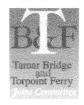
TAMAR BRIDGE AND TORPOINT FERRY JOINT COMMITTEE

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10 April 2017

Reply to: Tamar Bridge

Dear Sir

Notice of proposal to make Wireless Telegraphy Exemption Regulations 2017 Consultation on Regulations and proposed technical parameters

I am responding to your invitation for views on Ofcom's statement for increasing the amount of 5 GHz radio spectrum available for Wi-Fi and other related wireless technologies.

The response is made on behalf of the Tamar Bridge and Torpoint Ferry Joint Committee (TBTF), a Statutory undertaking jointly owned by Plymouth City Council and Cornwall Council.

Background

The role of the undertaking is to operate, maintain and improve the Tamar Suspension Bridge, linking the Highways England operated A38 Trunk Road and the Torpoint Ferry crossing which provides a floating link on the A374 County Road. The crossings are funded through tolls charged. The bridge is the fifth busiest estuarial crossing in the UK whilst the three ferries at Torpoint are significantly busier than any other UK inland ferry crossing. Both crossings operate in an urban environment.

Dedicated Short-Range Communications (DRSC), commonly referred to as 'tag and beacon' equipment is used to collect tolls from about 60% of TBTF's chargeable crossings. The rate of DSRC use increases to 80% during rush periods which is considered essential if congestion at the crossings is not to increase beyond acceptable levels. Uniquely in Europe, mobile DSRC collection toll collection also takes place onboard ferries.

TBTF has approximately 90,000 active tags in circulation, linked to 51,000 accounts. TBTF's inventory is second only to the Dartford crossing within the UK, surpassing the number of units deployed at Severn Bridges, Mersey Tunnels and the M6 Toll Road.

The level of use at TBTF provides the owning authorities with potential further use of the technology within the Plymouth travel to work area.

Response

TBTF note that the European Commission have made specific efforts to assure the reliability of parts of the 5.8 GHz frequency for transport and traffic telematics and related short range devices such as the onboard units (tags) and receivers used at Tamar.

Ofcom recognised the importance of the 5 GHz band to transport services in its 2016 consultation "Improving spectrum access for consumers in the 5 GHz band". We are surprised that Ofcom did not seek to promote responses from the transport industry including operators, manufacturers, system integrates, industry bodies and Central Government bodies at that time. We have been unable to identify any related organisation that was aware of the 2016 consultation. We therefore express serious concern that Ofcom have reached a decision to liberalise the 5 GHz band without any input from the industry currently most at risk should there be wider use. As recorded at 3.57 of the current consultation document, Ofcom's conclusions at 3.56 have remarkably been made with no industry input.

DSRC manufacturers have expressed serious concern regarding possible interference resulting from the proposed opening up of the 5.8 GHz spectrum. This view is supported by initial tests in Spain. However, we have been advised that it is impossible to fully assess the potential for impact on our systems using documentation so far published by Ofcom.

The electronic tolling scheme at Tamar was implemented as a capacity mitigation measure for the Bridge. Any interference that may arise from Ofcom proposals is likely to impact significantly on the journey times of the 50,000 vehicles using this trunk road link. Any resultant erratic operation will have serious safety implications for the Tamar Bridge's barrier controlled plaza, including an impact on the safety of the related public transport priority scheme.

Interference would also generate financial concerns for crossings which raise 40% of the income required for operation and maintenance from electronic tolls on a not-forprofit basis.

TBTF have received further technical advice that even at significantly lower transmission strengths than is proposed by Ofcom, interference still exists. At any strength, the use of the bandwidth for vehicle WLAN/RLAN purposes is of concern to TBTF given:

- the potential impact on the operational life of OBUs mounted within a vehicle's interior which are designed for limited periods of active communication and;
- that TBTF's ferry application for 5.8 GHz DSRC technology is particularly challenging, with up to 75 vehicles tightly parked onboard vessels during toll collection routines.

We believe that it is premature to respond to questions related to drafting of regulations before further work and practical research is completed to consider the impact on transport related systems using the 5.8 GHz bandwidth and the effectiveness of any potential mitigation measures. We

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suggest that such research should involve funding contributions from those who might benefit from the opening of the bandwidth.

TBTF offers a unique and dense operating environment for 5.8 GHz DSRC technology and would consider any testing proposals at our location favourably.

Yours faithfully

David List

General Manager

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