

WHY MLA WINS

The Noise Pollution Solution

 **MLA**[®]
MULTI-CELLULAR LOUDSPEAKER ARRAY





Electric Daisy Carnival Festivals, USA

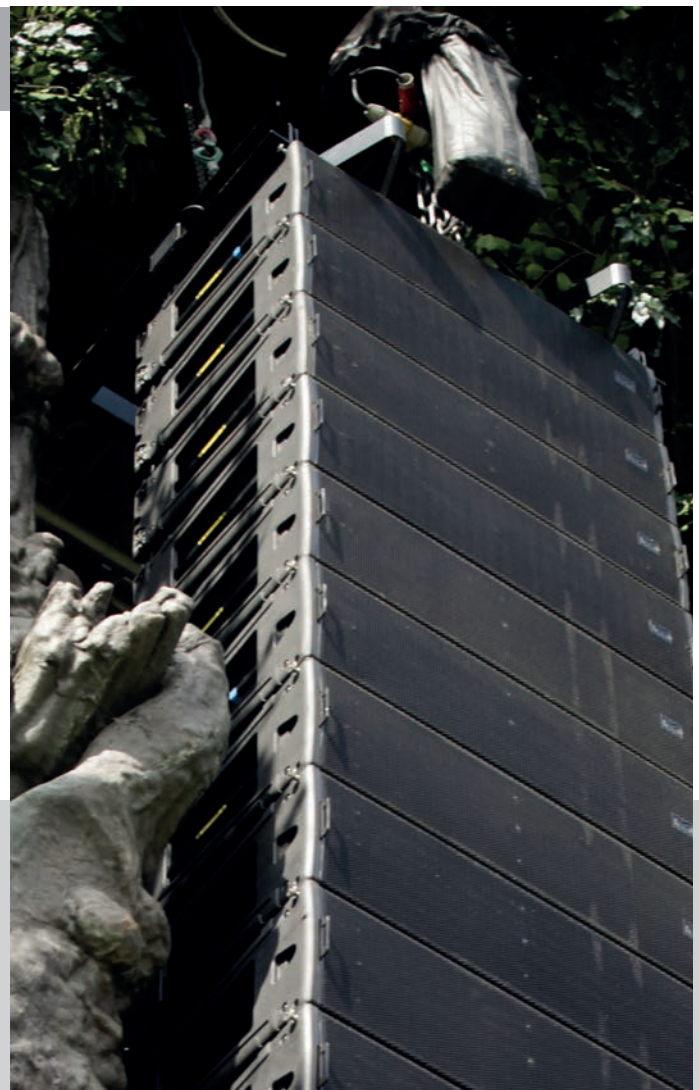
The Noise Pollution Solution

For local officials involved in monitoring noise pollution from venues and outdoor festivals, and for those working in and around promoting them, there is a conundrum: how can audience sound levels be at a premium for an immersive and rewarding performance, whilst at the same time respecting offsite noise pollution and surrounding areas?

More often than not, sound levels for the audience have had to be suppressed in order to safeguard surrounding areas, but this can equally leave audiences unhappy and threaten the viability of such events. At a time when a well-managed and attended event can help bring economic benefits to a local area, the challenge is further complicated.

So wouldn't it just be a lot simpler, if there was a sound system that could maximise sound level performance for the audience, whilst at the same time suppressing noise pollution?

Well, that's the product promise of Martin Audio's MLA.



Parkteatern Festival, Stockholm



About MLA

MLA delivers unerring accuracy of consistent sound coverage for the audience whilst applying unprecedented control for noise spillage and pollution. As a result, MLA has won notable innovation awards and has proven itself time and time again on the global stage.

Every other sound system focuses on sound exiting the speaker itself, with very little control on what actually hits the audience or beyond. MLA takes the opposite approach. The user specifies the required sound levels to occur at various points within the venue and beyond the perimeter and then intelligent software automatically determines the speaker configuration and individual speaker cells within to produce that result.

MLA's unique optimisation software lets production companies plan and visualize coverage and then achieve those exact results, right from switch on. No more lengthy and pressurised tuning sessions– just program what needs to be achieved and MLA delivers, regardless of the unique acoustic properties of the venue itself.

Finally, the conundrum is solved: optimal sound experience for the audience, with greater control of noise pollution.

Why Our Optimisation is Unique and Superior

MLA's optimisation technology is unique, patented and devastatingly precise

- Our proprietary software simulates the output of the loudspeaker at any point in space, using an acoustic model accurate to ± 1 dB. How we achieve this amazing feat is covered in the paper AES7828, given at the 127th AES convention 2009, New York
- Using this model, we can calculate and view the output of an array at hundreds of virtual microphone positions around the venue, all on the user's laptop PC
- Once the user has defined where the audience is - and important where it isn't - powerful numerical optimisation algorithms derive splay angles and DSP FIR filters to precisely control the coverage of the system, as well as the user's desired SPL profile
- Once the filters are uploaded in to the speaker array, the incredibly consistent coverage is realised whilst noise leakage controlled, right from switch on

A System for Every Venue

With MLA, MLA Compact and MLA Mini, the award winning benefits are now available for a large variety of venue from the small ballroom, auditorium, or theatre to arenas and festivals.



Case Studies

Martin Audio and its network of partners have been deploying MLA around the world since 2010. Here are some examples of how MLA has solved noise pollution issues.



Glastonbury 2014, UK

Glastonbury UK, 2013-2015

Martin Audio's groundbreaking Multi-Cellular Loudspeaker Array (MLA) system made Glastonbury history by delivering the highest sound levels to the audience without exceeding noise pollution levels beyond the perimeter.

Making its Glastonbury debut, the system deployed on the Pyramid Stage was impressive in every respect, utilising cabinets from the entire MLA™ range of loudspeakers. This comprised a total of 72 MLA for the main hangs, eight MLA Compact for stereo infill at the pit barrier and four delay positions of 14 MLA each. The latest addition to the range, the MLA Mini, also featured, providing stereo infill behind the FOH control structure and onstage coverage of artists' guest viewing platforms. A massive broadside array of 38 MLX stretched across the entire width of the stage to provide sub-bass support to the entire system.

The company's unique MLA technology enables very fine control of how each array covers its designated audience area. Acoustic cells housed within each cabinet are independently controlled by their own amplifier and DSP channel, a total of six in each MLA. This control allowed system engineer Mark Edwards to specify exactly what SPL and frequency response was required across the audience, with the intelligent software automatically controlling the array to produce that result. This amounted to just a 6dB drop off over the 300m long audience area, with incredibly even frequency response.

"We used our proprietary computer software to figure out how to drive each cell in each array to direct sound just at the audience, and then cut it off sharply just beyond the audience to dramatically reduce noise pollution," says Martin Audio's R&D Director Jason Baird. "As a result, headliners including Arcade Fire and Metallica could play at 104-105dBA – this is the first time such high levels have been achieved in the history of Glastonbury as noise limits are really strict."

More than 150,000 fans listened to headline acts Metallica, Arcade Fire, and Kasabian, as well as The 1975, Elbow, Rudimental, Nitin Sawhney, and Dolly Parton, mixed on the MLA system.

Summing up, Jason Baird says: "It was my career highlight back in 2008 working on our very first Glastonbury, but with MLA this year, it's been topped. To see the massive audiences in complete unison front to back enjoying the performances, combined with the constant stream of smiling faces at FOH, it's been the showcase for everything that Martin Audio and MLA stand for."



Elbow, Glastonbury 2014

WHY MLA WINS

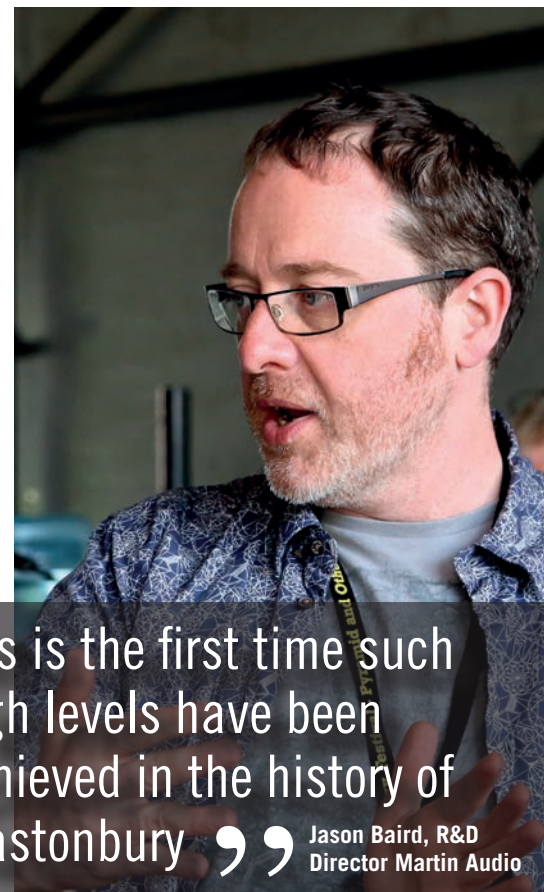


The Libertines, Glastonbury 2015

For 2015, a similar deployment led to equally spectacular results and proving a palpable hit with FOH engineers. MLA's unique ability to control noise escape beyond the site perimeter while maintaining pristine fidelity and high sound pressure levels for the audience meant that FOH engineers could simply focus and enjoy mixing their artists to entertain crowds of up to 120,000 people.



Metallica, Glastonbury 2014



“ this is the first time such high levels have been achieved in the history of Glastonbury ”

Jason Baird, R&D Director Martin Audio

WHY MLA WINS



Hyde Park, London UK, 2013-2015



MLA Conquers Hyde Park

Historically, Hyde Park concerts have been dogged by offsite noise pollution leading to neighbourhood complaints and the need to reduce sound levels on site — meaning that the audience couldn't hear the performances. So, in 2013, new Tenants AEG/Loud Sound adopted Martin Audio's award winning Multi-Cellular Loudspeaker Array (MLA) system to help solve the problem.

Knowing that its advance level of control would be the only scientifically proven system capable of maintaining an offsite level beneath the stipulated 75dB(A) threshold, there was the equal confidence of being able to raise the levels up by as much as 6dB from previous years to between 98dB(A) to 100dB(A) within the audience area, ensuring that the entire audience was united in the experience.

These figures were verified by Ian Colville, technical manager of Capital Sound, who designed and supplied the complete audio infrastructure. He had nothing but praise for the MLA system that allows a site to be mapped and areas optimised for audience, non-audience and 'hard avoid' entirely.

As a result, neighbourhood complaints were reduced to an absolute minimum.

Loud Sound had already received categorical proof of MLA's wizardry at the 2011-2013 back-to-back Underage, Field Day and Apple Cart Festivals in Hackney's Victoria Park, serviced by Capital Sound. Immersed in a densely populated neighbourhood (as with Hyde Park), according to the event management, complaints about noise escapement suddenly ceased.

This gave Loud Sound, the site managers for AEG, the evidence that MLA would be a perfect tool for the Hyde Park concerts.

But given the sensitivities of noise thresholds in the Royal Parks, a site simulation was first set up at Hatfield House

in Herts for the promoters and acoustics consultants Vanguardia Ltd — who routinely carry out measurement and analysis at outdoor events such as this.

Ian Colville and Martin Audio R&D Director Jason Baird confirmed that this location was chosen because of its similarities in shape and size to the Hyde Park site, and evaluation took place against other systems.

The Martin Audio system is unique in its ability to place the sound only where it is required — unlike conventional systems, which have largely depended on trial and error. As a result the sound coverage pattern can be programmed into Martin Audio's breakthrough MLA software to guarantee sound containment.

Vanguardia recorded near- and far-field measurements and asked Martin Audio to load in two different presets, which set coverage at 100m and then 50m. The measured SPL data over the site was then fed into their own environmental model before giving the system the thumbs-up. Vanguardia's experience with MLA also caused them to believe that a better offsite sound could be achieved than with a conventional system.

The other key factor in the sound threshold increase was the reorientation of the Hyde Park stage by around 30° — from north facing to north-west (directing it away from Park Lane). "The result is that fans positioned out at the perimeter have been able to enjoy an identical sound experience to those at the front of the stage," said Capital Sound general manager, Paul Timmins. "But walk five yards outside the soundfield and it will vanish."

With its rapid loudness drop-off, the MLA system was created for environments such as Hyde Park. According to one sound engineer, who had earlier worked with the system, the ability to 'taper off' the sound at the perimeter "is as if an invisible ring has been drawn around the site." It was this that will have impressed those monitoring

the offsite sound at typical nearby locations such as the Grosvenor House Hotel on Park Lane.

Assessed Ian Colville, “The ability to gain an extra 6dB of volume on-site, whilst keeping within the off-site maximum level of 75dB(A), provides a significant advantage. MLA is such a different system, with all of its acoustic cells individually controlled, to produce phase-coherent summation in the audience areas.”

So how was the Hyde Park system conceived? Sculpted into the oak shrubbery of the concept stage’s proscenium — the inspiration of set designers MDM working with Star Rigging — were left and right hangs of 16 x MLA elements (with a single MLD Downfill box at the base). Outfills were provided by 12 MLA (and a single MLD each side) with eight pairs of the small footprint Martin Audio W8LM Mini Line Arrays for front fills.

The subwoofer cardioid broadside array — made up of 32 MLX subs — is now a tried and trusted ‘electronic arc’ concept, with one back facing enclosure for every two forward-facing ones providing cancellation at the rear. “The beauty of this design,” says Colville, “is that you can adjust the horizontal dispersion and rear rejection electronically without needing to physically move anything.”

In addition there were ten delay masts. The front two arcs of four MLA masts each contained seven elements and a single MLD. For the larger shows, two further delay towers at the back were enabled, made up of eight MLA Compacts. Critical distances were 50 metres (from FOH to stage), while the delays were set at 90m (from the stage), 160m and the 210 metres (for the MLA Compacts).

In summary, Ian Colville said, “At Hyde Park we proved how MLA technology allows us to significantly increase on-site volume whilst containing the sound within a strictly defined area. It’s a great result for everyone involved in the project.”

In 2014, it was a similar set up, but Martin Audio’s R&D Director, Jason Baird, was determined that new optimisations would enable them to eke out as much as an additional 3dB at front-of-house without increasing offsite pollution.

As a result, they 102dB(A) was achieved for McBusted, with 73dB(A) recorded offsite, comfortably within the maximum allowable of 75dB(A), while both Tom Jones (during his more strident numbers) and Black Sabbath nudged 103dB(A).

Baird explained that the journey to accomplish this had begun three months earlier, with the concept tested and proven on the Glastonbury Festival delay rig, the week before.

“We conducted the propagation tests based on what we learnt last time around, which was that in certain measurement zones only LF and low mid was contributing to the A-weight measurements. We realised that if we could reduce that frequency band we could have a better differential.”

So his R&D team set to work on the optimisation routines across the full frequency range to improve the differential between on- and off-site levels without extending latency. While Baird maintains that testing will remain ongoing he says the success at Glastonbury gave him the confidence to deploy it on additional arrays in Hyde Park including house left side hang and the two delays nearest to Park Lane.

He describes these early tests and the additional increase of around 2-3dB in max FOH levels over the previous year as “encouraging and significant”. Capital Sound’s Technical Manager and Systems Designer, Ian Colville, confirmed, “It all worked well and there were no issues with the three arrays we used the new optimisation algorithm on.”

With more headroom available, FOH engineers could really focus on their mix.

In 2015, it proved to be the best year for BST. Despite resounding successes since 2013, there remained a lingering perception in mainstream media that Hyde Park was still a sound challenge.

So what better way than to dispel the myth once and for all than for Blur to return this year with a blistering headline set, in addition to other headliners The Strokes, The Who, Kylie Minogue and Taylor Swift, all of whom received stellar reviews from the music and general press, regularly citing ‘loud and clear’ sound levels for the audience. So what about those offsite noise complaints?

Vanguardia principal consultant, Olly Creedy confirmed that complaints on site had been “significantly reduced” again, believed to be their lowest ever levels. He reported that, “The sound has been consistently over 100dB for the headline acts and [for The Who headline show] there was 30dB of attenuation in view of the wind, which we’ve never seen before at Hyde Park. This would enable sound levels of up to 105dB to be achieved at the desk while still restricting to 75dB offsite limits.”

And promoter Jim King, Senior Vice President, Live Events, at AEG added his own endorsement to Barclaycard presents British Summer Time Hyde Park, stating, “We are pleased that even in challenging wind conditions we were still able to operate at levels unimaginable three years ago. To achieve this and reduce local resident complaints for the third year running is a huge success for the event. The work undertaken by Capital and Martin Audio has again strengthened Hyde Park’s position as the best outdoor venue in the world.”



WHY MLA WINS



BottleRock, Napa Valley USA 2013 - 2015



Simply controlling audio in a fairground located in the heart of Napa with houses just across the street was enough of a challenge for any production company, not to mention supporting the festival's five stages for four full days of music.

The need to provide exceptional coverage while eliminating noise spillage in such a tightly defined area was a critically important factor for BottleRock, which explains why the MLA (Multi-cellular Loudspeaker Array) system was chosen for the main stages along with a full complement of Martin Audio for the other stages.

Commenting on why they chose MLA for this situation, Jason Alt, President of Delicate Productions, said, "There's no system out there that could duplicate what we achieved in terms of audio control with MLA. The way we were able to use to steer the subwoofers and the system, our ability to determine an accurate end point and really have audio die off before the end of the property line was so important. The fact that the fairgrounds property line is literally 100 feet across the street from houses and those residents were very concerned at the beginning about having a big rock concert going on that close would cause all kinds of problems in terms of the noise and even their paintings falling off their walls. But by the end of it, because of what we did with steering the system and especially the subs, there were no problems. We had interaction and worked with all of the people on that street throughout the festival and not one of them complained. Most sat on their porch and enjoyed the show."

"I don't think we could have achieved the same sonic goals with another system, especially with the county's noise ordinances."

Looking back at the festival and the need to fulfil the needs of 80 acts within necessarily tight time frames, Jason acknowledges MLA's many other advantages: "Besides the control, MLA helped us work much more effectively with all of the different acts at BottleRock. The system gives you such a blank canvas for what each artist wants the system to sound like; we were able to accommodate all of their sonic wish lists quickly and effectively. Deploying MLA and getting it up happened in a timely fashion so that every artist had enough time to set up and the headliners were all able to tune the system, take a good listen to it, and adjust it to their specific needs."

MLA Ensures Sound Control At EDC NY



Martin Audio MLA systems were deployed by 3G Productions on the Main Stage (KineticField) and Stage Two (Circuit Grounds) at the Electric Daisy Carnival NY festival to provide consistent coverage front to back and exceptional audio quality to a sea of energetic fans.

Held outside MetLife Stadium in Rutherford, NJ, the fourth EDC NY festival drew an estimated 100,000 fans over two days, appealing primarily to an ultra-high energy, rave-oriented crowd moving nonstop to the rhythms and beats of trance, dubstep, hardstyle, house, hip-hop and new combinations of each.

The extensive lineup of artists ranged from mainstream to underground dance music and far beyond, including notable performances from Carl Cox & Friends, Krewella, Martin Garrix, Martin Solveig, Hardwell, AfroJack, Andrew Rayel, Brodinski, Calvin Harris, Duke Dumont, DJ Snake, Kaskade and Dixon.

In order to deliver maximum power, high end extension and low end impact on site, each MLA system consisted of 12 MLA and 2 MLD enclosures per side for the main hang; 16 MLA Compact per side for outfills; 32 MLX subwoofers across the front of the stage in a virtual sub arc and two delays of 4 MLA and 3 MLX each.

As with most festivals around the world, there are multiple opportunities for the right sound system to deliver a premium experience.

Asked why MLA was used for both the main and second stage, Event Supervisor and system designer Julio Valdez

said, “3G chose MLA because we’ve been having great success in both quality and control of sound. With MLA we are able to minimize sound spill between stages and ensure even coverage to every member of the audience which means the audience get the experience they deserve. Equally MLA can also provide exceptional control for sound beyond the audience perimeter and given the proximity to neighborhoods in this instance, it was an important factor too. Ultimately, our client, Insomniac, want the best of worlds: the best audio for the audience with minimal impact to surrounding areas.”

According to Julio, “FOH engineers and artists were impressed by MLA’s sonic impact and sound quality, while the client was very happy with the tonal quality and coverage of the PA, plus the fact that we effectively protected noise overspill into surrounding areas. Stage One metered at 103dB on site but the local neighborhood was seeing less than 65dB and they even received a call from the Mayor who was excited about the show and the fact that they cooperated with the town about keeping within the noise ordinances.”

With a 3G crew that included eight FOH, System and Monitor techs, 3G handled three of four stages with typical professionalism and composure despite the mania surrounding both stages for the event.

Summing up EDC NY, Julio concludes, “I’m really excited about what we achieved. The audience had a crazy, wild time, artists and FOH engineers really enjoyed their sets and we were able to contain sound within the audience perimeters. This is what MLA delivers for us and our clients.”

WHY MLA WINS



Alexandria Palace, London UK 2013



Alexandria Palace, London, UK

Capital Sound made light of Alexandria Palace's notoriously challenging acoustics in October 2013, when they fielded their Martin Audio MLA Multi-cellular Loudspeaker Array at the glazed venue for the first time.

Notorious among the sound community for producing violent reflections inside the venue (and receiving noise complaints from the neighbours), would the Above & Beyond Group Therapy 050 live radio broadcast prove a challenge too far for the award-winning sound system, which promises ultimate pattern control? As for A&B, this was to be one of the biggest events in the dance music trios' calendar.

So just how unforgiving is Ally Pally? In the words of Capital Sound account manager, Martin Connolly, "The Great Hall is a beautiful space; but when it was built in 1873 no one ever envisaged that the building would need to play host to the high volume of a modern day concert; unfortunately, the amazing domed glass roof is only a minimal barrier to sound propagation."

Martin Audio R&D Director, Jason Baird puts it more succinctly, stating: "Just think of a marble and glass shoebox, 40m wide, 16m high and 85m deep."

Above & Beyond, who operate both full band and DJ set-ups (but were tonight operating in the latter mode), had wanted to use MLA, and when they brought in Loudsound's Dan Craig he readily agreed, having worked successfully with MLA during the Field Day and deadmau5 shows at

Hackney's Victoria Park, as a precursor to this summer's Hyde Park British Summertime Festival. Following confirmation that the lampies hadn't stolen all the weight loading capacity the decision became a no-brainer.

Capital Sound Technical Manager, Ian Colville, immediately set to work on designing the system, with Jason Baird providing supportive input. "We have used Martin Audio W8LC's here in the past — but whatever system we have used, it has always required delays. This time we felt it was time to put our faith in MLA and do away with delays."

For both Dan Craig, and promoters, Lock 'N' Load Events the decision was fully vindicated. Craig reported that by operating to a 98dB threshold inside, production didn't receive a single noise complaint. Yet the greatest 'illusion' was inside the venue, where by cleverly mapping the venue to optimise and 'hard avoid' selected areas, the clarity of the signal gave a distinct impression that the various DJ's were playing a whole lot louder. And with the venue once again hosting a steady flow of events, with Cap Sound as one of their main service providers, this could prove highly significant.

"We had observed this characteristic from Day 1," admits Colville. "If a venue is completely resonant free then the sound appears louder." While the complete system design is conceived ahead, the system tech will always make late adjustments on the fly, he said, such as towing in the PA a fraction. In this case once production got on site they

found the venue was not quite as long as drawings had indicated and so certain measurements needed to be re-evaluated.”

Fortunate then, that the system tech on this occasion was Toby Donovan, who worked as the MLA tech on the highly successful Hyde Park concerts.

“I have never worked with a system quite as clever as MLA,” he said. “But you still have to use common-sense in the physical world.”

For this show the L/R system was rigged 11 MLA elements per side (atop a single MLD Downfill) — with two W8C’s each side for outfills and eight W8LM as front fills. The PA was flown fairly high (with slight downward tilt) but then towed it in marginally to keep it off the walls, using Delta plates and three motors per hang. “We only needed about 1° — to avoid distracting reflections; it’s what we would generally do in noise sensitive venues.

“We also needed to minimise spill all round, and the rear rejection with this system is really good.”

The SPL profile was built over a 5dB spread — using zero at the mix position, +2dB at the crowd barrier and -3dB 85m back at the rear curtain.

With ‘Hard Avoid’ applied uniquely to this back wall the design also utilised the Audience and Non-Audience zones with the appropriate optimisation settings — the latter tapering off at the stage (from the drape line to the back wall behind).

Having the 14 x MLX subs arranged in a broadside cardioid array allowed him to enter delay times and change the dispersion control — using the software to electronically curve the sound into an arc. “Due to the narrow width

of the venue, we were only running at 90°, so this was a pretty tight LF beam,” he noted.

Toby Donovan confirmed the belief of the entire Capital sound crew. “Such was the coherency and lack of distortion, that everyone I spoke to couldn’t believe we were only running at 98dB. It was exactly the same on the Joe Satriani tour where we were running at 99dB but sounding like 103dB. Our ears deceive us into thinking that it’s so much louder.”

All of which was to the benefit of Above & Beyond’s Group Therapy 050 show, fronted by the trio of Jono, Tony and Paavo and also featuring support from renowned DJ’s Arty, Andrew Beyer, Boom Jinx and Guy J.

Paavo Siljamäki, for one, was delighted with the outcome. He stated, “[Capital Sound] made one of the most difficult venues in London sound incredible. Never before in my touring career (with over 500 gigs behind me), has the sound in a venue been such a talking point — I had lots of sound engineer friends complimenting us on the way the place sounded,”

Martin Connolly can also reflect on a highly satisfactory outing. “When we supported Subculture and Come Together at this venue for Lock ‘N’ Load Events two years ago with a hybrid system it worked well.

“But the sound was no match for this. When you are not battling against reflections or ambient noise and can aim the sound off the walls, you will always appear to get more volume from the system at sensitive sites like this. Everyone agreed, particularly Seamus [Morley], the tour manager, who described the sound as ‘epic’ and confirmed that we had made absolutely the right choice of PA.”

Red Hat Amphitheater, North Carolina USA 2013

The Red Hat Amphitheater is located in downtown Raleigh, North Carolina with the stage facing a large convention center covered with reflective surfaces located next to a parking deck. Just a few blocks to the rear of the stage are residential neighborhoods.

Home to a summer-long series of concerts, Red Hat is obviously a challenging environment for shows in terms of controlling noise levels. Cooper Cannady of RMB Audio in Raleigh has produced several shows there and knows those problems all too well: “The city contracted a large study at multiple sites around the venue and came up with an SPL limitation of maximum 95dB SPL for one minute at given test points. And that’s tough when you’re doing a show there. Someone like Dylan is manageable, but Smashing Pumpkins and a Snoop Dogg performance is a real challenge to the sound ordinance.

Fortunately, RMB used their Martin Audio MLA Compact system for a recent show featuring American Aquarium, Cravin Melon and the Chris Hendricks band. As Cooper explains, “We put our MLA Compact rig in there and made a presentation to the city how the system’s new software



Red Hat Amphitheater, North Carolina, USA

algorithms functioned. We wanted to bring the sound closer to the audience, avoid the reflections from the building and back it off at the stop points we had selected.

“So we kept working on the sound with the software and finally got it to where there’s no reflection coming off the building. Only people with the MLA Compact can get that kind of control. Everyone else is going to have sound washing over those surfaces and throw it everywhere.

WHY MLA WINS



Red Hat Amphitheater, North Carolina, USA

“The wonderful part about MLA is that the coherence of the system actually makes it sound louder than the SPL meter says it is,” Cooper adds, “which is a real benefit for the audience and the promoters. The city told us we couldn’t have any flags at the 95dB test point and we were able to do that without any problems whatsoever.”

RMB Audio’s setup for the show consisted of 12 MLA Compact enclosures per side, with six DSX subs a side stacked on the wings of the stage. The side fills consisted of two Martin Audio W8Ts and two WS218 subs a side, with WS18X subs for drums, and four W8LMs for lip-fills across the front of the stage. LE1200s were used for on stage monitoring.

Engineer Wayne Sowder was also impressed: “Roger Dennis of RMB put me on the FOH Console for Cravin Melon, and it was my first chance to mix on the MLA Compact. It was unlike any system I’ve ever mixed on—incredible clarity yet very natural, warm sounding and powerful. The software was also a major plus in helping the system techs refine the system performance based on temperature and

humidity in the venue as well as changing the start and stop points without re-hanging boxes. It’s a very powerful tool in the hands of skilled technicians.”

Summing up, Cooper adds, “The city thought the MLA Compact system sounded excellent and that the system was consistent throughout the audience area and had greatly reduced SPL beyond the audience space. I sent one of my staff with a representative from the city with an SPL meter across the street from the park and the sound was diving 10 to 15dB. And if they walked a little further out, the decrease in SPL continued. Once that happened, they actually got it.

“The MLA Compact has been a lifesaver for this venue. This is the answer for an urban area with residences in close proximity. We’ve been able to make everybody happy—the audience, the acts, the city and the neighborhood. MLA has been a real unifying experience. Not many people can deal with those kinds of restrictions and say they did OK, and we did smashingly well.”

For more information about MLA, training and relevant contacts please visit www.martin-audio.com

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