Friedman Memorial Airport (SUN)

Climate Action Strategy

1. Introduction

To align with the local community, as well as the aviation industry's commitment to carbon reduction, the Friedman Memorial Airport Authority (FMAA) has developed this Friedman Memorial Airport (SUN) Climate Action Strategy to identify current emission-reduction initiatives at the Airport and provide recommendations for future measures.

The Friedman Memorial Airport Authority (FMAA) recently completed a Greenhouse Gas (GHG) Inventory to account for airport-related emissions. The year 2020 was used as a baseline, as it was the most current year for which the Airport had complete data. The document can be found on the airport's website at: www.iflysun.com/greenhouse-gas-emissions/

Emissions were organized by the party that has ownership or control over the various sources of emissions. In the Airport's case, this is based on three categories:

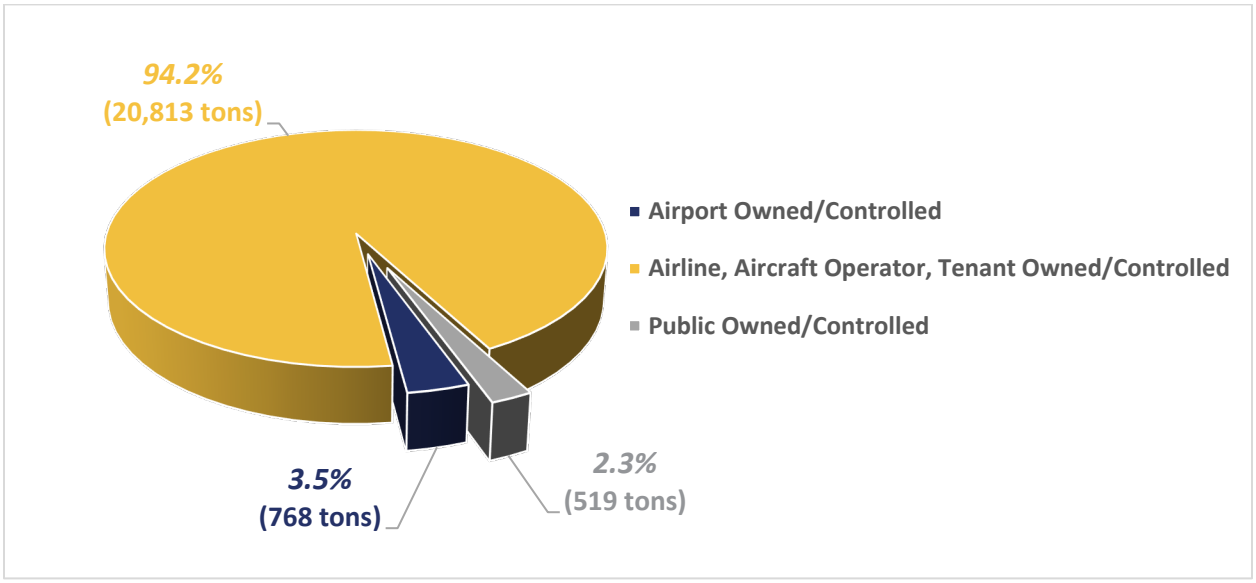
- Airport-owned/controlled.
- Tenant-owned/controlled (i.e., Airlines, Fixed Based Operator (FBO), aircraft operators).
- Public-owned/controlled (private vehicles visiting the airport, i.e. dropping off/picking up passengers).

In total, approximately 22,100 metric tons of greenhouse gas emissions were emitted in 2020 as a result of the operation of the Friedman Memorial Airport. Airport-controlled emissions represented about 768 metric tons of carbon dioxide (CO2) in 2020, reflecting approximately 3.5% of total airport-wide emissions. The largest portion of these greenhouse gas emissions was associated with purchased electricity for stationary or facility usage, which comprised 50% of airport owned or controlled emissions. Airline/tenant/aircraft operator-owned and controlled emissions represented 20,813 metric tons of CO2 in 2020, or 94.2% of total airport-related emissions. Of these emissions, aircraft represent the single largest source of CO2 emissions. Public-owned emissions accounted for 519 metric tons of CO2 in 2020, or 2.3% of total airport-wide emissions.

Airports have the best ability to limit emissions that are within their control. For example, maximizing energy efficiency within the terminal facility or converting airport-owned ground support equipment (GSE) to electric power are optimal methods for carbon reduction. However, airports have limited control over implementing measures for emissions that that are not within their control. Airports do not control tenant activities (i.e., aircraft operations, tenant-owned GSE or facility energy use) or passenger vehicle trips to and from an airport. As a public use airport that accepts public funds, the Airport cannot discriminate between users, and therefore cannot regulate tenant or public activities.

However, airports can influence tenant and passenger GHG emissions. Airports can work with tenants on energy efficiency measures; work with taxi, shuttle, and rental car companies to promote fuel-efficient or alternatively-fueled vehicles; and encourage aircraft operators to reduce auxiliary power unit (APU) use.

The following chart depicts the estimated greenhouse gas emissions for the Airport.



2. Regional Context

In 2021 the Regional Sustainability & Climate Advisory Committee (comprising stakeholders from Blaine County, the City of Ketchum, and the City of Hailey) initiated a regional Sustainability Program to reduce the community's contribution to climate pollution, strengthen resilience against climate-related hazards, transition to clean energy, and enhance livability and quality of life for all residents. As part of this effort, the Hailey City Council pledged to dramatically cut its carbon footprint over the next two decades.

The Blaine County Sustainability & Climate Action Plan Committee guides the region in developing a path towards carbon reduction and sustainability efforts. The Committee comprises members from Blaine County, the Cities of Bellevue, Carey, Hailey, Ketchum, and Sun Valley, as well as numerous community stakeholders from local organizations and businesses, including the Friedman Memorial Airport. The Committee is focused on clean energy, green building, and carbon-reduction efforts. As an integral resource for the community, the Airport recognizes its responsibility to contribute towards making progress for a sustainable and resilient community. In this vein, the Airport is proud to play an active role in the Committee and is committed to sustainability and climate action.

Further, as the aviation industry is responsible for 2-3% of global emissions, in 2021 the Federal Aviation Administration (FAA) issued its Aviation Climate Action Plan to identify measures to reduce emissions within the industry. In this plan the FAA committed to a Net Zero by 2050 goal. To fulfill these commitments, airports across the country are working toward emission reduction and more comprehensive planning and implementation strategies.

3. Current Climate and Sustainability Practices

Friedman Memorial Airport has current sustainable practices and policies in place to reduce consumption, minimize costs, and improve efficiencies – all of which provide net financial, operational, environmental, and social benefits. Below are existing measures that the Airport has employed, or is currently employing, to reduce emissions and build resilience to climate variability and weather-related impacts.

- Participates actively in the Blaine County Regional Sustainability & Climate Advisory Committee.
- Developed a Greenhouse Gas Emissions Inventory to track airport-related emissions.
- Replaced all Runway Edge lighting system with LED lights.
- Replaced all Terminal, FBO, De-Icing apron, and Parking lot overhead lights with LED lights.
- Continuing replacement of all interior lighting in Airport Admin/Operations Building, and cold storage building to LEDs.
- Acquired two snowplow/broom combination "multi-tasking units" that have removed the need to use multiple pieces of equipment for snowplow and broom tasks, and minimized need for labor hours, resulting in reduced energy usage needed to maintain runway conditions during snow events.
- Acquired new Runway-Deicing truck that replaced three separate vehicles to accomplish same function/maintenance.

4. Partnerships

The Airport's goal for improved sustainability and resilience aligns with many of its tenants and business partners. Specifically, the Airport's FBO, Atlantic Aviation, is developing an Environmental Social Governance report to define their sustainability goals and efforts. At Friedman Memorial Airport, Atlantic is focused on transitioning GSE to electric or battery power, as feasible. To date, they have purchased electric carts, shuttle vehicles, and ground power units. However, it is important to note that due to unique conditions of the airport's location (i.e., cold winters), transition to electric equipment must be evaluated for appropriate functionality of equipment. Stated more directly, some electric-powered vehicles/equipment cannot perform as well as conventionally fueled equipment. Further, transition to electric vehicles and infrastructure is not an overnight process. Planning for electrification will be part of the terminal renovation design and master planning efforts.

Because there is a limit to what an airport can do alone, it is recommended that the Airport seek opportunities to collaborate with local stakeholders, like Atlantic Aviation, as well as other tenants and partners. Coordinating efforts to accomplish a collective goal can lead to economies of scale. Below is a table identifying sustainability and resilience efforts and goals (i.e., sustainability plans, Net Zero goals, etc.) of tenants and business partners at Friedman Memorial Airport.

Service	Business	ESG/ Sustainability Plan	Priorities
Airlines	Alaska, United, Delta	Y	Net zero, Sustainable Aviation Fuels (SAF), electrification/charging infrastructure, resilience, workforce, community, diversion from landfills
Car Rental	Avis, Budget, Hertz, Enterprise, National	(Hertz – Y)	Electrification/charging infrastructure, workforce,
Ground Transportation	Uber, Lyft	Y	Electrification/charging infrastructure, community
FBO	Atlantic	Y	Net zero and SAF, energy efficiency, spill prevention, community

5. Proposed Climate Action Strategies

The FMAA is committed to supporting local, regional, and national efforts, including the City of Hailey's *Resiliency Initiative*, which aims to achieve carbon neutrality, as well as the FAA's goal of Net Zero by 2050, as set in the FAA Climate Action Plan (November 2021). As part of the Climate Action Strategy process, the Airport is evaluating measures to mitigate its impact on climate change. The recommendations below provide options for emissions reduction measures that work best for Friedman Memorial Airport's facilities and operations, as well as financial and management abilities.

Infrastructure

ASHRAE Level 1 Energy Audit

Conducting an energy audit will provide a baseline for airport building operations and energy usage; provide an understanding for areas of greatest energy consumption; and identify areas to target for greater energy efficiency/improvements.

COVE Tool Evaluation

With upcoming terminal improvements at SUN, the COVE tool can be used to evaluate the entire building cycle – from site analysis to design and construction – to evaluate ways to optimize energy efficiency.

Commission Emissions Study on Snow Melting/Removal Technologies

One of SUN's greatest challenges is snow removal in the winter season. While technologies like Aero Snow require energy and release emissions, there is potential for emissions savings, should the technology reduce the need for around the clock operations and maintenance associated with snow removal. Conduct emissions study to evaluate potential.

Electrified Ground Power

Develop ground power supply in appropriate ramp areas for short term and quick turn aircraft parking. Resultant elimination of gas-powered ground service equipment, where applicable, as well as elimination of the emissions associated with the aircraft auxiliary power unit, may be achieved.

Preconditioned Air

Preconditioned Air units would provide an opportunity for parked aircraft to cool/heat the aircraft cabin without using the aircraft auxiliary power unit.

Battery LED/Solar Taxiway Lights

Continue replacement of lighting fixtures throughout airport facilities with LEDS. Explore opportunities to replace hard-wired lighting with wireless solar taxiway edge lights to reduce energy consumption.

Airport Backup Power

Explore opportunities to replace diesel and gas generators with battery powered energy micro grids or LNG powered generators.

Ground Operations

Electric Airport Vehicles

Airports are uniquely well positioned to utilize electric carts, vans, and vehicles for use on and around the airport. Installation of charging facilities near common parking and staging areas enable periodic charging and maintenance of batteries throughout the day.

Ground Service Equipment

Battery Operated Tug & Ground Service Equipment (GSE)

Reduce or eliminate emissions from gas-powered tug and GSE equipment by using battery operated tugs and explore opportunities to work with hangar tenants, operators, and service providers to acquire and operate battery powered tug equipment.

Battery Operated Ground Power Units (GPU)

Battery operated ground power units for aircraft cooling, starts, and idle power may replace the need for some gas-powered GPU equipment.

Fuel Supply

Sustainable Aviation Fuels (SAF)

Secure SAF fuel for sale, develop SAF pricing that defrays the added cost of each gallon by raising the average price per gallon of the entire fuel supply.

100 Low Lead Alternative Fuel

SWIFT Fuels 100LL replacement, drop in fuel may be appropriate for certain aircraft types. This fuel replaces traditional 100LL fuel with non-leaded fuel alternative acceptable in some lower compression aircraft engines.

Voluntary Procedures

Single Engine Taxi Voluntary Policy

Encourage operators to join a voluntary single engine taxi program. Additional benefits may be realized for long ground hold periods for IFR release and other operational delays.

Auxiliary Ground Power Unit (APU) Run Time Limitation

Encourage operators to limit APU run time.

Voluntary Programs and Policies for Aircraft Rental and Flight Schools

Encourage diesel/JET-A burning trainer aircraft. Reduced average hourly fuel consumption would reduce emissions.