

## Streaming the living symbol of American freedom.

Axis cameras, together with a unique camera application, help the American Eagle Foundation stream eagle nests for millions of viewers.



**Organization:**

American Eagle Foundation

**Location:**

USA

**Application:**

Live streaming, remote monitoring

**Axis partner:**

CamStreamer

### Mission

The American Eagle Foundation (AEF) is a not-for-profit organization whose mission is to care for and protect the USA's living symbol of freedom, the bald eagle, and other birds of prey. AEF installed their first security cameras on their non-releasable breeding pairs in late 1990's. At the time, the aim was to keep a close eye on the eaglets being raised by their parents – ultimately, the young eagles would be released into the wild. Cameras were an important instrument for maintaining the health and security of the endangered species. Later, as technology and the internet progressed, AEF decided to embrace the hidden beauty of these eagles and share the nest cams with the world.

### Solution

Streaming wildlife requires a solution that can endure conditions typical for the wild, such as harsh weather and the constant threat of unpredictable impacts. At the same time, stable performance is needed to avoid disturbing the eagles with frequent repairs to the cameras. AEF chose AXIS Q6055-E, AXIS Q6045-E, and AXIS Q1765-LE Network Cameras.

Their durability, reliability, advanced pan-tilt-zoom features, and high resolution are necessary to keep an effective, yet discreet, eye on the nesting eagles. The CamStreamer application (installed directly to the camera) completes the system as the ideal tool for AEF's network broadcasting.

### Result

The project was an instant success and has been an incredible benefit to AEF's mission. The first live eagle cam was published from Dolly Parton's Dollywood theme park, with three other wild nest cameras following later. To date, there have been 60 million viewers for the most popular nest cam with as many as 2.5 million total viewers per day, and 60 thousand viewers watching at any given time. The popularity of the live streams has helped raise awareness about the species, generates significant fundraising support, and advances AEF's educational goals in general. By watching the nests, viewers can learn about the habits of bald eagles, build a closer relationship with wildlife, and gain knowledge about the environment and the importance of conserving wilderness.

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Connor O’Brien, IT and media coordinator, AEF.

### Embracing the possibilities of IP video

The long history of AEF’s popular live streams began in the late 1990’s. Eagle nests are vulnerable to many threats; therefore, live cam coverage was installed to ensure the health and security of the eggs and eaglets. Among the first live cam stars were Liberty and Justice, a pair of bald eagles from Dolly Parton’s Dollywood theme park. From 1993 to 2011, the couple successfully reared 14 of their own young for release into the wild. AEF soon discovered that the possibilities of the live streams went beyond ensuring the eagles’ safety and collecting important data about their behavior – they also had significant marketing and fundraising potential. “As technology and the internet progressed, we wanted to share the cameras with the public,” says Connor O’Brien, IT and media coordinator for AEF.

Watching eggs being laid and eaglets hatching and growing up to leave the nest gained instant popularity among viewers. The growing traffic increased demands on the streaming networks, and they became more and more overloaded and outdated.

### Delicacies of streaming eagle nests

Searching for the best solution to their live streaming needs, AEF chose the streaming company Píksel. Providing a quality stream turned out to be challenging in many ways. Píksel created a custom solution for AEF and recommended the CamStreamer application as an excellent tool for the network and Axis camera systems. CamStreamer is an ACAP (AXIS Camera Application Platform) application that can be downloaded and installed exclusively on Axis network cameras and enables easy live streaming to all major online streaming services. It was also ready for seamless integration with the Píksel streaming platform. Still, the technology needed to meet another special challenge in this unique broadcasting program.

“We can’t go up to the cameras while the eagles are around the nest and reset them or tweak them, so stable and reliable performance is essential to us,” explains O’Brien, and he continues: “Axis cameras and CamStreamer offer that peace of mind, stability, and high performance. That’s what we need to be able to focus on our educational message, not troubleshooting streaming issues.” Achieving high quality streaming was the only way to make the most of the features of the high-end Axis cameras: remote pan, optical zoom, and high resolution. To enhance the experience and allow viewers to watch 24/7, infrared lighting was installed on the cameras (except for AXIS Q1765-LE, which already has built-in IR illumination).

### Starring: Mr. President and The First Lady

As the live streams became more and more popular, the eagle pairs AEF chose for streaming quickly became ambassadors or even celebrities. On the most popular nest cam, located in the National Arboretum in Washington D.C., eagles named Mr. President and The First Lady showed millions of viewers the daily life of the once endangered species.

And there’s one very important aspect to the nest cams – live streaming doesn’t disturb the eagles in any way. What’s more, the educational benefit of streaming wildlife can be higher than that of zoos, as animals often behave differently when people are around. When watching animals on cameras, however, much more natural behavior is observed. In total, AEF has installed cameras on four nests. Besides Dollywood and D.C., viewers can watch live streams from Florida (Romeo and Juliet’s nest) and the Smoky Mountains (Lady Independence and Sir Hatcher II.). Because the animals’ wellbeing is still the utmost priority, the cameras are operated by specially trained volunteers and often help to eliminate dangerous situations such as injuries and other conditions that require intervention.



  
CAMSTREAMER

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