

CASE STUDY: KTOO 360TV AT ALASKA STATE CAPITOL

Upgrading PTZ Cameras Improves Picture Quality, Flexibility & Workflow for State Capitol's Broadcasts

Challenge

Located in Juneau, Alaska, [KTOO](#) operates a full-time statewide television channel KTOO 360TV, which broadcasts live C-Span style legislative coverage throughout the state over the air, online and via cable and satellite as part of their Gavel Alaska program. As the demand for remote production capabilities and streaming grew, KTOO was looking to supplement their traditional hands-on ENG/EFP cameras with a fleet of PTZ cameras throughout the Alaska State Capitol. The project was timed to pool production resources with the Alaska Legislative Affairs Agency who was due to replace their aging Panasonic PTZ cameras in the state capitol.

As social distancing measures were put in place due to the pandemic, the need for technology that would keep the station's crew safe and minimize personnel on-site became increasingly important.

Solution

With a long history of using Panasonic professional video solutions, KTOO deployed 39 Panasonic HD and 4K pan-tilt-zoom (PTZ) cameras, including a mix of [AW-UE150s](#), [AW-UE100s](#) and additional Panasonic PTZ cameras across its nine committee rooms, and the House and Senate chambers.

"We chose additional Panasonic PTZ cameras for their compatibility, reliability, full HD capabilities up to 1080/60p with NDI, and POE+ support which greatly sped up installation with the cameras only needing one LAN cable for both control and power supply," said Mikko Wilson, KTOO production manager. "Furthermore, the streaming provides augmentation to SDI of additional video capability over that same network cable."

Since the mid-90s, KTOO has been producing Gavel Alaska, a statewide television service of KTOO that provides unedited live and recorded coverage of state government activities both on TV and online. Prior to using PTZ cameras, the station's crew staffed the production in person, utilizing three independent setups of a





KTOO deploys 39 Panasonic HD and 4K PTZ cameras across the Alaska State Capitol's nine committee rooms and the House and Senate chambers to cover more in-building events with less downtime.

single Panasonic AJ-PX380 professional camcorder on a pedestal with a single hands-on operator to cover up to three events at a time. "While that set-up worked well, it did have a few limitations including restricted points of views, a long transition and waiting times when moving equipment and staff from room to room," continued Wilson.

About a decade ago, the Alaska State Legislature began streaming their own meetings online using Panasonic's professional PTZ cameras. The addition of these cameras allowed the creation of a simple video stream from the committee rooms, providing "fly on the wall" style access to meetings that were not televised using the limited staff the legislature had available. Fast forward to 2019, KTOO proposed a joint project to upgrade their two existing camera systems into one that would provide higher quality and better efficiency, using a shared routing system to pool their resources into better productions for both platforms. Little did they know when the project was approved in December 2019 how critical it would be as the pandemic forced the station into a remote broadcast scenario.

Building upon their prior experience and taking into consideration the wants and needs for the technology refresh, KTOO stayed with Panasonic for several reasons. First, the upgraded system needed to have the ability and toolset to achieve a professional quality-looking result and the option to upgrade the resolution from SD to HD, with an eye towards 4K in the future if needed for higher profile events. Secondly, prior to installing robotic cameras, the meetings and events the station captured were staffed on-site in cramped quarters. A solution that would allow the station to broaden their scope of programming and shots captured, while reducing the gear wear and tear was key. Lastly, KTOO needed a system that would work seamlessly with their existing camcorders and controllers for more unified streaming and remote broadcasting. Some lesser known features like the cameras ability to automatically scale the pan and tilt speed while zooming, along with a well-documented established IP control code also influenced the station's decision to remain with Panasonic. Panasonic PTZ cameras delivered on all three of our objectives.

The UE100 and UE150 PTZs are primarily used in the House and Senate chambers and are grouped by room with one operator

controlling each group of three to four cameras at a time. While KTOO is not currently producing in 4K, the cameras' large MOS sensors, wide viewing angles and impressive optical zoom enable both full shots of the large chamber rooms and close ups of the lawmakers as they make their floor speeches. The cameras support streaming with built-in technologies such as NDI and SRT protocols to provide the station additional signal options beyond the SDI infrastructure. The UE150's filter threads also allow KTOO to attach polarized filters to provide privacy screens to staff computers and monitors.

Summary

KTOO's legislative coverage includes Alaska House and Senate floor sessions, legislative committee meetings, press conferences and other legislative events and meetings of political interest. "Overhauling our AV technology to include more robotic cameras with the latest technology has provided us flexibility in the number of angles we are able to capture, streamlined our workflows to cover events we would have otherwise missed due to time lost in moving between events, and improved the picture quality of our live and recorded programming," said Wilson. "While much of Alaska still receives its television service in SD, the transition from SD to HD has been a massive improvement."

The cameras also enabled their staff to work fully remote – a first for KTOO – and an added benefit that ensured the staff could continue to work yet remain safe in the facility away from the capitol throughout the pandemic. While 2021 was the first year KTOO had no in-person operators in the capitol, they are looking forward to integrating full hybrid production with their ENG cameras once it becomes safe to do so.

For more information on KTOO, visit www.ktoo.org.

For more information about Panasonic professional video products, visit <https://na.panasonic.com/us/provideo> or contact Panasonic at 877-803-8492.