

the **EDGE**

Issue Two | September 2000

Popestock: Papal feat that fed two million



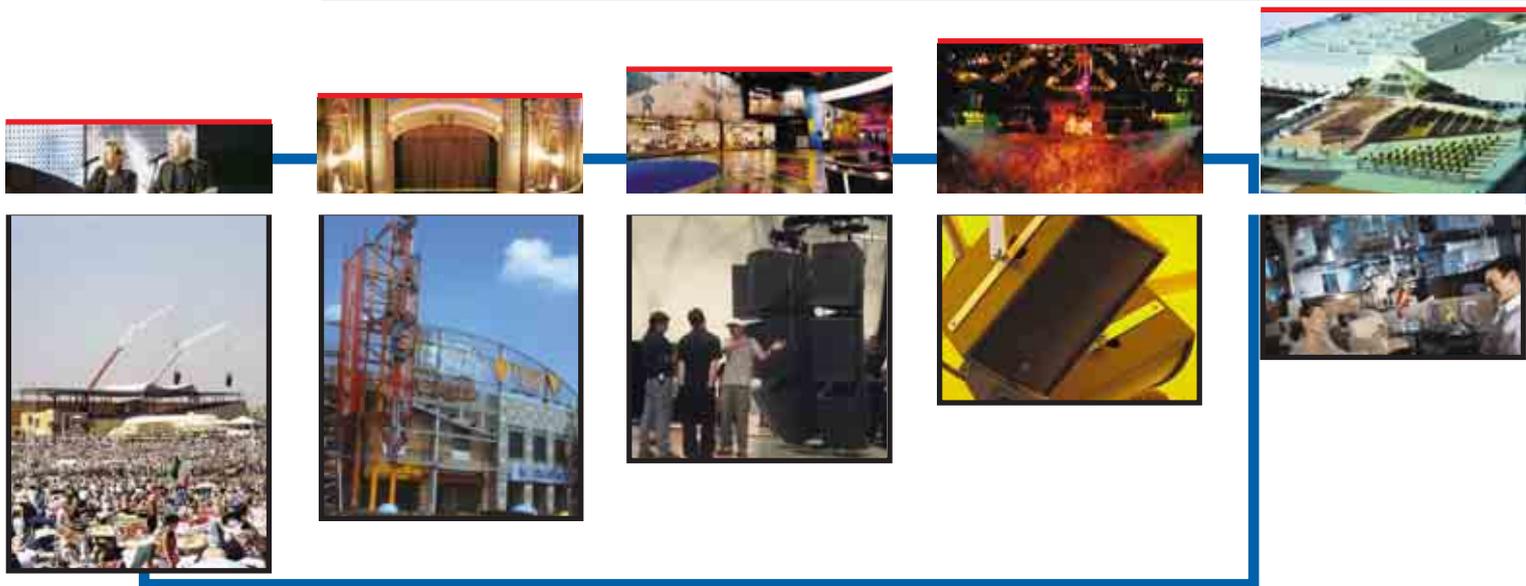
In this Issue:
Star Record Breaker
ExCel: Biggest Ever
Schrager Hotel Coup
Rigging for Safety



The Martin Experience

CONTENTS

New Product Showcase	3
Top London Hotels Specify Contractor Series	4
14 Screen Multiplex Triumph	5
The Stables / Urban Installs	6
The Roadhouse / SS Ausonia Installs	7
Largest Ever Order Goes to Excel	8
Rigging Workshops Major on Safety	9
Two Million Hear Pope Through Wavefront Rig	10-11
Distributor Profile: Audia, France	12
Installations in Holland	13
Full Points at Eurovision Song Contest	14-15
News Down Under	16
Miami Opens the Radius	17
International News Round-up	18-19
Wavefront 8 Users Around the World	20



Right at the Cutting Edge

We were delighted by the favourable response which greeted the pilot edition of *The Edge* at the *Frankfurt Musikmesse* back in the Spring. The comments from our international partners have been followed up with positive action on both fronts — a will on our part to act on that feedback and a growing number of editorial submissions from you this time around.

Of course a company newsletter can only be as interesting as the events that have taken place with our systems out in the field, and we are fortunate indeed that our customers worldwide have been involved in such a hive of activity with our touring, cinema and contractor products this summer.

The zenith of this, of course, is our cover story. When his Holiness Pope John Paul II addresses two million people — a record attendance — through the biggest Wavefront system ever assembled, it is difficult to imagine scaling any higher peaks. It's about as good as it gets.

But this is just one of three records reflected in Issue 2 of *The Edge*, which publishes at this September's *PLASA Show* in London. Cinema products — one of the fastest-growing areas of activity for Martin Audio — have been heavily specified in Europe's largest multiplex cinema (for Warner Village), while we also celebrated our largest ever single sale, with 224 Blackline H2's going to the new ExCel International Exhibition Centre at London's Docklands.

Elsewhere, we have been in theme parks in Holland, flower festivals in Belgium, football finals in Australia and an amazing cinema restoration in New Zealand.

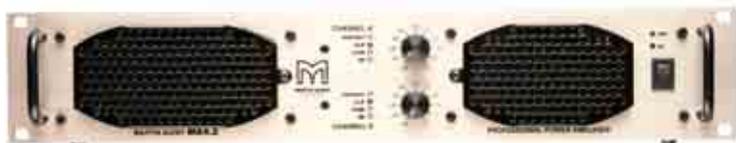
Finally, a debt of gratitude is owed to several people without whose co-operation this publication would not have been possible: our Italian team, Mike Clark and photographers Marco Mastalli and Jim Cousins, as well as Justin Gawne and Paul James at *Mondo Magazine* for permission to use the Radius article. The design and production was by Red Square Interactive, Dartford.

The Edge 3 will publish at the *Frankfurt Musikmesse 2001* — so make sure you get in touch. **Jerry Gilbert**

Martin Enter the Switch Mode Arena

Martin Audio are set to unveil their first series of switch-mode power supply amplifiers, which will make their debut at this month's *PLASA 2000* Show. These will offer exceptionally high reliability, matched to excellent sound quality and an impressive power-to-weight ratio.

The new range comprises the MA1.3 (350W into 8 ohms); MA1.6 (430W into 8 ohms); MA2.8 (1000W into 8 ohms) and MA4.2 (1300W into 8 ohms). Features include: Excellent sound quality; Regulated switch-mode power supply; High power-to-weight ratio and up to three times more efficiency than conventional A/B amplifiers.



The range is cooled by two proportional speed fans, and protection is via short-circuit, DC, temperature, turn-on, VHF, over and under voltage and clip limiters.

EM120 Ultra Compact Sub-Bass System



The Martin Audio EM120 is an ultra-compact sub-bass system. It has been designed to be used in conjunction with the EM15 and EM26 full-range loudspeaker systems, in situations where extended low frequency output is required. The EM120 will extend the frequency response of these systems to below 50Hz.

The EM120 features a single, high efficiency 10" (250mm)/2.5" (65mm) voice coil bass driver housed in an ultra-compact enclosure. Whilst an external crossover is not essential for basic operation of the EM120, larger systems will benefit from the use of an EMX1A controller to provide relative level adjustment and driver protection.



Wavefront WTUB

The Wavefront Theatre WTUB enclosure has been specifically designed for under-balcony use in theatres and infill in venues requiring extremely wide horizontal coverage. It provides sound reinforcement for speech and music with exceptionally consistent tonal balance over the whole of its coverage angle, sharing the same tonal characteristics as the larger members of the WT range, the WT2 and 3.

The unusual driver complement and geometry is responsible for the uniform coverage of the enclosure. A triple soft dome, high frequency line array coupled with a proprietary diffusion phase plug gives very wide horizontal and tight vertical dispersion. Its narrow width allows minimal separation between the two 6.5" (165mm) cone drivers. This factor, and the drivers' 60 degree splay, are responsible for the seamless horizontal coverage of the WTUB. The two 6.5" (165mm) drivers feature 1.5" (38mm) voice coils and an innovative heat exchange system to reduce power compression.

Featuring fully passive operation and requiring no controller, the WTUB is extremely straightforward to deploy. Cabinets can be daisy-chained via a 4-core cable, even when they are fed with different input signals.

The rugged, multi-laminate birch ply enclosure features M8 inserts for the dedicated mounting bracket and an additional M8 'safety chain' point. The multi-angled cabinet rear allows close proximity ceiling mounting with a downward tilt of up to 45 degrees.

Top London Hotels opt for Contractors



Ian Schrager Hotels have always enjoyed a reputation for stunning interior design and excellent guest facilities, and the two opened recently in Central London – The St. Martin's Lane (which opened 12 months ago) and The Sanderson (April 2000) – are no exception.

Both have Philippe Starck-designed interiors, making the choice of sound systems critical. Public area loudspeaker systems had to remain as unobtrusive as possible while catering for operating levels, from subtle background music to the kind of 'in your face' party entertainment demanded by top clients from the fashion and music industry.

With the clientele in mind Harris Grant Associates were appointed to develop and install a series of highly sophisticated acoustic design solutions and concealed background sound systems.

Stated Neil Grant, managing director of HGA: "Ian Schrager Hotels knew that many of their film and recording industry clients would often arrive at their hotels late at night – straight from working in professional control rooms and theatres. The design team then asked that the room acoustics and audio playback in the hotels be from the same perspective as these critical listening environments."

The company thus opted for Martin Audio EM and Contractor series

loudspeakers to fulfil this remit, as Jim Cousins, who designed the systems in both hotels, explains.

"We chose a combination of surface-mounted C115's and ceiling-mounted C516's, augmented by EM150 subwoofers for the St. Martin's Lane 'Asia De Cuba' restaurant. The C115's were painted to match the local interior and hidden among the books and objets d'art under the columns. The EM150 subwoofers were built into the void under the upper level floor and vented under the central bench seating. C516's were used to balance the subwoofer positions along the centre of the rooms."

Stereo pairs of C115's are fitted into each seating alcove of the St. Martin's Lane Light Bar, with an EM150 subwoofer built into each alcove bench seat for extended bass performance – to amazing effect.

The Sanderson Hotel – in the former Sanderson fabrics HQ – relies on the creative use of fabrics around its public spaces. This made it possible to hide EM120 bandpass subwoofers in wall voids and vent them behind sheer drapes.

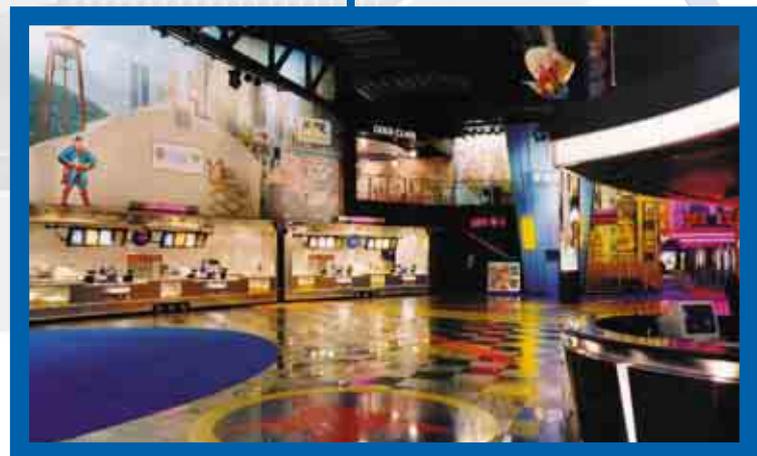
The Sanderson also boasts the ultimate chill-out area – the Agua Spa – complete with Martin Audio C516 bass-ported ceiling loudspeakers, maintaining an atmosphere of peace and tranquility.

In both hotels, equipment rooms were constructed to house the main sound processing and source equipment, including computer programmed CD carousels that select a wide range of music and sources for transmission as required. These can either be transmitted to all areas of the hotel or, alternatively, area managers have the ability to select their own background music according to mood/time of day or night or draw on individually installed sources of music using state-of-the-art audio/visual systems via RS485 communications with central Audionics routing matrixes. Even the hotel lifts have received HGA's specialist audio/visual treatment, both supporting concealed full stereo playback.

All processing, routing, gain control and level matching were taken care of by BSS FDS-366 Omnidrive Compact system processing, with QSC providing the amplifier power.



Star City: the colourful exterior and (below) grandiose film-set style foyer



14 Screen Triumph in Europe's Largest Multiplex



Martin Audio's new three-way, THX-approved cinema sound reinforcement systems have been specified and installed in no fewer than 14 auditoria (including the main THX room and the three Gold Class VIP suites at Warner Village's massive Star City 30-screen multiplex – situated beneath Birmingham's Spaghetti Junction at Nechells.

Warner International's director of projection and technical equipment, Phil Crawley, confirmed that the 30-screen multiplex, which opened on July 7, is the largest in Europe.

Star City boasts a total of 6,000 seats, a unique foyer and innovative VIP room. According to Phil Crawley, "It was a case of getting the best out of the footprint – starting with the largest, 545-seat cinema and working down to the 120-capacity rooms."

The 24 general-run, mainstream houses, are complemented by six quite distinct screening rooms – which will operate as art houses and higher-premium Gold Class VIP rooms, with their high-class seating.

Crawley added that Birmingham had been used as a "test bed" for audio, with Martin components faring strongly against two other leading brands. "We will be looking for public reaction, although as far as I am concerned the EQ on the Martin system has been set almost flat, and so half of our job is done – which is a great installation cost saving," he appraised.

"On top of that, they are incredibly shallow in depth – just 800mm deep from back wall to screen – enabling us to potentially accommodate an extra row of seating."

Martin Audio Screen 5's have been used in triamp mode in the THX suite, while in the other larger rooms the same enclosures are run biamped (there is an easy upgrade between the different modes). Screen 4's have been used in other, smaller auditoria – again in L/C/R configurations stacked with Screen Sub 1 low-frequency enclosures.

By special request, Martin Audio have sprayed 24 of their Effect 5 surround sound boxes pink and black in the highly-designed Gold Class VIP suite, to colour co-ordinate with the room decor.

In terms of formats, the multiplex boasts three THX rooms, standard SDDS in another three screening rooms and DTS in four rooms, which can be portable. With a reader in each auditorium, the processor can be moved to wherever the relevant prints are.



The cinema will show 70mm and digital (via Digital Systems projection) as well as old 133 TV film, in association with the British Film Institute. The technical installation was carried out by cinema specialists, Sound Associates.

"Three-way systems are definitely the way forward," confirmed Phil Crawley. "We first tested Martin Audio systems in Bristol and people loved them. But it's taken me time to convince everyone that they should become a specified item."

Martin Audio's cinema specialist, Richard Rowley, remarked: "As film industry technology produces increasingly wide-ranging digital soundtracks, the Martin three-way design eliminates the compromises that have existed for so long producing an incredibly smooth, transparent sound that greatly increases the clarity of dialogue."

"Both Martin horns arrive pre-assembled – eliminating onsite assembly time – and also offer a considerable weight advantage. System responses are very consistent and surprisingly easy to EQ and set up."

In addition to the Gold Class VIP Suites, the concept for which was successfully trialed in Europe, another UK first is the foyer – "the size of a football field, with scenics suspended from ceiling to floor to resemble a film set, like the back lot of Burbank," according to Phil Crawley. "Our designers have come up with the special effects and PA Installations' lighting really brings the foyer alive."

PA Installations have used six Wavefront W3's and four W1's on the circular centre rig, with EM15's used for spot effects to broadcast the Loony Toons character voices in the foyer.

Warner Village have a further 18 multiplexes currently in development or planning stages over the next three year period – as well as numerous others in Italy, Portugal and Spain.



Stables Turned

Martin Audio sound reinforcement equipment is the preferred option for the £4 million rebuilding of one of the UK's premier arts venues – The Stables, in Wavendon.

Situated on a five-acre site, The Stables operates as a charitable trust – the Wavendon Allmusic Plan – with jazz legends John Dankworth and Cleo Laine as its joint presidents.

The high-grade audio equipment – specified by technical consultants Carr & Angier – was supplied exclusively by LMC Audio Systems Ltd and installed by The Oxford Sound Company.

The technical project co-ordinator was resident sound engineer David Carter, working alongside Mark Hornsby from Paul Guilleron Acoustic Consultants.

Mark Bromfield, from LMC Audio Systems' Birmingham office, explained: "We were given the specification and asked to quote on two different loudspeaker systems' and Martin Audio won over – largely on the strength of Cleo's voice reproduction. The audio contract was worth £135,000."

An additional factor was the day spent in Martin Audio's dedicated demonstration room where the system was put through its paces. Says Mark: "It was largely the EASE plots mapped out by Peter Child that gave confidence to the specification."

In the main auditorium a winched system, involving six Wavefront W2's (used as downfills), are hung from W8 Compacts, which are flown on a single truss bar. The system also includes four W8S subs, mounted on the joists, and firing directly downwards.

A further two W8C's will also be deployed – when required – as additional FOH speakers at balcony level, while onstage six of Martin's classic LE400's will be used for monitor mixes, with a new Blackline S18 to add sub bass when the monitor is used as a drumfill. The system is tuned using BSS Soundwebs



and a Remote, and with no under-balcony or difficult areas to contend with, offers a good line of hearing.

The stage itself is reconfigurable into any format – either with the thrust protruding or retracted. At the rear are barn doors, which open out to allow the stage to be moved outdoors for summer concerts.

The auditorium is named after long-time benefactor, Jim Marshall of Marshall Amplification, with a capacity of just over 400. New facilities include a green room, rehearsal studio and corporate hospitality.

The next phase will be to develop on the site of the old Stables. At present a temporary screen divides the auditorium from the original building – formerly a Victorian stable-block, which was declared beyond repair in the mid-nineties. This will be demolished and replaced with a new structure housing a foyer, bar, box office and cloakrooms.



Urban Spanking

Future 3000, owners of the Bournemouth Opera House and one of the UK's most popular resident clubs, 'Slinky', have replaced the new sound system installed in its latest dance club – Urban in Bournemouth – with Martin Audio sound reinforcement ... just three months after opening.

Led by high-profile British club entrepreneur Richard Carr, Future 3000 had initially favoured another proprietary system, but technical manager Lee Price said the company soon realised the error of its ways.

Lee, who doubles as production manager with Slinky, said the company are used to the trademark Martin Audio sound delivered both on tour with Slinky, and at their Friday night Opera House residency, where a Wavefront 8C system is permanently installed.

Urban is a 500-capacity hard-dance basement club, situated

beneath the Slam Bar, with awkward rectangular dimensions, explained Lee. "So we installed two mini stacks – comprising a pair of Wavefront 8C and W8CS's per side, with a WSX on its side – all supplied by LMC. The stacks face each other at opposite ends of the rectangular floor."

The club had initially considered opting for Martin Audio's latest, hugely-commercial Blackline series before deciding to notch up the spec. "When you've run Wavefront at the club it's difficult to accept less, and ironically we ended up going back to the system I had originally specified in the first place." This includes QSC PowerLight amplification and Soundweb system back-up – with a lock-out facility favoured by the local Health & Safety Executive.

And Richard Carr's verdict on the new sound: "It's spanking," he was quoted as saying.

Roadhouse Return to Base

A substantial Martin Audio Blackline system has been installed in an American rock diner – on the Covent Garden Jubilee Studios site where company founder Dave Martin first set up shop nearly 30 years ago.

This remarkable coincidence was set in train three years ago when Terry Etheridge, manager of the Roadhouse, purchased some Martin LE400 floor monitors from Bryan Williams, formerly of the PA Centre in Denmark Street. "I sold him eight," said Bryan, "and soon the visiting bands started to say that the monitor system was sounding better than the front-of-house."

Thus when owners, the Maxwell Group, decided to upgrade the infrastructure of the 600-capacity, seven-days-

a-week late night venue, The Wembley PA Centre, which Bryan had by now set up, were asked to supply three demo rigs.

Said Bryan: "After he'd heard Martin's Blackline Series nothing else got a look in."

The Blackline range draws on the design expertise of the company's top touring concert enclosures.

Bryan added: "We needed to give visiting acts greater encouragement to play through the house system, and it's really the quality of the sound that has impressed everyone."

The awkward layout of the building dictated that the system be run in dual mono rather than stereo. There are two dancefloors, with half the stage facing towards one

dancefloor, and half towards the other.

The four Blackline H3's, four S218's and four S15's, supported by eight EM56 and four EM15's for surround sound, are split into three sound zones. These are configured with a pair of H3's either side of the stage, and the four S218 (2 x 18) subs spread evenly under the stage apron. The flown S15's act as front- and side-fills, while the trusty LE400's, purchased three years ago, continue to perform magnificently.

Two of Martin Audio's new DX1 system controllers have been deployed – the first running the main PA system

and subs, as well as the main bar zone, the second the surround sound for the dining area and entrance area, via a matrix on the sound board; a further M3 system controller handles the front-and side-fills.

The entire audio contract, including processing, was worth in the region of £70K, and the equipment was installed by Alex Bhinder of Plasma Music.



The Team are Alex Bhinder, Bryan Williams, Graham Logue and Terry Etheridge.

Audio Excellence Aboard SS Ausonia

The SS Ausonia, a recently-refurbished luxury cruise ship contracted to First Choice Holidays by Louis Cruise Lines, has had a state-of-the-art audio design specified by cruise line specialists, Fisher Marine.

The Halifax-based company used a wide range of Martin Audio loudspeakers as their primary sound reinforcement source in the three main zones – the main and secondary show lounges (which are multi-purpose, transforming into cabaret and late night discotheque usage) – and main deck.



These included multiples of WT3 three-way compact theatre enclosures, WM0.5 nearfield monitors, EM26 two way trapezoids, for use in the show lounge/disco and on the top deck, with four of the punchier EM56's, supported by a pair of EM150 ultra-compact subs in the secondary lounge, crossed over using the BSS Soundweb.

The SS Ausonia is designed to operate superior two week cruises between Southampton and Cyprus. The refurbishment was carried out in Greece and all the public rooms have now been recommissioned, with new carpeting and decor.

Fisher Marine had favoured competitive loudspeaker brands until fitting Martin components for the first time on board the MV Bolero. "Everyone was delighted with the result," Ken Fisher said. "The success of the installation was largely due to the EASE programme support, which enabled us to take accurate acoustic measurements."

The system on the Ausonia, which has its audio presets stored and relayed to the different show areas by three Soundweb devices, will be fed from a mixture of CD and Minidisc playback sources, as well as cabaret through a radio mic system.



Largest Sale Ever Goes to ExCel

Martin Audio are celebrating the largest sale of a single product in the history of the company.

No fewer than 224 Blackline Series H2's have been sold to fire alarm company Simplex Europe LLC for installation in the new ExCel International Exhibition Centre. The new conference and event venue for Europe is located on a 100-acre site alongside Royal Victoria Dock on the north side of the Thames, with its first phase due to open in November.

The popular H2 is a dedicated two-way mid/high system in a switchable active/passive format, incorporating innovative horn-loading principles pioneered in Martin's touring products. It will appear in the ExCel as the main SR component in a 100V line distributed system.

The two main halls in the ExCel nominally measure 400m x 90m x 13m high, but can be sub-divided by movable walls to make the spaces multifunctional.

Audio consultants involved in the project included Peter Mapp, while Peter Brailey from Hoare Lea provided the acoustics outline that dictated hall requirements. Avalon Communications then supplied the voice alarm and public address systems.

Avalon's sales manager, Rupert Moon, commented: "This was a very reverberant space – in fact an acoustical nightmare, and in all these different configurations the voice evacuation,

speech intelligibility and background music clarity and coverage had to be excellent."

Avalon conducted tests on many loudspeaker brands before settling on Martin Audio. "We were very surprised at the performance of the H2," Rupert remarked. "This may be an unusual use for Blackline but it offered tightly-controlled dispersion and an unrivalled price/performance ratio across the frequency range."

Avalon's task was made easier once Martin Audio's Peter Child had provided the EASE data for Blackline, enabling the company to plot their own acoustic measurement and modelling, based on these statistics. "In fact," admitted Rupert, "the performance characteristics of the H2 were a lot better than even the EASE programme had suggested."

Each of the halls has been divided into 15 zones, with each zone featuring seven of the H2's staggered with seven limited-frequency conventional re-entrant constant directivity horns. The sound curves in each of the zones have been set using a pair of conventional 31-band analogue graphic equalisers, one for the H2's and one for the CD horns.

The first phase of the new ExCel development will comprise 90,000 square metres of modern exhibition, conference/breakout, meeting and banqueting facilities. The second and third phases, earmarked for the new year, will bring the total space to 155,000 square metres.

Where to see us

Sept 10-13: **PLASA 2000**
London, UK

Sept 22-25: **AES Convention**
Los Angeles, N. America

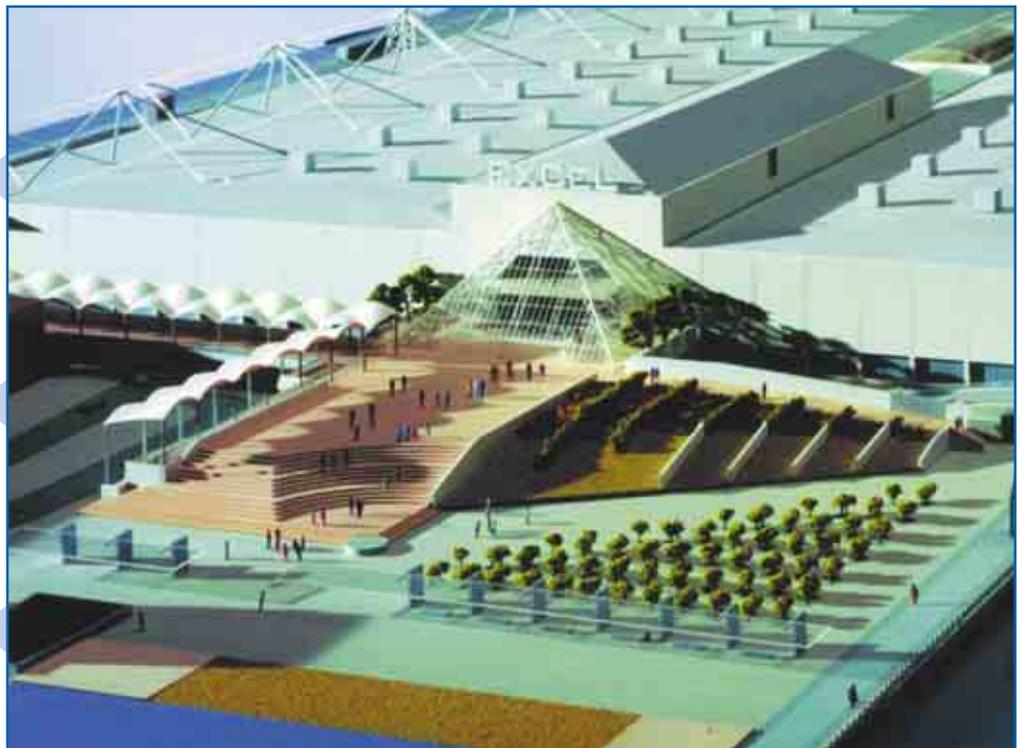
Oct 20-22: **LDI**
Las Vegas, N. America

Nov 17-19: **Music Live**
Birmingham, UK

Feb 9-10, 2001: **LIVE! Show**
London, UK

March 7-11: **Musikmesse**
Frankfurt, Germany

March 8-10: **NSCA**
Orlando, N. America



Rigging Workshops Major on Safety and Efficiency



In an attempt to make their customers more safety- and efficiency-aware, Martin Audio have successfully completed their second rigging workshop.

The series of training seminars, aimed generally at engineers and riggers, is the initiative of Martin Audio's Richard Rowley, and Mick Nash of Man Flying Systems, who has a long history of making bespoke flybars for the company.

Explained Rowley: "This was not intended principally as a sales showcase for the company – we simply felt that flying systems are becoming more of a necessity in modern touring and the only way to train and understand what can be achieved is to give the opportunity to get hands-on, with no pre-gig time restrictions."

"We wanted to cover a number of safety issues as well as speed of deployment, stressing the importance of pre-rigging in the warehouse, inspection and flightcase issues, an overview of the W8 flybars and components, plus chainsets. Flying can be a very slick operation."

He said the inaugural workshop – at the Brixton Academy – was prompted by having witnessed a number of productions that manifested a sloppy use of flybars. "There are reasons for certain adjustments in order to create the correct geometry and acoustic performance arrays."

At Brixton Martin Audio were able to use the grid above the stage to demonstrate correct usage. "This is a rectangular stage, and on one side we showed the Transformer Bar, tool-free system – as used by PA companies like Capital Sound Hire and Wigwam – and on the other we used the Installer/Tourer (IT) system as favoured by Ad Lib Audio and now by CAV. We simply split the grid into two."

According to Richard Rowley, another principle for staging these workshops was what he described as "the HSE element." He explained: "There were legal safety issues to consider, and regulations are now laid down by the HSE and should be adhered to. These include PUWER – the Provision and Use of Workshop Equipment Regulations and LOLER – Lifting Operation and Lifting Equipment Regulations."

Mick Nash spent time talking about how the flybar was developed, showing the adjustable positions and setting out the vertical and horizontal geometry necessary to maintain the correct dispersion, and keeping the array nice and tidy to improve sighting.

Each session incorporated a practical as well as discussion forum, and concluded with a Question/Answer session. All attendees received a user's guide and certificate of attendance. A multimedia rigging manual will also be available from Martin Audio in due course, stored on a CD-ROM.

Visitors to both Brixton Academy and the Liverpool Community College Arts Centre represented a broad mix of industry specialists, who came from far afield – including Belgium. Valuable assistance at both events was provided by Matt Harman-Trick from CAV.

Now Richard Rowley is looking to extend the geographical scope into the UK Midlands, and develop a broader engineering message with possible demonstrations of the EASE acoustic modelling system.





Two Million Hear Papal Add

Just how many records were broken by the 15th WYD (World Youth Day), held on Rome's Tor Vergata University Campus during the 2000 Jubilee, will be hard to establish. But the two million-plus crowd of young Roman Catholics from all over the world who invaded the Eternal City for the two-day August event were able to see and hear His Holiness, John Paul II, thanks to a unique combination of cutting edge A/V technology, radio and sat telecommunications.

And it required a major effort from several of Martin Audio's Italian Wavefront stockists – reinforced by Capital Sound's W8 fleet in the UK – to pull off this event.

As well as building new roads and planting hundreds of trees and bushes (after having cleared the entire area of World War II bombs and demolishing ten 90-ft high voltage pylons), facilities on the 241-hectare (almost 600 acres) site hosting the crowd included 51 lighting towers, 18 electricity sub-stations, 12,000 chemical toilets, 50 kilometres of temporary barriers, 1200 drinking water taps, 32 eateries, 330 ambulances, 24 hospital tents, 2 heli-ambulances, 878 medical and paramedic staff, 8,000 Jubilee Volunteers and six bailey bridges for emergency service traffic.

The Martin Audio Wavefront system chosen for the daunting task of covering this area was projected and supervised by Notari Allestitimenti, one of the three members of a consortium formed for the occasion, which also include Carlo D'Apruzzo (responsible for general organisation and the satellite application) and Radio Centro Suono, who handled RF transmission of the audio signal.

Marcello Notari explained how the Martin Audio contract came about. "I spoke to the company's Martin Kelly at Rimini's SIB expo in March. I explained what we wanted, and although changes were made along the way – not least of them being that a system originally intended for speech-only, thus concentrating on 1mHz, would now be used by an incredible assortment of musicians and singers – Martin gave me CAD drawings and a simulation of the entire system; with their



Marcello Notari directs FOH operations, with Geatano Ria and consultant, Prof. Bongiorno.



consultation and assistance I began distributing the towers. Stefano Rocchi and Mauro Codelupi of Audio Sales, Martin Audio's Italian distributor, put me in touch with the two locally-based companies who would supply the bulk of the audio hardware for the FOH system: Fumasoli Service and Music Service."

Each tower was originally supposed to be at the centre of a 'village' with services close at hand, but as the event loomed closer, it was obvious that the areas between were going to be filled by the crowd as well, so the set-up had to be tweaked to solve that problem. With a view to this, top UK audio consultant Jim Cousins' expertise was called upon, and he too was among the throng basking under one of Italy's hottest August suns for many years, both before and during the impressive event.

Each of the two main clusters flown from two truck cranes located behind the huge stage comprised two W8CT's with a CM and a CT between them on top, four W8S's, then a row identical to the top, and lastly one with two more W8C's, with two W8 top boxes between them on the bottom row.

Each cluster was powered by four Lab Gruppen LAB 2000's and six LAB 1300's, with the main set-up connected via cable to the FOH Vienna II, where veteran sound engineer Geatano Ria remarked: "This was one of the most exciting and thrilling events I've ever done and a great responsibility. Since there was a 150-piece orchestra, 300-strong choir, a gospel chorus and other artists and groups performing on Saturday evening, to avoid having three or four desks out front, Fabio Citterio gave me a series of sub-mixes from his portastudio backstage. This is where he mixed the sound for RAI transmission on behalf of Global Service, who were also responsible for monitor mixing."

Geatano fed a mono mix to two sections of the arrays, which he controlled independently. The central part was aimed at the areas containing all the dignitaries, with a volume which wasn't excessive, but ensured presence and intelligibility. Another signal was fed to the long-throw units, able to reach the 400-500 metre mark in the crowd – where the 14,000 seats ended, the grass began and the towers took over. Commented

Press – Through Massive W8 Rig

Geatano: "The main system sounded marvellous – particularly the combination of the various systems used in the clusters. I was impressed with the intelligibility of the mids on the voice, and in spite of being flown, the bottom end was perfect."

As at all events in which the Pope participates using an audio system, his microphone (and those of the concelebrants at the mass) were controlled directly by Radio Vatican engineers, headed by Roberto Calvigioni. The RV engineer alongside Geatano Ria was Roberto Bellino, who also expressed his satisfaction. "I must say everything went well and I was pleased with the sound we got from the main system."

The towers received their feed from RF Channel 49 and via a British Telecom satellite up-link. As well as a mega video screen, each tower had a Behringer MX 1604A mixer, used to EQ and control the volume of the signal from the down-link. The radio signal ensured a safety net had it been required, but was also used as an intercom between the control room and the towers – the tower ops had a Ch 49 in their cans, through which they could be advised to lower the sat signal and send a message on the other channel in the language of the part of the crowd in their zone.

Marcello Notari continued: "The majority of the 14 A/V towers in the area, whose distance from the main system varied from 400 metres to 2.02 kilometres, were used as relays, but three were in fact treated independently. Of the two behind and off to the left of the main clusters, one was located behind buildings and covered a 'village' containing Civil Defence tents, a field hospital and other services; the other gave us problems with alignment with those in front of the stage, so eventually we decided to isolate it from the delay chain and treat it as a separate entity too.

The third 'indie' tower was the furthest away and in fact pointed towards the stage, but was behind a group of large buildings which, as well as serving as a screen to avoid the tower's sound coming back up towards the stage, also eliminated sound reaching the area from the other towers.



Six tower clusters included Long Throw systems and comprised four W8C's, four W8S's and a pair of W8CT's, plus two W8CM's on top. Four towers suspended four W8C's and four W8S's, and the remaining four also had four W8 top units. Amplification was all Lab Gruppen – four LAB 2000's and four 1300's on the relays, with LT systems and 2 plus 2 on those without. On the aligned towers, XTA DP100 delay units were used, but where these weren't sufficient, since the show was working in mono, production was able to daisy-chain them with the XTA 226's channels to create longer delay times.

Music Service supplied the eight relay towers and Fumasoli supplied the main clusters, six relay towers with long throws, FOH desk and controllers.

Renato Fumasoli, who now has the largest number of LT units in Europe (16 systems), stated: "The Pontiff's voice could be heard very well and it was a very thrilling situation for us all – the Pope himself greeted 'those who might not see him, but could definitely hear him'".

Marcello Notari concluded: "As a long-time specifier and user of Martin Audio equipment for a wide variety of high profile events since the early '80s – from major tours to festivals – I'm of the opinion that its mid range reproduction is the best in the world. It's got nice clean elegant bass and well-defined top end, but for me it's the only choice if you want your vocals really present and up-front, even if you've got a heavy metal band with a 10kW backline."

Audia Hit the Right Note with Pro Audio



One of the outstanding success stories this past decade has been the partnership that has developed between Martin Audio and Camac, the company set up by Gerard Garnier in 1972.

Today, under their Audia professional wing, our French distributors are writing phenomenal business. But Garnier reports that it was Martin Audio's leap of faith when Camac was predominantly an MI-based company, that kick-started the whole process.

So successful has the pro audio business become that Camac have set up Audia's Pro Audio Division, managed by Jean-Noël Elouali, who has been a pivot in the entire evolution.

Audia first came into life on January 1, 1998. Explained M. Garnier: "We decided to set up a dedicated division out of Camac Audio because on the one hand we had Akai, which has moved us into broadcast, while Martin Audio also backed our move towards pro early on in our development. For that I am very grateful and it's been a very good move for us."

It was a good move for Martin Audio also, since Camac sales are well ahead of forecast right across the product range. And with a rep network reporting to Jean-Noël – and an additional showroom in the

Le Bastille region of Paris – they can look confidently to the future. Gerard Garnier confirmed: "These reps are visiting installers and people at the high end of the pro market throughout the

particularly popular as it not only covers all professional applications but also features in our retail division."

The same is true in the PA market, where last summer



The Audia Team, with Jean-Noël Elouali in the foreground

country, and so Martin products are getting excellent coverage."

"The way we are structured we can cover the high end or low end of the pro market," continued Gerard. "Martin's Blackline series has been

firms like Lyon-based Megawatt and Bruno Alain's Production 44 increased their Wavefront stock – the latter to service the popular *Floralies*. Taking place every five years, this son et lumiere combines an aquatic show across the River Erdre, in

Audia's home town of Nantes.

Audia had the French "Wavefront 8 network" standing by and this worked extremely effectively, with Production 44 subbing in from fellow W8C stockholder, Bordeaux-based ATC, to make up the shortfall of boxes required to give the enormous coverage down the river bank, and into the facing Stade de la Beaujoire stadium.

This is the kind of fraternity guaranteed to put a smile on the face of Gerard Garnier, who started his business in musical instrument manufacturing back in 1972. He is the major shareholder in holding company, Garnier Enterprises, with general manager, Jean-Luc Dubois and financial director, Bernard Lebon also partners.

The company has expanded its operation to the point where today it operates in a hi-tech location of 6,600 sq. metres, on a picturesque industrial park.

Gerard says it was a happy day when, some ten years ago, one of his reps suggested the idea of setting up a pro audio division. He remembers with a chuckle: "This person told me wonderful things about Martin Audio and approached them on our behalf ... but then he left the company to get married."

"Think what might have happened if he had stayed!"

Merlin's Madhouse



Martin Audio loudspeaker enclosures have been commissioned to create shockwaves of sonic terror on a new ride called Merlin's Madhouse, which has been installed at the Six Flags Holland Theme Park in Bideinghuizen.

The park was purchased recently by Six Flags, and in this new swivel ride up to 30 people rotate in either direction to create a strange feeling of disorientation.

Ampco Holland provided the audio, both for the pre-show – during the introductory talk – and then the show itself. Ampco won the contract through their association with NOB, the Dutch broadcast corporation, who have their own set dressing and decorating department, and entered into a joint venture arrangement.

Audio project manager, Ampco's Marc Kocks, opted for Martin Audio compact trapezoidal EM26's to deal with the sound effects and speech reproduction, along with four high-power EM56's for the main show and a single enclosure for the pre-show, to create the more spectacular special effects. The new Blackline F12's and S15 subs were also featured in the audio design along with some miniature EM15's, packing twin 5in drivers to create the smaller spot effects.

Audio sources, generated from a Roland AR100 media player, are triggered via Show Control, processed via a Peavey MediaMatrix and then unleashed on the unsuspecting public by the Martin boxes.

"It is a spectacular effect, and one which everyone is extremely happy with," exclaimed Marc.

'Ark at NOA

An amazing new cafe bar called NOA has burst onto the Amsterdam social scene.

Integrated into the interior concept is an audio system, dominated by Martin Audio components, and designed by Jeroen van Keeken.

In the front bar eight of Martin's highly-styled and engineered injection-moulded C115 Contractor series enclosures have been surface-mounted at the front of the bar, accompanied by a compact EM150 to boost the low frequencies. At the rear, a further four C115's and a single EM150 sub provide the sound reproduction – in both instances powered by a Crest CA-6 amplifier.

The owners opted for the system after being particularly impressed by both the design and sound quality generated by the C115's.

The installation was carried out by PTB Productions and A+T Services (Ampco).



Wavefront Stars at Eurovision

The 45th Eurovision Song Contest – the annual European showcase to find the best new song – this year moved its stage to the magnificent 16,000 capacity Globe Theatre in Stockholm, the largest spherical building in the world.

With a height to the catwalk of 36 metres and a further 50 metres drop beyond that, this is one of the most precarious venues in the world to rig.

There was no-one more qualified to reinforce this slick presentation than DM Audio, the pro sales and rental subsidiary of EM Nordic. For DM Audio not only carried out the original installation of the Globe ten years ago but have delivered more shows there than any other production company. Up to 30 tons of equipment can be suspended from the technical bridge.

DM Audio has been in business for more than 30 years and had been on duty last time Sweden hosted the competition – at the Scandinavium Arena in Gothenburg back in 1985.

One of the survivors of that Gothenburg gig was DM Audio's vastly-experienced MD, Lars Wern, who built up his production arsenal at The Globe with military precision. Cues, scenes and presets on all control equipment were doubled up as a security precaution.

Lars was joined at front-of-house by another stalwart, Robert Ernlund, while Mats Grahn and Leif Matsson had the arduous task of trying to deliver artist mixes through four invisible Martin Audio LE700A wedges – presenting the music in a stereo feed – and some 24 LE12J vocal monitors. These had to be countersunk under a steel mesh, which could be blocked out when not in use by template covers on rubber suction cups, while a variety of in-ear monitors were clearly being paraded by some artists for the first time. Two floor-mounted W8C side fills and some subs behind the screen completed the foldback.

Television has a lot to answer for; in addition to the "invisible" wedges, the overhead Martin Audio Wavefront 8C cluster had to be trimmed above viewing height – and I challenge anyone to have spotted a rogue cable.

With delays, infills and the Green Room to service, the PA company doubled their inventory of Martin Audio enclosures for the show – "and we still had to borrow a few extra speakers," admitted Lars.

The rig was based around two main clusters, consisting of W8C, W8CT and W8CM enclosures – flown on each side of the stage in a standard configuration, with floor-mounted WSX sub woofers.

To compensate for the unusual trim height, as a precautionary measure DM Audio flew additional W8C's deliberately above the view of the camera – as downfills from the front lighting truss alongside Martin Pro MAC 600 moving yoke lights – and added a row of tiny WT15 speakers, around the front of the stage (also interspersed between MAC lights). "These were ideal as we could feed two lines in a four-pair cable and then on each speaker select which line to connect to," emphasised Lars.

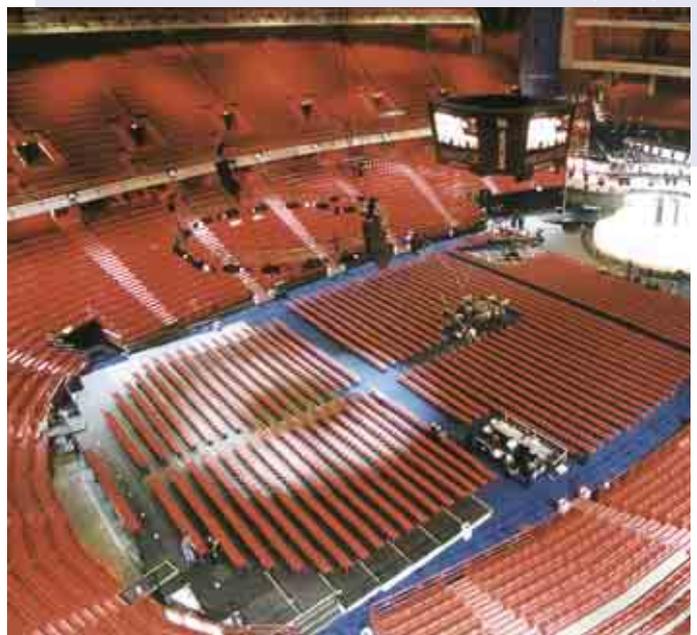
They also favoured a W8C delay system to cover the back of the arena, despite knowing that the Martin Audio W8CT and CM long throw cabinets were quite capable of going all the way.

This was to compensate for the restaurant, with its giant curved picture windows, situated above the seating area in the rear. "It was easier to cover this area – without hitting the window and causing a slap back effect – if we used a delay system, aimed slightly downwards," explained Lars.

With the extraordinary height of the venue, DM Audio thus managed to achieve almost 90 degrees of vertical coverage, adding a further W8C cluster each side to infill in the highest seating areas, up in the Gods.

Where subs were needed – in both the auditorium and Green Room – Lars had no hesitation in turning to the Martin Audio WSX. "They are the best we have ever heard, and the lack of backward 'spill' is extremely important in a situation like this."

Below: The arena; Top Right: The Olsen Brothers; Middle: Robert Erlund reveals the trap to the "invisible" wedges; Below Right: Monitor engineers, Mats Grahn and Leif Matsson





DM Audio also detailed state-of-the-art QSC amplification and digital processing, with 56-channel Amek Recalls at FOH. Monitor engineers Mats Grahn and Leif Matsson alternated on a pair of 56 channel Soundcraft Five Monitor consoles, with 16 stereo busses.

"We have had a lot of experience with the Recalls," continued Lars, "and the new Rupert Neve RN inputs are the best we can get for a job like this. The automation has helped us keep track of a show which features 24 different artists. There won't be any switching of VCA's, as in a theatre production, but we have been able to tailor the compressors for each artist."



A Rane RPM26VB 2-in/6-out digital processor was used for system configuration, while outboard gear included TC M5000/M3000, for the vocal reverbs, and Drawmer DL251 compressors, with a Drawmer DC 2476 digital mastering processor on the main left and right out, an Allen & Heath DR128 digital speaker management system, which held the four-way crossover settings, with EQ and time alignment, and was used as a distribution amp. Drawmer MX50 de-essers took the sibilance from the reverb, a Rane MQ302L stereo EQ was assigned to the FOH system and a GE60 graphic EQ was used for the presenters' head and lavalier mics.

DM Audio used Sennheiser MK2's on hosts Anders Lundin and Cattis Ahlstrom, who were rigged with pocket transmitters and an in-ear monitor. In fact all radio mic channels, receivers, transmitters and monitoring equipment – and 18 3000 in-ear monitoring systems – were provided by these major sponsors.

Remarkd Mats Grahn: "For this type of event where you use a lot of stereo the Series Five Monitor is wonderful. It has a global stereo switch which puts each set of busses into stereo mode and I can assign the IEMs and wedge monitors to different types of output."



DM Audio used a Drawmer DC2476 to control the IEMs, including dynamic EQ and compression and the M5000 and M3000 for IEM reverb. "We could then give the artist a much better sound, keeping the level down to optimum broadcast standard."

SVT beamed the show to 100 million viewers around the world. The contest itself resulted in a surprise victory for the Danish entry – the Olsen Brothers' *Fly On The Wings Of Love*.

And how much had it all cost to stage? One theory was around £12,000 for each minute of the show's duration – which is a lot of kroner.



W8's Make 3200 Sweat

Sydney based 3200 Lighting have stepped up their involvement with Martin Audio with the major purchase of a 16-cabinet Wavefront 8 concert system.

3200's MD, Iain Reed, explained that the purchase was in many ways driven by market demand for his company to complete the production package. "In most cases our clients are already sold on our lighting and staging designs and request that we also include the audio component in our overall package. Thus far we have sub-rented systems to comply, but now with the Wavefront 8's we can do the whole production in-house."

Commenting on their choice of system Iain continued: "Although we have an excellent relationship with Martin Audio and a considerable inventory of the mid-sized W3's and smaller W0.5's, choosing Martin Audio was by no means a foregone conclusion. Bearing in mind we have been sub-hiring world-class systems on a regular basis we have a pretty good idea of what they all sound and function like in real life."

"We applied the same set of criteria to this purchase as we did for the smaller systems, and once again Martin did it all best. The W8 cabinets are compact, easy to manoeuvre and presentable; rigging is flexible and fast, and most important, the audio clarity is superb - better than anything we've heard - particularly in the mid range."

The 16-box system (eight W8C mid/high and eight WSX 7ft folded horn monster subs) is powered by QSC's new PowerLight 2 amplifiers. The seven amps, along with two Martin DX1 Digital System controllers, are racked in a single flight case weighing just 86kg! EQ is courtesy of an LA Audio EQ231GSP graphic and Klotz cables are used throughout.

The first major outing for the system was 'SWEAT' -

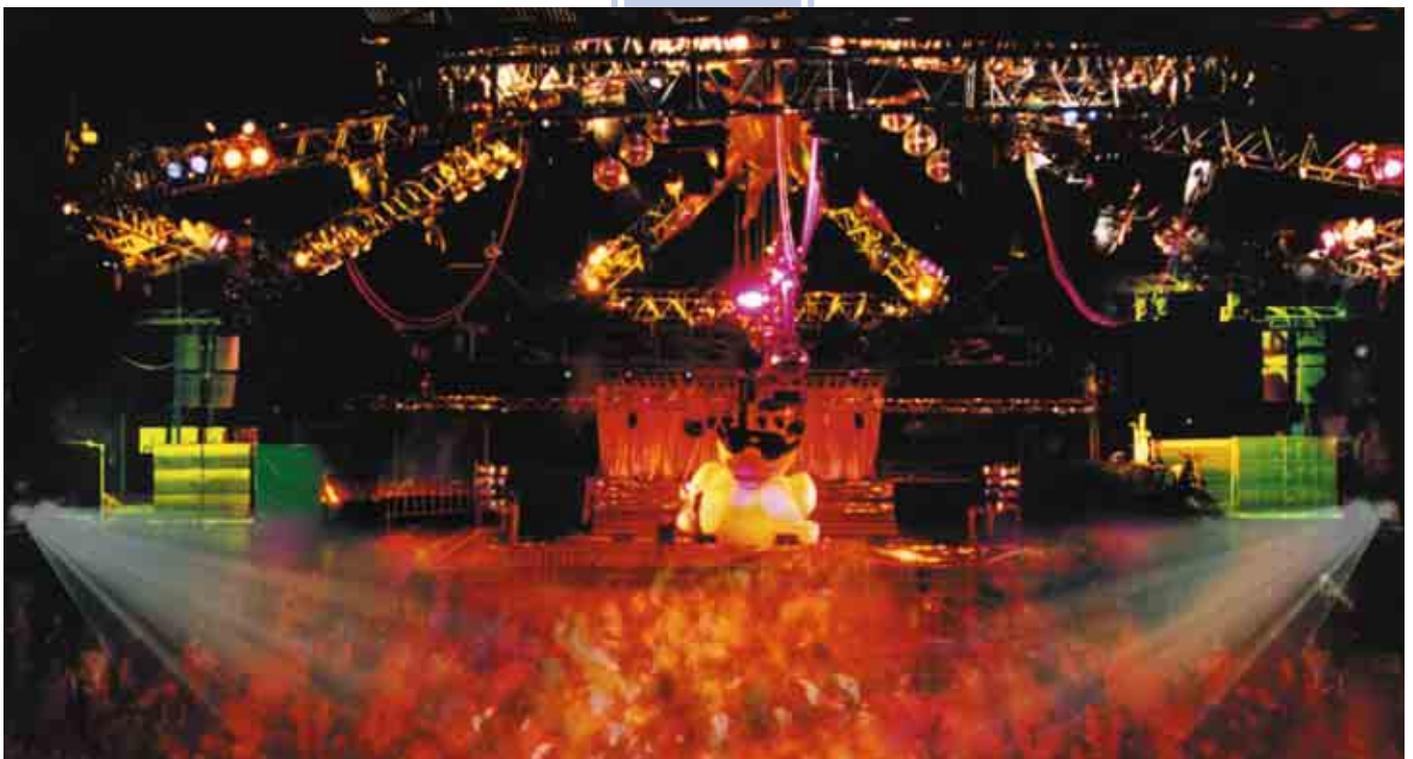
a massive club night in the cavernous Hordern Pavilion just across from Fox Studios in inner Sydney. This giant mix of modern music brought together over 5,000 revellers and top-flight DJs Alex Taylor, Kate Munro and Jamie Sciban in an entertainment fiesta which included choreographed performers in a series of spectacular dance routines.

A total of 20 W8C's and 32 WSX's were used with four W8C's suspended in each corner of the 'dance floor.' Directly below the W8C's were four ground-stacked blocks of six WSX's coupling up to provide a massive bass impact. A further two W8C's and two WSX's, positioned half way down the venue, provided fill away from the dancefloor. For good measure four WSX's were positioned under the stage as extra fill. As someone said on the night: "Two things you can't get enough of - money and bass!"

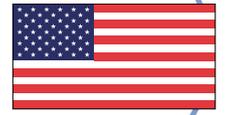
"It really is like one massive hi-fi system," enthused Cameron Newman, 3200's audio engineer. "I had a lot of people commenting on how clean, how easy to listen to and how comfortable they were. We measured 127dB six metres from the corner stacks and 123dB in the centre of the room; for people to be comfortable with that means we've got ourselves a very low distortion system."

Power was provided exclusively by QSC's Powerlight amplifiers with racks positioned behind each stack and a total of 36 amplifiers. Such was the power and headroom that not a single clip light was seen for the duration of the event.

Already celebrated for their lighting design, thanks to 'SWEAT,' 3200 have proved their audio production capabilities at the big end of town and positioned themselves as a turnkey event production company with the equipment and the people to back it up.



Waves through the Radius



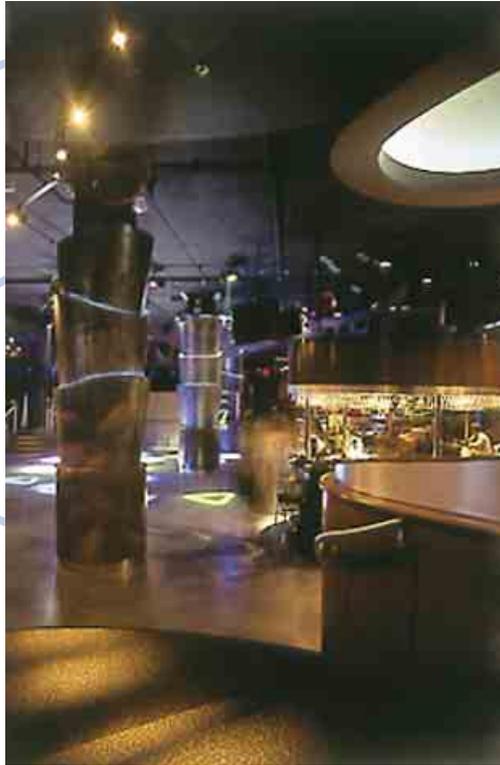
There is, apparently, life outside Miami and it's called Boca Raton.

Located between Fort Lauderdale and Palm Beach, Boca Raton is more of a millionaire's playground than South Beach, being the wealthiest city per capita in the US.

Boca is full to the brim of trendy, high society socialites with new money from hi-tech industry. Given that fact, it was surprising to learn that no top quality, upscale nightclub existed to feed the needs of the wealthy locals. That is until Radius came along.

Owned by Cleve Mesh, a young entrepreneur with ten years experience in the club industry, Radius is the second installment in what is hoped to be Mesh's empire of classy clubs. His first, Monkey Club, was opened in early 1998 on, what was at the time, the up and coming fashionable Clematis Street in West Palm Beach. Due to Mesh's varied experience in the club industry (including bartending, promotions and management), the Monkey Club was an instant success and is still going strong.

With club number one taking care of itself, it was time for number two which opened earlier this year. Radius is an extremely pleasing club with plenty of curvaceous lines and clean interiors. The design comes courtesy of Yoshino Architects, based in Boca Raton, who are also responsible for such heavyweight projects as the Meridian Hotel in Madras, India and The Arts Hotel in Barcelona, Spain.



In seeking advice for the technical installation, Mesh got in touch with Paul van Puffelen of Southern Technical Support and Michael Harris of Harris Audio Systems – both of Miami. Both companies have been working together for nine years providing multi-layered system design, sales, installation and support for sound/light/video clients throughout southern Florida, the Caribbean and South America.

As a rule, Harris Audio Systems works as a vendor supplying much of the studio and broadcast industry with audio components. Southern Technical Support handles all the commercial/club designs, systems integration and contracting with a heavy emphasis on lighting and video. As such, the job in hand at Radius was designed by both companies but the contractor was Southern Technical Support. Got that? OK.

The sound system opted for at Radius is a Martin Audio Wavefront 8 configuration with four flown mid/high W8C compact cabinets and four beefy W8S sub-bass cabinets set into the podium on the dancefloor. With amplification from BGW and processing from BSS, the result is a powerfully clean sound with infill supplied by Martin Audio EM-26 periphery speakers.

The Martin Audio spec was supplied by Martin Audio North America, under the management of Robert Hofkamp.

The lighting is provided by Martin Professional, controlled by Carl Aguilar of Total Club Concepts, Fort Lauderdale who also provides DJing and promotional services.

As you would expect with a club for the discerning clientele, other comfortable areas exist on the periphery of the dancefloor. An exclusive VIP champagne lounge attracts the even more rich and famous than those that frequent the main dancefloor area. Additionally, a patio area exists for those who want to get away from the hustle and bustle of the club and there is also the Deco Bar which adjoins the main room.

All of which said parts make up an impressive whole in Radius. Judging by Cleve Mesh's game plan there will undoubtedly be more chapters to this story.



All Audio Pop the Cork with Total EM Solution

Scott's, a two-floor cafe bar with a late night club, is Cork City's newest, and most upmarket premises. The owners, Paul and Margaret Montgomery, opted for Martin Audio, and the system supplier and installer, All Audio And Lighting Ltd, decided that the best approach would be to use three systems – for ground floor, first floor and the club element.

The entire design was based around EM Series components. The system for the club utilises four EM186's, and a feature was made of the 1 x 18in subs by stacking them in a two-wide, three-high block at the end of the dancefloor.



The remainder of the first floor uses EM56 and 2 x 10in subs, built in under the furniture. The ground floor again uses EM56's and 2x 10in subs under the seating, while onstage a pair of EM76's and two 1x18in subs are provided for bands.

The system is powered by the new Martin Audio MA series amplification (with the exception of the club rig, which had already been specified).

In terms of processing, Scott's reveals three Martin EMX1A and EMX2A dedicated system controllers and the sound sources are routed via a Crown USM 10 digital zoner.

The premises is already proving very successful and the ability to be able to play easy listening music in the morning, more upfront music in the evening and full-on club music at night – with no difference in audio quality - is a major factor in the venue's success.

The next major project for All Audio And Lighting is the 22,000sq. ft development in the corn market in Limerick. This complex will contain two nightclubs and a bar - once again all fitted with Martin Audio sound reinforcement.

The components for both projects emanate from Rea Sound, Martin Audio's exclusive Irish distributors.



Cinema System Chosen for Auckland Civic Restoration

Word of Martin Audio's fast-growing range of three-way cinema products has spread to the Southern Hemisphere, and is now featured in a major building restoration in Auckland.

The city's most most prestigious heritage building, the 70-year-old Civic Theatre, has undergone a two-year refurbishment programme costing \$40 million to restore the grandeur of a bygone age. The building has become one of a family of venues that comprise The Edge, Auckland's centre for conventions, arts and entertainment, the Aotea Centre, The Civic, Auckland Town Hall and Aotea Square.

The Civic is widely admired as being one of the finest atmospheric cinemas ever built but had recently fallen into a state of disrepair as cinema audiences dwindled. The addition of a large stage and fly-tower means that the primary function of the 2,350-capacity room now moves from cinema to lyric theatre although movies will continue to be shown.

Notwithstanding that, Optimum Cinema Systems (Australasia) Ltd were contracted to supply and fit a high-grade cinema system, using three of Martin Audio's THX-approved Screen 5's, in combination with eight Screen Sub 1's. Sufficient Lab Gruppen power was provided to run a system rated at 20kW, with 8kW for the subs.

Processing was by Dolby CP500D, with SA10 for surround EX. Refurbished Philips DP70 projectors will project formats including Widescreen, Cinemascope, Silent Frame, European Widescreen (166), Academy (133) and 70mm. Sound formats include Mono, A Type, Dolby SR, Dolby Digital (SRD), Surround EX, DTS (35mm and 70mm) and 70mm Magnetic.



New Noise turn to Wavefront

Based in Essen, the company New Noise have been successful in the field of rental sound – particularly corporate events and comedy – for more than ten years.

Recently they were ready to increase their hire stock, and after several tests with the Wavefront demo rig belonging to Martin Audio's German distributor, Atlantic Audio, they decided to purchase eight stacks of W8C/WSX and four W8CS – controlled by two Martin Audio DX1's.

Apart from the outstanding audio characteristics, New Noise's proprietors, Robert Eckerfeld and Uwe Albersmeier, are convinced that the enormous versatility of the Wavefront 8 Compact system will increase their options and add to their profitability.





Belgium's Record Breaking Hanging Basket



After four years of preparation, a dream came true for Jos De Troyer, who was the brains behind the largest hanging basket in the world, which still hangs in the centre of one of Belgium's major historical cities, Ghent. The basket is half a sphere, with a 10-metre diameter and a total construction height of 26 meters. It weighs around 140 tons.

At around 16.30 metres up is a passerelle, in a 'Figure 8' shape which surrounds the basket, so that people can see the beauty of the flowers from above and at the same time have a scenic overview of the old city centre of Ghent.

The entire construction around and underneath the basket gives visitors the opportunity to have a drink in the open bar and a place to relax on the terraces with the spectacular view from the huge flower-basket. Last but not least, immediately under the basket itself is a small stage where bands can perform live music.

After careful planning of the construction, Jos De Troyer realised from the outset that such an important project as this required an excellent sound reinforcement system. And so he contacted his friend, Tom Phlipppo of Phlipppo Audio, whom he had met through the Genste Feesten music festival that takes place every summer.

Tom was asked to find a sound solution to meet difficult criteria, since the system had to be powerful but compact, as discrete as possible – and weatherproof, as the whole construction was outdoors. Being a major Martin Audio user in Belgium he proposed – after consultation with Steven Kemland of Ampco Belgium – to install on a rental basis a compact Martin Audio set of Wavefront W2T's, in a weatherised version with custom mounting brackets.

The advantage of this was that in the event of a concert being held, the sound system could be augmented with regular Martin Audio gear from Tom Phlipppo's rental stock.

This proved to be a winning solution for both parties. The Hanging Basket project itself opened in April, and will close its doors in October. There are now plans afoot to sell the project to other major cities throughout Europe, while there is also a lot of interest coming in from the Far East.

Wavefront's Perfect Match

Soccer enthusiasts held their breath when the Wollongong Wolves snatched an unlikely victory from Perth Glory in the Grand Final of Australia's National Soccer League. Phase One, with their Martin Audio Wavefront 8 system, were on hand to provide the music, the theme songs, the announcements and the overall hype to give The Glory a real home ground advantage.

Phase One, the Martin Audio Wavefront 8 connection in Perth, acquired their system at the beginning of the season and provided the on-field sound for The Glory right through to the finals. Phase One's Jon Caisley particularly favoured the incredible mid-range performance, and has been using them for everything from the soccer and outdoor festivals to corporate shows like the Masters of Business, which drew 6,000 people to the Burswood Dome, product launches for Nissan, Nokia, Motorola, Hyundai and Ford and, of course, live shows for Jebediah, Dave Graney, Dirty Three, Kenny Ball Jazz Band and Rebekah's Empire.

For Australian Soccer's Grand Final day, the capacity crowd of 45,000 at Subiaco Oval were covered by positioning the speakers on field and angled up at the crowd. The Wavefront System was powered by ten 1,000w/ch QSC PLX3002 amplifiers and controlled by an Allen & Heath GL3000/32.

Huge C115 Presence at New Theme Park

Martin Audio loudspeakers have been featured in a new Belgian theme park called Plopsa Land.



The theming is dedicated to the children's heroes 'Kabouter Plop' and 'Samson' the dog, who both have a national TV show, a theatre production, full CD's and heavy merchandising. It is a total experience where 10,000 visitors a day are guided through the park accompanied by songs and remarks of the characters.

A total of 210 of the stylish Contractor Series C115's have been delivered to the park after conclusive testing that left the Martin speakers as the most intelligible, with excellent dispersion characteristics. The signal is spread across the park via fibre to keep loss at a minimum, and are used in separate zones, respectively installed by the companies NSE and MSL.

The order was fulfilled by Martin Audio's Belgian distributors, Ampco Belgium, who confirm that further investments will be made in order to create a total sound coverage of the park in the near future.

Wavefront 8 Rental Companies Around the World

COMPANY NAME	COUNTRY	TELEPHONE
MUSCAPRO	AUSTRALIA	+ 61 2 67 622 452
TOP END SOUNDS	AUSTRALIA	+ 61 89 817 744
SOUTHERN SOUND PRODUCTIONS	AUSTRALIA	+ 61 2 6232 9310
AVL	AUSTRALIA	+ 61 3 9387 1055
CENTRESTATE	AUSTRALIA	+ 61 2 6362 0587
SOUND SOLUTION	AUSTRALIA	+ 61 3 9686 4755
PHASE ONE AUDIO	AUSTRALIA	+ 61 89 22 77979
DERRINGERS MUSIC	AUSTRALIA	+ 61 88 37 11884
STEPHENSOUND	AUSTRALIA	+ 61 419 567991
DAVIDSON AUDIO	AUSTRALIA	+ 61 29 36 81159
ORACLE MELBOURNE	AUSTRALIA	+ 61 418 139200
MASTER SOUND PRODUCTIONS	AUSTRALIA	+ 61 2 9683 4971
KRAXBERGER HERBERT	AUSTRIA	+ 43 7242 45193
MAYRHOFER JOSEF - SOUND & LIGHT TEC	AUSTRIA	+ 43 7667 6090
TOPLAK STAGE POWER	AUSTRIA	+ 43 222 4989877
VIDEO & SHOW	AUSTRIA	+ 43 7242 66588
FOR MUSIC VERLEIH	AUSTRIA	+ 43 2236 71684
BRUNNER & BRUNNER	AUSTRIA	+ 43 663 037578
ATI	BELGIUM	+ 32 9 362 07 48
RIKES	BELGIUM	+ 32 3 309 1742
STUDIO 2000 BVBA	BELGIUM	+ 32 89 30 89 54
ART SYSTEM	BELGIUM	+ 32 10 24 68 68
STAGE PROJECTS BVBA	BELGIUM	+ 32 75 721710
PHILIPPO AUDIO BVBA	BELGIUM	+ 32 3 491 91 76
GROUP SON PRIVE	BELGIUM	+ 32 2 767 24 10
D-RENT	BELGIUM	+ 32 3 324 02 97
SOUND & LIGHT SYSTEMS	BELGIUM	+ 32 59 276646
NORTHWEST PRODUCTIONS	CANADA	+1 250 765 8451
THE LION SHARE INC	CANADA	+1 905 830 0525
D & E (INTERNATIONAL) LTD	CHINA	+ 852 2898 8666
HUIFENG LIGHT & SOUND ENGINEERING LTD	CHINA	+ 86 20 9178 8278
AV CENTRUM	CZECH REPUBLIC	+ 420 602 227357
SOUND SERVIS	CZECH REPUBLIC	+ 420 2 3536 4098
UNITED SHOW ENTERPRISES BALTIC LTD	ESTONIA	+ 37 2 50 78900
RADIANT SOUND COMMUNICATION	FINLAND	+ 358 3 22 33311
UNITED SHOW ENTERPRISES HELSINKI LTD	FINLAND	+ 358 9 759 4180
TECHNISCENE	FRANCE	+ 33 2 35 88 86 86
PRODUCTION 44	FRANCE	+ 33 2 40 52 07 07
ART SON ET LUMIERE	FRANCE	+ 33 4 94 03 03 52
ATC	FRANCE	+ 33 5 56 69 60 60
AUDIO CONCEPT	FRANCE	+ 33 563 39 67 86
AUDIOLYRE	FRANCE	+ 33 5 59 98 31 10
GPS	FRANCE	+ 33 251 686 900
EURO LIVE	FRANCE	+ 33 296 743 326
MEGAWATTS	FRANCE	+ 33 478 431 026
LWS	GERMANY	+ 49 228 94676-0
KLEMENT ELEKTROTECHNIK	GERMANY	+ 49 5626 8475
SCHALLDRUCK VERANSTALTUNGSTECHNIK	GERMANY	+ 49 3531 65300
NEW NOISE	GERMANY	+ 49 201 8686010
BIG BEAT PA - SERVICE	GERMANY	+ 49 4403 63068
SLP PRO SARL	GUADELOUPE	+ 590 80 15 80
D & E (INTERNATIONAL) LTD	HONG KONG	+ 852 2898 8666
THUKRAL SOUND TRAX	INDIA	+ 9111 432 3633
REA SOUND	IRELAND	+ 44 1648 764059
MAFFEI SERVICE	ITALY	+ 39 0461 707852
FUMASOLI SERVICE	ITALY	+ 39 0165 35806
PHOENIX AUDIO SNC	ITALY	+ 39 041 5342349
RADIO SATA SERVICE	ITALY	+ 39 051 6332440/6332398
MUSIC SERVICE	ITALY	+ 39 0577 306032
PIANO & FORTE	ITALY	+ 39 0522 661506
ELECTRA SERVICE	ITALY	+ 39 0375 82919
CLAPS	ITALY	+ 39 0434 26882
MEZZA NOTA	ITALY	+ 39 0444 695507
BIG TALU SERVICE	ITALY	+ 39 0174 45314
BLU STUDIO	ITALY	+ 39 079 293179
COOPERATIVA 56	ITALY	+ 39 051 6153339
FAST SERVICE	ITALY	+ 39 081 8237009
T.S.S.	ITALY	+ 39 0521 776810
VOX SERVICE	ITALY	+ 39 049 5380151
ZOHO MUSIC SERVICE	ITALY	+ 39 011 6645754
W M AUDIO SERVICE	ITALY	+ 39 0962 865013
CORIPPO ALBERTO	ITALY	+ 39 030 2511722
MUSIC LIGHT INSTRUMENTS	ITALY	+ 39 0566 56356
MASTER SERVICE	ITALY	+ 39 371 460304
PROCO PIO NICOLA	ITALY	+ 39 967 86718
JE-IL SOUND	KOREA	+ 822 835 1608

COMPANY NAME	COUNTRY	TELEPHONE
LIVE	KOREA	+ 822 747 2162
SOUND BOX CO	KOREA	+ 822 419 5141
MARTIN KOREA SOUND CO., LTD	KOREA	+ 822 419 5141
SHINHAN SOUND CORPORATION	KOREA	+ 822 376 8383-4
ELTEK	LEBANON	+ 961 1 265048
CHIFU	MACAU	+ 853 567847/8
KILMI MUSIQUE	MOROCCO	+ 212 332 44 23
SIMPLON	NETHERLANDS	+ 31 50 3184150
EAST SOUND	NETHERLANDS	+ 31 575 519365
MANIFESTO	NETHERLANDS	+ 31 229 279839
PURPLE HAZE	NETHERLANDS	+ 31 348 424477
VAN ZANDBEEK PA	NETHERLANDS	+ 31 653 902690
ACME AUDIO LTD	NEW ZEALAND	+ 64 9 302 0352
NORSTAGE A/S	NORWAY	+ 47 52 71 43 10
AMAS LYD PRODUKSSON A/S	NORWAY	+ 47 55 32 90 50
COMPANIET WEST P A A/S	NORWAY	+ 47 51 52 43 83
RHYTHMIC SOUND SERVICES	SINGAPORE	+ 65 841 0911
PLOHL MIRAN	SLOVENIA	+ 386 62 661 761
MEGA AUDIO D.O.O.	SLOVENIA	+ 386 62 314063
CONZERT	SPAIN	+ 34 96 120 31 11
SONOSET (MILWAUKEE AUDIO S.L.)	SPAIN	+ 34 93 372 40 53
SONARTE	SPAIN	+ 34 926 31 28 28
SONOBEXI	SPAIN	+ 34 953 76 33 37
LUC SON	SPAIN	+ 34 96 530 30 23
TOUR SERV. PROF. SO I I.L.LUM, S.L.	SPAIN	+ 34 93 477 04 95
RED TSO	SPAIN	+ 34 977 64 34 95
PROSEC AUDIO S.L.	SPAIN	+ 34 985 98 07 01
ELECTRIC-SO	SPAIN	+ 34 93 726 54 44
MILWAUKEE AUDIO S.L.	SPAIN	+ 34 93 372 40 53
MUSIBELIOS S.L.	SPAIN	+ 34 95 234 12 54
SEGUNDO LASER	SPAIN	+ 34 967 40 10 96
SONORIZACIONES Z, S.L.	SPAIN	+ 34 961 20 31 11
FATSINI S.L.	SPAIN	+ 34 97 770 1412
MUG HYR AB	SWEDEN	+ 46 31 130990
DM AUDIO	SWEDEN	+ 46 89 70785
RIGHIRE	SWEDEN	+ 46 16 145300
SKELLEFTEA LJUDUTHYRNING	SWEDEN	+ 46 910 173 74
SOUNDHOUSE	SWITZERLAND	+ 41 41 240 44 24
AUDIO-PHASE	SWITZERLAND	+ 41 32 384 26 72
REYANG PROFESSIONAL SOUND CO LTD	TAIWAN	+ 886 2 2254 2926
YASHIN PRO-AUDIO INC.	TAIWAN	+ 886 7 322 2555
DINGLEY PROSOUND SERVICES	TAIWAN	+ 886 7 384 3845
TEMPO MUZIK LTD	TURKEY	+ 90 212 230 38 18
STAROUND SYSTEMS	UK	+ 44 1924 278875
CAV	UK	+ 44 1453 751865
SAVAGE AUDIO	UK	+ 44 114 258 2172
ADLIB AUDIO	UK	+ 44 151 486 2214
CAPITAL SOUND HIRE	UK	+ 44 171 978 5825
ROSSCO LTD	UK	+ 44 1462 431413
AUTOGRAPH SOUND RECORDING	UK	+ 44 20 7485 4515
PA PA	UK	+ 44 1248 670980
CABLE MUSIC PA HIRE	UK	+ 44 1926 339780
ZU 2	UK	+ 44 7974 418867
INTASOUND PA	UK	+ 44 1905 841591
RALEIGH MUSIC	USA	+ 1 919 965 4300
SUNBELT SCENIC STUDIOS INC	USA	+ 1 602 598 0181
CLEARWING AUDIO	USA	+ 1 414 258 6333
ORDWAY MUSIC	USA	+ 1 651 282 3045
WORLD AUDIO	USA	+ 1 210 472 3932
OPRYLAND PRODUCTIONS	USA	+ 1 615 228 0491
GO AUDIO	USA	+ 1 414 764 8290
A.C.E.S	USA	+ 1 518 270 4747
PALAMINO SOUND & LIGHTING	USA	+ 1 800 876 4501
CELEBRATION SERVICES	USA	+ 1 937 836 5662
DELICATE PRODUCTIONS	USA	+ 1 805 388 1800
LA SOUND	USA	+ 1 818 765 6900
LOUDSOUND	USA	+ 1 916 481 3679
MHA AUDIO	USA	+ 1 301 733 9337
PROMIX	USA	+ 1 914 668 8886
ROLLING THUNDER	USA	+ 1 401 954 6068
SOUNDWAVE	USA	+ 1 520 327 5590
STICHA BROTHERS	USA	+ 1 608 276 5570
TECHNOTRIX	USA	+ 1 815 935 0233
TECHNICAL PRODUCTIONS	USA	+ 1 314 644 4000
VERTICAL SOUND	USA	+ 1 216 521 9994
WAVE TRIBE PRODUCTIONS	USA	+ 1 541 618 9499