Met Office response to Ofcom Consultation:

Licence Exemption of Wireless Telegraphy Devices – Proposed Changes.

Please find below the Met Office's response to the proposals raised in this consultation on Short Range Devices.

Question 1): Do you agree with Ofcom's proposal to give an 18-month notice period for the closure of the 10.68 to 10.7 GHz band to new SRD deployments?

The Met Office welcomes and fully supports the proposal by Ofcom to close the 10.68 – 10.70 GHz band to new SRD deployments. In respect of the stated timescale, the Met Office would like the notice period to be as short as possible (preferably considerably less than 18 months, but certainly no longer) to reduce the extent of further deployment of SRDs in this band and the related possible effects and period of impact of in-band man-made emissions on observations. The Met Office also suggests manufacturers should be encouraged to make every effort to reduce both the total number of devices used in this band and the remaining period of usage.

As is noted in the consultation document, 10.68-10.7 GHz is designated as an exclusive passive band under the international Radio Regulations (RR Footnote 5.340). The frequencies of the various passive bands are determined by fundamental physical processes involving natural emission and absorption from the Earth's various atmospheric and surface constituents. This particular band is used for the remote observation of the Earth by satellite of surface rainfall rate, sea surface wind speed, sea surface temperature and soil moisture. These observations are used in the vital monitoring of the Earth's climate and in operational weather forecasting (with their resultant contribution to the protection of life and property from natural hazards). Recognising this, the UK has invested considerable amounts (many £millions) in the development of the associated satellite instrumentation and infrastructure, and in the processing of the data, mostly in collaboration with the European Satellite organisations, ESA & EUMETSAT, which the UK is partner to.

Passive sensors on meteorological satellites observe very weak naturally occurring emissions from the Earth's atmosphere and surface. Whilst Section 2.3 outlines that the "probability of (SRDs) causing undue interference is low", this should not be considered to be the case for exclusive passive bands, where any artificial transmissions can distort observational data in respect of these naturally-emitted signals. These remotely sensed observations can be adversely affected by man-made interference as often this cannot be distinguished from naturally occurring emissions. Indeed, weak interfering signals can have a greater impact than stronger signals as the results can be plausible but include incorrect returns that are not detected and rejected (which in turn then impact weather and climate modeling and prediction). Stronger signals can result in total loss of observations over the affected area.

Observations made over the United Kingdom in this band are used by the entire international community for weather forecasting and climate monitoring. In turn, the UK also needs reliable global observations (both over the UK and elsewhere) to inform its modelling and forecasting capabilities, thus it is essential that the UK makes every effort to meet its international commitments in this respect.

In conclusion, we endorse the decision by Ofcom to close this band to new SRD deployments, but urge that the window for doing so is made as short as is possible to protect this band as an important natural resource for earth observation.

Question 2): Do you agree with Ofcom's proposal to licence exempt MSS user terminals operating in the 1518 to 1525 MHz and 1670 to 1675 MHz bands?

The band immediately above 1675MHz is used in some parts of the world for balloon-borne radiosondes. The Met Office and neighbouring countries currently use the 400.15 – 406MHz band for operational radiosondes and as it is not expected at present that there will be a need to use the stated higher L-band frequencies operationally (unless long-term problems occur at the UHF frequencies), the Met Office is content with Ofcom's proposals to licence exempt MSS user terminals in the two bands specified in the consultation. As a matter of course, however, all efforts should be undertaken to ensure that there is no risk of unacceptable out-of-band contamination to said upper 1675 MHz radiosonde band.

Any questions or comments regarding this response should be sent to:

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