

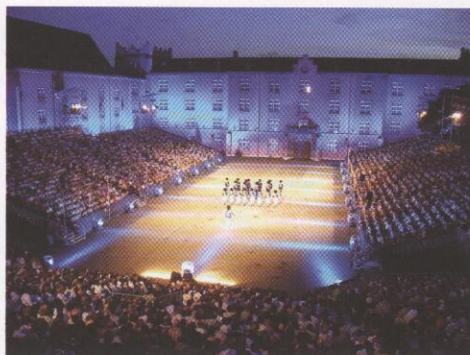
# TiMAX AT THE BASEL TATTOO

**MARCHING BANDS AND DANCERS SUPPORTED BY OUT BOARD'S DELAY MATRIX AND SHOW CONTROL SOFTWARE**

The Swiss city of Basel recently staged the its debut *Basel Tattoo* festival of marching military bands and dancers, supported by a sophisticated 'source-oriented' sound reinforcement system based on the TiMax Audio Imaging delay matrix and show control software. The sell-out show played over five nights in an outdoor arena specially created in front of the 19th century Kaserne Hof military barracks.

Provided by Hyperson, the system was based on over 20 distributed speaker channels including two HK Audio ConTour array systems and 14 Kling & Freitag trapezoidal cabinets on poles or on the ground at the front of each audience seating bay. There were also six sub-bass channels feeding separate two 18" cabinets spread out under the horseshoe-shaped audience bleachers surrounding the 80m x 25m outdoor performance area. The system was designed by Thomas Strelbel with the assistance of Robin Whittaker and Dave Haydon from TiMax developer Out Board.

The job of the TiMax system was to make sure the radio mics placed on various band members and vocalists would localise to where they were standing or marching, all in real time. TiMax was calibrated with 10 Haas Effect delay-based localisation zones down the length and breadth of the arena, plus a balcony and 'Lone Piper' tower image. Then, using its cue-driven Playlist, the various acts' mics were sequentially applied to these zones both statically and dynamically as they



moved around the site. Mic and playback sources were mixed selectively to eight groups on the Yamaha digital console which in turn fed eight TiMax matrix inputs.

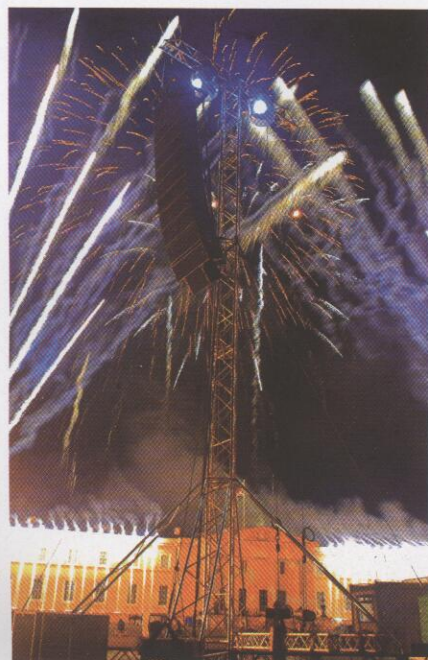
The 16-in x 24-out TiMax system was supplied by Out Board, with imaging delays and cues programmed on-site by Dave Haydon, in conjunction with Stefan Binggeli who operated the system during the shows. Other key personnel included system engineer Christian Ramsauer, FOH engineer Florens Meury, stage manager Klemens Trenkle, and support engineers Raphael Wäfler and Michael De Mel.

From the show's intro fanfare localised to a first floor balcony, the audio imaging challenges became ever more diverse. The German Gebirgsmusikcorps performed with four huge alpine horns in the centre of the arena, with tinkling cowbell accompaniment. The

Schweizer Armeespiel featured a rock ensemble and percussionist, accordion player and three guys spinning coins in a bowl, as well as full military brass band spread out across the arena.

There were also the usual Highland Massed Pipes & Drums who feature at the now legendary Edinburgh Military Tattoo event in Scotland, which has also employed a TiMax system for each of the last six years to make the event's audio match up to its consistently spectacular performance and production standards.

[www.outboard.co.uk](http://www.outboard.co.uk)



## SUMMIT INTRODUCES SMARTMAST 4

Five years on from introducing its popular SmarTmast range, Summit Steel has launched its latest version — SmarTmast 4 — which has specifically been designed to fly line array PA systems quickly, easily and at sufficient height. Height in particular is always a crucial factor with line array designs in open spaces, be it a greenfield, urban or 'other' site.

"We've listened carefully to feedback from lots of sound engineers over the last 12 months," said Summit's Jon Bray, "and we've come up with this solution to address all their needs when flying line arrays on masts."

The SmarTmast 4 had its first outing at the high profile *Music On Fire*, a son et lumière and firework spectacular staged in the grounds of the Royal Military Academy, Sandhurst. Four SmarTmast 4s were used by sound designer Paul Keating for the V-DOSC main stage PA arrays and outfills that were supplied by Delta Sound.

A key factor in maximising the full 15 metre height of the SmarTmast 4 is that the chain hoists are located

at the base of the structure rather than at the top, as has been the case in previous incarnations, thus delivering a tidier installation.

The masts are designed to lift loads of up to 2,000kg to 15 metre trim, with independent back and front lift points on the PA flybar. The cruciform shaped bases have the head offset at 45°, so the PA can be stacked in a clear area on the ground (without having to lift it on to the legs) and then picked up cleanly and with minimum effort.

The towers are self-erecting using a sheer-leg system, needing no cranes or mechanical handling devices or vehicles at all apart from a forklift to position the ballast weights.

All the elements of the mast have been designed for quick assembly and neat appearance. The ballast weights are slim steel plates, specifically designed for these masts. The diagonal braces, screw jacks and head beam were all developed by Summit and work on the SuperTruss lug system.

[www.summit-steel.co.uk](http://www.summit-steel.co.uk)