

X GAMES ASPEN TV TECHNOLOGY

Leading live action sports production company, Echo Entertainment, will work with ESPN to produce X Games Aspen 2020. Echo's production team will produce an authentic and enhanced representation of the action sports community from both a sports and lifestyle perspective.

Over the four days of X Games Aspen coverage, live content will focus on action sports competitions, in-depth athlete profiles and other features highlighting the action sports lifestyle.

PRODUCTION & TECHNOLOGY ELEMENTS

Throughout its coverage, X Games will leverage its array of innovative technologies and production elements to bring fans truly distinctive coverage of the very best in action sports. Among the production and technology elements are:

Mobile units: This year at X Games Aspen, we will be utilizing four trucks from Dome Productions, three of which will be A units, Silver, Journey, and Echo. In addition Dome will also bring in one B unit, Expando B, which will house the Comms engineer, Madi interface for the entire TV compound, and provide workspace for three international partners. BSI will also be bringing a 53-foot truck to use as their control center for all RF Cameras, Comms, and microphones.

Cameras: There are 31 manned cameras, coupled with seven "Point of View" (POV) cameras, a TechnoCrane, four Jibs, a Pole Cam and four Slow Motion Cameras, covering over 130 unique camera locations.

AUDIO/COMMS

The X Games Aspen will be telecast in discrete 5.1 surround sound and feature nearly 200 individual microphones to capture the various sounds around the venue, all interconnected through a variety of transport mediums including Andiamo MAD1 and Calrec Hydra. The worldwide distribution will encompass a multitude of isolated audio channels to augment the domestic and international broadcasts.

X Games Aspen comms is a trunked system between all the five TV trucks RTS frames which also incorporates the in-house system. There will be more than 100 unique users in the comms pick sheet so that the technical crew can decide who they want to communicate with.

X Games Aspen will utilize a trunked repeater system using 14 repeaters. The system will also feature 95 radio channels supporting the different groups on-site. More than 1,200 radios and 800 speakers mics are used at X Games Aspen.

TECHNOLOGY

CondorCam

X Games Aspen will use the CondorCam again after a successful debut in 2017. CondorCam is a two point aerial tracking camera system utilizing a three-axis gimbal. The combination of rigging, robotics and RF make the perfect storm for CondorCam system to take flight on the Slopestyle course and give unique views to the X Games viewers.

Sony HDC-4300

Four Sony 4300's, the first camera to use three 2/3" 4K sensors, will be used at each event to capture high speed HD images up to 8x the normal frame rate.

Antelope Pico

The Antelope Pico miniature slow motion and live broadcast camera system offers spectacular extreme slow-motion replay and never seen before details from vantage points where larger cameras cannot be mounted. The Antelope Pico camera records up to 350 frames per second in native HD, and simultaneously supplies a 1080i50/60 signal via HDSDI for line-cut purposes. We will put the Pico camera on a PoleCam to make it more of a dynamic shot.

Robotic Cameras

The X Games Aspen telecast will feature two robotic cameras positioned throughout the courses. These cameras will capture unique shots of all the competitions from vantage points impossible to capture with manned cameras.

RF/Wireless

Twelve RF hand-held cameras including eight RF POV cameras coupled with the expertise of Broadcast Services International or BSI, will be deployed throughout the venue using low latency microwave transmitters. Six of these RF

POV cameras were specially built for the X Games so the viewer will be able to have the unique perspective. In addition, 25 wireless microphones will be used throughout the venue allowing the viewer to hear the action from every corner of every course. The RF mics also allows our talent the freedom to move freely without limitation.

Follow Cameras

Eight small cameras which are attached to engineered rigs and used by cameramen on skis and snowboards and attached to snowmobiles and snow bikes will provide a unique moving shot from right behind or on board each athlete in the Slopestyle, Big Air and Snow BikeCross events. These RF cameras provide dynamic tracking shots of the athletes as they compete.

Drone

New this year the X Games production will include a Drone in its live coverage. A DJI Inspire 2 Drone with the X7 camera will catch a unique point of view. This camera systems max speed is 58 mph so keeping up with even the action sports will be easy.

Cable

In Summer 2018 Buttermilk Mountain installed permanent fiber going to four pedestals. All 792 single mode ST fiber terminates in the TV compound. On top of the installed fiber we will pull an additional 1,000,000 feet of ST single mode fiber and nearly 50,000 feet of SMPTE cable. Echo Entertainment will employ a ten-person cable crew which will take eight days to pull and test all the cable.