



Auditoria Project Case Study

World Youth Day 2008

auditoria pty ltd | listen. design. deliver.

suite 306, 166 glebe point road, glebe nsw 2037

p.o. box 103 camperdown nsw 1450

+612 9660 9800 | www.auditoria.com.au

ABN 66 108 398 312

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A. Project Case Study – World Youth Day 2008

A.1 Auditoria Scope of Works

Auditoria was responsible for the following technical services for World Youth Day 2008:

- Audio systems design, implementation and operation for major venues;
- Production intercom systems design and implementation for major venues;
- Video systems design and implementation for all venues;
- Simultaneous translation systems design and implementation for all major venues;
- Two-way radio network design and implementation for the entire project;
- Multiple site video camera surveillance systems with linking to various monitoring stations throughout Sydney;
- Broadcast integration for all major venues;
- Technical management and direction for all technical services within scope;
- Signal delivery networks and data reticulation for all major venues;
- Creating and updating CAD drawings for technical purposes;
- Created and managed the tender process for all technical services within our scope;
- Management of a technical budget in excess of AUD\$8.5 million.
- Management of suppliers and contractors totalling over 90 people.

A.2 Scott Willsallen – Technical and Audio Director WYD08

Scott is the director of Auditoria and was responsible for overall technical direction and audio direction. In his role as technical director Scott was responsible for building and directing the team of designers, managers, engineers and technicians covering all areas of technical production. Whilst Auditoria was not directly responsible for the design and implementation of the lighting systems, as Technical Director Scott was responsible for the integration of the lighting systems into the overall technical infrastructure and planning. The TD role included management of every step of the process from design through to tender and procurement through to delivery. Scott's specific tasks as TD were as follows:

- Work with the WYD committee to build the design team;
- Manage the design team to deliver integrated designs that met the project requirements and budget constraints within the procurement timeframe;
- Ensure integration and coordination between technical service providers and designers;
- Maintain regular contact with the WYD committee creative team throughout the whole project to ensure that all technical systems deliver the creative intent;
- Liaise with the host broadcaster and coordinate service delivery, technical integration and ongoing changes in technical requirements;
- Create and manage a commercial procurement process for all technical contracts;
- Write and review specifications and tender documents;
- Manage the tender process for each technical contract;

- Review, report and recommend the successful tenderer;
- Supervise the preparations of the various technical contractors;
- Develop execution schedules within the overall project schedule to ensure the precise programming of the site works;
- Build a team of technical production managers to supervise and manage the installation of the various technical systems throughout all major venues;
- Manage the commercial aspects of the technical contractor agreements with WYD;
- Resolve disputes between contractors once the issue is beyond the scope of the local production manager;
- Supervise the installation and testing of all technical systems for the major venues;
- Manage the acceptance testing of installed systems for milestone payment approvals;
- Supervise the execution of the events themselves with our team of production managers to ensure the quality and performance of the technical systems;
- Supervise the removal of all technical systems from all major venues;
- Protect the venues from contractor caused damage during the project;
- Provide approvals for retention payments at the conclusion of each technical contract;
- Create and submit a report discussion the technical elements of the project.

In his role as audio director Scott was responsible for design, documentation and commissioning for all major venues involved in the event. The audio system designs covered the largest area of Sydney ever used for a single event and utilised equipment from every state of Australia.

Scott engaged and led a design and management team of ten consisting of industry leaders from all over Australia. This team was responsible for nine contractors, approximately 90 staff and a technical budget of around 8.5 million dollars.

A.3 Venues and Technical Details

A.3.1 Randwick Racecourse

This was the largest venue with a total capacity of around 300,000 people. The audio system consisted of 69 loudspeaker towers with over 450 loudspeakers in total. The audio was delivered to the loudspeaker towers via a network of fibre optic cabling installed specifically for the event.



A total of 30 LED screens were used throughout the venue to deliver pictures to the enormous audience area. The image to the screens was progressively delayed to match to the time arrival of the sound at the listener positions. Signal was delivered to the screens via the same fibre optic network as used for the audio. We also provided deaf signing booths and Plasma displays for delivery of the deaf signing to the special needs audience area.

Our video systems included five cameras, various replay machines, a feed from the host broadcaster and various other computer generated images. The stage area was scattered with large screen displays to relay vision content to the 1500 priests and cardinals seated on the stage.

The communications system for Randwick Racecourse consisted of the stage and technical management system and a venue management system, both of which were integrated into a single multi-layered solution. The communications system served no less than 500 users both portable and fixed.

We devised a network of 12 surveillance cameras distributed around the site mounted to the loudspeaker towers. The cameras provided instantaneous information on crowd movement and trouble spots. The vision from the cameras was transported back to the venue control centre via the fibre optic network used for audio and video. The multiplexed feed was also transported to Sydney's CBD via a microwave link for viewing at the WYD operations centre. The simultaneous translation FM transmitter station was located on the top of the grandstand roof. The system provided complete coverage of the site for all languages.





A.3.2 Barangaroo

This was the second largest venue with a total capacity of around 150,000 people and was used for the majority of the Papal events. The audio system consisted of 30 loudspeaker towers with over 200 loudspeakers in total. The audio was delivered to the loudspeaker towers via a network of fibre optic cabling installed specifically for the event.

A total of seven LED screens were used throughout the venue to deliver pictures to the enormous audience area. The image to the screens was progressively delayed to match to the time arrival of the sound at the listener positions. Signal was delivered to the screens via the same fibre optic network as used for the audio. We also provided deaf signing booths and Plasma displays for delivery of the deaf signing to the special needs audience area.

Our video systems included six cameras, various replay machines, a feed from the host broadcaster and various other computer generated images. The stage area was scattered with large screen displays to relay vision content to the 500 priests and cardinals seated on the stage.

The communications system for Barangaroo consisted of the stage and technical management system and a venue management system, both of which were integrated into a single multi-layered solution. The communications system served no less than 250 users both portable and fixed.

We devised a network of eight surveillance cameras distributed around the site mounted to the loudspeaker towers. The cameras provided instantaneous information on crowd movement and trouble spots. The vision from the cameras was transported back to the venue control centre via the fibre optic network used for audio and video. The multiplexed feed was also transported to Sydney's CBD via a microwave link for viewing at the WYD operations centre.

The simultaneous translation FM transmitter station was located at the Southern end of the site mounted to the top of a lighting mast. The system provided complete coverage of the site for all languages.



A.3.3 Centennial Park

Centennial Park was used as an overflow area for Randwick Racecourse and had a total capacity of around 250,000 people. The Centennial Park site is regularly used for music festivals and community events. The site was broken up into eight areas each of which had a large LED video screen and a loudspeaker system. A total of 14 LED screens and 120 loudspeakers were used to deliver the event to the audience areas.

The signal was relayed to the various Centennial Park sites using a UHF television transmitter located on the roof of the grandstand at Randwick Racecourse. Each Centennial Park

system had a television tuner to capture the signal for connection to the LED screen and audio system.

A.3.4 The Domain

The Domain is a busy venue in Sydney and, with a total capacity of around 60,000 people, it is used for annual events such as Sydney Festival, Carols in the Domain and Tropfest film festival among many others. The audio system consisted of a main system either side of the stage with eight loudspeaker towers in the audience area. A total of 60 loudspeakers were used to deliver the sound to the audience.

Two LED screens were used to delivery pictures to the audience area. Our video systems included three cameras, various replay machines, a feed from the host broadcaster and various other computer generated images.

The communications system for the Domain consisted of the stage and technical management system and a venue management system, both of which were integrated into a single multi-layered solution. The communications system served no less than 100 users both portable and fixed.

The simultaneous translation FM transmitter station was located on the top of the stage structure. The system provided complete coverage of the site for all languages.



A.3.5 Hyde Park

Hyde Park was a hub of activity for the entire event and was used as the meeting place for the many thousands of pilgrims. We were responsible for three venues in the park all of which were basic music festival venues with minimal audio and communications requirements. None of these venues were fitted with video systems.

A.3.6 St Mary's Cathedral

St Mary's Cathedral was the spiritual home of the event with daily processions through the Cathedral and the commencement of the Stations of the Cross event being staged on the steps.

The audio system was very simple and only consisted of a single loudspeaker array on either side of the Cathedral steps with a basic control system located at the FOH area.

The video systems provided the complication for this venue. A large LED screen was placed either side of the steps with a third screen placed in the centre at the top of the steps. This screen was the same dimensions as the side screens but was required to split horizontally and open like sliding doors to reveal a special guest to the event. Each half of the screen weighs approximately 1,500kg and the movement of the doors had to be graceful and elegant.

The three screens were used as a single widescreen display with the use of a visual digital signal processing machine. This machine allows imaged to be mapped to the various screens as though they were one single display.

The communications system was relatively basic with no more than 25 portable and fixed users.



A.3.7 The Sydney Opera House Forecourt

The Sydney Opera House Forecourt is a small venue with a capacity of only around 4000 people. This venue was fitted with the same level of technical systems as the Domain with a reduction in the loudspeaker system due to the reduced size of the audience area.

One LED screen was used to delivery pictures to the audience area. Our video systems included three cameras, various replay machines, a feed from the host broadcaster and various other computer generated images.

The communications system for the Forecourt consisted of the stage and technical management system and a venue management system, both of which were integrated into a single multi-layered solution. The communications system served no less than 60 users both portable and fixed.

The simultaneous translation FM transmitter station located at the Domain also provided coverage for the Sydney Opera House Forecourt.

A.3.8 Darling Harbour

The Darling Harbour Precinct had four venues for which we were responsible: Tumbalong Park, Palm Grove, Harbourside Amphitheatre and the Cockle Bay foreshore itself. All venues excluding Cockle Bay were youth festival venues and only required audio and communication systems.

The Cockle Bay foreshore was the audience area for Cockle Bay where a floating stage was constructed for part of the Stations of the Cross procession. Cockle Bay also had two large LED screens deployed on a barge floating in the middle of the bay. The screens and loudspeaker systems were used throughout the week to broadcast the activities from other WYD venues.

The simultaneous translation FM transmitter station was located on the top a lighting tower at Tumbalong Park. The system provided complete coverage of the site for all languages.



A.3.9 Various City Live Sites

Auditoria were also responsible for the placement, installation and removal of truck mounted LED screens and audio systems for various sites throughout the CBD. These sites were used to broadcast special events within the WYD program such as Papal Arrival, Papal Boat-a-cade and Motorcade and the Final Mass.

