Your response

Question	Your response
Question 1: Do you agree with the proposal to license drone equipment rather than to licence exempt? If you disagree, please provide the evidence that would support any disagreement with the proposals.	Fully agree with the proposal to license drone equipment rather than licence exempt. This ensures proper regulation of medium to larger UAS in spectrum outside public unlicensed frequency bands (e.g. ISM). Currently most drones use these public frequency bands, which as Ofcom notes are not appropriate for large aircraft and longer distances including BLOS.
Question 2: Do you agree with the on the proposed authorisation approach for UAS? If you disagree, please provide the evidence that would support any disagreement with the proposals.	Agree the authorisation approach to license each UAS operator rather than each UAS. This is administratively more efficient than other options.
Question 3: Do you have any comments on the proposed licence conditions?	Generally support the Ofcom approach based on Ofcom's past experience referenced in the consultation. • Re 'special conditions relating to the use of certain radio equipment' Boeing provides the following comments: 4.25 Certain equipment being used by a person who holds (or is under the direct supervision of a person who holds) a valid Flight Radio Telephony Operator Licence (FRTOL) issued by the CAA. This is important to ensure the safe operation of larger UAS in controlled airspace and BLOS or longer flights. 4.26 An aerial UE may only be used on a UAS if written consent has been provided by the MNO. This needs more consideration especially as C2 links are not viable under current MNO conditions and it is recognised National Airworthiness Authorities are shifting towards use of protected spectrum for C2 links (see 'additional comments' below).

	Otherwise, general payload communications are at the discretion of the MNO. • General comments on the licensing approach Ofcom should give consideration for the timeline from RPAS/UAS design to CAA operating authorisations. A radio licence may be needed or assured prior to investing in a design and obtaining a CAA operating authorization. Boeing suggests granting the radio licence with a condition of a CAA authorisation before operating, or that a radio licence grant is assured once a CAA authorisation is granted. UAS designers and investors need a degree of surety of obtaining operating licences before investing in the design and testing, with the understanding that a design must comply with regulations and licence conditions.
Question 4: Do you have any comments on the proposed list of equipment and associated conditions?	Section 4.27 **Table 1: Proposed list of authorised equipment to be used on a UAS** 1525 – 1660.5 MHz 1. Boeing notes the absence of content for this frequency band in the 'Requirements' column. Are there no special requirements other than as already required by the satellite operator licensing and subscribers? Boeing proposes that the requirements clarify that L-band satcom will be used for satellite terminal communication. To reduce any ambiguity in the applicability of licensing for certain bands Boeing recommends extending the upper limit to 1 675 MHz and including the following text in the 'Requirements' column: The 1 518-1 525 MHz and 1 668-1 675 MHz portions of the band as allocated to mobile-satellite service conditionally on the satellite operators' availability of use of these portions of the band for UAS in the UK. 2. Boeing supports VHF communications in the license equipment list. Like Satcom, VHF ATC radios need to be installed on registered aircraft with an exemption required for use in a Ground Control Station. Boeing supports the CAA expanding use of VHF ATC radio communications to include area

	broadcast and pilot-to-pilot communications, in addition to pilot-to-controller communications.
Question 5: Do you agree with Ofcom's assessment on whether to introduce UAS operator licences? If you disagree, please provide further information.	Fully agree
Boeing additional comments on 5 030-5 091 MHz	Under the section 'Alternative dedicated/private networks' Ofcom has decided not to consider this frequency band due to lack of 'clear commercial demand for this band to be used by UAS' (3.32). Boeing strongly encourages Ofcom to reconsider this position and include the frequency band in UAS C2 availability under conditions supported by studies in the ITU Radiocommunication Sector (Report ITU-R M.2171 and draft new Recommendation (PDNR ITU-R.M.[CNPC_CHAR_5GHz] and consistent with relevant regulatory and operating requirements applicable to the UK. While access to satellite support is presently not available, the frequency band is unused and can be readily utilised for medium to large UAS terrestrial C2 links. As noted the FCC is currently consulting on access to the frequency band and recently the Australian Communications and Media Authority have made available interim access to the 5 055-5 065 MHz portion of the band (RALI MS48). UAS operators have used the frequency band in commercial and experimental access in both the US and Australia. Manufacturers are now bringing C2 equipment to market and Ofcom's utilisation of protected C-Band spectrum will directly support international harmonisation and equipment economies of scale. Ofcom can provide leadership in spectrum management of this important internationally allocated aeronautical radionavigation service. Boeing welcomes the opportunity to explore this access further with Ofcom.