THE ROYAL SOCIETY FOR THE PREVENTION OF ACCIDENTS
RoSPA

RESPONSE TO THE OFCOM CONSULTATION

"NOTICE OF OFCOM'S PROPOSAL TO EXEMPT SHORT-RANGE RADAR EQUIPMENT AT 24GHz FROM WIRELESS TELEGRAPH LICENSING"

23rd MAY 2005

The Royal Society for the Prevention of Accidents
Response to “Notice of Ofcom’s Proposal to Exempt Short-Range Radar Equipment at 24GHz from Wireless Telegraph Licensing”

This is the response of the Royal Society for the Prevention of Accidents (RoSPA) to Ofcom’s consultation on “Notice of Ofcom’s Proposal to Exempt Short-Range Radar Equipment at 24GHz from Wireless Telegraph Licensing”. RoSPA welcomes the invitation to comment.

Background

In order to use short-range radar (SRR) equipment, a licence must be obtained under the Wireless Telegraphy Act 1949. Currently, the only users of this band are the amateur radio community and UK Radio Astronomy sites.

Automotive radar systems on current vehicles which use short range radar (SRR), such as Adaptive Cruise Control (ACC), operate in the 79 GHz band which is currently exempted from the Wireless Telegraphy Act 1949 due to Ofcom’s implementation of EC Directive 2004/545/EC.

Ofcom’s proposal is to also exempt automotive SRR that uses the 24 GHz band from the requirement to obtain a licence under the Wireless Telegraphy Act 1949. There is a road safety benefit to be gained by allowing this temporary exemption because the technology using the 24 GHz band is in a more advanced state of development. It could, therefore, be fitted to vehicles sooner than the technology using the 79 GHz band. This would help prevent accidents and casualties.

By allowing SRR technology to becoming established, it also means that it will have gained a certain level of acceptance and will be on the way to becoming established in the public conscience before the introduction of 79 GHz SRR.

RoSPA welcomes the swift implementation of 2005/50/EC, to allow the use of the 24 GHz band for short wave radar in automotive safety applications, without need for a licence under the Wireless Telegraphy Act 1949.

Discussion of Technical Implications

The role of short-range radar in vehicles will become much greater in the next 10 years. There are many ways in which it can be used to improve road safety.

Current 79 GHz radar technologies have been developed for the first generation of Adaptive Cruise Control (ACC) systems and are now commercially available on top-of-the-range vehicles.

However, a vehicle’s safety can be improved by the further use of short-range sensors. Currently radar using the 24GHz band is employed to do this. The use of this radar will help to build up a more comprehensive image of the road environment around the vehicle, so that the driver can be alerted to a wider range of hazards, such as another vehicle or pedestrian.

In future, it is anticipated that the vehicle will start to take control in certain situations to prevent an accident from occurring, or if a collision is unavoidable, to deploy injury prevention measures.

The short-range radar will help manufacturers and researchers develop the relatively new field of adaptive safety, which integrates elements of both active and passive safety, and introduce it onto new vehicles.

Allowing automotive SRR to use the 24 GHz band, will enable both manufacturers and researchers to explore technological solutions that provide a level of protection greater than required by legislation. This is vital if vehicle safety is to evolve quickly in future.

The removal of the licensing requirements for SRR will allow a more rapid spread of this automotive safety technology and lead to a greater reduction in accidents on the roads.

Discussion of Practical Implications and Driver Education

There are several practical issues with implementing the exemption of automotive short-range radar equipment, which need to be discussed in more detail.

The consultation document discusses the five Radio Astronomy Sights within the UK with an exclusion zone surrounding them. The reason for this is that the short-range radar may interfere with the radio telescopes. Although the area around the radio telescopes is only a small proportion of the UK’s road network, several of the sights – Pickmere, Jodrell Bank, and Cambridge – contain motorways within the exclusion zone.

RoSPA is concerned that radar-based systems in vehicles will stop working when drivers are travelling through the exclusion zones. The rise in sensors in vehicles may lead to drivers becoming over-reliant on the systems. As technology based on these systems evolves, it is highly likely that the systems will do much more than issue information and warnings to the driver, but will start to intervene when necessary to prevent a collision.

The danger is that a driver may assume that the systems will always be operating and start to forget perform some observations and actions essential to safer driving. This is a risk with the technology generally, however, it becomes more of an issue if the systems are not operating some of the time, especially on motorways, which have high volumes of traffic travelling at a high speed.

Clearly, there is an issue of driver education that must be addressed and RoSPA welcomes the fact that the DfT will be working with the SMMT to ensure that drivers are given this information. It is important that no ‘urban myths’ arise about the technology.

Drivers must be made aware that technology will not work within the exclusion zones. A warning light is required on the dashboard – at least – to inform drivers when system is switched off, and information on the exclusion zones needs to be provided in the vehicle’s handbook.

It is worth noting that when purchasing a vehicle, consumers have a considerable amount of information to absorb and the message about the exclusion zones may be lost. Re-emphasising the locations and affects of the exclusion zones to a customer at a suitable time after the vehicle has been purchased would be useful. There should also be a system in place to inform drivers who purchase the vehicle second hand, or who hire one.

The Radio Astronomy sites could also provide reminders to visitors to the sites, especially Jodrell Bank, which has a visitor centre and is a local tourist attraction.

RoSPA thanks Ofcom for the opportunity to comment on this consultation. We have no objection to the contents of our response being reproduced or attributed.

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