

## Ofcom/CAA Joint Statement on Radio Spectrum Sharing between Aeronautical Services and Programme Making and Special Events

Radio spectrum is a scarce resource with finite capacity and constantly increasing demands. So making the best use of spectrum requires careful management. Spectrum sharing offers the opportunity to increase efficiency by allowing existing users to continue operating as before, while allowing others to make use of available spectrum.

Ofcom has decided that low-powered audio wireless systems (used for 'Programme Making and Special Events', or PMSE) will be able to operate in the radio spectrum band 960 to 1164 MHz, which is used by aeronautical systems.

This follows a consultation and detailed technical analysis of the risks of any interference. The sharing arrangement provides additional spectrum for PMSE uses such as broadcasting, major sporting events, music festivals and some theatres. This follows the release of spectrum that was previously used by PMSE (the 700 MHz band) to provide better mobile coverage.

Spectrum sharing in bands used by aeronautical systems must reflect the high safety standards of the aviation industry. So Ofcom has developed the following documents to support the spectrum sharing arrangements:

- Test reports for the coexistence studies of PMSE with aeronautical services;
- Spectrum Management Rules for the licensing of PMSE users in the 960 to 1164 MHz band;
- A safety assurance case setting out how PMSE can share access to this spectrum safely.

The Civil Aviation Authority has reviewed the documentation and is satisfied that any proposed change to the radio spectrum environment can be implemented and maintained without interference to aeronautical services. As a result, we expect that assignments to PMSE in the 960 to 1164 MHz band will commence in early 2019.

Ofcom will work closely with the CAA to provide assurance that the licensing process, spectrum management rules and safety case remain valid, and the operating practices of PMSE users conform to the rules.

Spectrum for PMSE use is allocated almost exclusively on a shared basis with a primary spectrum user. For example, PMSE accesses spectrum in the TV Broadcasting band, sharing with Digital Terrestrial Television (DTT). Under this sharing arrangement, PMSE use does not constrain the rights of the Primary user. So if the Primary user changes its spectrum use, then PMSE adapts around this change. As a result of the 700 MHz clearance programme, PMSE users have been required to change frequencies in order to protect DTT reception.

Under International Telecommunication Union regulations, the 960 to 1164 MHz band is allocated to aeronautical services on a primary basis. As with DTT, should the use of the band by aeronautical services change, PMSE use will adapt accordingly. In addition, any use of spectrum may have to change if there is a need to comply with an international obligation of the UK. This means that, if there were an international obligation to adopt a new aeronautical system, PMSE would cease to have access to this spectrum if sharing could no longer be accommodated.

The possibility of any new aeronautical system being introduced in the band is addressed in both the processes and procedures for maintaining the spectrum management rules (SMRs), and in the safety assurance case itself.