

**PLANNING**

## Defra trumped on turbines

It is appearing increasingly likely that Defra has been overruled by Dberr (formerly DTI) on noise limits for domestic wind turbines.

A year ago DCLG consulted on possible noise limits for domestic turbines (*Noise Bulletin April 2007 p1*). The limits would be used to allow domestic turbines to be taken out of the planning system – the need to get permission is seen as unnecessary red tape.

Noise experts are extremely cautious about the proposals. Based on an Entec report, a number of limits were proposed including a 40dBA façade maximum for residents near a

domestic turbine. This was based on the World Health Organisation recommended level for the onset of sleep disturbance of 35dBA – plus a 5dBA penalty to allow for multiple turbines.

The fledgling wind turbine industry reacted badly to these proposals, and Dberr appears to have pulled rank on Defra and told DCLG to accept slackened limits – thought to be 45dBA, essentially ignoring WHO guidelines (which look set to be tightened to 30dBA).

This proposed limit shouldn't be a nuisance in urban areas where there is much background noise – but in quiet

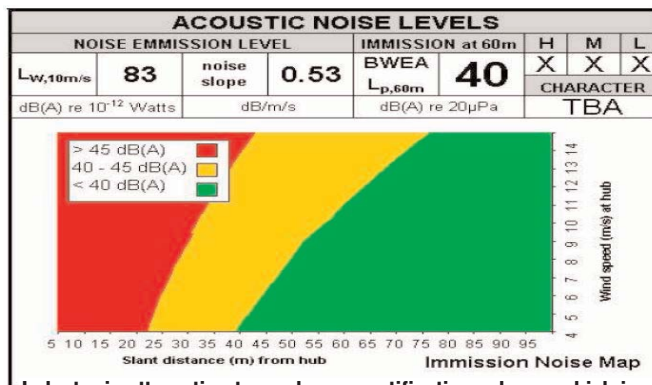
rural areas where turbines might actually generate useful energy, close proximity to a turbine could lead to nuisance complaints, especially if the mounting system or failed bearings cause structure-borne vibration and re-radiated sound.

Some have suggested a limited pilot before widespread relaxation in order to build up a reasonable amount of data on turbine noise problems.

Large scale trials are taking place as part of the Warwick wind turbine trial, but these focus on power output rather than noise. Early results from that trial suggest that the bulk of UK population will be lucky to get more than 5% of the rated energy from a wind turbine. Thus a typical 1kw domestic installation will on average produce 50watts, enough for a lightbulb.

Industry is attempting to adopt a Microgeneration Certification Scheme bringing together Government and key stakeholders, including industry, to develop installation and product standards. These will address airborne and structural vibration noise, perhaps through labels (see left).

● [www.warwickwindtrials.org.uk](http://www.warwickwindtrials.org.uk)



Industry is attempting to produce a certification scheme which is likely to include noise data.

**LAW**

## Road traffic increase leads to rating cut

Government is appealing against a High Court endorsement of a tribunal's decision to allow a reduction in council tax for homeowners living near busy roads.

The decision is important – if allowed to stand, authorities up and down the country could

face an avalanche of rate reductions as a result of traffic noise. The Government has confirmed that it will appeal.

The Valuation Office Agency decided to contest the initial council tax valuation decision made by Manchester North Valuation Tribunal relating to

traffic noise on the M61 which has increased since 1993 (when council tax bandings were set).

Four householders had succeeded in having their houses dropped by a valuation band arguing that increased traffic noise had led to a

● **continued on page two**

**HIGHLIGHTS INSIDE...**

**NEWS**

- 2** Blobs and slugs aid Scotland action plans
- 3** English noise strategy is delayed by yet another year, minister admits

- 5** Turbine noise statements found lacking by EHO

**FEATURES**

- 8** Helicopter noise taxes the mind of an Institute of Acoustics meeting

- 10** Nuisance noise is discussed by experts

**12 COMING EVENTS**

**SOUND BITES**

- 8** Quiet Clarkson and silent disco?

## Pub fixed penalty rules now in

Legislation has finally come into force aimed at reducing night-time noise from pubs and clubs.

A 'single number' dBA level has been proposed which if breached, will lead to fixed penalty notices for landlords. Defra had intended to introduce the powers in autumn 2006 but failed to clear the legislation with Brussels (*Noise Bulletin November 2006 p3*).

During consultation on the proposals, much surprise was expressed that a single LA<sub>eq</sub> number would be a workable solution for tackling night time noise nuisance from licensed premises. Some called it unworkable.

EPUK welcomes implementation noting that the new power is in addition to existing nuisance legislation under the Environmental Protection Act and closure powers under the Anti-Social Behaviour Act. "This should give local authorities a swift solution to temporary/non persistent offenders and prevent problems building up for neighbours."

The permitted level for noise heard in affected premises with the windows closed is 34dB where the underlying level of noise does not exceed 24dB, and 10dB over the underlying level where this exceeds 24dB. Pubs and clubs exceeding the permitted level of noise could be subject to a fixed penalty of £500 or a fine of up to £5000.

Defra explained: "Section 84 and Schedule 1 of the Clean Neighbourhoods and Environment Act 2005 came into force in England in October 2006. We have revised the directions for permitted noise levels and an approval for devices measuring noise levels. However, these could not be brought into force until a stand-still period required under the Technical Standards and Regulations Directive had expired."

**IN BRIEF**

**Tone finder from B&K**

Local authorities and acoustic consultants may save time and money spent investigating the existence of elusive tonal noises with Brüel & Kjær's new tone assessment tool.

Tonal noise typically contains a noticeable – or discrete – continuous note which can include hums, hisses, screeches or droning sounds. These particular noises are difficult to prove and can quite often be disputed.

Created for use with Brüel & Kjær's 2250 sound level meter, this tone assessment application provides simultaneous measurements of the  $LA_{eq}$  – as well as other broadband parameters. It provides on-the-spot calculations for tone-corrected rating levels and the results are displayed in accordance with ISO 1996-2 Annex C.

By using ISO 1996-2, which provides an objective method for verifying the presence of tones, Brüel & Kjær's tone assessment produces instant, objective feedback allowing users to determine whether they have identified the problem or need to make further measurements.

B&K's instruments are also equipped with a tone generator so that an audible tone can be compared with the measured sound.

The tonal assessment application is available as an add-on with Brüel & Kjær's FFT analysis software for the Type 2250 sound level meter. The 2250 meter is claimed to be user-friendly with a large dynamic range and frequency resolution allowing the operator to simply position the analyser in an appropriate location and start measuring.

As objective measurement results can be very comprehensive in detail, B&K says it's helpful to have a sound recording of the noise for the benefit of a non-technical audience. For this purpose, Brüel & Kjær's tonal assessment tool is also compatible with its 2250 meter's sound recording tool.

● [www.bksv.co.uk](http://www.bksv.co.uk)

**EPUK SCOTLAND**

**Blobs and slugs for Scotland**

Progress on Scottish action planning was revealed at the EPUK Scotland (formerly NSCA) conference held in Glasgow last month.

Scotland is well ahead of the England in its mapping and action planning. As such, many of the ideas trialled in Scotland are likely to filter down to Defra when it eventually gets round to action planning.

Scottish Government noise head David Wallace updated progress that has taken place since maps were launched (*Noise Bulletin October 2007 p1*). Scottish Government, through the Scottish Environmental Noise Steering Group (SENSG), is producing action plans which will be based on candidate noise management areas. These will 'probably' include tranquil areas. Wallace expects to be consulting on plans next month, finalising plans by July with adoption by the end of the year.

He added: "The overarching consideration is that we want to meet European noise directive requirements but not overshoot them – we do not want to be gold plating the directive." He was reflecting concerns already expressed by airports authorities that they only want to meet minimum directive standards.

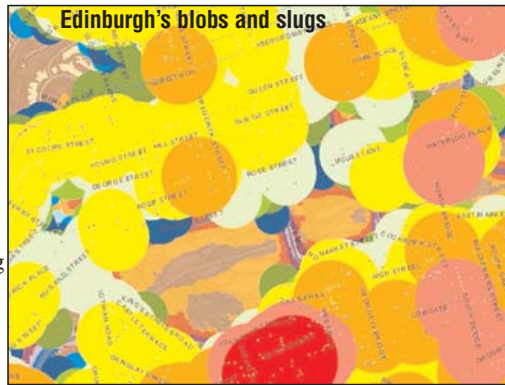
The directive states that action plans must include:

- Results of noise mapping;
- An evaluation of number of

people exposed, together with identification of noise issues identified in mapping;

- How the noise is going to be managed including preservation of quiet areas;
- Cost benefit analysis and evaluation of measures to be taken;
- An estimate of number of people likely to benefit from managed noise.

He explained: "This process is very much 'work in progress' and is based on a prioritisation matrix. This involves mapping combinations of Building Prioritisation Scores (BPS –



known as blobs) and Source Prioritisation Scores (SPS – known as slugs)." Each building is given a BPS dependent on its use, strategic noise level, number of properties in it, population density and annoyance response. The SPS is based on road and rail source lines, each with a buffer zone representing a 'significant noise effects area'.

BPS and SPS scores within the buffered region of each

segment are totted up and used to rank areas in need of noise management areas, and subsequent actions.

He continued: "Once areas are ranked, specific interventions can then be considered based on cost benefit analysis."

Edinburgh EHO Steve Williamson explained what happened next: "After mapping BPS's and SPS's, we did a reality check – a 'road trip' – four men and a woman going out on the road and looking at our most likely candidate areas. We found, for instance, what

appeared in the office to be a big red slug turned out to be a quiet suburban street – something was amiss." Buffer zones were then reconfigured so that results looked better – and these will be subjected to another reality check in 'road trip two'.

"The big point to note is that these are strategic and not detailed noise maps, modelled rather than measured  $L_{den}$  can never be exact not least because it includes a penalty for night noise and is a yearly average. Attempting to corroborate maps with measurements would be problematic."

He concluded: "No one should look at these maps with a view to valuing or devaluing their house, rather they should be used as a means to red-flag houses that might be in hotspots."

**LAW**

**Valuation shock: (continued from page one)**

"material reduction in the value of the dwelling". This is defined in guidance as: "any reduction which is caused (in whole or in part) by .... any change in the physical state of the dwelling's locality".

Householders argued: "There has been a considerable increase in the volume of traffic using the motorway so that the noise and fumes create a much greater disturbance than was the case in 1993, and so there has been an impact on the value of our dwellings which has

resulted in their decrease to such an extent as would justify the change of the band to a lower band than that in which we are now placed."

The initial tribunal hearing decided that the increase in noise and pollution and the effect that that had had upon the value of the dwellings was capable of falling within the expression "a change in the physical state of the dwellings' locality" and therefore could properly be regarded as the basis for a change of banding.

Lawyers arguing against the judgement said that the road itself had not changed, therefore there had been "no physical change".

The appeal judgment dismisses that argument saying that it is not the road that causes the impact, rather it is the traffic. And if traffic has increased, then there has been a physical change.

The appeal was therefore dismissed – with Government lawyers instantly seeking an appeal.

## POLICY

# Yet more delay for strategy

The Government has now admitted to further delays for the noise strategy.

Questioned in Parliament, noise minister Jonathan Shaw said:

“The Government plans to publish for consultation, a combined national noise strategy for England, covering ambient and neighbourhood noise, later this year (2008).”

Last year (2007), Shaw was promising the strategy by the end of that year.

The setback is the latest in a string of embarrassing delays and failures for Defra:

- Defra has yet to produce noise maps for the European noise directive – Northern Ireland and Scotland have published theirs and are well on their way with action plans (*NB October 2007 p1*);
- The House of Lords gave Defra stinging criticism for late transposition of the directive, and for refusing to pay attention to consultation input (*NB Nov 2006 p1*).



**Defra's website is still claiming the strategy will be ready by the end of 2007!**

- Licensing laws: In July 2006 Defra consulted on a ‘single number’ for pub noise control. It intended to introduce this within a month or two – repeated delays meant regulations were only finalised last month (see news page 1).

The noise strategy has proved to be a long running sore for Defra. It had been planned as an integrated strategy – then was split into neighbourhood noise and environmental noise – then joined up again, and now it has been put on the back burner in a bid to claw back delays in transposing the environmental noise directive.

Val Weedon of the UKNA commented: “Little work has been done on the national noise strategy. It is likely to contain few detailed plans to deal with

noise. We are so concerned about the strategy that we are discussing with a number of organisations the publication of an alternative strategy during the consultation period.

“These are dark days for noise sufferers. Wherever one turns, the Government is either promoting policies, such as airport expansion, which will result in more noise or stalling on measures which would reduce noise. The forthcoming noise strategy threatens to redefine the meaning of the word ‘strategy’ – it will have few proposals and no extra funding attached.

“We see what Scotland has done with ASBOs. We see what the GLA is doing. That is what we want to see in England,” said Weedon.

## Finnish Government adopts noise strategy

Finland has adopted a noise strategy that includes fixed targets in noise reduction.

It is perhaps the first in Europe to do so. It requires noise abatement measures to be integrated into the planning process and includes a number of objectives and targets covering activities that cause noise.

Noise abatement objective and targets for the year 2020 include:

- The number of people living

in areas where average noise levels in the daytime exceed 55 decibels is at least 20% less than in 2003;

- Indoor noise levels do not exceed the Government’s daytime and night-time guideline values;
- Government guideline values for noise levels are attained in areas intended for recreation. If this is not possible in built-up areas for reasons of costs or because of local conditions, the aim would be that noise levels

should not exceed 60 decibels during the day and 55 decibels at night.

- Noise abatement measures are to be targeted initially at residential areas where average daytime noise levels exceed 65dB with high exposure.

Apart from residential areas, attention will focus on reducing noise levels in areas where there are educational and care institutions or in recreational areas. The aim is also to preserve quiet areas.

## VEHICLE NUISANCE

## London Assembly probes noisy boom cars

A survey carried out to support a probe by the London Assembly into loud car stereos confirms they are a nuisance.

Loud car stereo noise is on the increase, the assembly found, causing stress and frustration that authorities are unable to tackle the problem effectively, in contrast to recent action on mini motos.

The Assembly’s ‘booming

and fuming’ report found that there is a lack of clarity amongst council and police officers about how to deal with mobile nuisance noise from loud car stereos. There is also reluctance from police and councils to spend resources on this problem as car stereo noise is not perceived as a significant issue in the community.

The assembly added: “The

disturbance and anxiety caused by this type of noise, especially the low bass sounds and vibrations, can really affect peoples’ quality of life. We also feel that more research is needed to measure the impact of loud bass on driver concentration.”

Other recommendations include that police should work with councils to improve

understanding of the scale and location of nuisance from loud car stereos, create practical guidance for officers tackling the problem and pilot enforcement in hotspots.

- *Booming and fuming: Noise nuisance from car stereos and mini-motorbikes*, is available at [www.london.gov.uk/assembly/reports/environment.jsp-booming](http://www.london.gov.uk/assembly/reports/environment.jsp-booming)

## IN BRIEF

### Smoking advice

Lacors has published advice on the noise and nuisance implications of the smoking ban.

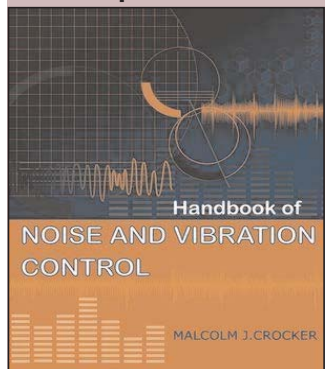
- *Guidance to noise, licensing and smokefree issues* can be downloaded from [www.lacors.gov.uk/lacors/upload/17381.doc](http://www.lacors.gov.uk/lacors/upload/17381.doc)

### Edinburgh seats

Edinburgh City Council is considering changing the current permit system for outdoor tables and chairs outside pubs and cafes.

A consultation was in favour of extending hours. Unlike the present system, where no public consultation is involved, the new system would allow the public to have their say about every permit application, with an appeal procedure also put in place.

### 130 chapters on noise



An 130-chapter book on noise and vibration has been published.

The *Handbook of noise and vibration control* contains 1,600 pages and was edited by Malcolm Crocker. It costs £105.

- More details on website [www.wiley.com/WileyCDA/WileyTitle/productCd-0471395994.html](http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471395994.html)

**IN BRIEF**

**Terrain key to turbine annoyance?**

Swedish researchers have studied wind turbine annoyance and found that the local environment and terrain are key factors in annoyance.

They questioned 754 residents living in seven areas in Sweden and compared perception and annoyance to sound power levels of wind turbines. Areas were chosen to have different types – including urban, flat and hilly terrains.

As expected, there was as a strong relationship between perception and annoyance with sound power level (A weighted). But within those results, it became clear that those in rural areas were more likely to be annoyed than suburban areas, and those in complex terrains (hilly or rocky) were more annoyed than flat terrains. Annoyance was also associated with both objective and subjective factors of wind turbine visibility, and was further associated with lowered sleep quality and negative emotions.

Researchers observed: “Seeing one or more turbines increased the odds of perceiving the sound, but also the odds of being annoyed, suggesting a multimodal effect of the audible and visual exposure from the same source leading to an enhancement of the negative appraisal of the noise by the visual stimuli.”

They added: “To avoid annoyance, the characteristics of a geographical area should be taken into account when establishing new wind farms.” It was also noted that seeking information and discussing wind turbines as a coping strategy could decrease adverse health effects.

● *Wind turbine noise, annoyance and self reported health and well being in different living environments*, Eja Pedersen et al, Occupational and Environmental Medicine, Vol. 64 pp480-486.

**NEWS FROM THE IOA WIND TURBINE CONFERENCE HELD IN ARMAGH**

**Wind farms: An EHO’s tale**

Speaking at the recent Institute of Acoustics meeting on wind turbine noise held in Northern Ireland, an environmental health officer recounted problems with wind farm applications.

Chris Jordan of Northern Group Systems (which supports Northern Irish local authorities) told the conference in Armagh of his experiences in dealing with wind farm applications and their environmental impact statements: “It is really important to read all of the statement fully in one go – this usually results in a number of contradictions. For instance the noise report may talk of one type of turbine, while other sections talk of other types. Distances between receptors and turbines on plans can differ from those used in noise calculations, and land ownership details may not be

correct (this is relevant because noise limits are less onerous if dwellings are commercially linked to the wind farm).”

Having fully read the impact statement through once to pick up the obvious contradictions, a second reading can note any methodological differences between the statement and ETSU guidance. “For instance, ETSU suggests background noise readings should be taken for a week. Some statements I have seen talk of background noise readings for a single afternoon or evening with wind speeds not quantified, simply described as high, medium or low. And then background noise is simply assumed from this wind speed, based on ETSU tables. If the site is beside a river or busy road, this will give a false background reading.”

Jordan has found other errors

due to their height and position.”

Other contradictions include:

- Assuming existing wind turbine noise is part of the ‘background’ when planning more turbines;

- Only assessing the impact from the nearest turbine and not from the whole wind farm;
- Only assessing noise levels at a couple of wind speeds so missing the worst case.

Jordan spelled out the consequences of such poor reports: “There is the potential for the application to be refused on the grounds that the applicant has not proved that loss of residential amenity can be avoided. There will be more delays in the planning process with redrafts of reports and correspondence, and poor public image may then result in increased local objections.”

In one case, flaws in the original noise report led to it being redone. This revealed that the original 10 turbine proposal would have breached ETSU guidelines, and the number of turbines was reduced to seven with increased distance to receptors. Sound levels of the turbines were capped to 100.9dB but the local residents remained very sceptical due to the legacy of the original flawed noise report.

Jordan concluded: “The production of a good noise report in the first instance is a benefit to both the applicant and the regulators as both time delay and the need for clarification can be greatly reduced.”



**MORE FROM ARMAGH**

**‘Conservatism’ can cost 40% of output**

Cumulative conservatism in noise prediction can cost wind farm developers up to 40% of their potential power output, Andrew Bullimore of Hoare Lea Acoustics told the Armagh IOA conference.

He told the audience that even within ETSU guidelines, there is much room for variability and if developers make conservative assumptions rather than making more detailed predictions, they could

end up with smaller wind farms than necessary to avoid local disturbance.

Bullimore listed where conservative assumptions can occur:

- Assuming worst case wind shear;
- Ignoring wind speed variability over the wind farm area;
- Using actual rather than inferred wind speeds at hub height;

- Misunderstanding the actual ground roughness factor;
- Using warranted turbine sound levels rather than actual output levels (usually warranted levels are 2dBA higher than actual output).

Bullimore spelled out the consequences of this conservatism: “Nationally, such conservative assumptions could lead to 2GW of lost power – equivalent to the output of a nuclear power station.”

## LICENSING

## 24hr licensing reviewed

The government has published its review of 24hr licensing.

It claims that there is reduced nuisance overall – but admits that 24 hour licensing has pushed nuisance later into the night. This confirms reports from environmental health officers that noise call-outs now tend to be considerably later in the night than before.

The report says: “Our main conclusion is that people are using the freedoms but not the considerable powers granted by the Licensing Act to tackle problems, and that there is a need to rebalance action towards enforcement and crack down on irresponsible behaviour.”

It adds that the average closing time across all licensed premises has increased by only 21 minutes since the Act came into effect – but the evidence

also points to increases in offences, including violent crimes and nuisance, reported between 3am and 6am. This represents 4 per cent of night-time offences.

“To specifically address the small but unacceptable proportion of violent crimes occurring in the early hours of the morning, we will undertake further comprehensive research into post-midnight drinking patterns and their impact. More immediately, we will:

- Utilise existing powers to identify problem premises. We will make it easier to review premises where local intelligence suggests there is a problem;
- Encourage the imposition of tougher sanctions on those found to be breaching their licensing conditions. This includes the stipulation that

there be far more instant closures of pubs and clubs in an area where there has been a disorder and indefinite closure by the courts for any breach of licence conditions;

- Support the police and local authorities to identify problem hotspots by ranking geographical areas and concentrations of premises on the basis of the risks they present to crime and disorder, public nuisance and children.

This will allow licensing authorities the ability to exercise more caution and conditions when issuing licenses, and wholesale withdrawal of licences in these areas, and permit local authorities and police to target enforcement resources more effectively at problem nuisance hotspots.

- [www.culture.gov.uk](http://www.culture.gov.uk)

## ENTERTAINMENT NOISE

## No change for temporary event notices

Government has told Parliament that it sees no reason to change the system for temporary event notices (TENs).

Temporary event notices can be obtained by pubs and clubs to stage ad hoc events that can cause noise disturbance. But environmental health officers have reported that they can be abused, with premises given a licence with noise conditions – then using temporary event notices to circumvent those conditions. Temporary event notices were intended for ad hoc events like village fetes (*Noise Bulletin November*

2007 p2)

In a Parliamentary question, Government was asked: “What assessment has the DCLG made of the use of temporary event notices by licensed premises, and if the Licensing Act 2003 will be amended so that licensed premises may not operate outside their licence when operating under a temporary events notice?”

Government replied that it had received some representations about licensed premises using TENs to operate additional hours or activities which have not been included on the full licence, but it

believed that the existing limit was sufficient., adding: “We will continue to monitor the position with stakeholders and if there is compelling evidence to suggest that the TENs regulations are not covering problems which cannot be dealt with by using the other powers available to the police for handling disorder or noise nuisance, including the closure of premises in certain cases where a TEN has effect.

“The premises holding the TEN may also have their licence reviewed if they are found to be failing to promote the four licensing objectives.”

## ENTERTAINMENT NOISE

## Government pushes for live music

The Government has pledged half a million pounds to boost live music at small venues.

Last year the Live Music Forum concluded that the Government could improve the licensing system for live music venues. Since the introduction of the Licensing Act, some small venues have been put off from staging live music.

The Government is now pledging £500,000 to set up rehearsal spaces and to explore exemptions from licences for some small venues such as restaurants, cafes and village halls, whose main business isn't to put on live music.

Culture Secretary James Purnell said: “The live music industry is clearly booming but

there hasn't yet been the increase in live music in small venues such as restaurants that we had hoped for. I want to do everything we can to support live music. To help ensure that, we will explore exemptions for some venues. Clearly we'd only be looking at exemptions for events that don't cause public nuisance.”

## IN BRIEF

### Plymouth criticised

The Local Government Ombudsman has criticised Plymouth City Council for delays in taking enforcement action over non-compliance with planning conditions at industrial premises.

He ruled on a case where a large number of residents' complaints about noise and odour nuisance were ignored: “I consider that the Council should have acted much sooner to secure prompt compliance with planning conditions”.

The Ombudsman recommended that the council pay £5,000 in compensation to the complainant and review its planning enforcement arrangements.

- [www.lgo.org.uk](http://www.lgo.org.uk)

### Wind approved

Three new wind farms have been granted consent by the Government – two onshore farms at Keadby, North Lincolnshire and another at Thorne, South Yorkshire. An offshore farm has been approved on Gunfleet Sands, Thames Estuary.

### Hard shoulder boost

Hard shoulders are set to be used to improve capacity on motorways.

The announcement follows the effective scrapping of long term plans for widespread road pricing on motorways. Instead ‘active traffic management’ as seen on the Coventry stretch of the M42 will be used to allow hard shoulder running on busy motorways.

Analysis of the noise impacts of the M42 pilot in the West Midlands showed mixed results for noise (*Noise Bulletin October 2007 p3*).

The variable speed element of the M42 pilot led to smoothing and sometimes slowing of traffic which easily overwhelmed the disbenefits of having traffic flowing closer to any affected properties.

However the noise benefits are likely to be reduced over time because of increased traffic flows that hard shoulder running will bring.

IN BRIEF

**New CAA flightpaths**

The Civil Aviation Authority is consulting on a fundamental shake up of flight paths and waiting stacks over a large area north of London.

The *Terminal control north airspace change* proposal covers major airports as well as a large part of London, southern and eastern England and 12m population. Consultation closes on 22 May, 2008.

Protest group *Stop Standed Expansion* says that while NATS claims that new flight paths are designed to avoid heavily populated areas, it will be those living in currently tranquil rural areas who will bear the brunt of the changes. Two new stacking areas are being put forward for the region and new departure routes are also being proposed which would affect Bishop's Stortford and Saffron Walden.

Stop Standed continued: "There are concerns that the numbers affected by higher noise levels closer to the airport, above the 57dB threshold which represents the onset of serious noise annoyance, will actually increase by 9% as a result of the steeper take-offs which are put forward."

● website [www.consultation.nats.co.uk](http://www.consultation.nats.co.uk)

**In Parliament**

MP Dan Rogerson asked the Government what research he has (a) commissioned and (b) evaluated on the effects of low level decibel sound (sic) on public health.

Health minister Dawn Primarolo replied: "A Departmental ad hoc advisory group is currently preparing a report on the effects of environmental noise on health, due to be completed early in 2008, which will examine a number of noise and health related issues, including low intensity and low frequency noise."

The group includes noise and health experts such as Bob Maynard, Bernard Berry and Ian Flindell. They expected to state that there remains no conclusive proof that ambient noise leads to significant health effects.

AVIATION

**Heathrow criticism flies in**

Responses to plans to expand Heathrow have now been submitted. Many are critical of noise impacts.

EPUK (formerly the NSCA) says: "The discredited 'predict and provide' approach used to justify expansion at Heathrow, will cause thousands of people across London and the South East to suffer from unhealthy aircraft noise and air pollution. We question the continued validity of the 57dBA contour in light of recent research, and we question the allowance for a shorter night period for aviation movements. In all areas of UK noise policy, night is 11pm-7pm – it is an anomaly that the aviation night is shorter."

The London Mayor has also objected: "Little information is provided in the consultation document on how the Government substantiates its judgement that aircraft will become quiet enough to compensate for the additional 220,000 additional flights a year. Expansion will expose people to new or altered aircraft flight paths, both close to the airport, and much more widely – the information in the consultation on this issue has not been conveyed simply or transparently to the people affected."

The London Assembly wants the Department for Transport to undertake a revised noise impact assessment with a revised methodology based on the findings of the October 2007 report *Attitudes to noise from aviation sources in England* (Anase). Anase cropped up in many responses –

it suggested the onset of annoyance starts at 50dBA rather than the official 57dBA contour but the report has been disregarded by Government (*Noise Bulletin Nov 2007 p1*).

EPUK added its fears on Anase and health effects: "We do not believe that reliable decisions can be taken on such major infrastructure proposals as Heathrow until the outcome of a review." said Mary Stevens. "It is increasingly unclear what 'high' levels of noise levels are, as both Anase and recent work commissioned to establish the basis for increasing membership of the Heathrow Campaign Against Noise (HACAN), find that people are annoyed beyond the 57 dBA contours around airports currently used to reflect impact. Further, we are seeing more and more reports linking transport noise to health effects."

"With ongoing consultation on the expansion of Heathrow, we believe that the Anase report on attitudes to aviation noise cannot be left in the current 'limbo' in which it effectively resides, if we are to have a coherent cross-departmental national approach to noise

**EU airport review**

The EU has published a report on the impact of its airport noise directive passed in 2002.

● *Noise operation restrictions at EU airports (report on the application of Directive 2002/30/EC)* can be viewed on <http://eur-lex.europa.eu/lexuriServ/lexuriServ.do?uri=com:2008:0066:fin:en:pdf>

which commands public confidence.

"While we recognise the concerns of government advisers and peer reviewers regarding unorthodox research methodologies and flaws in the Anase report, we believe that it does provide sufficient evidence to indicate that people are more annoyed at lower levels than assumed, based on 1982 ANIS data, and that the number of aircraft noise events, as opposed to the overall amount of noise energy, is also more important than the Department has been assuming.

"The recent EU funded HYENA research also reinforces health concerns. There has been much valuable work in other countries on aircraft noise impacts, such as German work on night noise reported by Basner et al.

"We believe Government should urgently commission a review of such research, together with a technical assessment of Anase. The latter would be able to go into more detail than was possible for the Anase peer reviewers.

"The work, involving some statistical reanalysis, would maximise what can be gleaned for UK practice from the considerable public investment in Anase. We believe that, without such a rapid review, it would be unsafe and could be open to legal challenge to continue to rely on 1982 data in assessing proposals such as at Heathrow. We do not believe that reliable decisions can be taken on such proposals until the outcome of this review."

**Heathrow economic benefits 'negligible'**

A report has undermined Government claims on economic benefits of further Heathrow expansion.

A new report produced by Dutch consultant C E Delft for Hacan Clearskies argues that Government's figures are based on flawed research which overestimates the importance of aviation to the economy. The Oxford Economic Forecast (OEF) report, on which the Government relies, does not take account of the billions of pounds the country is losing

each year from the tax-free fuel and the exemption from paying VAT the aviation industry enjoys, Delft says.

The report continued: "Nor do they factor into their calculations the annual bill, also running into billions, of the cost downsides of aviation expansion: noise, air pollution, community destruction and climate change."

● The report on the economics of Heathrow expansion can be viewed on the HACAN website [www.hacan.org.uk](http://www.hacan.org.uk)

**Expansion unwelcome**

Hacan also commissioned a public opinion poll which suggests Heathrow expansion is not welcomed by most.

18% of people support the Government's policy of expanding UK airports and 62% back a reduction in the number of short-haul flights using Heathrow.

● *Aviation and climate change: public opinion and the scope for action*, by Woodnewton Associates can be viewed on [www.hacan.org.uk](http://www.hacan.org.uk)

## RESEARCH

# Blood pressure rise when asleep

Further output from the Hyena noise and health effects study suggest that noise can raise blood pressure even while asleep.

Imperial College researchers, as part of the Hyena (*Hypertension and Exposure to Noise near Airports*) project, also recently reported on impacts of transport noise on blood pressure (*Noise Bulletin Jan/Feb p2*).

In the latest work, Imperial College London researchers and others monitored 140 sleeping volunteers in their homes near Heathrow and three other major European airports. The researchers measured the volunteers' blood pressure remotely at 15-minute intervals and then analysed how this related to the noise recorded in

the volunteers' bedrooms. The researchers found that volunteers' blood pressure increased noticeably after they experienced a 'noise event' – a noise louder than 35dB – such as aircraft travelling overhead, traffic passing outside, or a partner snoring. This effect could be seen even if the volunteer remained asleep and so was not consciously disturbed.

Aircraft noise events caused an average increase in systolic blood pressure of 6.2mmHg and an average increase in diastolic blood pressure of 7.4 mmHg. Similar increases in blood pressure were seen also for other noise sources such as road traffic and was related to loudness.

High blood pressure

(hypertension) can lead to an increased risk of developing heart disease, stroke, kidney disease and dementia.

Lars Jarup of Imperial College said: "We know that noise from air traffic can be a source of irritation, but our research shows that it can also be damaging to health, which is particularly significant in light of plans to expand international airports. Our studies show that night-time aircraft noise can affect your blood pressure instantly and increase the risk of hypertension.

"It is clear to me that measures need to be taken to reduce noise levels from aircraft, in particular during night-time, in order to protect the health of people living near airports."

## Noise prompts 50,000 deaths a year

Close to half of all Europeans are regularly exposed to traffic noise levels that are potentially dangerous to health, a pressure group claims.

T&E says noise from rail and road transport is linked to 50,000 fatal heart attacks every year and 200,000 cases of cardiovascular disease in the EU. It based these claims by counting how many EU citizens were regularly exposed to World Health Organisation's threshold for 'serious annoyance' and onset of negative health effects (55 dB – 210 in all. 35 million suffered the same level of rail noise.

The study estimates that the

full costs to society, including costs to health services, of traffic noise pollution are at least €40 billion per year. The study also found that poorer people are more likely to suffer from the impact of noise pollution because houses in quiet areas tend to command premium prices.

Based on the new research, T&E says current, available technologies for vehicles, tyres and road surfaces could – if backed by proper standards – combine to make roads five decibels quieter, equal to reducing noise levels by 70%. T&E is recommending that the EU introduce legislation to

reduce tyre noise limits to an effective level of 71 decibels by 2012 with a further reduction by 2016.

T&E also recommends the introduction of a European standard for road surfaces based on noise performance, and that the EU oblige public authorities to include noise specifications in road contracts.

● *Traffic noise reduction in Europe: health effects, social costs and technical and policy options to reduce road and rail traffic noise* was commissioned by T&E and carried out by Dutch environmental consultants CE Delft [www.transportenvironment.org](http://www.transportenvironment.org)

## Performance indicator research released

Defra has published the findings of research that was commissioned to investigate the use of performance indicators for noise, Lacors reports.

Defra's report stemmed from the stakeholder discussions around the national noise strategy, where it was suggested that there is a need for national performance indicators to assess the effectiveness of the management of noise issues.

Local performance indicators for noise were collected from 45 UK local authorities, relating to noise complaints, licensing, planning

and PPC. The majority of existing performance indicators relate to neighbourhood noise; however, the report suggests that as action planning is carried out in respect of the implementation of the environmental noise directive, performance indicators for environmental noise may become more common.

The report suggests three possible topics for noise performance indicators:

- Response time;
- Customer satisfaction surveys;
- Resolution of complaints.

Cassandra Harrison of Lacors

explained: "The report states that these indicators could be used as a basis for a national set, but recognises that the number of national indicators is being reduced, and that noise is unlikely to meet the criteria for national priorities set out by the Rogers Review."

● *Performance indicators: A review of their use to monitor the management of environmental and neighbourhood noise* can be viewed on [http://randd.defra.gov.uk/Document.aspx?Document=NO01117\\_6988\\_FRP.pdf](http://randd.defra.gov.uk/Document.aspx?Document=NO01117_6988_FRP.pdf)

## IN BRIEF

### Delivery launch

The Noise Abatement Society in association with Wandsworth Borough Council and Doncaster MBC is formally launching its *Silent Approach* quiet delivery initiative at the Commercial Vehicle show in Birmingham on the 17th April.

This includes the UK NAS-PIEK certification scheme for low noise vehicles. This has been successfully piloted in Wandsworth and shortly to be undertaken in Doncaster at Sainsbury's stores. Figures from the pilot show substantial reduction in emissions, waste and fuel use, with no noise disturbance to residents (*Noise Bulletin Jan/Feb p4*).

● website [www.noiseabatementssociety.com](http://www.noiseabatementssociety.com)

### 101 service fragments

Home Office funding cuts have claimed more victims among the 101 hotline pilot authorities.

The single 101 non emergency number initiative was launched with Home Office funding in a bid to provide a one stop shop for non emergency calls. It was aimed to take pressure off the 999 service and provide a better public service to users of noise complaint and other services.

101 was being trialled in a number of areas. But recently the Home Office said it would no longer fund it and the service was discontinued in Leicester City, Rutland, Melton and Harborough. Now it has emerged that the Northumbria 101 service will cease in its current form on Monday 31st March 2008.

The threatened closure of the 101 non-emergency police service in Hampshire has been put on hold until March next year after local councils stepped in to plug the funding gap left by Home Office withdrawal.

The Sheffield scheme is expected to continue in operation, as is one in Cardiff.

The number has had mixed success for noise services – some say it reduces the admin burden of providing a 24 hour service, others say it can lead to unrealistic public expectations.

# Helicopters come under fire

Lis Stedman hears from experts at an Institute of Acoustics conference on helicopter noise

Helicopter noise is very much in the news so the recent IoA conference in Manchester inevitably attracted considerable interest. Held at Salford University's revamped conference facilities, the event drew in a wide range of experts in this complex field.

First to speak was Defra's Parminder Dhillon, a longstanding policy advisor across all environmental noise aspects. Focusing on the environmental noise directive, he explained why there is no separate requirement to map helicopter noise.

The END does not exclude helicopter noise, he noted, but it is very complex to map. "Battersea [London's heliport] is below the movement threshold, but it does impinge on a major agglomeration and exceeds the  $55L_{den}$  level, so on that basis we are required to map it."

However, information is difficult to glean. The CAA, Dhillon explained, has some information on flights in and out of the base but not across land. "Information on movements is limited," he noted. "The mathematics for modeling helicopter noise is unreliable, and the current models are just not suitable."

Noise mapping is being undertaken at Aberdeen using one proprietary system, but he added: "We understand they are not comfortable and we won't be recommending it to others." These difficulties meant a decision was taken not to map helicopter noise in the first round, though as Dhillon says: "It is not something we are comfortable with as we will be under-mapping for the END. But even the good practice guide acknowledges the difficulty with mapping helicopter noise. From talking to other member states we know this is one area that has stumped a number, and we are not alone in excluding it."

Research will be undertaken for the second round of mapping, because information on mapping helicopter noise simply does not exist, he claimed. The GLA committee reporting last year looked into this issue and came up with a number of recommendations and observations, notably that there was a lack of methods and information on movements. This is for the DfT to resolve, Dhillon says, and "in the meantime we will plug the hole as best we can. We realise the question might be asked, why we are not mapping." The research should determine the issues and the extent of reported problems with noise, he added.

The problem of helicopter noise is growing, he pointed out, particularly in summer and with the 2012 Olympics. The question session afterwards included a comment that training flights are excluded from mapping which "is a bit unfair in some ways". Dhillon noted that in the second round, training and military flights were "very much on the agenda", adding: "We will be consulting stakeholders and if there is a feeling that they should be included we will consider it."

Westland's Tony Pike stressed the "very serious concerns about current measurement techniques" and the fact that helicopters are operated completely differently to fixed wing craft. "If we can't use conventional techniques I don't think it will change the number of complaints," he warned. "We need to address how [noise] is measured and how people react to it, I think there is a fundamental misunderstanding."

Next to speak was Dr Roger Munt, retired from Qinetiq (the government's spun-off defence research arm), who looked at state-of-the-art helicopter noise modeling – Munt's work formed the basis for research in a number of areas, and he led the MOD research programme on helicopter noise in the 1990s. He noted that "helicopter noise is very interesting from a military point of view. Helicopters fly very low. The main issue is noise radiated from the side rather than underneath. If you can hear a helicopter then you are cued to look at it."

Another speaker was Cath Sixsmith, who was involved in the classic psychological study at RAF Shawbury during 1999 and 2000. This work attempted to get to the root cause of ongoing complaints and was based on the body of work to that date on attitudes – how annoyance is affected by whether people believe noise is preventable and whether there is a loss of privacy as a result, whether the noise was typical of the local norm and issues such as beliefs about flight safety.

The RAF Shawbury research took place over a period of time and included two weeks of noise monitoring at 58 separate locations, based on geographical selection and not the number of complaints. In tandem a community response study was undertaken, with some houses near the base asked to keep diaries recording the noise episodes they felt were the most annoying, along with details of what the helicopters were doing, why the respondent was annoyed, and the rate of annoyance, intrusion and distress felt. In all, 161 usable

diaries were collected and questionnaires were completed to unpick individual differences (such as general reactivity).

The work found that most people felt training should take place locally as the economy depended on it, but more critical was the extent to which people felt they had no influence, and the perception of whether the base felt that the concerns expressed mattered.

The questionnaire showed half of the respondents were 'not at all annoyed' during the project period, just 10% were 'extremely annoyed', and 40% exhibited 'moderate annoyance'. There was, crucially, no good relationship between annoyance and noise levels.

The highest levels of annoyance were found to relate to the least common events. The diaries showed a similar trend, with certain activities such as underslung load training and hovering almost guaranteed to generate complaints. It was found that there were two separate streams to the complaints, one being about the noise and the other about other issues such as breach of privacy. Homeowners, those that were noise sensitive, had a negative attitude to the RAF or had higher global annoyance levels were also found to be reporting as more affected. There was no relationship to age, length of residence, number of children, health or apparent mastery of the situation.

"Annoyance is at least partly mediated by influences outside the influence of the people making the noise," Sixsmith commented. "Is annoyance the right construct, on reflection?" She wondered if it might be worth going down the same route as has been taken with work-related stress, which is now being treated in terms of six factors that are discussed in preference the generic term 'stress'. "I wonder if it might be worth going down that road with annoyance and unpicking it?" she asked.

The lively question session drew out some interesting observations from the floor – air ambulances receive very few complaints, whereas police helicopters do. An attendee suggested that complaints might relate to whether people perceive there to be any value in the noise. The DfT has recently sponsored a fixed-wing study looking at the income effect, it transpired, and the relationship seems quite strong.

Steve Maynard of the London Borough of Wandsworth (where the Battersea heliport is located) spoke next, about living with London's heliport. He reported on the

residents' liaison group that has been set up and noted: "Other contributions have made me realise why we set the group up and the challenges ahead. We are in the honeymoon period at the moment."

How to measure community annoyance is at the heart of the group's work. Its existence is due to the radical changes along London's official helicopter corridor over the Thames, where many of the old warehouses are now extremely high-value properties whose owners have "real expectations about their quality of life". Residents were convinced that pilots didn't care about the noise they made. Maynard said, noting "their whole attitude to the operator affects how annoyed they are".

He felt a major issue was that there was no one point to complain to, something that came out in the recent GLA hearing. "They always got a courteous reply from the heliport and nothing happened," he related. "One conclusion of ours was that if nothing else we needed a single point of contact."

The group is meeting three times a year, and comprises residents and representatives from the heliport and invited local authorities, so the boroughs represented are host Wandsworth plus Hammersmith and Fulham, and Kensington and Chelsea.

The complaints system has been substantially improved – all reports go to the heliport which has to report regularly to the meeting on its actions. Maynard noted: "Battersea has to remind people that it is not responsible for all helicopter activity." Benefits of the improvements include much sharper enforcement of the movement cap, and improvements in the standard of insulation required in affected buildings.

Interestingly, he added that the movement limit is "sacrosanct": "So I will be very interested to see what happens in the run-up to the Olympics."

Wing Commander Tim Owens of RAF Shawbury took to the stage next with Bob McLoughlin, the base's health and safety advisor, speaking on how the base is trying to manage helicopter noise and be a better neighbour.

The base's big problem is that it is the defence forces' helicopter training school, with pilots from all arms of the services taking courses of varying lengths. Helicopters include the Bell 412, which is the biggest problem, with RAF students going on to fly Chinook, Puma, Sea King and Merlin helicopters. Owens observed: "I think we are looking at expectation management, not noise management. Helicopters make a noise and we must make expectations realistic about it." He spoke of farmers wishing to diversify and choosing horse tourism, which is 'massive', with all the noise problems that can bring.

He noted that complaints focus on new property owners rather than the established population, who recognise the benefit to the economy and structural integrity of the area. "The new guys are new money, people who do know how to run the system and have a bit of extra cash to spare and can afford lawyers." He feels that new homes have been given permission by planning authorities and that the builders have not realised they are constructing near an airport. "There is information there that is not coming out."

The base proactively manages flying so that the same areas are not overflowed again and again. It has also tried to expand the dedicated usage area to avoid hitting the hot spots as much as is possible. "Complainants are human beings, they need to know you have listened and are trying to take action. We have got to make sure they are properly responded to." The base also talks to individuals on a regular basis as a follow-up procedure and has done other studies since the one Cath Sixsmith was involved in.

The base has undertaken a glazing trial at two properties as input to a potential revision of the noise insulation grant scheme. This found that mechanical ventilation was key to performance, and that glazing might not be the only point of noise entry. In terms of complaints, the question session revealed that people who had been shown round the base rarely re-complained.

After lunch, CAA directorate of airspace policy's Jim Walker looked at the focus of aviation-related environmental complaints. He began by agreeing with previous speakers' observations that they are not dealing with noise but a specific complaint and a number of issues.

He revealed that under current legislation aircraft noise is not a statutory nuisance, so the CAA cannot prevent aviation activity purely on environmental grounds.

Walker's department, AREC (Aviation-Related Environmental Complaints), deals with breaches of guidelines – which have to have sufficient witnesses who have both a positive ID of the aircraft and enough evidence – and claims a 95% success rate. Walker noted that some education of aircraft pilots was needed: "Some of the private flyers can be a little bit inconsiderate," he observed.

He gave a couple of typical examples and revealed that most complaints were about news craft and banners. News helicopters hovered for 45 minutes beside one tower block waiting for a shot of the new Eurostar train, he noted. Of 2,400 complaints last year, 320 were about helicopters, 80 of these over London.

The power to stop someone flying rests with the DfT, he noted. "It is a difficult

question, at what point you step in and stop what is otherwise a legitimate activity."

Observations from the discussion session that followed included a feeling that in the UK there was no proper method for dealing with complaints.

Paul Freeborn of Bureau Veritas gave a summary of helicopter operations in the UK, mainly giving statistics on the UK helicopter fleet and its uses, and looking at the British Helicopter Advisory Board (BHAB) codes of practice and pilot's code of conduct, which contains 12 recommendations to minimise noise impact. Helicopter routes are chosen, he explained, mainly to maintain their separation from fixed-wing craft.

Tony Pike, an acoustic specialist from Agusta Westland, the helicopter manufacturer, began his talk by stressing: "We are very concerned about the position of helicopter noise in the UK and welcome the chance to speak." Social surveys undertaken indicate that helicopters are "10 to 15dBA more annoying than other aircraft at a similar noise level," he noted. "This appears independent of the objective sound level."

He asked: "Is the level of public acceptance related to the certified or other sound level, or is it completely independent? Do we make major changes in the way helicopters are operated and constructed for a small number of complaints? Simply addressing acoustic noise will not increase public acceptance," he stated.

Manufacturers can improve blade tip design, and are working on this and the design tip speed. Unfortunately these elements also affect performance significantly.

Questions at the end of the conference included the truly pessimistic observation that "in extremis we could produce a truly silent helicopter and you would still get complaints." A lot of negative responses are due to misunderstanding, it was suggested.

A representative from Aberdeen City Council noted that they get very few complaints – but there, helicopters are seen as playing a positive role in the local economy. Others cast doubt on the theory that the impulsivity of the noise was the cause of complaints. Research was needed, it was suggested. Another interjection suggested that it was "a lot to do with semantics, LA<sub>eq</sub> is out the window".

Unfortunately, as there is no central point where noise complaints are recorded it is at the moment impossible to determine the extent of the problem, and until such facts are available it is unlikely that either manufacturers or legislators will feel able to act.

# Nuisance noise unpicked

Methods of dealing with nuisance noise are having to keep abreast with changes in behaviour, legislation and technology, reports Lisa Russell

Smokers haven't quit just because they can no longer light up in the pub. Instead, their banishment to their streets is causing headaches around the country for local authorities looking for ways to deal with clusters of people blocking footpaths or crowding under shelters, taking their rowdy conversations into open air.

The Institute of Acoustics' London branch organised a one day conference on noise nuisance this month with speakers discussing existing and potential legislation, as well as current issues such as this, where there is little guidance and where complaints have been rising.

Consultant Tony Garton and Jim Griffiths of Vanguardia wondered whether the end is in sight for nuisance, now that non-nuisance controls with set levels have been brought in for various situations. "What's left for nuisance? Is it just going to be anything where we have not got a fixed standard?" wondered Garton.

"I think that probably numerical standards and nuisance law are both here to stay," he concluded. But he was less sure about their relative proportions. "There seems to be an increasing idea among legislators that it good to have numbers to work to, so that there is always a fixed standard. I don't know how far they are going to take that."

People are now used to having fixed standards applied to construction sites, for instance. But meeting or exceeding levels does not necessarily mean that nuisance exists or not, said Griffiths.

"You can't have an objective standard of something you can't measure," pointed out Garton. An incessant squeak may be a nuisance, but one that can't have any useful numerical measure applied to it.

Helen Matthews of Defra's neighbourhood noise and statutory nuisance team gave a flavour of the current thinking regarding how policies might be developed in addressing neighbour and neighbourhood noise. The issues she discussed as Defra's emerging strategy are not as yet official government policy, she stressed.

The legislation for managing neighbour and neighbourhood type noise has been enhanced recently, including a new offence for night noise from licensed premises, which came into effect from 28 February 2008 (see news, page one).

"We've also been thinking more broadly about how noise should be managed and controlled in the future," said Matthews.

Defra's current thinking is that there is distinction between neighbour noise and neighbourhood noise. Neighbour noise arises from a domestic property owned or occupied by a family or group of people, while neighbourhood noise is seen as that coming from industrial, commercial or other business premises as well as community spaces.

The Rogers Review did not identify noise nuisance as a national enforcement priority although it was a contender as a local issue, she said. Feedback is showing that local authorities fear for their resources for addressing noise nuisance.

There is a raft of legislation that tackles neighbour and neighbourhood noise, she said. The first aim of the legislation is to protect public health, she said. "In addition to public health we must also consider quality of life and the quality of the local environment."

Defra has also been thinking about the management of noise – as opposed to focusing solely on minimising it. "Noise is an inevitable consequence of society and we all benefit from activities that generate noise. It's not realistic to try to eliminate it." Defra's thinking could include statutory nuisance offences for which there is a defence of best practicable means or reasonable excuse.

"We think that the current regime of measures to control neighbour and neighbourhood noise fits quite well with how we are thinking on the noise strategy and its vision and aims," she said. There may be a case for consolidating noise legislation, but there were concerns about this idea, she said, and she would welcome views.

Duncan McNab of the Scottish Government's air noise and nuisance team outlined the approach taken there, including the initial evaluation of the Antisocial Behaviour Act (Scotland) Act 1994 (ASBA) (*NB issue 18*). The Scottish team is looking to "future proof" noise regulations. "If any new nuisance comes up we will be able to bring in that provision by regulation as opposed to waiting four or five years for a suitable act to come through."

The ASBA gave local authorities additional powers to deal with noise nuisance through adoption of noise services geared to local needs and resources. The provisions complemented existing legislation, introducing fixed penalty notices that can be issued if warnings are ignored.

The number of cases handled continues to grow. In the first six months of the 2007/08 financial year, the 25 local authorities taking part fielded 23,872 complaints about noise, up from 38,587 in the entire previous year.

Most of Scotland's 32 local authorities have introduced services in line with the Act. The operation was fully funded, right down to stab-proof vests, but this will stop in April, as funding is devolved to individual local authorities. The teams are well established, said McNab, and he hoped that the work would be considered as part of a local authority's core function, despite the loss of the ring-fencing.

His team will continue to monitor performance and will continue to address areas such as barking dogs. A survey has found this to be a huge issue, with many different enforcement routes employed. "We are looking at that with a view to seeing if we can come out with any national guidance, good practice or even further legislation."

Another forthcoming action is to consider and publish a research report by Napier University, which looks at the impact Scotland's smoking ban in public places has had on noise outside pubs and clubs. The ban was introduced in 2006 and the review is based on a full calendar year, looking at how significant the problem is and aspects such as seasonal variations. The survey finishes at the end of March, and more than 200 responses have been completed. Feedback from environmental health officers is that enforcement is difficult, he said.

Complaints about noise from smokers are not necessarily just about the level of noise, but also its "fruity content" suggested Chris Chittock of Dragonfly Acoustics. "How does one quantify that – what is foul and abusive language to some people is the normal lexicon to others."

Complaints about patron noise have increased since last year's smoking ban in England, according to a survey carried out by Faber Maunsel technical director environmental noise and vibration Dani Fiumicelli. A moderate majority of respondents to his survey believed that the acoustic characteristics of patron noise make it more discernable than ambient noise.

He presented a paper outlining assessment criteria and case studies relating to patron noise and public nuisance arising from the Licensing Act 2003. The paper

included the results of the survey aimed at establishing a snapshot of how patron noise problems can be assessed and the criteria used.

He received 26 responses – 19 from local authorities and seven from consultants. All the local authorities reported that within the last 12 months they had dealt with a minimum of 50 representations against patron noise as part of their licensing duties – and some reported dealing with more than 250.

About two thirds had noticed an increase in patron noise complaints since the smoking ban.

Few used objective measures for assessing patron noise, with most preferring either subjective means or a mixture. Several commented that this was primarily because of the ease of such assessments, but also because there is a lack of recognised guidance about objective means of assessing such noise.

He suggested that reasons for the considerable divergence in approaches include the variability of the nature and character of the problems and the districts in which they arise. In addition, he felt that local authorities and consultants are having to develop their own assessment methods and criteria in a vacuum created by the absence of any recognised substantive guidance or advice based on validated research. The consequent inconsistencies also raise concerns for businesses facing a cumulative burden of regulation.

Chittock has also been gathering information from local authorities and feels that local authorities lack guidance in dealing with the planning and provision of shelters.

Any shelter with a roof must have at least 50% of open walls. The regulations are often misinterpreted – for instance by wrongly placing a two-walled shelter right up to a building, effectively providing a third wall. Even an umbrella can be classed as a smoking shelter, though he showed more substantial solutions, including one with louvered walls that provides protection from the elements while meeting the 50% openness requirement.

He cited some of the examples that he has come across where landlords have difficulty keeping all parties happy. Smokers from a first floor town centre night club could go onto the street without disturbing any residents. But the police raised concerns about public order and would prefer a new smokers' platform created to the rear at first floor level. However, this faces residential properties

and was opposed by the local authority. Which view should take priority, he wondered.

Suggested mitigation methods he has come across include restricting the number of people and duration of smoking – although he felt this would be hard to enforce. Other ideas include preventing drinks being taken outside, restricting outdoor heating, early closure of external areas and providing door staff.

“One of the things I’m still undecided on is the best way to assess noise from smoking shelters. There is nothing there in the guidance at the moment which is appropriate for assessing the nuisance element. Is looking at the noise levels really telling you the whole story?” he said.

Another growing nuisance is the incidence of noise from announcement systems, said Peter Mapp of Peter Mapp

**“Complaints about noise from smokers are not necessarily just about the level of noise, but also its ‘fruity content’”**

Associates. People are tending to use them more now that their intelligibility and performance has increased, he felt. Other reasons include policy changes, with organisations choosing to make ever-more public information announcements. Stations, sports facilities, commercial and industrial sites are among those drawing complaints. Housing is often built closer to the sites concerned, and people are becoming more willing to complain about disturbance.

The crux of the problem is often that there are high ambient noise levels for the PA system to overcome. Furthermore, speech is an “attention drawing” sound. “We are programmed to detect and listen to it,” said Mapp.

Designs often needlessly cause problems, for example putting speakers higher than necessary, where they are above any acoustic screening. Organisations should review their message and announcement policies, including the frequency of non-essential broadcasts, he advises. Other simple steps include disconnecting the part of the speaker chain nearest to residences, or only using it during peak periods.

The meeting also discussed some specific ways in which noise nuisance can be tackled. Mike Stigwood of MAS

Environmental presented a detailed paper on the role of expert witness in nuisance cases. The role has evolved through case law, and changes arise as litigation has become more complex. Some recent cases have involved flawed expert evidence, he said, resulting in “miscarriages of justice” and bringing new scrutiny to the role. “There is serious concern that there is too much ‘trial by experts’. Nuisance is particularly difficult for it is highly opinion based as to what is reasonable or exceptional in the circumstances of the case.” Further complications arise as the nuisance depends primarily on psycho-acoustical factors, with the decibel level playing a relatively small part in the analysis in many cases.

A partisan approach by an expert is unacceptable, he stressed. He outlined the main rules, including that the expert witness should be impartial, neutral and independent, acting as if the court was the client. It was important to be consistent in the opinion expressed and where opinion changes then to advise why. Both good and bad aspects should be reported, explaining why on balance a certain opinion is held. The expert witness should operate in an open and transparent manner. Instructions are not privileged and there is no right of professional privilege except during the meeting of experts or related correspondence, he said.

One of the tools for local authorities in tackling noise is an Anti-Social Behaviour Order on conviction (CRASBO) and Alick Naton of Vale of White Horse District Council discussed their use for dealing with long-running problems where other measures had no effect. A particular case involved numerous investigations, notices, meetings and equipment seizures over a period of months culminating in the issue of a CRASBO which imposed conditions, including one to forbid any noise audible outside the woman’s place of residence.

The various forms of ASBO provide extra tools for dealing with noise, concluded Naton. “So far we have used CRASBOs in the most unresponsive of cases where the defendant has failed to change their behaviour and where there were a range of anti-social behaviours being displayed. They are not a substitute for conventional abatement notices, but they do provide an extra level of sanction.”

He feels that “if a noise is sufficient to cause a nuisance, it is also capable of causing alarm, harassment or distress”. “This view has not yet been challenged,” he concluded.

## Just desserts

We hear petrol-head Jeremy Clarkson doesn't like noise, a rant in *The Times* reveals.

His piece highlights the intrusion he feels from the beeps, warnings and general everyday din from modern life.

Life would be so much simpler for him if sitting behind the wheel of his beloved Bugatti Veyron, or indeed any other absurdly overpowered car that emits a 'lovely' noise. Presumably Clarkson and indeed anyone nearby would struggle to hear any annoying beeps over the engine noise and tyre squeal.

## Dodgy consultation

Berlin is to hold a referendum on whether the Tempelhof Airport, located within the city, should be closed.

Now this is in stark contrast to what is happening at Heathrow, where the consultation on expansion doesn't include an option 'we don't want expansion' let alone 'let's close down Heathrow altogether'.

These are interesting times with direct action protesters already making their

mark, along with more subtle fallout from the very public Anase disagreement already gracing learned journals such as *Acoustics Bulletin*. Acousticians have been well and truly caught up in the desperate effort to make the figures fit the desired outcome.

All this is in stark contrast to total silence from Defra on aviation. Imagine a world where Defra would argue its case as DfT has on Heathrow, or Dber (formerly the DTi) has on domestic wind turbines. Instead all we get is – silence.

A concerned public will instead have to rely on Europe, WHO and the courts to speak up for them, something that will cost the precious aviation and energy industry far more in the long term.

## Not-so-silent disco

So to Northern Ireland to receive a customarily warm welcome at the Institute of Acoustics wind turbine meeting in Armagh.

Amid all the serious talk about wind turbines, Ulster University's Oliver Hetherington showed a fascinating picture of a 'silent disco'. For those of us

not used to such things, this involves dancers using wireless headphones rather than loudspeakers.

But Hetherington noted that measured sound levels from such 'silent' events were 95-97dBA – as a result of the shouting!

## Turbine flutter

In this publication discussion of wind turbines usually centres round the issue of noise.

As with airports, the talk is usually trying to keep receptors away from the source on noise grounds rather than planes falling out of the sky. Likewise for turbines, separation distances are usually dictated by noise, but of course there is the issue of catastrophic turbine failure.

The wind industry of course would play this down, but protesters won't let it go and keep a log of turbine failures and any resulting deaths. An extreme reaction?

Before you make up your mind, why not watch this video of a Danish turbine whose brake mechanism failed....

[www.liveleak.com/view?i=cdd\\_1203701257](http://www.liveleak.com/view?i=cdd_1203701257)

## NOISE EVENTS 2008

### 14th March

#### NOISE IN THE CITY

Eurocities working group conference to be held in Amsterdam, more details on website [www.noiseinthecity.eu](http://www.noiseinthecity.eu)

### 18-19th March

#### NOISE SPRING WORKSHOP

EPUK residential workshop to be held at Woodside, Warwickshire. Contact EPUK, Lucy Salter 01273 878770

### 19th March

#### OUTDOOR SOUND PREDICTION: GROUNDS FOR IMPROVEMENT

IoA Midlands branch talk by Keith Attenborough, contact Linda Canty, IoA 01727 848195

### 10-11th April

#### WIDENING HORIZONS IN ACOUSTICS RESEARCH

IoA spring conference to be held at Reading University, contact Linda Canty, IoA 01727 848195

### 16th April

#### UNCERTAINTIES IN MODELLING

IoA London branch meeting held in London by Dani Fiumicelli, contact Linda Canty, IoA 01727 848195

### 16th April

#### HEALTH IMPACTS

IoA London branch meeting held in London by Bernard Berry, contact Linda Canty, IoA 01727 848195

### 29th April

#### THE QUIET CONFERENCE

UKNA/CPRE/Quiet Garden Movement event to be held in London – a few places available. Val Weedon, UKNA tel 0207 329 0774

### 21-25th July

#### 9TH INTERNATIONAL CONGRESS ON NOISE AS A PUBLIC HEALTH PROBLEM

The 9th International congress on noise as a public health problem, five yearly conference to be held in Connecticut. [www.icben.org](http://www.icben.org)

### 30th June-4th July

#### ACOUSTICS '08 PARIS INCORPORATING EURONOISE

155th Acoustical Society of America Meeting – 5th Forum Acusticum (EAA) - 9th Congrès Français d'Acoustique to be held in Paris. Website [www.acoustics08-paris.org](http://www.acoustics08-paris.org)

### 26 - 29 October

#### INTERNOISE 2008

to be held in Shanghai, China [www.internoise2008.org](http://www.internoise2008.org)

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*Jack Pease*

