

Andrew Diey, leading UK composer, sound designer and owner of Radium Audio Ltd., is the man behind some of DPA Microphones more unusual applications. Diey's work on films, TV programmes and video games has involved the use of DPA 4011 cardioid microphones and IMK4061 miniature microphone kits to record Challenger 2 tanks, Ferraris, V8 Dodges, modified Japanese cars and the loud transients of an artillery crack.

His latest project took a skyward direction as he was commissioned to record the sound of Harrier Jump Jets for a second series of British TV programme, *Building the Ultimate*, for Granada/Channel 5.

Diey had already used his DPA mics as music composer and sound designer for the programme's first series to record such groundbreaking machinery as tanks and submarines. This time, together with his assistant Pete Trickett, he set up a pair of 4011s to capture the unforgettable sound of the ultimate fighting jet, at one point tracking a Harrier in flight with a boom-mounted 4011.

*"Being close to the roar of a Harrier Jump Jet is a unique experience, and as a sound designer who likes to get involved in all aspects of recording it was a great opportunity to test the 4011s,"* says Diey. *"I try to do as much sound design as possible while actually recording in the field; once you get the source material into the edit suite it's only as good as the sound you record and the mics you use."*

Diey carried out the recording at an RAF station equipped with more than 20 Harriers. *"The sound of the Harrier jet close up when taking off, landing and taxi-ing is really quite something else,"* he continues. *"I was prepared for some very intense dynamics, and even went as far as to question whether my DPAs would be able to handle it! At the rear of the Harrier it's almost silent, and as it turns you get a dynamic jump from around 6dB to 90dB. The Harrier is also renowned for low-flying sorties over mountain terrain, and the close fly-by sounds like the air is being torn apart. I have to confess that I drew the line while attending a testing of the engines on a mounted engine block. The sound levels were pushing over 160db and there was no way my 4011s were going anywhere near the specially-designed acoustic room!"*

The Harrier uses Vector flight technology, taking off vertically on concrete pads as the tarmac melts under vertical nozzle usage. Once up in the air the jet can turn in a 360 degree motion. *"We were so close at take-off that we were covered by the warm aviation fumes; a welcome development while standing around in freezing February temperatures,"* says Diey.

As the engineers prep each Harrier before takeoff, the idling sound on the line-up of 20 jets begins to build. *"The intense idle needed to throttle up is very loud, and when you have three Harriers preparing to taxi out to take off the sound levels are quite something else! I'm happy to say my DPAs captured every detail of the sound,"* Diey concludes.