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**TO:** South Dakota Aeronautics Commission  
**FROM:** Jack Dokken, Office of Aeronautics  
**DATE:** Kuly 17, 2025  
**SUBJECT:** Black Hills Airport Weather Camera Request

The Black Hills Airport has submitted a request for aeronautics funding to support the purchase and installation of airport weather cameras. Their request letter is attached for your review.

This follows a similar request made by the Sturgis Airport in 2024. At that time, the South Dakota Aeronautics Commission approved the use of the remaining \$4,185 in Sturgis's fuel tax fund and granted an additional \$5,814 to cover the balance of the installation costs.

**Airport Weather Camera History:**

The Weather Camera Program started in Alaska in 1999 when Alaskan Aviation Safety Foundation and other industry groups saw a need to compensate for the lack of conventional weather reporting in Alaska. As the program matured and empirical data came in, the weather camera service across the State of Alaska assisted in an 85% reduction in weather-related accidents and a 69% reduction in weather-related flight interruptions from 2007-2014.

**Installation Details:** 1 – 2 days with a two-person crew

**Estimated Cost:** \$12, 500 to \$14,000, depending on site conditions.

**Airport requirements:**

- Wi-Fi or access to a wireless bridge (minimal bandwidth required)
- unobstructed views from mounting locations

**Funding Models in Other States:**

- The states of Montana and Minnesota are doing the installation themselves.
- North Dakota pays 50% through a state grant program and conducted a survey to assess interest.

**Weather Camera System Features:**

- Typically offers views in the four directions.
- Image updates every 10 minutes.
- For reference and validation of image accuracy, a clear day view of each image is also shown.
- A time lapse loop covering the previous six hours is also included for each image.

**Benefits of the System:**

- Adding a scan of the weather cameras along an intended flight route to a preflight routine is very helpful when making an initial go/no-go decision, even before leaving for the airport. Being able to view weather conditions within minutes prior to departure affords pilots an increased awareness of the weather they may encounter in route.
- In questionable conditions, the ability to see what has happened over the previous six hours also adds value—and in some cases signals the need to delay and wait for better weather.

**The Website:**

- Hosted and maintained by the FAA.
- No cost to airports to upload camera data.
- In addition, the website provides weather forecasts and pilot reports. It can be customized by toggling features on or off. Tutorials are available to bring pilots or other users up to speed quickly.



January 14<sup>th</sup>, 2025

Airport Commission

South Dakota Department of Transportation Commission

Dear Commission,

I am writing on behalf of the City of Spearfish to request your assistance in enhancing aviation safety and operational efficiency at the Black Hills/Clyde Ice Airport by supporting the purchasing and installation of the FAA Weather Camera System.

Black Hills/Clyde Ice Airport plays a crucial role in supporting aviation needs for our region, serving general aviation, business operations, and emergency services. However, unpredictable weather conditions in the Black Hills region present unique challenges to pilots and other airport users. The installation of weather cameras would significantly improve situational awareness for aviators, providing real-time, visual data to complement existing meteorological resources including our AWOS system.

By partnering with the City of Spearfish to implement weather cameras, the Aeronautics Commission can:

1. **Enhance Safety:** Provide pilots with real-time imagery of weather conditions, reducing the risk of weather-related incidents.
2. **Support Aviation Operations:** Assist in decision-making for flight planning, minimizing delays, and optimizing operational efficiency.
3. **Benefit the Wider Aviation Community:** Contribute to a statewide network of weather cameras, fostering a safer and more connected airspace for South Dakota.

We kindly request the Aeronautics Commission's guidance, funding support, or other resources to facilitate this project. We believe that the addition of weather cameras will not only benefit the Black Hills/Clyde Ice Airport but also contribute to the overall safety and reliability of aviation in the Northern Hills of South Dakota.

Thank you for considering this request. Please feel free to contact me if you have any questions or need further details. I look forward to the opportunity to work together to enhance the safety and functionality of our airport infrastructure.

Sincerely,

Channing Wagner

Airport Manager, Black Hills Airport

Black Hills/Clyde Ice Airport

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(AWCS)  
Airport Weather Camera Systems

The weather camera complete system installed, programmed, and integrated into the FAA website will run between \$12,500 - \$13,500 depending on installation.