

IDAHO AVIATION ACCIDENT SCORE CARD (IAASC)



Stanley (2U7)

Prepared by the Idaho Division of Aeronautics, Safety and Education Department

2024

INTRODUCTION

Welcome to the 2024 Idaho Aviation Accident Score Card (IAASC). The Idaho Division of Aeronautics presents this review of Idaho aviation accidents so that you may learn lessons from the experiences of others that may apply to your flight training and preparation.

This report provides details on all Idaho aircraft accidents that occurred from **January 1 to December 31, 2022** and is compiled directly from the National Transportation Safety Board (NTSB) database. National data was also obtained from the AOPA Air Safety Institute's McSpadden Report.

The report includes yearly comparisons and summaries, total number of General Aviation (GA) accidents, fatal accidents, fatalities, pilot qualifications, age, and class of aircraft. In addition, the IAASC provides an overview of Idaho aviation trends. It is published annually and analyzes accidents from two years prior. While preliminary information on aircraft investigations is available within weeks of the accident, the full NTSB investigation can take 2-3 years.

The Idaho Transportation Department's vision is to **"Enhance your quality of life through transportation**." The Division of Aeronautics supports this vision by providing relevant, high-quality information on safety, and educational programs to benefit our aviation community. We offer welcome packets for visiting pilots, airport standard operating procedures, and fly-in safety briefings. We also sponsor safety seminars and meet every year for our Safety Stand Down.

*General Aviation, for the purposes of this report, excludes flight activity performed by the uniformed armed services and scheduled airlines. Furthermore, gliders, weight-shift control aircraft, powered parachutes, gyrocopters, lighter-than-air, and aircraft with maximum takeoff weights greater than 12,500 pounds are also excluded. Please note, however, this report does include flight instruction, agricultural, public-benefit missions such as fire suppression and law enforcement, cargo, and passenger charter operations.

ACCIDENT STATISTICS

Comparison between 2021 and 2022

- Aircraft accidents decreased from a high 36 in 2021 to 27 in 2022
- While total accidents decreased, fatal accidents increased from two to six.
- Fatalities resulting from aircraft accidents matched 2020's high of eleven.
- The majority (69%) of the accidents were due to **"pilot error"**.
- 74% of accidents occurred during takeoff or landing.
- 55% of Idaho accidents occurred in tailwheel aircraft.
- 60% of the total accidents occurred during the summer flying season (May through Aug).



NTSB Monthly Dashboard for 2022



In 2022 total accidents dropped from a high in 2021, but fatal accidents and fatalities increased dramatically in Idaho.

Until 2020, the number of accidents in Idaho was trending down. **2021 saw the total accidents increase by 35%**. **2022 saw a significant increase in the number of fatal accidents**. We will break down the year by year accident rate for Idaho and then look for trends in the accidents to see what we can learn.



Big Bar (1DA)



	2016	2017	2018	2019	2020	2021	2022	2023
Total GA								
Hours	106K	105K	118K	143K	126K	136K	117K	127K
Flown								

Accident Rate Methodology

We calculated the Idaho GA accident rate based on total 100LL fuel purchased in the state for the analysis year. We use average fuel burn of 13.9 gallons per hour for 2021. We then divided total gallons sold by 13.9 to give total flight hours flown for the analysis year. The number of accidents and number of fatalities are used to determine the equivalent rate per 100,000 hours flown. (13.9 GPH per FAA 2021 GA Survey)

The General Aviation accident rate in Idaho continues to trend downward, but only slightly. In 2021 we had a sharp increase in total accidents, and a decrease in fatal accidents. 2022 saw total accidents decrease but fatal accidents increase. On average, Idaho has approximately 30 aircraft accidents a year. 10-15% of those accidents will include a fatality.



* From AOPA ASI McSpadden Report 2022 Preliminary Accident Conditions

In 2022, 69% of accidents were the result of pilot error.

The causes of accidents fell into three categories for analysis:

- Pilot-Related accidents occurring from the improper actions or inactions of the pilot.
- Mechanical accidents occurring from mechanical failure.
- Other/Unknown bird strike, incapacitation and accidents with an undetermined cause according to the NTSB.





In 2022, 74% of Idaho accidents occurred during takeoff and landing.

Accidents by phase of flight in Idaho mirror the nationwide trend. Landing continues to be the leading accident phase in Idaho as well as the nation.





Pilot Qualification	Idaho 2022	National 2022*	Idaho 2021	Idaho 2020
ATP	11%	8%	9%	0%
Commercial	7%	19%	31%	28%
Private	41%	33%	38%	48%
Student	0%	6%	16%	0%
Other/Unknown	37%	33%	7%	24%

* From AOPA ASI McSpadden Report 2022 Preliminary Accident Condition

In Idaho, 41% of accidents were commanded by Private pilots, 7% were Commercial pilots and 11% were ATP.



Accidents occur in all age groups and at all levels of flight experience.

When looking at flight time, accidents are spread out across the spectrum of experience. Both low time and high time pilots had a high number of accidents.

Pilots over the age of 61 account for 37% of the accidents in 2022, and 40% in 2021. This is lower than in previous years where pilots over 61 made up more than half of the total.



Big Creek (U60)





* From AOPA ASI McSpadden Report 2022 Preliminary Accident Conditions

Idaho is above the national average for accidents in tailwheel aircraft.

Tailwheel aircraft were involved in 55% of all accidents in Idaho. Idaho regularly exceeds the national average for accidents in tailwheel aircraft. The latest national data from 2022 indicated 28% of single-engine fixed-wing accidents occurred in tailwheel aircraft.



2022 Accident Review

Review of Accidents

None of the six fatal investigations from 2022 are complete. We will have to await NTSB analysis. To provide some input to pilots and instructors we break down accidents here by phase. The included (T) indicates a tailwheel aircraft. Most accidents have elements of weather or mechanical problems that challenge a pilot's ability to land safely.

Takeoff Accidents:

• Partial power loss. Unable to hold altitude. Forced landing. (T)

Landing Accidents:

- Poor flare, bounce. Lost control and nosed over x2. (T)
- Quartering tailwind. Lost control and departed side of runway. (T)
- Crosswind. Lost control. (T)
- Landed in deep snow. Flipped. (T)
- Instrument approach in poor weather. Impacted building/stacks. Fatal.
- Dust devil during tailwheel instruction. Lost Control. Ground Loop. (T)
- Short, attempted go around. Engine hesitated, plane hit fence.
- Right brake failure on landing, veered left and gear collapsed. (T)
- Wet airstrip. Hit standing water and flipped. (T)

Maneuvering Accidents:

- Mayday call for fuel leak. Forced landing. Fatal.
- Engine shook violently and lost power. Forced landing.



Howe, ID



Fourteen of the accidents in Idaho in 2022 occurred in/around the mountains or at backcountry airstrips.

Takeoff Accidents

- Windshear induced loss of directional control. Hit fences and flipped. (T)
- Crash on departure for unknown reason. Fatal. (T)
- Loss of control with crosswind. Collided with terrain. (T)
- Aborted takeoff on wet grass. Slid off end of runway.

Landing Accidents

- Helicopter rolled during attempted ridge landing. Low rotor RPM, hard landing.
- Left brake fractured. Aircraft veered off runway. (T)
- Loss of control on landing, veered left. Ground Loop. (T)
- Loss of brake pressure on landing. Departed end of runway.
- Stalled on final and landed short. Nosewheel collapsed. Plane flipped.

Maneuvering Accidents

- Engine failure at cruise, likely carburetor ice. Flipped in snow during forced landing. (T)
- Impacted a ridge while flying in a canyon. Fatal. (T)
- Helicopter controls jammed by loose object in cockpit. Fatal crash in river.
- Aircraft collided with tree while maneuvering in the traffic pattern.
- Aircraft impacted high terrain. Clouds were a factor. Fatal.

Focus for 2024: Takeoff, Landing and Go Around

At the Idaho Division of Aeronautics, our goal is to provide the safest transportation system possible. Aviation is inherently risky, and we want to continue to move **toward zero deaths**. To move that direction, we use this report to identify areas of risk that we can improve through training. As mentioned earlier, **in 2022 74% of accidents occurred during takeoff, landing or during a go-around. This is down from 85% in 2021.** *Better training helps reduce accidents and keeps aviation more enjoyable and affordable.*

Takeoff, Landing and Go-Around Training: As you practice, establish your personal limits for crosswind, tailwind and gusty-wind conditions. **From AOPA**:

https://www.aopa.org/training-and-safety/students/takeoffs-landings-and-go-arounds From the NTSB and FAA (includes links to training on FAA Safety) https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-060.pdf

VFR into IMC: 75% fatal: These accidents continue to kill pilots that find themselves in deteriorating weather and running out of options. Some excellent training material can be found at these links. One is a short video, the second a training class.

https://youtu.be/IkWhOBEUhZY?si=gYxhhwd-c0PeP94H

https://www.aopa.org/training-and-safety/online-learning/online-courses/weather-wise-vfrinto-imc

Risk Stacking: While the 2022 fatal accident at Burley is still under investigation and we await its findings, some thoughtful analysis was produced by AOPA's Air Safety Foundation.

https://www.aopa.org/training-and-safety/online-learning/accident-case-studies/risk-stacking

Trouble at Mile Hi: After helping with an aircraft emergency at Mile Hi we connected the pilot to the AOPA Air Safety Foundation, and they produced this two-part podcast. This is a great review of preparation for the Backcountry, surviving an accident in a remote area and dealing with the steps that follow. Episode 65 and 66.

https://www.aopa.org/news-and-media/podcasts/podcasts/there-i-was

Flying Resources



Idaho Division of Aeronautics

Facebook: https://www.facebook.com/idahoaeronautics/ Webpage at https://itd.idaho.gov/aero/



Our webpage contains information on Idaho aircraft registration, the *Welcome to Flying Idaho* guide, this *IAASC Report*, and *Standard Operating Procedures* for some backcountry airstrips: https://itd.idaho.gov/aero/?target=publications

New Backcountry Safety Videos for Johnson Creek and Smiley Creek: https://youtu.be/pBiZ3mqkQdE?si=CS2CWvvuKTsNu-M9 https://youtu.be/LK5htdPUuEI?si=_PNcKWjB4OX0QFB6 New Idaho State Weather and Cameras https://itd.idaho.gov/wp-content/uploads/2024/02/Aero-WebCam-Weather.pdf



Idaho Aviation Association

The Idaho Aviation Association gives Idaho a general aviation voice, both locally and nationally. Working to preserve Idaho's irreplaceable backcountry airstrips.



If you plan on flying in the backcountry, please get training as backcountry flying is very unforgiving. The Idaho Aviation Association has a listing of Instructors qualified to teach backcountry and tailwheel flying. You can find them online at: https://idahoaviation.com/instructors



<u>The AOPA Backcountry Resource Center</u> is now online. This multi-state and multi-agency partnership is focused on providing quality resources and products to help you prepare for backcountry flying. https://www.aopa.org/training-and-safety/air-safety-institute/backcountryresourcecenter







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