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# the Measure

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- [www.cirrusresearch.co.uk/blog](http://www.cirrusresearch.co.uk/blog)
- [www.youtube.com/user/CirrusResearch](http://www.youtube.com/user/CirrusResearch)

Keeping you up-to-date with the world of **noise measurement**

## Welcome

Welcome to this second issue of *The Measure*, the newsletter from Cirrus Research. Although the weather has turned rather wet and windy at our head office in North Yorkshire over the past few days, we're hoping that the weather at our new office will be better!

We've just opened our new office, Cirrus Research S.L., which will be providing sales and support for our customer base in Spain. Based in Barcelona, the new office is ideally located with easy access to infra-structure and industry. It's also in a very nice location and seems to be very popular with our staff.

We're delighted to welcome Silvia Anguera to the Cirrus team. Silvia will be running our new office in Spain and will be involved in all aspects of the operation.

In this issue of *The Measure*, we have a feature article from one of our long standing customers, The Banks Group, where we discuss how they are managing environmental noise levels and some of the challenges that face them.

We're also launching our Noise in Action Photography competition which will be part of our support for Noise Action Week and our chosen charity for 2012/2013, Hearing Dogs for Deaf People.

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### Did you know...?

Over 1 million employees in the UK are exposed to levels of noise that puts their hearing at risk.

Read how we helped  
The Banks Group to keep at the  
forefront of noise measurement  
See page 3





## Have you heard...?

NoiseTools software has been updated allowing it to work with the doseBadge Noise Dosimeter. This means you now only need one program to download measurements from the optimus and doseBadge.

Any measurements downloaded into the dBLink3 software from an RC:110A Reader can be imported into NoiseTools for reporting and analysis.

As with all of our software, NoiseTools is supplied free from any licensing or installation restrictions so you can install it onto as many PC's as is needed. Updates are available online and are free of charge.

Call us on **0844 664 0812** to find out more.



## Did you know...?

### We make it!

We're frequently asked "Where is Cirrus equipment made?" or "Who makes Cirrus noise instruments?" We are proud to say all of Cirrus' noise measurement instruments are designed, manufactured and supported from our factory in North Yorkshire.

For over 40 years we've been producing acoustic instruments and because we make it we know the equipment inside out. We can offer you expert advice, helping you choose the instrument that will meet your needs and when it comes to calibration and support there's no one better.

To buy direct from Cirrus call us on **0844 664 0812**, we'll be happy to help.



# Optimus Product Updates

Throughout 2012 we will be introducing a range of updates and new features to the optimus sound level meters. These will add new functions to the instruments as well as enhancing the already impressive performance of the optimus.

The first of these is the AuditStore.

AuditStore is a new technology that helps ensure your

noise measurement data is valid and trustworthy.

AuditStore allows the user to verify measurements that have been downloaded to the NoiseTools software against a secure data store within the instrument.

This allows you to present data with confidence and have the facility to verify that the measurement data has not been modified or adjusted.

You can find out more about AuditStore on the Cirrus blog or by visiting [www.cirrus-optimus.com/auditstore](http://www.cirrus-optimus.com/auditstore).

We've also updated NoiseTools software to support the doseBadge, CR:800C and CR:260A instruments as well as all of the new features provided by the optimus. If you've already got NoiseTools, make sure that you're up to date by downloading the latest version.



## Free updates

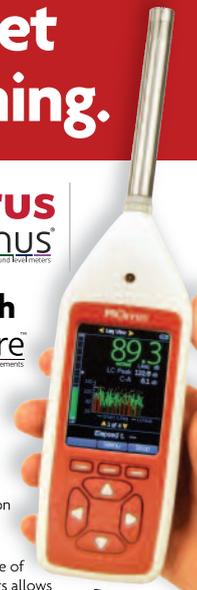
Don't forget that when you send your optimus sound level meter in for calibration, we will replace any old version of NoiseTools with the latest CD and include a message to tell you that we've done so. This is free of charge and is all part of the service you can expect from Cirrus.

# Measure everything. Forget nothing.



Now with **AuditStore**  
Data verification for your noise measurements

- Verify your measurements against a secure, independent data store
- Display verification in the NoiseTools software
- Automatic storage of critical parameters allows quick and simple verification
- Ensure the validity and security of your measurement data



Find out more about the new AuditStore™ and the other new features in the optimus sound level meters.

[www.cirrus-optimus.com](http://www.cirrus-optimus.com)



## Ask Jim...

Our sales and marketing team have a combined experience of over 50 years selling noise measurement instruments so we've been asked for some very strange things in that time!



### Can sound level meters measure from 0 to 200dB?

**A** As a product manufacturer, we are often sent requests for instruments with very odd requirements. For example, it's not unusual to see a requirement for a sound level meter to measure from 0 to 200dB!

Most modern Class 1 sound level meters can measure down to around 20dBA (and lower in 1:3 octaves) but it's very difficult to get down to 10dB let alone 0dB without some very expensive and specialised equipment, so this is something that's generally not possible with a sound level meter.

At the other end of the scale, 200dB is also not realistic. The highest sound pressure level that can exist in air is 194.094dB (or 101325 Pa). Above this, the air has to move so much that it becomes non-linear and cannot be measured as a sound pressure level. Although levels above this can exist, they are measured in terms of pressure, in Pascals, and are usually the front of a supersonic shock wave.

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## Focus on... The optimus range

# Planning to perfection!

With the experience of over 35 years in land development, The Banks Group continues to develop land throughout England and Scotland for a variety of uses including surface coal mines, onshore wind farms, commercial and residential property schemes and sustainable waste management facilities. With the aim of being one of the UK's most successful land developers, it comes as no surprise that the organisation has a strong environmental policy in place to support the continued development of the business.

Due to the activities that The Banks Group undertakes, the business recognises that its actions have the potential to make significant changes to both the environment and local communities. The group aims to maximise environmental benefits and minimise any adverse impacts arising from its activities. As such, Banks produces environmental management plans (EMPs) for each of its mining, wind farm, property and waste projects and these EMPs detail how significant environmental issues, such as noise, are to be controlled. To assess the environmental performance of individual projects, a programme of audits and monitoring is undertaken and this includes noise measurement surveys. To help with this task, Banks has purchased noise measurement instruments from Cirrus Research, a leading expert in the design and production of noise measurement instruments.

Chris Rush, Environment and Sustainability Coordinator at The Banks Group, explains: "Before planning permission is granted for one of our developments, a noise impact assessment needs

The reliability and accuracy that the optimus green provides us with is essential to ensure our noise impact assessments are correct.

to be carried out, this allows us to assess the impact that noise might have on the community to ensure that it is acceptable. This is especially pertinent when our sites are in close proximity to sensitive properties. When we carry out the background assessments it is necessary for us to use a noise measurement instrument that is reliable, hard wearing and has long battery life, as the equipment will be outside, braving the elements from anything from three to five days."

To carry out this task, Banks uses Cirrus Research's Outdoor Noise Measurement Kit together with the optimus green sound level meter. The kit provides a complete outdoor noise measurement solution for environmental and community noise monitoring as it protects the sound level meter and the microphone capsule from the weather as well as contaminants that may affect the measurements.

Chris comments: "Local authorities require noise measurements over a typical representative period – it is therefore critical that we are able to supply the authorities with accurate sound measurements – the optimus green sound level meter combined with the outdoor kit is perfect for this job. The sound level meter has a large memory that is capable of storing data over a stretch of days, whilst its capacity for the simultaneous collection of a variety of sound levels and frequencies, provides us with an 'all-in-one' piece of kit. The reliability and accuracy that the optimus green provides us with is essential to ensure our noise impact assessments are correct.

"Additionally, the NoiseTools software, that

comes free with the optimus green, allows us the means of downloading the data quickly and easily. The sheer amount of data that we collect can then be managed and broken into categories and projects making analysis much simpler."

He continues: "Throughout the life of the site, we undertake regular noise assessments to ensure that the local community is not being unduly affected by noise generated from the work we carry out and to check that noise control measures are successful."

Cirrus Research, has been designing, manufacturing and providing ongoing support for its high quality noise measurement instruments in the UK for over 40 years and this experience is something that Banks Group values. Chris comments: "Cirrus Research and Banks have a long standing relationship and from the very outset we have always valued that Cirrus Research is a UK based company. Some of the advantages that this UK set-up offers includes: easy contact for after sales support, the yearly calibration of the instruments is quicker and simpler, plus it is good to be supporting a born and bred UK business."

Chris concludes: "With a steady flow of projects continuing to be developed throughout the UK our environmental policy remains pivotal. The optimus green and outdoor kit contribute to us fulfilling our responsibility towards the environment and local people, ensuring noise produced by our activities is minimised."

Cirrus Research is a leading expert in the creation and production of noise measurement instruments in the UK. Formed in 1970, Cirrus Research uses the latest scientific and technological developments to produce noise measurement equipment to accurately measure noise and its impact. Cirrus Research's products are manufactured in the UK and come complete with a 15 year warranty (terms and conditions apply). Its products can be used in a wide range of applications and across a variety of industries.

For further information on noise measurement instruments from Cirrus Research please visit the website [www.cirrusresearch.co.uk](http://www.cirrusresearch.co.uk)



# Quiet please!

## How our noise pollution is taking its toll on wildlife

It's not just humans who are having to speak up to make themselves heard over the ever-increasing din of the modern world. Noise pollution is making life harder for nature to thrive, too.

Research published by the Royal Society (from Dalhousie University in Nova Scotia, Canada) showed that tree swallow chicks in noisy environments were less successful at begging for food from their parents than their peers in quieter areas. And it's the background noise that's drowning them out. The oceans aren't escaping, either. Whales and dolphins are fighting to make themselves heard against the racket from shipping, wind farms and oil rigs. Their navigational sonar also struggles to keep track, and an increasing number of creatures are beaching themselves in panic or confusion.

Songbirds in cities are facing similar issues. Urban robins are singing later into the night to make themselves heard, and a team from Aberystwyth University have found that male great tits in cities have raised the pitch of their song by up to 6 kilohertz higher than those in quiet locations. However that shift in bird song is affecting breeding patterns. Males sing to attract females - and the male great tits with higher songs are less attractive to the females.

New findings from the University of Colorado and Fort Lewis College reveal how our noise is taking



its toll on bird populations. Larger birds with lower frequency calls are being forced out of noisy areas - they just can't be heard. While smaller birds that transmit higher frequency signals are able to stay and cope with the noise. Species moving away from areas causes irreversible changes to foraging behaviour and predator-prey interaction. And in time we could lose certain species altogether.

Our city birds may learn to adapt. But the gulf between town and country wildlife populations will certainly widen as they lose the ability to interact with one another. While you may not think this won't make a difference to you, it will. John Newton, managing director of the Ecology Consultancy, puts it simply: "What affects wildlife ultimately affects us as well. People forget that we too are part of the great global ecosystem."

So next time you turn the volume up, spare a thought for the birds, or they might just spread their wings.

## Noise Action Week

We're supporting Noise Action Week (21st – 25th May) so why not join in and enter our Noise in Action Photography Competition.

As part of our support, we're guaranteeing that at least one of the photos featured on the final calendar will be one relating to an activity during Noise Action Week.

If you're taking part in some activity or event during Noise Action Week, why not get your camera out and record what's happening. If you've got a good photo, visit our website at [www.noisephotocompetition.com](http://www.noisephotocompetition.com) and check out how to submit an image.



### Events in 2012

**May 15th 2012**

Safety and Health Expo 2012,  
NEC, Birmingham, UK  
Hall 1, Stand F20

**June 18th 2012**

AIHce 2012,  
Indianapolis, IN, USA,  
Stand 1044

**August 19th 2012**

Internoise 2012,  
New York City Marriott Marquis, USA  
Stand 310

## WIN! WIN! WIN! in the Cirrus 'Noise in Action' Photography Competition

Enter our photography competition and you could be the lucky winner of an Amazon voucher worth £150. There are also 11 runners up prizes of £50 vouchers to be won plus all 12 winning photographs will feature in our 2013 charity calendar.

We're looking for interesting, unusual and imaginative images of 'Noise in Action' to feature in the calendar. This could be anything from an image of our products being used in obscure or picturesque places to a photograph creatively illustrating noise, noise measurement or the impact of noise.

For full details on how to enter including the competition rules please visit

[www.noisephotocompetition.com](http://www.noisephotocompetition.com)

Closing date for entries is 31 August 2012.

We've chosen Hearing Dogs for Deaf People as our Charity for 2012/2013. Proceeds from the sales of the calendar will be donated to this organisation.

Hearing Dogs for Deaf People is a national charity and centre of excellence in training hearing dogs to alert deaf people to everyday household sounds and danger signals in the home, workplace and in public buildings.

Hearing Dogs for Deaf People have a training centre at Bielby in East Yorkshire which is only 30 miles from the Cirrus head office in Hunmanby and we are very excited to be supporting this excellent cause.

You can find out more at [www.hearingdogs.org.uk](http://www.hearingdogs.org.uk)



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