# Mount Rushmore



## SUMMARY

• LOCATION Keystone, SD

• **FACILITY SCOPE** National park area covering 1,278 acres

#### OBJECTIVES

The staff at Mount Rushmore wanted to enhance and upgrade the previous sound systems for both its amphitheater and public announcements.

• **BIAMP SOLUTION** Community loudspeakers

#### OUTCOME

By implementing Biamp's WET series and R-SERIES loudspeakers from its Community line, the amphitheaters and public areas of Mount Rushmore achieved the desired level of audio excellence.

#### • EQUIPMENT

- Community WET Series II
  loudspeakers
- Community R-SERIES loudspeakers

One of America's most famous landmarks, the Mount Rushmore National Memorial, welcomes nearly three million visitors each year. Located among the majestic Black Hills of South Dakota, Mount Rushmore features 60-foot high sculptures of four notable American presidents (George Washington, Thomas Jefferson, Abraham Lincoln, and Theodore Roosevelt), and took 14 years and 400 workers to complete. The park includes an amphitheater, museum, information center, gift shop, and restaurants, and is one of the largest in the U.S. National Park Service, with a capacity of 2,300 people. It also hosts special events, presentations, and live music.

Mount Rushmore wanted to upgrade and expand its previous sound system, a project requiring the creation of two new systems: One covering the amphitheater, the other to be used mainly for announcements.

The number one factor...was [the desire for] big impressive inyour-face vocal projection, while maintaining smooth musicality.

> **STEVE FOUDRAY** System Designer Haggerty's Audio Visual

# SOLUTION

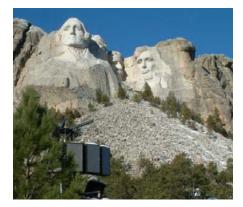
The size of Mount Rushmore's amphitheater presented the greatest challenge for the installation team. "The stage is very wide, as are the rows from front to back. We needed to cover the front rows, yet keep the sound pressure off the stage," said Steve Foudray, system designer for Haggerty's Audio Visual in Rapid City, South Dakota. The installation team also needed loudspeakers that could withstand extreme weather. Mount Rushmore receives extensive snowfall and temperatures can dip below zero degrees Fahrenheit in the winter, while July and August have days with highs in the 90s.

"The number one factor at Mount Rushmore was [the desire for] big impressive in-your-face vocal projection, while maintaining smooth musicality," said Foudray. Many options were considered, but the team chose the WET Series from Biamp's Community loudspeaker line. The amphitheater's new system has 20 Community WET315 cabinets on two main towers and two delay towers. According to Foudray, the M200 midrange driver in this cabinet has very impressive voice projection.

# CONCLUSION

When asked about the reaction to the new sound systems, Foudray said, "All comments have been positive. We have only once made minor tuning changes." Other benefits include the WET315's full-range capability, weather-resistance, and 15-year structural warranty. "The amphitheatre had speaker towers from the previous installation that were usable," said Foudray. "We had obtained blueprints and modeled the system with EASE. Community supplies EASE data for all their loudspeakers with high enough resolution to accurately design clusters for coverage and minimize interaction." The second system has 21 Community R.5 loudspeakers. Weather resistance also played a role in selecting the durable R-Series.

Thanks to the addition of Community loudspeaker solutions from Biamp, Mount Rushmore was finally able to enjoy the robust sound a monument of its grandeur deserves.





### **ABOUT BIAMP**

Biamp is a leading provider of innovative, networked media systems that power the world's most sophisticated audiovisual installations.

Recognized worldwide for delivering high-quality products and backing each one with a commitment to exceptional customer service, Biamp's mission is connecting people through extraordinary audiovisual experiences.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, with offices and manufacturing facilities located around the world.

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