

*By Ken Kerschbaumer*

The Big Ten Network doesn't officially take to the air until August but the finishing touches are being completed to make sure the network can live up to its goal of broadcasting 450 Big Ten sporting events in HD. When the Mobile TV Group learned that the Big Ten Network needed mid-sized high definition mobile units with satellite uplinks for its hundreds of college sports events, MTVG's designers and engineers pulled out a clean sheet of paper and sharpened their pencils. Seven months later the Colorado Studios and Calutech completed construction and the first unit has emerged: a cost-efficient and well-equipped 40-foot expando trailer pulled by an elongated tractor with a combined length under the 65-foot highway maximum for such rigs.

"There aren't a lot of trucks on the road that are designed for an eight-camera college show," says Phil Garvin, MTVG president. "The big trailers are great but they can't do a college basketball game."

The trailer contains a 72-input 3ME Grass Valley Kayak production switcher with 12 internal DVEs, two 6-channel EVS replay systems, six Grass Valley LDK-8000 cameras (it can handle up to 10), 72-times Canon lenses, Chyron Hyper-X2 for graphics, a Clipstore, and a Yamaha 5000 audio mixer.

The three mobile units will be based throughout the mid-west in close proximity to the Big Ten Conference Universities where they will handle approximately 450 Big Ten Network events in the first year. The units will serve other clients when not needed by the Big Ten.

Garvin says cutting back on items like the amount of EVS channels and cameras helped reduce the cost of the truck without compromising the quality of the smaller show. "It has the same cameras and the same fantastic quality but at a much lower cost," he says.

One of the innovations the three units will feature is a 2.4-meter dish and full-size generator built on the tractor. That gives the unit all the power and HD uplinking capability it will need without having to spend thousands of dollars renting generators and uplinks. The innovation could also be a blueprint for other networks looking to broadcast college events in HD. With each Big Ten Network event pulling in much less ad revenue than the equivalent game on a national network like ESPN or CBS every dollar counts.

"To include the 2.4-meter dish and full size generator on the tractor we had to buy a tractor with a longer wheelbase," says Phil Garvin, MTVG president. "The dish is on top of the sleeper while the generator is underneath the structure behind the sleeper. We're also seeing tremendous results from redundant transmitters on the dish."

Garvin adds that advances on the part of truck vendors like Grass Valley, EVS, Yamaha and Avitech have been a huge part of the building process.

"The equipment these companies are producing is outstanding and what used to take an entire rack can now be fit into a quarter of a rack," says Garvin. "And it's more powerful."

That's one of the reasons crews that walk into the vehicles will feel at home. "The engineering area is much smaller and transmission is half the size of a 53-foot truck," explains Garvin. "And there are only four replay positions instead of eight."

Video monitoring in the trucks will be done on Samsung and Apple 20-inch and 23-inch LCD screens coupled with the Avitech multiviewers for quad-split monitoring.

"We don't have the big displays because resolution is 1920x1080 no matter how big or small the screen," says Garvin. "And if you do the math and divide the bigger screen to display 8 or 16 video signals the resolution is very low. That's one reason we max out at a quad split."

Garvin adds that Mobile TV Group is also looking for an Operations & Event Coordinator for the Big Ten mobile units to be based at the Big Ten Network's offices in Chicago. Anyone interested in the position should contact Phil Garvin at 303-542-5555.