding requests for help getting seated or with stairs or including identification numbers for mobility devices and service animals. Read more about our support for passengers with special requirements on [page 53](#).

American's customers redeem travel credits for approximately 5 million bookings annually, and we have been working to make this process more flexible. For example, AAdvantage members now have a year to book after we issue a travel credit and up to an additional year to travel. Whenever someone redeems a travel credit, we also notify the account owner promptly. That keeps customers updated on their travel credit status and alerts them to potential fraud. In those rare cases where customers did not initiate the redemption, they can contact us through a phone number we include with their notification.



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At the airport, we launched an express checked baggage option at all kiosks to provide a faster experience for customers who prepay for checked bags online. Eligible customers simply scan their boarding pass at any kiosk and choose the “Print Tags Now” option to retrieve their bag tags, saving time at the airport.

American also wants customers to receive all the benefits they have paid for and are entitled to when traveling, including priority boarding. One way we accomplish this is through new technology rolled out in December 2024 that detects if customers try to board before their assigned group allows. We have made this technology available at more than 100 airports.

Supporting passengers with special requirements

Over the last two years, we have made significant investments in tools and training to deliver a positive travel experience for our customers flying with wheelchairs and other mobility devices. Despite these improvements, there are occasionally instances where the service we provide is disrupted, untimely or results in harm to customer equipment. American takes these situations and any related complaints and claims seriously. We work hard to remediate them by investigating every complaint and providing compensation to dissatisfied customers where warranted. In October 2024, American reached a settlement with the U.S. Department of Transportation (DOT) to continue our work to improve the travel experience for customers traveling with wheelchairs or other mobility devices.

In 2024 alone, we invested more than \$175 million in services, infrastructure, training and new technology that are designed to further ease the customer journey and help us transport our customers’ specialized equipment. During the year, we transported more than 208,000 wheelchairs and other personal mobility

devices, and our systemwide mobility device mishandling rate improved by 17%. In fact, we have showed consecutive year-over-year improvement for each month over the 28 months ending June 2025.

Among our latest innovations, we have deployed new wheelchair tag technology to improve the handling process. Customers can check in at an airport lobby and share key details about their device with a team member, including wheelchair weight, battery type and preferred delivery location in the airport. We print this information on the bag tag and share it across multiple channels to help our team members handle, load and properly transfer customers’ wheelchairs throughout their journey.

Apart from improving our service for passengers who rely on wheelchairs, we are also committed to making travel as easy as possible for those with other disabilities. The past year marked the 10th anniversary of It’s Cool to Fly American, an initiative centered around preparing children with autism and their families for air travel through mock travel experiences. American’s Abilities Employee Business Resource Group (EBRG) manages this program and partners with the HollyRod Foundation, several local organizations and airport teams.

During the events, families can practice the entire air travel experience — from checking in at the airport, going through security, boarding the plane, taxiing out to an active runway and experiencing a simulated take off with American’s team members supporting them every step of the way. This helps our customers become more comfortable with the sensory experience of air travel. Since its inception in 2014, we have hosted more than 9,000 participants from approximately 4,600 families in over 66 locations.

Providing an enhanced inflight experience

Our inflight entertainment platform includes 1,500 pieces of regularly updated content. That includes numerous television series and movies, free and available to stream straight to any personal devices for customers traveling on domestic narrowbody aircraft. In 2024, American also became the first airline to allow customers to stream video content from their favorite streaming platform on 100% of our mainline fleet.

Over the past year, we continued to expand our inflight entertainment offerings with several new partnerships. In a first among U.S. airlines, we now give customers access to more than 240 hours of podcasts and audiobooks through the Audible platform. For customers seeking wellness content, the FitOn Health digital wellness platform offers meditation, seated stretches and self-care. Through our exclusive partnership with Hey Bear Sensory, we offer videos to captivate the attention of small children.

We take pride in offering extensive accessibility options as part of our inflight entertainment as well. They include dubbing in multiple languages, English audio descriptions for the visually impaired and dynamic subtitles for travelers with impaired hearing. These inclusive features make it possible for virtually all passengers to enjoy our rich and varied entertainment offerings, and they helped make American a finalist for the APEX Innovation Award for Best Inflight Entertainment in 2024.

To support our inflight entertainment strategy and improve the overall travel experience, American offers high-speed Wi-Fi on more mainline aircraft than any other carrier. Beginning in January 2026, we plan to offer complimentary inflight Wi-Fi to AAdvantage members across more than 2 million flights a year, sponsored by AT&T.

We want our regional customers to enjoy high-speed Wi-Fi as well and have begun equipping the more than 500 dual-class regional aircraft operated on our



behalf with Intelsat's unique electronically steered array multi-orbit antennae. This technology is designed to deliver fast, reliable connectivity for texting, browsing and streaming. The transition began in late 2024, and we plan to equip the entire fleet by the end of 2025.

We expect to introduce more customer service enhancements in the coming year. To help set priorities, we rely in part on feedback from the approximately 3 million post-trip surveys our customers complete annually. Although our survey process has been a longstanding part of our customer service efforts, the past year marked our official transition to a new scoring methodology. We now use Net Promoter Score (NPS) as our principal means of measuring customer brand loyalty and satisfaction. Among its many benefits, NPS is a commonly used industry standard that will allow us to benchmark American's performance against other carriers and companies more effectively.



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Treating our customers fairly and communicating honestly

We are in business to provide safe, dependable and comfortable air transportation to our customers, and we work hard to make their experience a positive one. At the same time, managing an average of more than 6,000 departures per day is a complex undertaking. Inevitably, some of our flights are affected by adverse circumstances — some within our control and others not. When that happens, the policies and practices described in our [customer service plan](#) govern how we respond. Our customer service plan also governs our approach to family seating. Letting families sit together at no additional cost has long been American's policy.

Every day, American's dedicated team members strive to go above and beyond to handle customer concerns promptly and efficiently. In addition to traditional customer service channels, we also offer convenient options that help customers stay informed throughout their travel journey, such as in-app chat functions, automated callback features and immediate automated digital notifications.

When it comes to navigating the most complex of customer concerns, American has a highly trained, specialized team that works to handle these escalations promptly and appropriately. These team members work with stakeholders throughout the company to resolve all escalations and execute any follow-up actions.

American is also committed to accuracy in our communications and marketing. To help customers make informed decisions, we provide information about the benefits of flying with American and strive to represent truthfully the social and environmental aspects of our activities.



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Prioritizing cybersecurity and data privacy

Cybersecurity and data privacy are key priorities at American. In February 2025, we published our [SEC Form 10-K Item 1C disclosure](#) related to cybersecurity risk management, strategy and governance.

American has developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity and availability of our systems and information. Our program is aligned with various National Institute of Standards and Technology (NIST) cybersecurity standards, guidelines and best practices.¹ It includes policies, standards and a variety of technical security solutions to prevent and respond to cybersecurity issues, and a global cybersecurity firm evaluates it annually.

Our Chief Information Security Officer (CISO) is responsible for implementing our cybersecurity risk management program and reports to our Chief Digital and Information Officer (CDIO). The CDIO, in turn, is a member of our Senior Leadership Team and reports to the CEO.

Our cybersecurity risk management program is overseen by our Executive Cybersecurity Risk Group (ECRG), which comprises our CDIO, Chief Financial Officer and Chief Legal Officer. Working with our CISO, the ECRG assists the Board of Directors and our Senior Leadership Team in fulfilling their responsibilities for cybersecurity governance. Our Board oversees our work on cybersecurity, with the Audit Committee regularly reviewing cyber- and data privacy-risks and receiving briefings from senior leaders on these matters at

¹ This does not imply that we meet any particular technical standards, specifications or requirements; only that we use various NIST security standards, guidelines and best practices to identify, assess and manage cybersecurity risks relevant to our business.



least quarterly. The full Board also receives periodic briefings from management on our cybersecurity risk management program.

American also has a formal cybersecurity training and awareness program focused on educating our team members about cybersecurity risk and our internal policies and procedures related to cybersecurity, privacy and compliance. Certain trainings, such as basic data security awareness, are conducted annually, and all team members and contractors are expected to complete them.

Several team members undergo additional cybersecurity and data privacy training depending on their roles and responsibilities. We also review the cybersecurity profile of critical IT service providers, suppliers and vendors as part of our risk management strategy and engage certain third parties on their practices.



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American's Privacy Office is responsible for our privacy program, which we audit periodically. It is led by our Chief Privacy and Data Protection Officer and staffed with certified privacy professionals. We also have a Privacy Council composed of more than 30 senior leaders who meet quarterly to discuss privacy issues, challenges and proposed solutions. More than 100 privacy liaisons across our business and IT support the Privacy Council.

The privacy program is guided by key principles that inform how American handles and protects the personal information in our care, such as responsibility, transparency, security and choice. Our Privacy Office, composed of several privacy attorneys and privacy managers, regularly conducts privacy impact assessments of business processes and supporting IT systems that process personal data. The primary role of these assessments is to identify and remediate associated privacy risks.

Information obtained from privacy impact assessments is used to populate our personal data inventory, which details what personal data our company stores, how it is used, where it is stored, with whom it is shared and for how long it is retained. We supplement these efforts by coordinating with our IT department to incorporate privacy design requirements into the architecture and operation of our systems that store and process personal data. We also use these processes to fulfill our legal requirements for handling data rights requests and data disclosures via our internal and external privacy policies and statements.


Our team members are required to take privacy training courses annually, and the Privacy Office conducts individual training sessions with different business units each year that address a variety of privacy issues. We also coordinate closely with our Procurement and Corporate Legal functions, which provide input on privacy terms and provisions in agreements with our business partners and vendors so

that privacy issues are appropriately addressed. Contractors are required to take a course on global data privacy and protection annually or as they sign on.

Establishing rigorous guidelines for the use of artificial intelligence

American processes large volumes of data from various sources to enhance our operations and better serve our customers. Artificial intelligence (AI) plays a crucial role in this effort by analyzing data and creating solutions designed to positively impact both customers and team members, ultimately improving their experiences. By leveraging AI, we can gain valuable insights to meet customer needs more effectively, make data-driven decisions, and streamline processes to deliver faster and more beneficial results.

For Generative AI (GenAI), our framework is built on a centralized center of excellence approach led by our IT department. Our GenAI operating model includes a steering committee, a core team and a GenAI product team. The steering committee prioritizes use cases, approves valuable solutions and helps our GenAI products comply with essential requirements, including government regulations, ethical standards and transparency guidelines, as well as data privacy, security and audit protocols. Our approach emphasizes the importance of managing the risks and opportunities associated with GenAI applications through appropriate governance structures, which are formalized at the Board level as part of the Audit Committee's purview as set forth in its charter.



For detailed operational performance data, see [page 80](#).



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American sources products and services from thousands of suppliers, and we expect these suppliers to adhere to the same high ethical standards and values that guide our own operations. Regular supplier engagement provides us with insights into their support for human rights, management of environmental risks, safety and more. We are also keenly focused on combating human trafficking.

Setting supply chain expectations and evaluating risks

American has robust supply chain oversight across our different business units. We do so directly and through third-party screening services, and we focus engagement efforts on suppliers deemed critical based on spending, geographic risk, potential impact to our operations or other factors. Since our suppliers, in turn, often rely on other companies, we work to understand the nature of, and risks related to, the businesses from which they source as well.

We have been working to consolidate these practices across our enterprise. Our approach is outlined in American's [Sustainable Supply Chain Policy](#), which we last updated in August 2024.

In 2024, we developed a new Sustainability Procurement Council, where leaders of our Sustainability and Procurement groups discuss ongoing projects and shape strategy. Our Procurement group also established a centralized team dedicated to collaborating with external partners as well as other business units within American. Together, these groups work to further mitigate against potential human rights violations, unfair labor practices and poor environmental stewardship. One project this group is leading focuses on potential human rights risks in our textile supply chains, discussed on [page 60](#).

To improve visibility into our full supply chain, American is developing a unified way to examine all third-party spending. We believe that this will also allow us to evaluate and improve upon our goals and policies as needed. Jet fuel is our largest operating expense after salaries, wages and benefits, and we engage our fuel suppliers on a wide range of environmental and social risks.

We outline our expectations for suppliers in American's [Standards of Business Conduct for Suppliers](#) and train team members on its contents. Team members with sourcing and procurement responsibilities receive additional job-specific training relevant to their roles. We also provide training for suppliers, particularly those in airport, ground handling and deicing services, to help develop their capabilities in mitigating risks.

In response to shareholder feedback, we have been working to expand our responsible sourcing efforts and disclosures in other ways. For example, in early 2025, we partnered with Ecovadis to receive sustainability ratings and assessments for key suppliers. We can use this information to help determine whether those suppliers are meeting expectations and take action if needed.

Although we strive to partner with suppliers who share our standards, issues inevitably arise that require remediation. Some minor issues can be corrected

by alerting the supplier to the problem. For more serious issues, such as those potentially impacting safety or security, we require suppliers to submit a corrective action plan that we can monitor for implementation. If the supplier cannot identify a suitable solution, we work directly with the supplier to improve its performance. American will terminate a business relationship if our efforts prove unsuccessful.

Working to safeguard human rights

Although we believe that governments are primarily responsible for safeguarding human rights, we endeavor to conduct our business in a socially responsible and ethical manner consistent with human rights principles. International standards guide our approach, and we respect and support the following:

- United Nations (U.N.) Guiding Principles on Business and Human Rights
- Organisation for Economic Co-operation and Development's Guidelines for Multinational Enterprises
- Core Conventions of the International Labour Organization (ILO)
- ILO's Declaration on Fundamental Principles and Rights at Work
- U.N. Universal Declaration of Human Rights

The [American Airlines Human Rights Statement](#) applies to all team members and contractors as well as our suppliers and other business relationships. We continually evaluate our operations and value chain to identify, assess and address human rights risks and to engage key stakeholders.

For example, in late 2024, we engaged an expert third party to carry out an in-depth review of the supply chain involved in our procurement of uniforms. That helped us develop new systems to identify, monitor and mitigate human



rights risks and prepare for compliance with the European Union's Corporate Sustainability Due Diligence Directive. The project involved in-depth interviews with our uniform suppliers and a comprehensive review of our existing policies and practices regarding procurement of these items. We then worked to address potential gaps and improve our performance. We aim to use these findings to improve our human rights due diligence for other goods that we buy and to apply these learnings to support sustainability in procurement more broadly.

Our Human Rights Statement complements our annually required team member training on the Standards of Business Conduct. We also provide a dedicated 24/7/365 EthicsPoint helpline for team members, suppliers and partners to report human rights concerns anonymously. We investigate all reports containing



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sufficient information involving our policies and team members, and we do not tolerate any retribution or retaliation against any individual who has, in good faith, sought advice or reported questionable behavior or a possible violation.

Confronting human trafficking through training and strategic partnerships

American has long been committed to combating human trafficking, modern slavery and child exploitation. We conduct mandatory human trafficking awareness training for nearly 70,000 team members each year, including flight attendants, pilots and airport customer service representatives. It is required for new hires and as part of our recurrent training programs. We also provide modern slavery training developed by TRACE International for team members with international purchasing responsibilities. We believe that vigilance is key in fighting human trafficking and modern slavery, and we stand ready to help. Our team regularly updates our reporting and security processes with the latest information and best practices.

Our collaboration with government agencies, industry partners and nongovernmental organizations is an essential component of our human trafficking prevention program. Our partners include the following:

Blue Lightning Initiative (BLI)

A joint effort of the U.S. Department of Transportation and the U.S. Department of Homeland Security's Customs and Border Protection, BLI focuses on training airline and aviation personnel so that they have the tools to better identify potential traffickers and victims. American joined BLI in January 2025, and its training will become a part of the human trafficking awareness training we provide to American's flight attendants, pilots, customer service representatives and other team members.

BLI partners instruct their employees using the BLI virtual training module and associated printed educational materials, which may be integrated into initial or refresher training. The BLI training illustrates common indicators of trafficking that aviation employees may encounter and how to report suspected trafficking to law enforcement. BLI's real-time reporting mechanism gives law enforcement the ability to research and analyze information, and to coordinate an appropriate and effective response. [Learn more about BLI.](#)

Governor's Council to Combat Human Trafficking in Arizona

The Governor's Council addresses human trafficking in the state through strategic and targeted prevention and awareness efforts. Arizona's governor has authorized the Governor's Council to develop a comprehensive and coordinated victims' service plan; evaluate and report on statewide human trafficking data; promote greater collaboration with law enforcement, state agencies and the community at large; and raise public awareness about victims' services, restitution and prevention. [Learn more about the Governor's Council to Combat Human Trafficking in Arizona.](#)

PACT

This nonprofit works to protect every child's right to grow up free from child sexual exploitation and trafficking, through education, legislative advocacy and partnerships. American is a signatory to the PACT Tourism Child-Protection Code of Conduct. We have also donated AAdvantage® miles that will enable members of PACT's Survivors' Council to participate in meetings with members of Congress and other elected officials sharing their expertise and recommendations to improve trafficking prevention legislation and policies. These individuals can also travel to legislative advocacy and community education events to tell their stories. [Learn more about PACT.](#)

It's a Penalty

This organization combats human trafficking, exploitation and abuse through educational campaigns during major sporting events around the globe. It has helped protect more than 17,000 survivors of abuse, exploitation and trafficking, and prevented the victimization of many more.

American's team members have volunteered their time to support It's a Penalty's advocacy efforts, which included the awareness campaign it launched at Super Bowl 2025 in New Orleans. We also promoted the organization's mission on our seatback and wireless entertainment platforms during the first two months of 2025. As with PACT, we have donated AAdvantage® miles to help facilitate trainings, awareness sessions and other initiatives that can benefit from air travel. [Learn more about It's a Penalty.](#)

New Friends New Life (NFNL)

This Dallas-based organization works to restore and empower formerly trafficked teenage girls and sexually exploited women and their children. According to NFNL research, Texas has the second-highest number of human trafficking cases in the United States. By providing access to education, job training, financial assistance and mental health support, NFNL helps women and their children overcome backgrounds of abuse, addiction, poverty and limited opportunities. [Learn more about NFNL.](#)

Texas Businesses Against Trafficking

The Texas Secretary of State leads this public-private awareness and prevention initiative. [Learn more about Texas Businesses Against Trafficking.](#)

Our Legal team oversees the company's compliance with applicable domestic and international modern slavery and human trafficking laws. In May 2025, we published the annual update of American's [Modern Slavery and Human Trafficking Report](#) to comply with the United Kingdom's Modern Slavery Act 2015, Australia's Modern Slavery Act 2018 and Canada's Fighting Against Forced Labour and Child Labour in Supply Chains Act.



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Sustainability Accounting Standards Board (SASB) Index — Airline Industry Standard

SASB Code	SASB Metric	Disclosure Location or Response
GREENHOUSE GAS EMISSIONS		
TR-AL-110a.1	Gross global Scope 1 emissions	<ul style="list-style-type: none">Data Tables (page 81)
TR-AL-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	<ul style="list-style-type: none">Environmental Sustainability (page 11)Environmental Sustainability — Our Goals and Progress (page 14)Environmental Sustainability — Levers to Net Zero (page 12)Data Tables (page 81)
TR-AL-110a.3	(1) Total fuel consumed, (2) percentage alternative, and (3) percentage sustainable	<ul style="list-style-type: none">Data Tables (page 84)
LABOR PRACTICES		
TR-AL-310a.1	Percentage of active workforce covered under collective bargaining agreements	As of December 31, 2024, we had approximately 133,300 active full-time equivalent employees, approximately 87% of whom were represented by various labor unions responsible for negotiating the collective bargaining agreements governing their compensation and job duties, among other things.
TR-AL-310a.2	(1) Number of work stoppages and (2) total days idle	American Airlines did not have any union work stoppages or idle days in 2024.
COMPETITIVE BEHAVIOR		
TR-AL-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	In 2023, the Department of Justice and a set of state Attorneys General obtained a permanent injunction terminating the Northeast Alliance, a partnership between JetBlue Airways and American Airlines. As a result, American expects to pay approximately \$1 million in costs and attorneys’ fees to the state Attorneys General. Also, in 2025, the Swiss Federal Supreme Court reduced sanctions imposed on American over a decade ago for anticompetitive conduct to the amount of 1,449,379 Swiss francs. The initial court decision dating back to 2013 had imposed a sum of 2,225,310 Swiss francs prior to appeals.
ACCIDENT AND SAFETY MANAGEMENT		
TR-AL-540a.1	Description of implementation and outcomes of a Safety Management System	<ul style="list-style-type: none">Operating Safely (page 32)Operating Safely — Our Safety Management System (page 33)Data Tables (page 86)
TR-AL-540a.2	Number of aviation accidents	<ul style="list-style-type: none">Data Tables (page 86)
TR-AL-540a.3	Number of governmental enforcement actions of aviation safety regulations	<ul style="list-style-type: none">Data Tables (page 86)



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Task Force on Climate-Related Financial Disclosures (TCFD) Index

TCFD Recommended Disclosure		Disclosure Location
GOVERNANCE		
Disclose the organization’s governance around climate-related risks and opportunities.	<ul style="list-style-type: none">Describe the Board’s oversight of climate-related risks and opportunities.Describe management’s role in assessing and managing climate-related risks and opportunities.	<ul style="list-style-type: none">Sustainability Strategy — Climate-Related Governance (page 8)
STRATEGY		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy and financial planning where such information is material.	<ul style="list-style-type: none">Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy and financial planning.Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul style="list-style-type: none">Environmental Sustainability (page 11)Appendix — Climate-Related Risks and Opportunities Analysis (page 66)
RISK MANAGEMENT		
Disclose how the organization identifies, assesses and manages climate-related risks.	<ul style="list-style-type: none">Describe the organization’s processes for identifying and assessing climate-related risks.Describe the organization’s processes for managing climate-related risks.Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization’s overall risk management.	<ul style="list-style-type: none">Appendix — Climate-Related Risks and Opportunities Analysis (page 66)
METRICS AND TARGETS		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	<ul style="list-style-type: none">Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks.Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	<ul style="list-style-type: none">Environmental Sustainability — Our Goals and Progress (page 14)Environmental Sustainability — Levers to Net Zero (page 12)Environmental Sustainability — Our Carbon Footprint (page 16)Data Tables (page 81)

Climate-Related Risks and Opportunities Analysis

Through our existing enterprise-wide risk management process, American monitors and manages a broad range of strategic, financial and operational risks, including risks associated with climate change. To inform our understanding of the climate risk landscape, we conducted our first climate scenario analysis in 2020, focused on identifying and assessing the physical and transition climate-related risks and opportunities facing the company over the short, medium and long term. Since then, we've engaged a third-party with expertise in climate modeling to conduct a more detailed analysis of these risks and opportunities, including in 2025: (1) incorporating the Intergovernmental Panel on Climate Change's (IPCC) Shared Socioeconomic Pathways (SSPs) to our assessment for physical risk; (2) exploring relevant geographic regions where we operate that are projected to experience greater climate change impacts; (3) examining more closely the effects of potential changes in policy, technologies and markets; and (4) consulting directly with relevant internal and external subject-matter experts within the company and in our value chain. These detailed findings continue to inform our climate strategy and enable us to integrate climate risk analysis more deeply into our ongoing risk management and business, strategy and financial planning processes.

Climate Scenarios*

Scenario analysis is not a prediction or forecast of future events, but rather a tool to explore central elements of possible futures and inform decision-making given a significant degree of uncertainty. American uses multiple widely accepted climate scenarios for our analysis of both physical and transition risks. Due to the distinct nature of physical and transition risks, the standard practice is to use different scenarios in analyzing the two different types of risks:

- For physical risk, we updated our assessment to use the latest medium- and high-emissions scenarios — the SSPs from the IPCC Sixth Assessment Report — having previously used the Representative Concentration Pathways RCPs from the IPCC's Fifth Assessment Report. We also updated our time horizons to better align with American's financial reporting (short term), timeline of our goals (medium term) and our expected facility lifespan and long-term planning processes (long term).
- For transition risk and opportunity, our assessments used two of the most widely referenced transition pathways, both developed by the International Energy Agency (IEA): (1) the Stated Policies Scenario (STEPS) and (2) the Net Zero Emissions by 2050 Scenario (NZE). The STEPS pathway represents a "business-as-usual" trajectory with progress based on current and announced policies and thus assumes a high-emissions scenario. The NZE pathway outlines a pathway for the global energy sector to reach net zero emissions by 2050, consistent with limiting global warming to 1.5°C, and thus assumes aggressive actions to reduce GHG emissions.

Physical Risk Assessment

Our 2025 physical risk assessment included a detailed analysis of acute (event-driven) and chronic (longer-term) climate hazards for the 136 sites and assets we identified as most financially and operationally significant to American. For each identified site or asset, we assessed its exposure and vulnerability to 14 relevant potential climate hazards, such as increasing and extreme temperatures, water stress, drought, and wildfire, under both medium- and high-emissions scenarios. Exposure and vulnerability, when combined, provide us with a comprehensive understanding of risk. Exposure is location-specific and determined using climate model data that estimates the expected prevalence and severity of climate hazard events across different time horizons. Vulnerability evaluates how American may be impacted by the climate hazard in light of the company's internal risk procedures and level of preparedness. Together, they determine the overall risk each hazard poses to American. Through this analysis, we identified the three greatest physical climate-related risks to our operations: extreme heat, hurricanes (also referred to as typhoons or tropical storms) and flooding.

	PHYSICAL RISKS	TRANSITION RISKS
1.5°C scenario**	RCP 2.6 (2023)	IEA 2022 WEO Net Zero by 2050 (NZE)
Warming projections	1.5°C by 2100 (2023)	1.5°C by 2100
Medium-emissions scenario***	SSP2-4.5	N/A
Warming projections	1.7°–3.2°C by 2100	N/A
High-emissions scenario****	SSP5-8.5	IEA 2022 WEO Stated Policies Scenario (STEPS)
Warming projections	Approx. 4.4°C by 2100	Approx. 2.6°C by 2100

* Climate scenario analysis is an emerging discipline and relies on various inputs and data from third-party sources and complex assumptions. We anticipate expanding and updating our analysis as our company and operating conditions change and as the science of climate change and our understanding of its potential impacts evolve. Modeling that includes estimates of future data and predictions of complex outcomes can be imprecise. As such, the results presented are representative of our current understanding and are subject to change.

** Our 2025 physical risk assessment did not assess climate hazards under a 1.5°C scenario. Our last 1.5°C scenario was completed in 2023.

*** The SSP2-4.5 scenario was selected as a moderate scenario representing a future with decreasing GHG emissions after mid-century and lesser physical impacts.

**** SSP5-8.5 is a high-emissions scenario representing a future with increasing emissions and greater physical impacts from climate change.



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	Extreme Heat	Hurricanes	Flooding
Description	Includes both heat waves (prolonged duration of extreme temperatures) and heat stress (the impact of heat on the health and safety of employees)	Also called a typhoon or tropical storm depending on location, hurricanes develop over tropical or subtropical waters and are characterized by an organized circulation of low atmospheric pressure, high winds and heavy rainfall	Includes coastal (driven by storms, high tides or sea level rise), pluvial (groundwater overflowing) and fluvial (rivers and streams overflowing) flooding
Methodology used to identify extreme climate events by models	Annual Number of 3-day periods with Consecutive Days of Temperature above 30°C (heat waves) and Annual Number of Days of Maximum Wet Bulb Globe Temperature (WBGT) above 30°C (heat stress)	The maximum daily wind speed categorized based on the Saffir-Simpson Hurricane Wind Scale combined with peer reviewed research and information from the Sixth Assessment Report of the IPCC	The level of flooding determined by Fathom's U.S. and Global Flood Maps under different climate scenarios and flooding return periods
Modeling results (high-emissions scenario)	<ul style="list-style-type: none">High maximum impactHigh occurrence across assetsAll time frames	<ul style="list-style-type: none">High maximum impactMedium occurrence across assetsAll time frames	<ul style="list-style-type: none">High maximum impactMedium occurrence across assetsAll time frames
Areas of prevalence	Systemwide	Concentrated along the Southern United States, U.S. coast and the Caribbean	Coastal sites predominately on the U.S. East Coast and the Caribbean; for pluvial flooding, predominately in the eastern United States, Hawaii and the Caribbean
Potential impacts	<ul style="list-style-type: none">Power outages and equipment failureReduced aircraft climb performance and load cappingDehydration and heat stress in employees and passengers	<ul style="list-style-type: none">Flight cancellations across an extended time frameNegative impacts on infrastructure and physical assets such as runways and hangarsRisk of secondary impacts such as power outages and extreme precipitation	<ul style="list-style-type: none">Significant operational disruptionsNegative impacts on runways and airport infrastructureAccess restrictions for employeesHigher insurance costs
Risk mitigation	<ul style="list-style-type: none">Risk mitigation measures in place currently include back-up power redundancy for key facilities and proactive predeparture planning in anticipation of payload restrictions.Employees undergo annual training on heat-related procedures; those procedures include limiting work during high-heat events, identifying signs of heat illness, reporting of heat illness and rest periods.	<ul style="list-style-type: none">The company's Severe Weather Plan includes emergency preparedness procedures related to hurricanes. Airport-based Severe Weather Coordinators are responsible for monitoring weather reports, maintaining emergency contact lists and ensuring rapid communication with all personnel. The plan also requires passenger safety measures, protection of aircraft, extra equipment checks and movement of ground equipment.Our Integrated Operations Center (IOC) monitors and plans according to the weather forecast.	<ul style="list-style-type: none">American's risk mitigation and emergency preparedness procedures address flooding events.For example, through our footprint of maintenance operations, we can schedule workload across the system. We work with local authorities, utility providers and others to adjust our operations and keep our customers and employees safe.After irregular operations events, we conduct lessons-learned sessions to explore improvements.

Recognizing the limitations inherent in the analysis is critical to understanding the likely effectiveness of our climate change mitigation plans. Of note, climate modeling today is subject to certain assumptions and limitations, and it continues to evolve as more scientific consensus emerges on the impacts of climate change within the climate models over different time horizons and geographies. For example, while severe convective storms (i.e., storms associated with tornadoes, hail, heavy precipitation, strong winds and lightning) frequently disrupt our operations today, and there is evidence to support that they are expected to increase in frequency and intensity over time, the analysis we performed did not include future projections of severe convective storms among our highest overall risks. This is because the current scientific consensus is that

there are no observed trends related to severe convective storms that can be attributed to climate change. This may be due to data inhomogeneities, inadequacies in monitoring systems and the small spatial scale of severe convective storms that are not simulated by global climate models. Therefore, while climate models consistently project environmental changes that would support an increase in the frequency, intensity and duration (i.e., longer storm season) of severe thunderstorms that combine tornadoes, hail and winds, there is low confidence in the details of the projected increase. These findings may change over time in the event that an agreed-upon trend or signal in the climate models emerges.



Transition Risks and Opportunities Assessment

We continue to update and improve our analysis of American’s exposure to transition risks related to climate change, including the policy and legal, technology, market and reputation risks — as well as the opportunities that could arise from the transition to a low-carbon or carbon-constrained economy.

Looking across both NZE and STEPS allows us to compare different possible versions of the future and the levers and actions that produce them, with the aim of stimulating insights about the future of global energy. We used these scenarios to explore elements of the organizational resilience of American’s own business operations in a future with a successful global transition to a low-carbon economy and in a future with

significant physical climatic changes. In addition to looking at our own operations, we also consider the resilience of our value chain, such as upstream supplier reliability during extreme weather events. As part of the scenario analysis, we also looked at downstream customer behavior changes and how American’s climate ambitions might capture these changes and manifest them as opportunities.

The tables below summarize key physical risks and mitigation strategies, transition risks and opportunities, our assessment of the potential impact level under the NZE and STEPS scenarios, and American’s mitigation strategies. Given the qualitative nature of this analysis, complex and assumptions-based modeling and the forward-looking timeframe, we cannot reasonably predict the materiality of any financial impacts associated with these risks at this time.

Analysis of Climate-Related Risks and Opportunities*

							Potential Financial Impact Level		
							LOW	MED	HIGH
Physical Risk**							SSP5-8.5		
SHORT TERM: Present Day									
MEDIUM TERM: 2040									
LONG TERM: 2070									
Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy			
Physical Risks	Acute Increased prevalence and severity of extreme temperature events, including heat waves and cold events	Extreme heat can impact the performance of aircraft and other equipment, leading to flight delays or a reduction in allowable payload — both of which lead to a loss of revenue.	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	We continue to monitor temperatures at airports exposed to acute temperature risk and work to mitigate projected impacts from higher temperatures. For example, we are investing in additional mobile cooling units and upgrades to gate-based cooling systems to maintain customer comfort while aircraft are on the ground. We are also engaging our aircraft manufacturers so that our aircraft can operate safely under a range of operational conditions.			
		Extreme heat and extreme cold cause stress on the power grid, leading to higher energy costs and potential disruptions that could impact our facilities. Severe events in isolation or increased prevalence of events could warrant greater capital costs related to infrastructure maintenance (e.g., runways, taxiways) and require more equipment to mitigate (e.g., de-icing trucks).				Over the next five years, we intend to incorporate the projected impacts of climate change into design standards for physical assets, capital improvement plans, disaster management, emergency response and scheduling. Additionally, in the coming years, we plan to incorporate the projected impacts of climate change into aircraft purchasing plans, routing and scheduling. We also plan to work with airframe and engine manufacturers to develop aircraft that meet the technical specifications required for operation at airports with sustained high temperatures.			
		Such conditions also impact employee health and safety. Extreme cold increases the risk of medical incidents related to cold exposure or safety hazards from frozen runways, equipment and other assets that could pose safety risks to our team members. Heat stress can cause dehydration, heat exhaustion and other heat-related illnesses. In our analysis, heat stress was identified as posing the greatest risk across the assets we assessed and across all time horizons.				We proactively monitor and plan accordingly for commercial payload impacts related to extreme temperatures.			

* The potential financial impacts to American described herein could result in decreased revenues or increased cost depending on the specific risk type. We are not able to reasonably predict the extent of such financial impact.
** The World Meteorological Organization recommends using a time span of 30 years centering the time period to assess average climatic conditions. In the assessment performed for American, the short-term timespan looked at 2012–2041, the medium term 2026–2055, and the long-term 2056–2085.



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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Physical Risks	Acute Increased severity or frequency of hurricanes, flooding and heavy precipitation	<p>Hurricanes, severe storms and flooding place our team members, customers, operations and infrastructure at risk. Recovery from these events could result in substantial costs related to, among other things, canceled flights, airport closures and damaged assets.</p> <p>These events commonly also have secondary impacts, such as power outages that prolong the impact of the initial event and further impact our operations and the well-being of customers and team members.</p> <p>Additionally, these events could cause impacts in our supply chain that negatively impact us. For example, cyclonic events in the Gulf Coast region — where almost 50% of U.S. crude oil refining capacity is located — can disrupt fuel supplies. A significant portion of our fuel is sourced from the Gulf Coast region's refineries and is stored in, or must be transported from, the region, which poses a risk to our operations if those facilities are disabled for any period of time. Pipelines and storage terminals may also be at risk from extreme weather. Terminals may be supplied via ocean-going vessels if refineries are shut down, but there are no viable alternatives to move the amount of fuel stranded if pipelines are shut down due to flooding or other hurricane impacts.</p>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<p>We closely monitor weather-related events in our IOC and establish local control centers when needed. The IOC itself has extensive back-up and failover procedures to mitigate the risk of our control center being directly impacted.</p> <p>Our emergency response plans include contingency plans for extreme weather and other unforeseen weather-related situations, prioritizing the safety of everyone involved. We review these plans annually.</p> <p>Additionally, after irregular operational events, our IOC reviews lessons learned to identify areas for improvement.</p> <p>To mitigate the impact of flooding on infrastructure, we are developing plans to incorporate the projected impact of increased precipitation into design standards for physical assets, capital improvement plans, disaster management and emergency response, master plan development and early warning systems development.</p> <p>We work closely with our vendors in the case of severe weather events to minimize impacts where possible. We also work to diversify the geographic location(s) of our suppliers. For example, to mitigate the risk of cyclonic events in the Gulf Coast region, we source fuel from multiple regions and maintain a reserve of fuel at our hub airports, based on the risk of extreme weather and the location-specific fueling infrastructure.</p>
	Increasing severity or prevalence of wildfires or sand/dust storms	<p>These weather events can lead to temporary flight restrictions necessitating flight cancellations, flight rerouting, and/or operational delays. They can cause direct damage to infrastructure, with substantial capital costs to repair or replace.</p> <p>Smoke, dust or sand can limit visibility, hinder maintenance operations, increase equipment maintenance needs, and cause other operational disruptions. For example, outdoor workers may be unable to perform their duties due to air quality or health concerns.</p>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<p>We closely monitor weather-related events in our IOC and establish local control centers when needed.</p> <p>N95 respirators are provided to employees based on the air quality and in accordance with our Respiratory Protection Program and occupational safety and health requirements.</p>



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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Physical Risks	Chronic Expected increase in heat stress for employees across American's geographic operations	Extreme heat poses risk to our employees who work outdoors at airports and maintenance facilities.	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	We have several context and site-specific mitigation plans in place to mitigate the risks posed by extreme heat on our employees and operations. For instance, we have a comprehensive heat risk mitigation policy designed to protect workers in instances of extreme temperatures, and we regularly train staff on warning signs of heat stroke and similar conditions. In affected locations, such as Phoenix and Dallas-Fort Worth, we provide shade and cooling stations, and we also run hydration programs that deliver water and juice to employees at outdoor work locations throughout the day. We adjust aircraft operations during events of extremely high temperatures that could affect takeoff and landing, especially at airports such as Phoenix.
	Changing air temperatures and wind patterns	As high air temperatures reduce air density, chronically high temperatures at some of our hub airports may necessitate restricting the availability of seats for sale in certain markets, using aircraft with higher engine thrust, and potentially reducing schedules. Similarly, long-term changes to wind patterns may also impact flight routes and planning, possibly increasing fuel use. There may also be increased operational costs from cooling requirements and maintenance needs.	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	Over the next few years, we plan to incorporate the projected impacts of climate change into aircraft purchasing plans, routing and scheduling.
	Sea-level rise	Sea-level rise in our key hubs of Miami, Los Angeles, Philadelphia, and New York may require hardening of the airports in these locations.	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	Given the vulnerability of these key airports to flooding from sea-level rise and the resulting impact to business continuity, we intend to investigate options to mitigate the impacts of sea-level rise, which may include fortifying the shoreline around those facilities and, as a last resort, shifting operations to other locations. The cost-benefit analysis of available options may lead to adjustments to our network. We also plan to engage with policymakers and airport authorities to explore paths to greater resiliency.



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Transition Risk and Opportunities							Potential Financial Impact Level			
							NZE	LOW	MED	HIGH
							STEPS			
Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy				
Transition Risks	Policy and legal	The risk from existing and emerging regulation and legislation aimed at addressing climate change. This might include:								
	Increased prevalence and/or scope of carbon pricing	<p>New or additional carbon taxes could increase the price of jet fuel, which would raise our operating costs and potentially reduce demand for air travel.</p> <p>ICAO has adopted CORSIA, which will require us to mitigate the growth of GHG emissions associated with a significant majority of our international flights. We expect that we will need to purchase eligible carbon offsets to meet our anticipated obligation, but there is significant uncertainty with respect to implementation by the U.S. government, the future growth of covered GHG emissions, the supply and price of eligible carbon credits and the development of the market for eligible renewable fuels.</p> <p>We also face an increasing risk of having to comply with a patchwork of international, regional and state-specific regulatory regimes related to our GHG emissions.</p>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<p>We closely monitor emerging legislation and regulations and related guidance around the world to understand and prepare for the impact of the risks and opportunities for our business.</p> <p>We continue to advocate for CORSIA as the single global approach to addressing GHG emissions from international aviation, and we monitor developments in the CORSIA-eligible carbon credit market.</p>				
	Adoption of new policies requiring airlines to purchase lower-GHG emission alternatives	<p>Policies that mandate the uplift of SAF at airports, such as those enacted in the U.K. and EU and are under consideration in other jurisdictions, will raise our operating costs and potentially reduce demand for travel.</p> <p>Policymakers in the United States could enact similar policies or policies with similar effect.</p> <p>Additionally, there is a risk of increased local- or state-level policy activity aimed at mandating airlines to purchase or implement lower-GHG emissions alternatives, related to jet fuel or otherwise.</p>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<p>We are developing a robust and multifaceted long-term SAF strategy, aimed at maximizing the impact of our own dollars and collaborating with our value chain in scaling the SAF market, to help meet our goals. A key component of our strategy is to continue advocating for effective policies that take an incentive-based approach and are long-lasting with clear implementation guidance. We believe this approach has the strongest potential to create the right environment for stakeholder collaboration and an appropriate level of financial investment across the SAF value chain.</p> <p>We continue to seek efficiency gains in our operations and seek to employ lower-GHG emission or zero-GHG emission technologies as they become available on a commercially reasonable basis. We partner internally and look for opportunities to partner externally, for example by taking advantage of grants to support the electrification of our ground support equipment where cost-effective and available.</p>				



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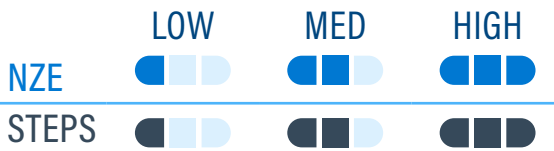
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Risk Type		Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Policy and legal	Inadequate development of public policies to support aviation's transition	American's ability to procure sufficient SAF to meet our 2030, 2035 and 2050 goals is significantly dependent on the availability of cost-competitive SAF. Government support through reliable long-term incentives and other funding will be critical to scaling this nascent industry.				We work individually and with a broad group of stakeholders to advocate with policymakers at all levels of government to adopt policies that will accelerate our industry's transition to lower-carbon alternative jet fuels. For example, at the federal level in 2023 and 2024, we worked with stakeholders across several industries to create the SAF Coalition, which advocates for policies that will secure U.S. economic competitiveness and increase production of American-made SAF. American individually and in concert with Airlines for America (A4A) also advocates for continued funding for federal research and grant programs related to SAF.
			American has SAF offtake agreements from facilities that are planned but not yet operational and which may use technology that has not been proven at commercial scale.				At the state level, we work with policymakers to identify policy solutions that can help scale decarbonization technologies for us and our industry. In 2023, for example, we were successful in our work with government officials and industry partners in Illinois in securing enactment of the state's first SAF tax incentive — a significant development in a state where American has an important hub. As a direct result of this new legislation, American began deliveries of SAF in 2025. We continue our work with coalitions in other states to enact similar policies.
			If policy is insufficient in attracting significant investment in SAF production and SAF-related industries (e.g., hydrogen, blending infrastructure) to enable a cost-competitive SAF market, we may not be able to source the volume of SAF sufficient to meet our stated goals.				While policy support is vitally important to our industry's transition, we recognize that private sector action must also play a role. As an anchor partner to Breakthrough Energy Catalyst, American has committed to invest \$100 million to advance a set of clean energy technologies — including SAF — that are critical to a zero-carbon economy. This innovative collaborative effort is focused on helping these technologies access the capital they need to reach commercial scale. As a direct result of our participation in the Catalyst program, we have entered into a firm, long-term offtake agreement with Infinium for SAF from Project Roadrunner, Infinium's first-of-a-kind commercial-scale PtL eFuels facility. Our offtake agreement was a critical enabler of further investment, from Catalyst and others, in Project Roadrunner, which is now under construction.
			Policies at the state level to date have been important in reducing the cost premium for SAF over the cost of conventional jet fuel and have enabled American to purchase SAF for delivery, particularly in California and Illinois. More states are considering adoption of similar policies to encourage the delivery or production of SAF, but if they do not come to fruition, the availability of SAF may be constrained and the cost of SAF may be too high for us to meet our stated goals.				



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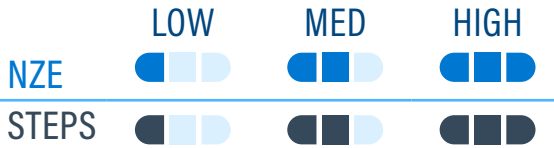
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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Policy and legal					
	Increased disclosure reporting obligations and related exposure to fines or penalties	<p>We could incur fines or penalties in relation to our compliance with new or potential legislation and regulations globally.</p> <p>For example, the emergence of climate-related disclosure requirements, including climate disclosure laws in California and the EU's Corporate Social Responsibility Directive, are likely to increase compliance risk and reporting costs.</p> <p>New jurisdictions may add their own climate-related requirements, and we expect a lack of harmony to create administrative burden and compliance risk, particularly if disclosure guidance or implementation rules are not clear.</p>				<p>We continue to monitor regulatory developments and seek to adhere to best practices for expected climate-related disclosure requirements.</p> <p>We have aligned our reporting with the recommendations of the TCFD — which is the basis for some of the new and emerging disclosure requirements globally — since 2019. For the last three years, we have engaged our independent accountant, KPMG LLP, to provide assurance on certain emissions data. For the results of KPMG's work on certain of American's 2024 results, see the Statement and Notes on Greenhouse Gas Emissions, which starts on page 88.</p>
Transition Risks						
	Exposure to litigation related to how we describe our climate change goals, strategy and progress	<p>Expectations from our stakeholders regarding sustainability continue to evolve, and our sustainability commitments and risk assessments are long-term in nature. Despite our efforts to communicate in a clear, accurate and transparent manner, litigation alleging incomplete, inconsistent or inadequate disclosures, advertising, marketing, or any other communications (commonly referred to as "greenwashing") provided in response to the climate-related disclosure requirements discussed above or other disclosure requirements that may emerge or similar claims could arise, given the forward-looking and long-term nature of our climate strategy as well as the fact that any climate strategy is based on third-party or other estimates or methodologies which are subject to change.</p>				<p>American recognizes the importance of communicating our sustainability goals, strategy and progress with transparency and accuracy to our stakeholders. Our sustainability communications are reviewed with a goal to provide appropriate context and information regarding our sustainability strategy and initiatives, and we maintain comprehensive information on these matters on the sustainability section of our website.</p>



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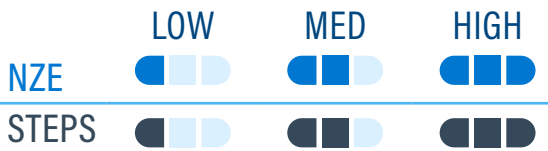
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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Technology	The risk from emerging technologies — or technologies that fail to emerge — aimed at supporting the global low-carbon transition. This might include:				
	Unexpected new barriers and complications may be encountered that slow the development of SAF	<p>New SAF technologies that are expected to produce significant volumes of SAF by 2030 and beyond may be delayed or fail to commercialize, slowing the growth of SAF volumes available for sale at commercially reasonable prices.</p> <p>Some new SAF technologies under development use widely available feedstocks. If these new technologies fail to develop or are slow to develop, the SAF market will continue to rely on processes that have limited feedstock supply, which will limit the potential growth of the SAF market.</p> <p>Restrictions, whether enacted by regulation or by stakeholders in the voluntary market, may also constrain the development of certain pathways or feedstocks and limit the potential growth of the SAF market.</p>				<p>American individually and in concert with A4A advocates for continued funding for federal research programs related to expanding SAF pathways and feedstocks. We are also supporting the development of new SAF pathways through our investment in Breakthrough Energy Catalyst. Our long-term offtake agreement with Infinium was entered into with the purpose of enabling investment from Catalyst and others in a PtL SAF project.</p> <p>We have articulated a set of SAF sourcing principles, which include a 50% minimum GHG reduction compared to conventional jet fuel, robust analysis of environmental and social impacts of SAF feedstocks, and completion of our own due diligence including the examination of external sustainability certification.</p>
	Substitution of existing products and services with lower-emission options	<p>Our fleet renewal program has given us a mainline fleet that is younger than the industry average age, according to IATA data, but there is a risk we lose this advantage over the long term as other carriers update their fleets with the latest generation of aircraft.</p>				<p>In the last decade, American has undertaken an extensive fleet renewal effort, and as of year-end 2024, our mainline fleet had an average age of 13.8 years — a year less than the industry average, according to IATA data.</p> <p>In 2024, we took delivery of five aircraft from the A320neo family and seven from the Boeing 737 MAX family, bringing us closer to our goal to fly 30% of our ASMs with latest-generation aircraft in 2025.</p>



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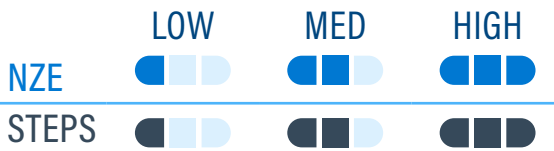
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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Technology Impacts of shifting to alternative propulsion such as hydrogen, electric and hybrid are far-reaching and unknown	The process to incorporate alternative propulsion into our operations is extensive and bears many risks spanning product development, infrastructure development, safety and certification. Assuming those challenges are overcome, the aircraft of the future are anticipated to bear a different cost structure and may require changes to our business model.	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	We engage regularly with our aircraft manufacturers to stay abreast of priorities, updates and developments and to inform American's strategy. We monitor and support alternative propulsion initiatives, such as our investments in and subsequent conditional purchase order of engines from ZeroAvia. We also engage with other companies and provide feedback on considerations related to incorporating alternative propulsion into American's operations.
	The upfront investment needed to transition to lower-emission technology in the future may be onerous	Particularly with regard to fleet and fuel logistics, there is uncertainty about where, when and to what extent American and our supply chains should invest to deliver lower-carbon solutions — such as SAF and green hydrogen — to airports. Currently, SAF in production today must be blended with conventional jet fuel, which requires blending infrastructure, before it can be used in an airplane. Aircraft and engine manufacturers are working on the scientific testing necessary to gain regulatory approval to reduce and potentially eliminate the blending requirement, which — if successful — would in turn reduce the investment needed for blending infrastructure.	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	American works with A4A and others to understand and develop plans to mitigate the risk in building the logistics needed to deliver SAF to airports. We also work with relevant American Society for Testing and Materials (ASTM) International committees to understand the progress toward, and technical barriers to, reducing the existing blend requirement for SAF.



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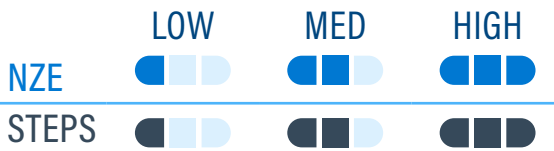
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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Market	The risk from shifting supply and demand as economies react to climate change. This might include:				
	Changing customer behavior	<p>Business customers may continue to choose to use alternatives to travel, such as virtual meetings and workspaces, as their companies work to reduce their Scope 3 emissions.</p> <p>An earlier trend commonly referred to as “flight shaming” could reemerge and/or spread to new regions, impacting customers’ flight behavior.</p> <p>Greater development of high-speed rail in markets now served by short-haul flights could provide passengers with lower-carbon alternatives to flying.</p> <p>Incorporation of carbon emissions data into third-party booking tools poses a potential risk if American’s flights do not display competitively on that metric for a specific market.</p> <p>As customer demand shifts and economies move to low-carbon alternatives, the collateral we use to secure loans — in the form of aircraft, spare parts and airport slots — could lose value.</p>				<p>Over the last decade, American has undertaken an extensive fleet renewal effort, including taking delivery of seven aircraft from the Boeing 737 MAX family and five from the Airbus A320neo family in 2024. As of year-end 2024, the average age of our mainline fleet was 13.8 years — a year less than the industry average, according IATA data. Looking forward, we have definitive purchase agreements for 103 latest-generation aircraft to be delivered between 2025 and 2027.</p> <p>We have also introduced new tools and products to help our business customers manage their emissions from air travel, including GHG footprint reports and our SAF environmental attributes program (commonly referred to as the sale of SAF Scope 3 emissions). We intend to integrate other sustainability practices into the products, services and experiences we offer and continue to explore opportunities to adapt to changing customer behaviors related to climate change.</p> <p>We are also leveraging intermodal solutions to provide more customers with access to hub airports and global network connectivity, while also reducing individual car trips and related GHG emissions. American is expanding our use of luxury motor coach service to transport passengers from small local airports to our hubs. By the end of 2025, American expects to operate luxury motor coach service to five airports in Pennsylvania, New Jersey and Delaware within 125 miles of our PHL hub and two airports in Illinois and Indiana within 125 miles of ORD. American-ticketed passengers park and clear security at their local community airport, board a luxury motor coach operated by our partner, Landline, and are transported airside-to-airside where they can seamlessly connect onward without the need for additional security screening.</p> <p>We are on the Advisory Committee for Google’s Travel Impact Model (TIM), which estimates the GHG emissions of future flights. The role of the Advisory Committee is to promote future development of the TIM in line with high rigor, integrity, speed and according to the latest science.</p>



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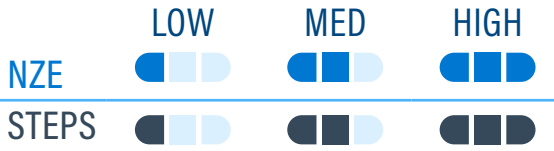
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	Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Market	Increased cost of raw materials in American's supply chain	<p>Carbon pricing and other policies designed to reduce the use of fossil fuels, alone or in combination with geopolitical and economic changes, could negatively impact the availability of conventional jet fuel and the reliability of the network that delivers jet fuel to airports. Both could result in higher costs to the airline industry and to American.</p> <p>Jet fuel is only one of the products refined through crude, making up a small percentage of the barrel compared to gasoline and diesel. As other transport sectors decarbonize and reduce their demand for petroleum, aviation could face higher costs as a hard-to-abate sector in a green transition.</p> <p>SAF is also subject to challenges with regard to the inputs for its production. Today's SAF is made using feedstocks, such as used cooking oil and animal fats, that can be used to make other fuels or products, and competition for these feedstocks could raise prices and slow the development of the SAF market.</p> <p>Additionally, future SAF and propulsion systems are likely to require green hydrogen and face high competition for renewable electricity and electrolytic technologies.</p>				<p>We source jet fuel from multiple suppliers and consider various supply routes to build resilience. Local suppliers with shorter supply chains play a key role in diversifying our supply chain risks. We work closely with airports and suppliers to bring in new entrants, enhancing competition and reliability of supply. Additionally, we invest in building storage tanks both on and off airport properties and maintain fuel inventory, enhancing our capacity to manage disruptions. We also seek ways to increase pipeline space utilization, supporting the increased movement of both fossil fuels and sustainable fuels.</p> <p>With regard to SAF, American advocates for federal research into new feedstocks and SAF pathways that have the potential to reduce the SAF industry's reliance on hydroprocessed esters and fatty acids (HEFA) feedstocks, such as waste oils and animal fats. American's offtake agreement with PtL producer Infinium is another way we are working to expand and accelerate the kinds of SAF that are available.</p>



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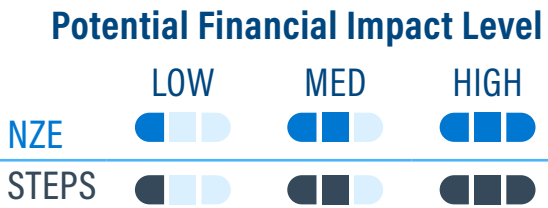
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Risk Type	Climate-Related Risk Definition	Potential Financial Impact	Short Term	Medium Term	Long Term	Mitigation Strategy
Transition Risks	Reputational	The risks of damage to the brand and loss of customer base from shifting public sentiment about aviation's contribution to climate change. This may include:				
	Shifts in customer preferences	<p>Some customers may look for opportunities to better align their purchasing power with companies that align with their values, and actions taken or not taken by American could risk alienating some customers.</p> <p>For example, some customers may choose to fly less frequently or fly on an airline they perceive as more sustainable. Other customers or investors may question or disagree with spending on sustainability-related initiatives.</p>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<p>We are developing a sustainability strategy aimed at driving progress toward our ambitious climate goals, including our 2035 Science Based Targets Initiative target and long-term net zero 2050 goal.</p> <p>We intend to continue our efforts to reduce carbon emissions using the various levers available to us at this time — including consideration of how to include modern aircraft, efficient technology, sound operational practices and sustainable fuels — in our climate mitigation strategy. We are looking to embrace new low-carbon levers as they become available and to accelerate the availability of those levers where we can.</p> <p>We continue to make sustainability disclosures that are aimed at educating customers, team members, suppliers, investors and the general public on the steps American is taking to reduce our impact on the climate and minimize our overall environmental footprint. We also regularly solicit feedback from stakeholders to inform our processes and operations.</p>
	Slower than expected progress in new technological developments that allow us to reduce emissions in our operations and meet our climate goals	<p>We have published several sustainability-related targets and goals, including with respect to reducing our climate impact. These goals are often long-term in nature and rely heavily on the future availability and efficacy of technologies that either do not yet exist or are not yet commercially viable. Our ability to meet these targets depends on a few factors outside our control, including for example the work of engine and airframe manufacturers, SAF producers and other industry participants, to develop and commercialize these technological solutions.</p>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div></div>	<p>We work with key stakeholders in industry and government to identify barriers to developing the low-carbon technologies we will need to reduce emissions in our operations and opportunities for collaboration that have the potential to speed that development.</p> <p>For example, in 2024, we committed to a conditional purchase of 100 ZeroAvia hydrogen-powered engines intended to power regional jet aircraft and increased our investment as part of the company's Series C financing. This builds on our first investment in ZeroAvia and the memorandum of understanding announced in 2022.</p>



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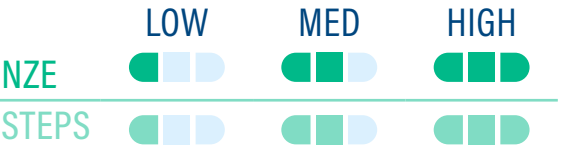
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Potential Financial Opportunity Level



Opportunity Type	Opportunity Category	Short Term	Medium Term	Long Term	Realization Strategy
Fleet and fuel efficiency as a competitive advantage	Resource efficiency, Products and services, Markets	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	Having an industry-leading young and efficient fleet enables us to save on fuel costs and may attract sustainability-minded customers as we continue our fleet renewal efforts and retirement of older less fuel-efficient aircraft. Additionally, we pursue measures to improve fuel efficiency in our operations and work with the government on air traffic control (ATC) modernization, including recently enacted law related to improving safety and enhancing efficiency of the U.S. ATC system. We monitor and stay engaged in new technologies in transportation and mobility, such as with alternative propulsion and electric vertical take-off and landing (eVTOL) aircraft.
Increasing uplift of SAF	Energy resources, Products and services, Markets, Resilience	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	SAF is critical to decarbonizing aviation, and we continue to work on increasing SAF uplift today and exploring offtake agreements and investment opportunities with new SAF suppliers for the future. This may also yield opportunities for American in the voluntary carbon market through SAF attributes. In addition, in the long-run, domestically produced SAF may provide an alternative to conventional jet fuel. By moving up the fuel supply chain through SAF investments, we can better manage one of our largest cost drivers as an airline.

Data Tables

Financial Performance*

	2024	2023	2022
REVENUE			
Passenger	\$49,586	\$48,512	\$44,568
Cargo	804	812	1,233
Other	3,821	3,464	3,170
Total operating revenue	54,211	52,788	48,971
Total operating expenses	51,597	49,754	47,364
Operating income	2,614	3,034	1,607
Income tax provision	308	299	59
Net income	846	822	127
Basic earnings per share	1.29	1.26	0.20
Cash dividends declared per common share	—	—	—

* In millions of U.S. dollars, except per-share amounts.

Operational Performance

		2024	2023	2022
SASB Metrics	MAINLINE			
	Revenue passenger miles (millions)*	223,160	209,692	191,519
	Available seat miles (millions)**	261,581	249,822	229,922
	Departures (thousands)	1,191	1,145	1,052
	Passenger load factor (percent)***	85.3%	83.9%	83.3%
	REGIONAL (INCLUDES CONTRACTED REGIONAL CARRIERS)			
	Revenue passenger miles (millions)*	25,635	22,234	24,105
	Available seat miles (millions)**	31,367	27,901	30,304
	Departures (thousands)	972	855	903
	Passenger load factor***	81.7%	79.7%	79.5%

Note: American uses miles, rather than kilometers, for our operational data reporting in the SASB metrics.

* Revenue passenger mile (RPM): A standard measure of passenger volume. One RPM represents one passenger flown one mile.

** Available seat mile (ASM): A standard measure of available seat capacity. One ASM represents one seat flown one mile.

*** Passenger load factor: The percentage of available seats that are filled with revenue passengers and weighted by miles flown.

Operational Performance	2024	2023	2022
On-time performance*	75.9%	78.9%	77.3%
Completion factor**	98.6%	98.9%	97.3%

Mishandled Baggage Rate	2024	2023	2022
By year	7.88	7.61	8.78

* Percentage of reported flight operations arriving less than 15 minutes after the scheduled arrival time.

** Percentage of scheduled flight operations completed.



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Environmental Performance

		2024	2023	2022
DIRECT AND INDIRECT GHG EMISSIONS*				
Scope 1 Emissions (thousands of metric tons of CO ₂ e)				
SASB Metrics	Scope 1 emissions — all sources	39,947	37,533	34,629
	- Jet fuel emissions**	39,748	37,322	34,410
	- Emissions associated with SAF (CH ₄ and N ₂ O)	0.22	0.20	0.16
	- Diesel emissions	36	38	39
	- Gasoline emissions	48	43	46
	- Liquid propane gas emissions	0.7	0.7	0.6
	- Heating oil emissions	—	0.07	—
	- Natural gas emissions	85	79	79
	- Purchased CO ₂ e	30	50	54
Biogenic Emissions (thousands of metric tons of CO ₂)				
Emissions associated with biogenic fuel emissions (CO ₂)		31.0	28.1	27.2
Scope 2 Emissions (thousands of metric tons of CO ₂ e)				
Scope 2 location-based emissions		178	189	206
Scope 2 market-based emissions		128	126	126
Scope 3 Emissions (thousands of metric tons of CO ₂ e)				
Scope 3 emissions — all categories		15,125	14,289	13,767
- Combined Categories (1, 2, 5-9, 15)		3,936	3,647	2,939
- Category 3 (fuel and energy-related activities)		8,278	7,775	7,350
- Category 4 (upstream transportation and distribution)		2,912	2,867	3,478

	2024	2023	2022
OTHER EMISSIONS			
Aircraft Emissions (metric tons from landing/takeoff cycle)			
Nitrogen oxides (NO _x)	22,126	18,683	17,773
Hydrocarbons (HC)	831	797	847
Carbon monoxide (CO)	12,007	10,209	9,825
Ground Emissions From Reporting Facilities (metric tons)			
Carbon monoxide (CO)	58.3	39.3	41.4
Nitrogen oxides (NO _x)	70.1	63.1	66.3
Sulfur oxides (SO _x)	3.0	2.3	2.2
Volatile organic compounds (VOC)	132.2	97.2	90.0
Particulate matter (PM)	12.6	7.8	5.5
Other Emissions (metric tons)			
Ozone-depleting substances	0.015	0.004	0.426

Reviewed by independent accountant KPMG LLP, as described in its report starting on page 88. The 2024 Scope 1 emissions, biogenic emissions data and Scope 2 emissions (market and location-based) are presented in accordance with the GHG Protocol. Scope 3 emissions (Categories 3 and 4) are calculated based on the GHG Protocol, in the Greenhouse Gas Emissions Statement and as described in Note 2 on page 91.

* Certain Scope 1 and Scope 2 totals may reflect rounding.

** Jet fuel emissions represents emissions from mainline operations and wholly owned regional carriers Envoy, PSA and Piedmont.

Select environmental data for 2022 and 2023 have been restated on pages 81 and 85. This was due to a variety of factors, including a correction to our metrics or use of a more accurate calculation methodology.

In the prior years, KPMG LLP examined the Scope 1 and biogenic emissions and related notes, and reviewed the Scope 2 and Scope 3, Categories 3 and 4, emissions and related notes in the GHG Statement for the years ended December 31, 2022 and December 31, 2023. The GHG Statement and independent accountants' report thereon, dated July 7, 2023, are available on page 67 of our 2022 Sustainability Report. The GHG Statement and independent accountants' report thereon, dated July 1, 2024, are available on page 82 of our 2023 Sustainability Report.



Explaining Our Calculations of Jet Fuel GHG Emissions

American's use of conventional jet fuel constitutes the vast majority of our GHG emissions — 99% of our Scope 1 emissions and 74% of our Scope 3 emissions. We have estimated and disclosed our GHG emissions since 2006, using GHG and other conversion factors from the most reputable sources we could identify at the time. However, there continues to be a gap in the availability of a comprehensive and industry-harmonized set of factors for GHG emissions from jet fuel. In addition, GHG emissions factors, including those for jet fuel, can change over time based on a number of factors, including the mix of energy suppliers and improvements in emissions estimates. Each year we refine our own calculations to align with the most respected sources. We welcome feedback on our current methodology and how we might improve upon it.

- **Scope 1:** To estimate Scope 1 emissions from our use of jet fuel, we rely on guidance from the [2006 Intergovernmental Panel on Climate Change \(IPCC\) Guidelines for National Greenhouse Gas Inventories](#). Though that guidance is from 2006, we continue to rely on it because it provides more detail than other models in describing the source of its conversion factors for estimating aviation's CO₂e emissions from CO₂, methane (CH₄) and nitrous oxide (N₂O). We believe these factors remain best practice, as the IPCC did not change its guidance for these factors in its 2019 update.
- **Scope 3:** Because the IPCC's 2006 methodology was designed to guide reporting of direct GHG emissions within the geographic boundaries of countries, it does not address indirect (Scope 3) emissions. However, Scope 3 emissions are an important category in corporate GHG accounting, in which the goal is to assess emissions from products and services instead of locations. To calculate our emissions from the upstream production of jet fuel (Scope 3,

Category 3), we use factors derived from the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO).¹

We think it is important that users of our emissions disclosures note the degree of uncertainty in estimating the GHG emissions associated with various components of jet fuel. For example:

- The CO₂ emissions from jet fuel are relatively certain. The formula to calculate CO₂ emissions from the combustion of jet fuel is widely accepted — it can be calculated by dividing the molecular weight of CO₂ by the atomic mass of carbon and multiplying that result by the ratio of carbon in jet fuel. The inputs used in that calculation are well established. And because jet fuel must meet specific technical specifications before it can be used, the ratio of carbon in jet fuel is relatively consistent. (While there may be minor differences due to operator-specific factors, such as fuel density, variances are minimal.)
- There is less certainty in calculating the emissions of CH₄ and N₂O from jet fuel combustion. Both can vary based on aircraft and engine combinations, and CH₄ emissions are considered negligible at altitude.² There are variabilities in how operators measure both gases when they are emitted as part of surface operations. Furthermore, each IPCC Assessment Report updates the global warming potential factors that are used to convert CH₄ and N₂O to CO₂ equivalents (CO₂e).
- Estimating the upstream emissions from the production of jet fuel (Scope 3, Category 3) is the least certain part of the calculation process, and this applies to

¹ Annex 16 to the Convention on International Aviation, Environmental Protection, Volume IV, Carbon Offsetting and Reduction Scheme for International Aviation, Second Edition, July 2023.

² See page 3.64 in 2006 IPCC Guidelines for National Greenhouse Gas Inventories at https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_3_Ch3_Mobile_Combustion.pdf.



both conventional jet fuel and SAF. For conventional jet fuel, the uncertainty stems from variations throughout the fuel production process: extraction (type of crude, how much CH₄ is released and how much energy is used), production (age of refinery, type of energy used, coproducts produced) and transportation (which may differ based on distance and transportation modes). It is common for companies to use an average emissions factor to estimate Scope 3 emissions, both because there are a wide range of variables that can impact Scope 3 emissions and because it remains difficult to obtain fuel-specific information from suppliers.

The Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model, prepared by the U.S. Department of Energy’s Argonne National Laboratory, offers an alternate approach to calculating jet fuel emissions.³ Argonne publishes updates to its model regularly, based on the latest available inputs and estimates. Note in the table to the right that IPCC and GREET are very close in their estimates of Scope 1 emissions, but relatively far apart in estimating Scope 3, where the most recent GREET model reflects the improvement in energy efficiency in the production of jet fuel. The table compares the methodology American uses in this report and the relevant version of the GREET model.

3 See <https://www.energy.gov/eere/greet>.

Factors used to convert conventional jet fuel consumption to GHG emissions: American’s current approach compared to R&D GREET (factors in g of CO₂e per megajoule of fuel)

	AMERICAN’S CURRENT APPROACH	R&D-GREET (2024)	% DIFFERENCE
	IPCC	GREET	
Scope 1	72.06	73.21	1.6%
	CORSIA	GREET	
Scope 3, Category 3	15.2	10.8	(27.9%)



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		2024	2023	2022
SASB Metrics	FUEL USE			
	Nonrenewable Fuel Use (millions of gallons)			
	Jet fuel*	4,137	3,890	3,599
	Diesel	3.36	3.61	3.76
	Gasoline	5.22	4.7	5.03
	Liquid propane gas	0.12	0.11	0.09
	Heating oil	—	0.01	—
	Natural gas (million MMBtu)	1.60	1.47	1.49
	Renewable Fuel Use (millions of gallons)			
	Jet fuel sourced from sustainable feedstock	2.91	2.65	2.55
	Renewable diesel	0.10	0.08	0.06
	Ethanol	0.55	0.50	0.55
	STANDARDIZED ENERGY CONSUMPTION			
	Nonrenewable Energy Consumption (thousand MWhs)			
	Jet fuel — nonrenewable	150,064	141,095	130,520
	Other fuels — nonrenewable	317	307	324
	Total fuel — nonrenewable fuels	150,381	141,402	130,844
	Electricity consumption — nonrenewable direct	481	491	345
	Total nonrenewable energy consumption	150,862	141,893	131,189

		2024	2023	2022
SASB Metrics	STANDARDIZED ENERGY CONSUMPTION (CONTINUED)			
	Renewable Energy Consumption (thousand MWhs)			
	Jet fuel sourced from sustainable feedstock	104	95	91
	Other fuels renewable	16	14	15
	Direct purchase of renewable electricity	191	187	179
	Total renewable energy consumption	311	296	285
	Total Energy Consumption (thousand MWhs)			
	Jet fuel	150,168	141,190	130,611
	Other fuels	333	321	339
	Total fuels	150,501	141,511	130,950
	Electricity	672	678	524
	Total energy	151,173	142,189	131,474
	Renewable Energy as a Percentage of Total Energy			
	Renewable jet fuel as a percentage of total jet fuel	0.07%	0.07%	0.07%
	Renewable direct electricity as a percentage of total electricity	28.4%	27.6%	34.2%
	Renewable direct energy as a percentage of total energy	0.2%	0.2%	0.2%

* Jet fuel emissions represents emissions from mainline operations and wholly owned regional carriers Envoy, PSA and Piedmont.

In the prior year, KPMG LLP reviewed the Total nonrenewable and renewable energy consumption amounts and related notes in the Statement of Select Environmental Indicators for the year ended December 31, 2023. The Statement of Select Environmental Indicators and independent accountants' report thereon, dated July 1, 2024, are available on page 82 of our 2023 Sustainability Report.



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	2024	2023	2022
INTENSITY PERFORMANCE			
GHG Emissions Intensity			
Passenger CO ₂ e fuel intensity (kg CO ₂ e/passenger kilometer)	0.092	0.096	0.096
Cargo CO ₂ e fuel intensity (kg CO ₂ e/ton kilometer)	0.922	0.964	0.958
SBTi Aviation Tool carbon intensity (life cycle g CO ₂ e/RTK)	1,175	1,192	1,195
Fuel and NO _x Intensity			
Passenger jet fuel consumption intensity (liters/100 passenger kilometers)	3.636	3.803	3.792
Cargo jet fuel consumption intensity (liters/ton kilometers transported)	0.364	0.380	0.379
Passenger NO _x emissions intensity (g of NO _x /passenger kilometer)	0.051	0.048	0.049
Cargo NO _x emissions intensity (g of NO _x /tonne kilometer)	0.514	0.483	0.495
WASTE			
Municipal solid waste*	16,046	14,682	13,423
Hazardous waste (tons)	1,966	1,348	692
WATER			
Water withdrawn at major facilities (millions of gallons)	653	487	480
NOISE			
Percent of aircraft certified as, or meeting, Chapter 3 noise limits	100%	100%	100%
Percent of aircraft certified as, or meeting, Chapter 4 noise limits	100%	100%	100%

	2024	2023	2022
NOISE (CONTINUED)			
Percent of aircraft certified as, or meeting, Chapter 5 noise limits	20%	18%	16%
ENVIRONMENTAL COMPLIANCE			
Number of environmental notices of violation	2	3	15
Amount of environmental fines and penalties (thousands of U.S. dollars)**	\$0.0	\$75.7	\$2.0
Spills recorded (1 gallon or greater)	352	402	330

* Invoiced amounts from our two largest waste service suppliers in U.S. tons.

** In September 2023, the Oklahoma Department of Environmental Quality (ODEQ) issued an Alternative Enforcement Letter to American Airlines for alleged noncompliance and areas of concern at its Tulsa Maintenance and Engineering Center, a permitted air pollution control facility under Title V of the Oklahoma Clean Air Act. American continues to work closely with ODEQ to implement an effective compliance plan. The amount paid for 2023 was updated in October 2024. In the prior year, KPMG LLP reviewed Passenger jet fuel consumption intensity, Cargo jet fuel consumption intensity, Passenger NO_x emissions intensity, Cargo NO_x emissions intensity, and Water withdrawn at major facilities and related notes in the Statement of Select Environmental Indicators for the year ended December 31, 2023. The Statement of Select Environmental Indicators and independent accountants' report thereon, dated July 1, 2024, are available on page 82 of our 2023 Sustainability Report.

Community Impact

	2024	2023	2022
GLOBAL GIVING*			
Total global giving – all sources (millions of U.S. dollars)	\$29.8	\$32.0	\$24.5
- Cash donations (millions of U.S. dollars)	\$2.9	\$8.8	\$9.4
- Total product or services donations, projects/ partnerships or similar (millions of U.S. dollars)	\$27.0	\$23.2	\$15.1
VOLUNTEER SUPPORT			
Total volunteer hours (thousand hours)	32	37	44

* Global Giving figures may reflect rounding.



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Safety Performance

Flight Safety Performance		2024		2023		2022	
		Mainline	Regional	Mainline	Regional	Mainline	Regional
Number of flights*		1.8 million		1.7 million		1.6 million	
SASB Metrics	Number of aviation accidents**	6	0	4	1	4	2
	Number of enforcement actions from government agencies***	0	3	0	1	0	2
	Number of safety risks and hazardous situations identified†	109	120	92	149	116	281
	Percentage of safety risks and hazardous situations identified that were mitigated‡	100%	99%	100%	100%	100%	98%
Aircraft ground damages (rate per 10,000 departures)		1.66	1.43	2.30	0.92	2.41	1.01
Aviation Safety Action Program reports		17,505	9,015	15,374	7,101	12,282	7,837

* Mainline and wholly owned regional carriers.

** Defined according to the International Civil Aviation Organization (Annex 13) and the National Transportation Safety Board (Part 830). Of the six mainline accidents in 2024, three involved turbulence that caused crew member injuries and a fourth involved turbulence that caused a customer injury. The fifth, due to damage from a maintenance issue when the aircraft was landing, did not result in injuries to passengers or crew members. The sixth was due to a runway incursion that did not lead to aircraft damage or injuries to either customers or crew.

*** Defined to include enforcement actions by the Federal Aviation Administration, the European Aviation Safety Agency and equivalent national authorities related to the regulation of aviation safety.

† The majority of our risk assessments are performed prior to implementing or revising systems/procedures. American's SMS covers safety risks and hazardous situations related to six areas: flight safety, flight service, ground operations, technical operations (maintenance), security and environmental. The figures reported here include all such risks identified by our SMS.

‡ Our SMS requires that we mitigate identified risks, particularly high risks, to as low as reasonably practicable (ALARP). These systemic and residual risks are monitored, measured and tracked.

Team Member Safety Performance		2024		2023		2022	
		Mainline	Regional	Mainline	Regional	Mainline	Regional
Injury rate*		8.33	6.67	7.21	5.09	6.89	5.06
Lost day rate**		5.71	3.03	5.90	2.57	4.53	2.37
Work-related fatalities		0	0	1	1	0	1

* Total recordable cases per 200,000 hours worked.

** The lost day rate, which the U.S. Occupational Safety and Health Administration calls the Days Away from Work Injury and Illness rate, is calculated as the number of cases multiplied by 200,000 work hours divided by total hours worked.



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Employee Data

Employee Turnover and Rate*	2024		2023		2022	
	Turnover	Rate	Turnover	Rate	Turnover	Rate
AAG (GLOBAL)						
Total	18,713	13%	23,117	16%	29,263	22%
TURNOVER BY TYPE						
Voluntary	12,991	9%	16,407	12%	22,488	17%
Involuntary	5,722	4%	6,710	5%	6,775	5%
TURNOVER BY REGION**						
United States	17,833	13%	21,979	16%	28,147	21%
Canada	140	0%	90	0%	149	0%
Mexico, Caribbean, Latin America	525	0%	792	1%	747	1%
Europe and Asia	215	0%	256	0%	220	0%

* Turnover Rate = Turnover/Total Population.
** Turnover rates may reflect rounding.

Age Composition of American's U.S. Employees	2024	2023	2022
Employee Category	Total	Total	Total
Less than 30 years old	21,463	21,416	20,071
From 30-50 years old	55,553	53,409	49,987
More than 50 years old	59,003	59,307	58,839

New Employee Hires	2024	2023	2022
AAG (GLOBAL)			
Total	20,534	28,836	37,315
NEW EMPLOYEE HIRES BY REGION			
United States	19,846	27,760	35,778
Canada	139	145	252
Mexico, Caribbean, Latin America	489	739	934
Europe and Asia	60	192	351



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**STATEMENT AND NOTES ON GREENHOUSE GAS EMISSIONS
FOR AMERICAN AIRLINES GROUP INC.**



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KPMG LLP
Suite 1400
2323 Ross Avenue
Dallas, TX 75201-2721

Independent Accountants’ Review Report

To the Board of Directors and Management of American Airlines Group Inc.:

Report on the Greenhouse Gas emissions statement and notes for the year ended December 31, 2024

Conclusion

We have reviewed whether the Greenhouse Gas (GHG) emissions statement and notes (the GHG Statement) of American Airlines Group Inc. (the Company) included in the Company’s Sustainability Report for the year ended December 31, 2024 have been prepared in accordance with the criteria set forth in the basis of presentation in Note II of the GHG Statement (the Criteria).

Based on our review, we are not aware of any material modifications that should be made to the GHG Statement for the year ended December 31, 2024 in order for it to be prepared in accordance with the Criteria.

Our conclusion on the GHG Statement does not extend to any other information that accompanies or contains the GHG Statement and our report.

Basis for conclusion

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants in the versions of AT-C section 105, *Concepts Common to All Attestation Engagements*, and AT-C section 210, *Review Engagements* that are applicable as of the date of our review. We are required to be independent and to meet our other ethical requirements in accordance with relevant ethical requirements related to the engagement. We believe that the evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

Responsibilities for the GHG Statement

Management of the Company is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the GHG Statement such that it is free from material misstatement, whether due to fraud or error;
- selecting or developing suitable criteria for preparing the GHG Statement and appropriately referring to or describing the criteria used; and
- preparing the GHG Statement in accordance with the Criteria.

Inherent limitations in preparing the GHG Statement

As described in Note IV to the GHG Statement, emissions data are subject to measurement uncertainties resulting from limitations inherent in the nature of the data and in the methods used for determining such data. The selection by management of different but acceptable measurement techniques can result in materially different measurements.

KPMG LLP, a Delaware limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee.



Our responsibilities

The attestation standards established by the American Institute of Certified Public Accountants require us to:

- plan and perform the review to obtain limited assurance about whether any material modifications should be made to the GHG Statement in order for it to be prepared in accordance with the Criteria; and
- express a conclusion on the GHG Statement, based on our review.

Summary of the work we performed as the basis for our conclusion

We exercised professional judgment and maintained professional skepticism throughout the engagement. We designed and performed our procedures to obtain evidence that is sufficient and appropriate to provide a basis for our conclusion. Our procedures selected depended on our understanding of the GHG Statement and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. In carrying out our engagement, the procedures we performed primarily consisted of:

- inquiring of management to obtain an understanding of the methodologies and inputs used to measure and evaluate the GHG emissions;
- inspecting supporting documentation for a selection of activity data;
- considering the appropriateness of emission factors used;
- recalculating a selection of the GHG emissions based on the Criteria; and
- performing analytical procedures.

The procedures performed in a review vary in nature and timing from, and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether the subject matter information is prepared in accordance with the criteria, in all material respects, in order to express an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed.

KPMG LLP

Dallas, Texas
July 24, 2025



STATEMENT AND NOTES ON GREENHOUSE GAS EMISSIONS FOR
AMERICAN AIRLINES GROUP INC.

Year ended December 31, 2024

AMERICAN AIRLINES GROUP INC.
Greenhouse gas (GHG) emissions statement
Year ended December 31, 2024
In metric tons of carbon dioxide equivalent (CO₂e)

Scope 1 emissions	39,946,681
Biogenic emissions	30,908
Scope 2 emissions:	
Location-based method	177,858
Market-based method	128,153
Total Scope 1 and 2 emissions (market-based method)	40,074,834
Selected Scope 3 emissions:	
Category 3, fuel- and energy-related activities	8,278,151
Category 4, upstream transportation and distribution	2,911,538
Total Selected Scope 3 emissions	11,189,689

The accompanying notes on pages 91 to 95 form an integral part of this GHG emissions statement.



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NOTES TO THE GREENHOUSE GAS EMISSIONS STATEMENT

Year ended December 31, 2024

I. Reporting entity

American Airlines Group Inc. is a holding company whose primary business activity is the operation of a major network carrier headquartered in Fort Worth, Texas, providing scheduled air transportation for passengers and cargo through its mainline operating subsidiary, American Airlines, Inc. and its wholly-owned regional airline subsidiaries, Envoy Aviation Group Inc., PSA Airlines, Inc. and Piedmont Airlines, Inc. as well as contracted third-party regional carriers. American Airlines Group Inc. is hereafter referred to as “American.”

II. Basis of presentation

American has prepared its Scope 1, biogenic and Scope 2 greenhouse gas (GHG) emissions estimates for the year ended December 31, 2024, in accordance with the following standards and guidance developed by the World Resources Institute’s and World Business Council for Sustainable Development’s Greenhouse Gas Protocol standards and guidance (collectively, the GHG Protocol):

- GHG Protocol Corporate Accounting and Reporting Standard (revised edition)
- GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard

In addition to Scope 1, biogenic and Scope 2 emissions, American has elected to present categories 3 and 4 of Scope 3 emissions in its GHG emissions statement for the year ended December 31, 2024. These Scope 3 emissions have been calculated in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and following the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions.

III. Organizational boundary

American presents its emissions under the operational control approach, accounting for emissions from operations over which it has the full authority to introduce and implement its operating policies.

IV. Use of estimates and estimation uncertainties

American bases its estimates and methodologies on historical performance, available information, and various other assumptions that it believes to be reasonable. Emissions data presented are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.



V. Operational boundaries

a. Scope 1 emissions

Scope 1 emissions are direct emissions from the combustion of fuel inside the organizational boundary and include the following:

Source	Boundary description
Mobile combustion	Aircraft and ground service equipment
Stationary combustion	Boilers and furnaces
Fugitive emissions	Leaks from air conditioning and refrigeration

b. Biogenic emissions

Biogenic emissions are direct emissions from the combustion of fuels produced by biological processes of living organisms, e.g., plant or animal material, inside the organizational boundary. These include the following:

Source	Boundary description
Mobile combustion of sustainable aviation fuel (SAF)	Aircraft
Mobile combustion of renewable diesel fuel	Ground service equipment
Mobile combustion of ethanol	Ground service equipment

c. Scope 2 emissions

Scope 2 emissions are indirect emissions from the generation of acquired and consumed electricity, steam, heat and chilled water occurring at sources outside of the organizational boundary as a consequence of activities from sources inside the organizational boundary, and include the following:

Source	Boundary description
Purchased electricity	Owned and leased office spaces, hangars and hub terminals under operational control
Purchased steam, heat and chilled water	Owned and leased office spaces, hangars and hub terminals under operational control

American has a market-based Scope 2 reduction target for 2035.



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d. Scope 3 emissions

Scope 3 emissions are indirect emissions from the generation, transportation, and use of fuel from sources outside the organizational boundary as a consequence of American’s activities. American has elected to include two categories of Scope 3 emissions in its GHG emissions statement.

Source	Boundary description
Category 3, fuel- and energy-related activities (not included in Scope 1 or Scope 2 emissions)	Upstream emissions from the production and transportation of jet fuel and renewable fuels within the organizational boundary, including emissions related to feedstock production and indirect land use change Upstream emissions from the production, transportation and distribution of electricity consumed in facilities within the organizational boundary
Category 4, upstream transportation and distribution (T&D)	Lifecycle emissions attributable to the use of jet fuel by aircraft operated by contracted regional carriers that are outside the organizational boundary

VI. Emissions per gas

Emissions data below for selected GHGs in metric tons of gas and in metric tons of CO₂e include only Scope 1 and Scope 2 emissions. American has included in its reporting carbon dioxide, methane, nitrous oxide and hydrofluorocarbons. Perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride have been omitted because they are not material sources of GHGs for the Company.

All amounts are for the year ended December 31, 2024.

in absolute metric tons of gas				
	Carbon dioxide (CO ₂)	Methane (CH ₄)	Nitrous oxide (N ₂ O)	Hydrofluorocarbons (HFCs)
Scope 1	39,604,835	290	1,114	14
Scope 2				
- Location-based	177,184	10	1	-
- Market-based	127,720	7	1	-
in metric tons of CO ₂ e				
	CO ₂	CH ₄	N ₂ O	HFCs
Scope 1	39,604,835	8,090	304,163	29,593
Scope 2				
- Location-based	177,184	286	388	
- Market-based	127,720	183	250	



VII. Base year

American’s base year for Scope 1 and Scope 2 (location and market-based) emissions is 2016. American’s base year for Scope 3 emissions is 2019. American selected 2019 as the Scope 3 base year because it is the first year the Company reported emissions data at a level of aggregation that allows for comparability.

The base year is recalculated if there are changes in any of the following that are significant either individually or in aggregate:

- Structural changes in the organizational boundary, including acquisitions and divestments.
- Changes in calculation methodology or improvements in the accuracy of emission factors or activity data that result in a significant impact on the base year emissions data.

Significance is defined as changes of greater than 10% of the Company’s aggregate Scope 1, Scope 2 or Scope 3, categories 3 and 4 emissions.

As of December 31, 2024, American has not had any significant structural methodology changes that warrant recalculating its Scope 1, Scope 2 or Scope 3 categories 3 and 4 base year emissions.

American’s GHG emissions fluctuate over time primarily due to the use of jet fuel in operations.



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VIII. Measurement methodologies

a. Scope 1 emissions

Source	Method	Emissions factor	Inputs
Mobile combustion	Emission factors applied to volumes determined from primary use data or estimated volumes based on primary spend data	<ul style="list-style-type: none">• Volumetric factors are from the Environmental Protection Agency’s (EPA) GHG Emissions Factor Hub (January 2025)• Mass factors are from the Intergovernmental Panel on Climate Change (IPCC) 2006 Guideline for National Greenhouse Gas Inventories	Supplier invoices
Stationary combustion	Emission factors applied to volumes determined from primary use data or estimated volumes based on primary spend data	Volumetric factors are from the EPA’s GHG Emissions Factor Hub (January 2025)	Supplier invoices
Fugitive emissions	Emission factors applied to mass of goods purchased	IPCC Sixth Assessment Report (March 2023)	<ul style="list-style-type: none">• Supplier invoices• Estimated weight• Product chemical composition

Methodology description

Emissions from mobile combustion by aircraft are calculated by multiplying the mass of the jet fuel consumed by emission factors. Emissions from all other mobile combustion are calculated by multiplying volumes consumed by the relevant emission factors. In the event that source documents for volumes are not available, volumes are estimated based on average spend per gallon of fuel consumed. All gasoline consumed in the U.S. is assumed to be blended with 10% ethanol and volumes are adjusted accordingly.



Emissions from stationary combustion are calculated by multiplying volumes consumed by emission factors. In the event that source documents for volumes are not available, volumes are estimated based on average spend per gallon of fuel consumed.

Fugitive emissions are estimated based on the purchase of GHGs and chemicals or solvents that contain GHGs. Fugitive emissions are calculated by multiplying the purchased weight of gases by the emissions factors for those gases.

b. Biogenic emissions

Source	Method	Emissions factor	Inputs
SAF	Emission factors applied to volumes determined from primary use data	International Civil Aviation Organization (ICAO) <i>Default Life Cycle Emissions Factors for CORSIA Eligible Fuels</i> (June 2022)	Supplier-provided reports
Renewable diesel fuel	Emission factors applied to volumes determined from primary use data	California Air Resources Board <i>Substitute Pathways and Default Blend Levels for LCFS Reporting for Specific Fuel Transaction Types</i> (2024)	Supplier-provided reports
Ethanol	Emission factors applied to volumes estimated based on U.S. gasoline usage	<i>Carbon Intensity of Corn Ethanol in the United States: state of the science</i> , published in Environmental Research Letters, Volume 16, Number 4 (March 2021)	Actual and estimated domestic gasoline volumes

Methodology description

Emissions from renewable fuels are calculated by multiplying volumes consumed, on a mass balance basis, by the relevant emission factors. Mass balance tracks and accounts for the volume of fuel in a fuel system, such as a common tank or pipeline, but does not track physical fuel molecules.

Ethanol volume is calculated based on blended gasoline consumed in the U.S. It is assumed that all gasoline consumed in the U.S. contains 10% ethanol. U.S. gasoline volume is based on primary use data. In locations where blended gasoline volumes are not available, the volumes are estimated based on average spend per gallon of fuel consumed.



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c. Scope 2 emissions

Source	Method	Emissions factor	Inputs
Purchased electricity	Location-based	<ul style="list-style-type: none">EPA Emissions and Generation Resource Integrated Database (eGRID) factors (January 2025)U.S. Energy Information Administration (EIA) <i>Commercial Buildings Energy Consumption Survey</i> (December 2022)	<ul style="list-style-type: none">Utility billsSquare footage of buildings
Purchased electricity	Market-based	2024 Green-e Residual Mix Emissions Rates	<ul style="list-style-type: none">Utility billsSquare footage of buildingsSupporting documentation of Renewable Energy Certificates (REC) from supplier
Purchased steam, heat and chilled water	Location-based & market-based	Volumetric factors are from the EPA's GHG Emissions Factor Hub (January 2025)	Utility bills

Methodology description

Emissions are calculated by multiplying the amount of company-purchased electricity by the appropriate emissions factors. Electricity consumption is based on billed consumption from utility bills. At some locations, electricity is not billed directly and is included in lease payments. In those situations, consumption is estimated by applying leased square footage by electricity consumption factors from the EIA Commercial Buildings Energy Consumption Survey.

Location-based and market-based method estimates are based on their respective grid-average emission factors for defined geographic locations. The market-based method also accounts for RECs retired by electricity providers.

Purchased steam, heat, and chilled water emissions are calculated by multiplying the amount of these items by the appropriate emissions factors. Consumption of these items is based on billed consumption from utility bills.



d. Scope 3 emissions

Source	Method	Emissions factor	Inputs
Category 3, fuel and energy related activities (not included in Scope 1 or Scope 2)	Volume based	<ul style="list-style-type: none">Upstream jet fuel factor is derived from the petroleum jet fuel factor in ICAO <i>Default Life Cycle Emissions Factors for CORSIA Eligible Fuels</i> (June 2022), with the Scope 1 emissions removedSAF emissions are based on the ICAO <i>Default Life Cycle Emissions Factors for CORSIA Eligible Fuels</i> (June 2022)T&D loss is based on the Generation Resource Integrated Database (eGRID) factors (January 2025)Upstream emissions from electricity generation are based on International Energy Agency (IEA) <i>Life Cycle Upstream Emission Factors</i> (Pilot Edition, 2023)	<ul style="list-style-type: none">Supplier invoicesUtility billsSquare footage of buildings
Category 4, upstream transportation and distribution	Volume based	<ul style="list-style-type: none">Emission factors used to calculate Scope 1 and Scope 3 emissions for jet fuel	Supplier invoices



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Methodology description

Upstream emissions from petroleum-based jet fuel are calculated by applying the upstream emissions factor, as described in the table immediately above, to petroleum jet fuel consumption.

Upstream emissions from renewable fuels are calculated by applying lifecycle emissions factors, as described in the table immediately above, to the applicable renewable fuel consumption.

Upstream emissions from electricity (T&D loss) are calculated by applying T&D factors from eGRID to estimate electricity loss. eGRID emission factors are then applied to electricity loss to estimate emissions. Upstream emissions from electricity generation are calculated by applying the total upstream factor to electricity consumption.

Less than one percent of Scope 3, category 3 emissions were obtained from suppliers. No Scope 3, category 4 emissions were obtained from suppliers.

e. Global warming potentials

Global warming potential for all GHGs were sourced from the Intergovernmental Panel on Climate Change Sixth Assessment Report.



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Legal Disclaimer

Forward-Looking Statements

Certain of the statements contained in this report should be considered forward-looking statements within the meaning of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. These forward-looking statements may be identified by words such as “may,” “will,” “can,” “expect,” “intend,” “induct,” “anticipate,” “believe,” “estimate,” “plan,” “project,” “could,” “should,” “would,” “continue,” “seek,” “target,” “aim,” “goal,” “strive,” “commit,” “guidance,” “outlook,” “if current trends continue,” “optimistic,” “future,” “forecast” and other similar words. Such statements include, but are not limited to, statements about the company’s plans, objectives, expectations, intentions, estimates and strategies for the future and other statements that are not historical facts. These forward-looking statements are based on the company’s current objectives, beliefs and expectations, and they are subject to significant risks and uncertainties, and actual results and financial position and timing of certain events may differ materially from any future results expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to downturns in economic conditions; our inability to obtain sufficient financing or other capital to operate successfully; our high level of debt and other obligations; our significant pension and other postretirement benefit funding obligations; any deterioration of our financial condition; any loss of key personnel, or our inability to attract, develop and retain additional qualified personnel; changing economic, geopolitical, commercial, regulatory and other conditions beyond our control, including the recently announced tariffs and other global events that affect travel behavior; changes in current legislation, regulations and economic conditions regarding

federal governmental tariffs, the implementation of federal government budget cuts and the potential that any of the foregoing affects the demand for, or restricts the use of, travel by government employees and their families or private sector enterprises that contract or otherwise interface with the federal government; the intensely competitive and dynamic nature of the airline industry; union disputes, employee strikes and other labor-related disruptions; problems with any of our third-party regional operators or third-party service providers; any damage to our reputation or brand image; losses and adverse publicity stemming from any public incidents involving our company, our people or our brand; changes to our business model that may not be successful and may cause operational difficulties or decreased demand; our inability to protect our intellectual property rights, particularly our branding rights; litigation in the normal course of business or otherwise; our inability to use net operating losses and other carryforwards; any new U.S. and international tax legislation; any impairment of goodwill and intangible assets or long-lived assets; any inability of our commercial relationships with other companies to produce the returns or results we expect; our dependence on price and availability of aircraft fuel; extensive government regulation and compliance risks; economic and political instability outside the United States where we have significant operations; ongoing security concerns due to conflicts, terrorist attacks or other acts of violence, domestically or abroad; climate change; environmental and social matters, and compliance risks with environmental, health and noise regulations; a shortage of pilots; our dependence on a limited number of suppliers for aircraft, aircraft engines and parts; any failure of technology and automated systems, including artificial intelligence, that we rely on to operate our business; evolving data privacy requirements, risks from cyberattacks and data privacy incidents, and compliance risks with regulations related therewith; any inability to effectively manage the costs, rights and functionality of third-party distribution channels; any inability to



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obtain and maintain adequate facilities and infrastructure throughout our system and, at some airports, adequate slots; interruptions or disruptions in service at one or more of our key facilities; increases in insurance costs or reductions in insurance coverage; heavy taxation in the airline industry; risks related to ownership of AAG common stock and convertible notes; and those set forth herein as well as in the company's Quarterly Report on [Form 10-Q for the quarter ended June 30, 2025](#), (especially in Part I, Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations) and the Company's Annual Report on Form 10-K for the year ended December 31, 2024 (especially in Part I, Item 1A. Risk Factors), and other risks and uncertainties listed from time to time in the company's other filings with the Securities and Exchange Commission. Additionally, there may be other factors of which the company is not currently aware that may affect matters discussed in the forward-looking statements and may also cause actual results to differ materially from those discussed. The company does not assume any obligation to publicly update or supplement any forward-looking statement to reflect actual results, changes in assumptions or changes in other factors affecting these forward-looking statements other than as required by law. Any forward-looking statements speak only as of the date hereof or as of the dates indicated in the statement.

A Note on Materiality

The report is provided voluntarily and does not cover all information about our business. It contains statements based on hypothetical scenarios and assumptions as well as estimates or topics that are subject to a high level of uncertainty, and these statements should not necessarily be viewed as being representative of current or actual risk or performance, or forecasts of expected risk or performance. While certain matters discussed in this report may be significant, any significance should not be read as necessarily rising to the level of materiality used for the purposes of complying with or reporting pursuant to the U.S. federal securities laws and regulations; European Union directives, legislation, policy, standards, laws and regulations; or laws regulations or requirements of other jurisdictions, even if we use the words "material" or "materiality" in this report.

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