

Case Study:

Croft Motor Racing Circuit



“Installing AAD’s Sport-Noise Live has given us the ability to strictly self-monitor ourselves so that we stay confidently within our 70 dB restriction level.”

Tracey Morley, Circuit Manager, Croft Circuit



Aerial view of the track at Croft Circuit, North Yorkshire

Although Croft Circuit has existed since the late 1940s, it was during the summer of 1963 that planning permission was granted to formally operate the venue for motor sporting purposes. Following the Council’s failure to determine a planning application made during 1998, Croft entered into a Unilateral Undertaking made under S106 of the Town & Country Planning Act to control noise emissions, according to evidence adduced at Public Inquiry by Croft’s expert noise and motorsport witness, Tony Holdich.

Although the unilateral undertaking restricted operating hours and allocated less motor circuit use to higher noise level vehicle types and more use to lower noise level vehicle types, with measurements made by Croft and overseen by the Council, this was still not enough for an unhappy neighbour who, over the previous 10 years, tried all sorts of ways to have the circuit rendered inoperable. In seeking a private noise nuisance action, the neighbour eventually won, albeit at the Supreme Court of Appeal, with judgment handed down in January 2009. The main thrust of the neighbour’s legal argument was not related to noise from motor-sporting competition, but from non-race uses, including track days.

The January 2009 judgement included an injunction, reducing use of the circuit to 40 ‘noisy’ days per year from a potential 230; this effectively allows an unlimited number of less noisy days.

Because the judgment represented around two-thirds revenue reduction, there ensued a great deal of discussion amongst the directors as to whether it was feasible to take the circuit forward. The directors decided that they would like to work round this, and see if in the future it could become fully operational through alternative activities to those that they historically provided, i.e. race meetings,

track days, testing etc, most of which are now completely restricted to within the ‘40-day’ bracket.



It became apparent that to stay in business, they would have to concentrate on the 'quiet noise level' which is 70 dB L_{Aeq1hr} . Croft's Circuit Manager, Tracey Morley, explained: "We had to develop a business plan that operated within this quiet level, but I couldn't do that with the noise monitoring system that we had, which was a mobile system that required being taken out in the morning, bringing back in at night, and the data downloaded; only then did we know the noise levels of the day."

Croft realised that they needed something that would effectively give them 'real time' noise level measurements. "Knowing about AAD's innovative noise measurement installation at the Goodwood circuit several years ago, I spoke with Tony Holdich (Director at AAD)," Tracey enthuses, "and asked if it could be done. He said 'yes, we can put a system in that will show both pass-by noise levels and hourly Leq (equivalent continuous level) effectively in real time'. As our noise level limit is the 'highest hour' of the day, this was just what we'd hoped for."

So, in a manner similar to meeting Goodwood's challenging requirements some 10 years before, AAD were commissioned by Croft to design and install a motor-sport noise management solution, which has been in situ since September 2009. "It's obviously not a cheap exercise," Tracey admits, "but we firmly believe that over the next few years it will pay for itself many times over. Certainly the days that I've run where we're conducting experiments, have been brilliant; I'm watching the monitor in my office all the time; I can see drive-by noise levels plus the 1hr value at the same time and anything that drives by that's likely to threaten our limit, which is 70 dB for the quiet days, I can just say 'flag that vehicle' or I can stop a session until it quietens off a bit." So going forward, this is going to be absolutely invaluable."

What this means for Croft Circuit is that the 'quiet' days are now available for a much wider range of activities that are more in line with Croft's core specialties, and the bottom line is that the company remains a viable going concern.



Tracey admits that they had perhaps become slightly complacent in the past, insofar as they knew that being a motor racing circuit they

could easily attract their previous type of business – testing, car and bike track days etc. Now that is all 'restricted' activity, they have to work hard on the quiet level. "We have a driving centre here so driving day experiences fit quite nicely into this quiet level, as do corporate and manufacturer days, with normal road-silenced cars. Our challenge now is to go out and find more of this type of business; now that we've installed AAD's Sport-Noise Live, we know that we have the ability to strictly self-monitor ourselves so that we stay confidently within our 70 dB restriction level."

Tracey Morley is full of praise for the team at AAD, headed by Tony Holdich: "I've known Tony for quite a while and it really has helped in this project that he understands the business, as well as motor racing; he knew exactly what we wanted straight away. They have been smashing to work with – nothing has ever been too much trouble!"

Additionally, Tracey is enthusiastic about the ease with which she was able to understand the software, and the support that AAD gave: "As we started to use the system, there were some necessary modifications in order to satisfy the council's requirements; AAD have been 100% reactive to our requirements, and continue to be fully supportive – they really are super to work with!"

The local authority, Richmondshire District Council, are also satisfied that the system gives *them* exactly what they need to ensure that Croft is staying within the noise level restrictions.

Tracey firmly believes that Croft's experience demonstrates that *all* circuits are vulnerable and would encourage them to ensure that what they're doing to keep within the law is as rigorous as it

can be. "We were caught out," she admits, "and if it weren't for the solution provided by AAD, there's a strong possibility that our track would have closed, with a subsequent loss of jobs. Dennis Carter, our Chief Executive, is really happy with the system and is keen to support AAD to integrate the solution into other circuits as and when required."

The following series of slides show nine hours of trackside noise level data measured "as seen" by the Croft Circuit. The single microphone is placed 10m from trackside left, at the exit from a medium-speed right-hand corner. Delay between measurement and screen display is approximately five seconds.

