



## DRAKE

*As rapper Drake reaches the end of the US leg of his Aubrey & the Three Migos Tour LIVE! Michael Sorowka, President of Paradigm Rigging discusses the value of keeping a check on the loads of big-scale touring productions.*

Load monitoring can sometimes be a tough pitch for any company in the load monitoring market. Historically, there has been a large divide between riggers with regards to load monitoring, but, as awareness grows around this topic, and more companies and venues are getting stricter on enforcing load restrictions, this divide does seem to be narrowing, and many are opening their minds to this technology and its importance...

Paradigm Rigging, the North American distributor of BroadWeigh Wireless Load Monitoring Products and Systems works across the US and Canada, offering complete wireless load cell monitoring systems for music festivals, concerts, theatre productions, auto shows and trade shows. TPi spoke to President, Michael Sorowka about the company's recent touring work: "One of our current projects - Aubrey & the Three Migos Tour LIVE!, is a perfect example of how load monitoring really comes into its own. As we reach the conclusion of a 25-leg US tour, each performance by Drake and

hip-hop trio Migos has been performed 'in the round' - something which has many unique benefits as well as challenges.

"The arrangement of the seats for example, makes the audience engage intensely with the action on stage. When the audience looks beyond the performers they see other audience members, creating a feeling that everyone in attendance is 'on stage' - a real feeling of togetherness. But from a technical aspect, the challenges are aplenty. The set designer has to work in three dimensions and be inventive - the performer is always going to have their back to someone - and the audience will only tolerate the back of a head for so long. And of course, the safety of the rigging is as important (and as challenging) as ever."

On this tour, the majority of the rig weights are condensed in the centre of each building's structure and the mother grid trussing runs down the length of the arena. Head Rigger, Rob Gardner, had worked with some BroadWeigh kit that Paradigm had provided for The Killers' North American



leg of their world tour. He continued: “Having found the kit to be highly effective and easy to implement, he wanted to bring it onto this new project. Veteran Production Manager, Paul Lovell-Butt, brought this idea to life with a larger stock of load cells coming in for rehearsals. We were able to have a shipment of 50 load cells sent to Tait Tower’s rehearsal facility in Lititz, Pennsylvania, in order to meet Paul’s timeline, where Colin Luke of Load Cell Rental brought in an additional 50 rental units and handled the configuration and implementation of the system. Here, Colin worked with the full kit of 100 load cells for weight reports and also to configure their touring setup within BroadWeigh’s LOG100 software, meaning that when it came to it, all the rigging team had to do was simply open a laptop and use the BroadWeigh BW-BSue receiver to wake up the load cells.”

So, why does load monitoring play such an integral part in this production and countless others like it? “The reasons for load monitoring are two-fold. From a venue roof loading perspective, shows in the round tend to centralise much more of their weight right in the middle of the roof spans rather than closer to the ends of the arenas which might have higher loading capacities. This makes it essential that the loads are monitored to keep their distribution within safe limits. For the second part of the equation, using stiffer grid trussing can come with certain challenges around safe load distribution. It can be incredibly hard to see uneven loading or flex within the truss, so using load cells in scenarios like this ensures that overall no components of the grid setups are being overloaded – even within the roof loading limits.

“Of course, you could choose not to use load cells – but in a mothergrid situation this can be akin to working blind with regards to load distributions. It can be next to impossible to see weight variances between motors – you could be

talking about a shift of thousands of pounds of weight with a very minimal travel of the motor. Put simply – it isn’t worth the risk.

“One of the biggest challenges on a tour like this is the maximum allowable trim height available. This is often determined by the arena’s video scoreboards and the maximum height that they can be brought to. Specifically, the BlackTrax motion tracking and Verity Studios Drone Show systems require minimum heights to operate effectively so the pressure to get the rig as close to specified trim height as possible, always falls on the rigging department.”

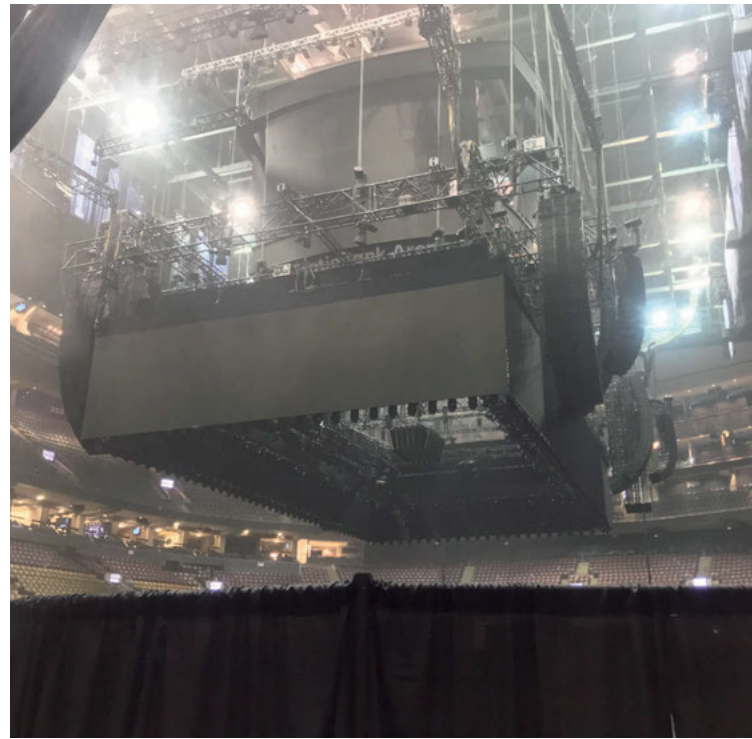
Whichever side of the load monitoring debate a rigger sits on, Sorowka states that his company is finding that more and more that venues themselves are requesting load monitoring for incoming shows. “Environmental factors such as snow loads also play a factor on the maximum loading capacity of venue roofs. With load monitoring software, weights that may previously have been up for question can now be easily viewed on a laptop and can actually be more transparent for tour production and venue staff alike.

“It can be tough sometimes to have a load cell requirement specifically imposed on a tour - however a lot of the choice to use cells comes down to best judgements based on the knowledge, training and experience of the head rigger. Venues are sent show weights ahead of time to have engineers approve total show loads. This is where there is a great amount of value placed on generating load reports in preproduction to have the most accurate figures represented beforehand, then having the cells on site to verify and ensure these weights are within limits of approved loading.

“On Aubrey & the Three Migos LIVE! BroadWeigh’s kit really comes into its own, where

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Michael Sorowka,  
President of Paradigm Rigging



the load distribution of the mothergrid trusses need to be managed effectively without impeding on the speed of the load ins. One of the reasons we specify the BroadWeigh kit time and again is because all the load cells can travel within the trussing which make them much easier to handle at the beginning and end of each show.

“Venue to venue, the BroadWeigh kit needs minimal to no additional thought at all. The kit offers configuration functionality to be able to move all cells over to different radio channels depending on varying RF environments, but this is something which rarely needs to be looked at. With the full wireless system, load cells are set and ready to hook up the moment trusses are rolled onto the arena floor with no future thought on cabling and minimal setup to start viewing weights,” he added.

With tours now a-days growing larger and pushing many more creative and technical boundaries, it’s hard to classify a tour as a ‘typical’ tour, however Aubrey & the Three Migos LIVE! is far from your typical stage set-up. “There’s no stage at one end of the arena with basic straight sections of lighting trusses overhead and standard upstage video wall,” stated Sorowka. “Instead, this tour brings a basketball court-sized stage right where a court typically would be placed- in the middle of the arena, surrounded by the audience.

“Overhead, this means large amounts of the show are placed right at the

mid-span of the roof beams– arguably the lowest capacity parts of the roof. This topic rears its head right from the start of technical planning where the show had to be designed with extra care to distribute these loads across larger sections of the roof. This is when you are seeing many of these mother grid trusses used on this tour, and would also see this similarly on other shows where we are trying to disperse a centralised load over larger areas.

“I sometimes hear the line ‘nothing’s happened in the past when we didn’t have load cells’. Thankfully, this seems to be a pretty limited viewpoint, and most individual riggers and companies always have the interest of safety and best practice at heart. I would agree that our industry has so many redundancies and safety factors built into it that you’d be pretty unlikely to have a catastrophic rigging failure from overloading, but the safety factors are just that, and not meant to be used as a replacement for safe working loads. When systems have become so accessible, easy to implement, and more affordable, you’d be hard pressed come up with justifiable reason to not use a load cell system.”

TPI

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