

Your response

Question	Your response
Question 1: Do you have any comments on our impact assessments as set out in Annex 1? Please specify whether your comments relate to: • our wider impact assessment; • our equality impact assessment; or • our Welsh language impact assessment.	Yes. The consultation recognises the importance of mobile networks for BVLOS drone operations and identifies mobile networks as an important means of providing long range command and control. We believe the impact assessment of drone detection should also recognise that existing mobile networks can contribute directly to the detection and tracking of drones that use those networks for communications. This is distinct from the deployment of additional radar infrastructure or future mobile network sensing capabilities. Where a drone uses a mobile network, information already available within the network can enable detection and tracking of the cellular connected drone. This approach does not require additional spectrum allocation and does not itself require the deployment of an additional radio sensor. We therefore suggest that the contribution of existing mobile networks to drone detection should be recognised alongside radar, Integrated Sensing and Communication (ISAC) and other detection technologies when considering the development and benefits of UK counter-drone capabilities. There is also an important distinction between detecting the physical presence of an object and detecting a drone through its use of a communications network. These approaches provide different information and should be considered complementary rather than alternatives.
Question 2: Do you agree with our assessment of the 450 MHz and 5030-5091 MHz bands for drone control links? Do you agree there is demand for these bands in the UK (please identify any relevant use cases and locations in your response)? Are there any other frequency bands we should consider for control links?	We have no specific comments on the proposed technical arrangements for the 450 MHz or 5030–5091 MHz bands and are not proposing additional spectrum for drone control. We agree, however, with the consultation’s recognition of the importance of mobile networks for long range and BVLOS drone operations and the potential requirement for alternative or secondary communications where mobile coverage is unavailable.

Question	Your response
	There is an associated security consideration. Where a drone uses a public mobile network for command and control, telemetry, video or other communications, the mobile network is not simply providing connectivity. The drone's use of the network also creates an opportunity for network based detection and tracking. This characteristic of cellular connectivity should form part of the wider consideration of the role of mobile networks in future drone operations. There is also a wider issue concerning the relationship between spectrum authorisation and actual UAS use of spectrum. Creating additional spectrum authorisations for legitimate UAS operators does not mean that all UAS will operate within those arrangements. This is particularly important from a security perspective. A deliberate or hostile operator cannot be assumed to comply with UK spectrum allocations, licence conditions or equipment requirements. We therefore believe that the development of additional UAS spectrum authorisations should be accompanied by consideration of how compliance will be monitored and how unauthorised UAS use of spectrum can be detected and addressed.
Question 3: Do you have any comments on our proposed approach to coordinating drones with other users of the 450 MHz band? In your response, please indicate whether it relates to co-channel or adjacent channel use, and provide evidence for any coexistence issues raised.	No response
Question 4: Do you have any comments on our proposed 450 MHz drone authorisation approach? Please provide any specific views (including technical justification where relevant) on: • the proposed technical conditions, including operating height AGL,	No response

Question	Your response
power, channel bandwidth, designated service area, and number of base stations; - the proposed non-technical conditions, including licence fees and term, frequency flexibility and complying with CAA rules and radio equipment standards; and - reviewing our initial authorisation approach.	
Question 5: Do you have any comments on our proposed 5030-5091 MHz drone authorisation approach? Please provide any specific views (including technical justification where relevant) on: - the portion of the band proposed for early release (5040-5060 MHz); - the proposed technical parameters and approach to coordinating drones and/or protecting other users of the band; and - the proposal to phase out licences once there is global harmonisation, the required transition period and sunset clause.	No response
Question 6: Do you have comments on our proposal to create a new drone detection radar licence for the 24 GHz band, including the proposed technical and non-technical conditions, the proposed draft licence in Annex 12, and our coexistence analysis in Annex 6? Please provide evidence for any issues raised.	No response
Question 7: Do you have comments on our proposal to create a new drone detection radar licence for the 16 GHz	No response

Question	Your response
band on a case-by-case basis, including the proposed technical and non-technical conditions and proposed draft licence in Annex 12? Please provide evidence for any issues raised.	
Question 8: Have you identified any other frequency bands we should consider for drone control links in the longer term?	No response
Question 9: Do you have any comments related to the existing satellite frequencies available for drone control links?	No response
Question 10: What are your needs and priorities for accessing spectrum for drone safety? Do you have interest in future use of 15 GHz and/or 76 GHz, or other specific frequencies and bands for similar drone safety use?	No response
Question 11: Do you have any interest in ground based UAT to complement the aerial component in 978 MHz licences?	No response
Question 12: Are you interested in or do you have any plans to trial the use of ISAC for drone detection purposes?	Melrose Networks does not currently plan to trial ISAC for drone detection. We believe it is important, however, that Ofcom distinguishes ISAC from another means by which mobile networks can contribute to drone detection. The consultation describes ISAC as using mobile networks and spectrum to sense the location of physical objects, potentially allowing drones to be detected and tracked in a manner similar to radar. Network based detection of a cellular connected drone is fundamentally different. Where a drone is itself using a mobile network, information arising from its use of that network can enable the detection and tracking of the drone. This does not

Question	Your response
	require the mobile network to operate as a radar or otherwise sense the physical presence of the aircraft. In simple terms: ISAC seeks to detect a drone as a physical object. Network based detection seeks to detect and track a cellular connected drone through its use of the mobile network. These approaches are different and complementary. There is also an important distinction in how the two capabilities would be deployed. ISAC requires sensing capability to be implemented within the radio access network in the geographic areas where sensing coverage is required. Achieving wide-spread or national ISAC based drone detection would therefore depend upon deployment of the necessary functionality across a potentially very large number of mobile network sites, as well as the necessary network upgrades, standardisation and supporting infrastructure. Network based detection of cellular connected drones does not require new sensing functionality to be deployed at individual cell sites. It can instead be implemented as a centralised capability using information already available within the mobile network. This creates the potential for wide area, including national, detection and tracking of cellular connected drones without requiring a corresponding deployment of new detection equipment or sensing functionality at each individual cell site. The deployment models are therefore materially different. ISAC coverage will depend upon where the necessary sensing capability has been deployed within the radio access network. A centralised network-based approach can potentially make use of the geographic footprint of the existing mobile network without requiring site by site deployment of a new sensing capability. Ofcom notes that ISAC remains under development and that work is continuing on its standardisation and potential harmonised technical conditions.

Question	Your response
	Network based detection of cellular connected drones does not depend upon future ISAC standardisation, additional spectrum allocation or the deployment of an ISAC capable mobile network. Melrose Networks has developed technology implementing this approach and therefore believes that it should be recognised as a distinct capability within consideration of the role of mobile networks in drone detection. Other organisations have also developed similar technology. We consequently recommend that Ofcom distinguishes between ISAC and network based detection of cellular connected drones in its future work. In particular, the heading “Drone detection via mobile networks – ISAC” in section 7 of the consultation could inadvertently imply that ISAC represents the principal or only means by which mobile networks can contribute directly to drone detection. This is not the case. Recognising this distinction is important not only technically, but also when considering deployment timescales, cost and geographic coverage. Existing mobile networks can contribute to the detection of cellular connected drones without waiting for future sensing capabilities to be standardised and deployed across the radio access network.
Question 13: Do you have any other comments on this consultation document?	Yes. Melrose Networks is a UK telecommunications technology company based in Edinburgh. We develop specialist telecommunications systems, including technology relating to the detection and tracking of drones that use public mobile networks. Our response focuses on the use of mobile networks by drones, the role that existing mobile network infrastructure can play in drone detection and counter-drone systems, and the importance of considering monitoring and enforcement alongside the creation of new UAS spectrum authorisations. We would highlight three related issues. Mobile networks as part of the UK’s counter-drone architecture

Question	Your response
	We encourage Ofcom to consider the wider role that mobile networks can play within future UK counter-drone capabilities. The consultation considers several important elements of the developing drone communications and detection environment, including mobile connectivity, additional command and control spectrum, satellite connectivity, radar and ISAC. These should increasingly be considered as components of a layered architecture rather than independently. Radar, ISAC and other sensors can contribute to detecting the physical presence of a drone, including drones that do not use public communications networks. Network based detection addresses a different subset of the problem: drones that use public mobile networks for communications and are enabled by those networks. For those drones, the mobile network can potentially provide capabilities beyond connectivity, including detection and tracking. Network based detection may also provide information about the drone's relationship with the communications network that is not inherently available from detection of the physical aircraft alone. These capabilities are complementary. No single detection technology should be expected to address every type of UAS or every communications method. This is becoming increasingly important as drones adopt multiple communications technologies. A drone may potentially make use of mobile networks, satellite communications, dedicated radio links and other communications methods during different phases of an operation. The UK's future counter-drone architecture should therefore similarly be layered and adaptable. Network based countermeasures There is also an important distinction between conventional RF countermeasures and the opportunities potentially created where a drone is using a communications network. We recognise Ofcom's statement that the proposed drone detection radar licence does not authorise jamming or other electronic effectors and that relevant

Question	Your response
	counter-drone powers available to public authorities sit separately from the proposed spectrum authorisation. Where appropriate legal authority exists, however, identifying a hostile or unauthorised drone's use of a communications network may create opportunities for targeted network-based countermeasures. Such measures are conceptually different from wide area radio frequency jamming because they make use of the communications network being used by the drone rather than seeking generally to deny use of radio spectrum within an area. We believe this distinction warrants consideration by Ofcom, Government, mobile network operators and relevant security stakeholders as cellular connectivity becomes increasingly important for BVLOS drone operations. Licensing, monitoring and enforcement Finally, we encourage Ofcom to consider monitoring and enforcement alongside the creation of new spectrum authorisations for UAS. A licensing framework is effective only to the extent that authorised users comply with its conditions and unauthorised use can be identified and, where appropriate, addressed. We raise this because there appears to be an existing gap between the establishment of UAS spectrum conditions and the information available concerning their monitoring and enforcement. The current UAS Operator Radio Licence prohibits airborne UAS transmissions in the 2500–2690 MHz band and requires licensees to ensure that their equipment cannot connect to services operating in this band. In July 2026, Melrose Networks submitted a Freedom of Information request to Ofcom concerning the operation of this prohibition. The request sought recorded information from January 2023 onwards concerning reports of actual or suspected UAS transmissions in the band, compliance checks or investigations, identified breaches, enforcement actions, proactive compliance work, and any policy or procedure specifically governing monitoring or enforcement of the prohibition.

Question	Your response
	Ofcom responded on 12 August 2026 that it held no information within the scope of the request. We recognise that the absence of information held in response to a Freedom of Information request does not, by itself, establish that no relevant regulatory or enforcement activity has occurred. Nevertheless, we believe the response raises a legitimate question about how compliance with UAS specific spectrum conditions is monitored in practice. This question becomes increasingly important as Ofcom introduces additional spectrum authorisations for UAS. The technical ability to transmit on a particular frequency does not necessarily mean that the transmission is authorised in the United Kingdom. Equipment may be capable of operating outside UK authorised frequencies or may have been designed for markets operating under different regulatory arrangements. More importantly from a security perspective, malicious or hostile UAS operators cannot be expected to observe UK spectrum allocations, licence conditions or equipment requirements. We therefore recommend that, alongside establishing new spectrum authorisations for legitimate UAS operations, Ofcom considers how compliance will be monitored and how unauthorised UAS use of spectrum will be detected, investigated and, where appropriate, addressed. Spectrum authorisation, monitoring and enforcement should be considered together. The practical effectiveness of a licensing regime depends not only upon defining what legitimate operators may do, but also upon the ability to identify activity occurring outside that framework. This consideration further reinforces the value of layered drone detection. Radar, ISAC, network based detection and other RF and non-RF detection technologies provide different forms of visibility. A resilient regulatory and security architecture should recognise that malicious or hostile UAS may deliberately operate outside the communications arrangements established for legitimate users.

Question	Your response
	Conclusion We recommend that Ofcom recognises network based detection of cellular connected drones as a distinct capability alongside radar, ISAC and other detection technologies. In particular, Ofcom should distinguish between using a mobile network as a physical sensing system through ISAC and detecting a cellular connected drone through the fact that it is using the network. The latter is a capability that can be realised using existing mobile networks and does not depend upon future ISAC deployment. We also recommend that future UAS spectrum policy considers authorisation, monitoring and enforcement together, recognising particularly that malicious or hostile UAS operators cannot be assumed to comply with UK spectrum regulation.