Your response

Question	Your response
Question 1: Do you have any views on the additional option we outline to change the frequencies per- mitted under the 3.9 GHz licence from 3925-4009 MHz to 3800-3884 MHz?	FSS operators require access, and should continue to be provided equita- ble access, to the entire range from 3800-4200 MHz. C band satellites have been designed and hardwired to the 3800-4200 MHz range for their entire operational life (15 to 20 years), with little flexibility to retune fre- quencies. C band FSS earth stations will lose access to all C Band satellite services in this band if any part of it is interfered with. Without the cer- tainty that the band is interference-free, it will be impossible for earth sta- tion operators to deliver C band services.
	We also note that FSS C band has already been reduced in recent years with the reallocation of the 3400-3800 MHz range. Further restrictions/ difficulties in accessing the 3800-4200 MHz range would be detrimental to FSS' continued operations in C band.
	Earth stations operated by FSS require protection across this entire fre- quency range regardless of the carriers registered at any specific time due to the high gain of the antennas required to amplify signals from Space. Anything received from the ground even at "low power" is likely to satu- rate the receivers.
	The allocation of higher power FWA broadband service will sterilise the 84MHz for FSS C band use. More details are needed on how H3G will pro- tect satellite earth stations from harmful interference. FSS C band fre- quencies are allocated dynamically and their allocations will change over time. As the consultation document states, it is likely that once H3G starts using the spectrum , "there could be little opportunity for additional fixed links or earth stations to access this band in the future."
Question 2 : Do you have any comments on our proposed 18- month transition pe- riod for Shared Ac- cess users?	Speedcast does not have any comments on this point so long as there is no undue negative impact to incumbent licensees' operations during and after the transition, as per Ofcom's commitment as per 4.14 in its consul- tation document.
Question 3: Do you have any comments on our proposed ap- proach to protecting	Close coordination will be needed to ensure that FSS C band frequencies will not be affected by interference from Shared Access users. The pro- posal to mitigate potential harmful interference from H3G by removing as- signments, reducing bandwidth, reducing power or other local site engi- neering is welcomed and we urge OFCOM to involve FSS throughout the transition period so that the approach taken can be adjusted to ensure

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Fixed Links and Sat- ellite Earth Stations in 3800-3884 MHz?	that all operators' are offered the needed protection. We would also appreciate if OFCOM is forthcoming with details of the mitigation actions it intends to implement.
Question 4: Do you have any other com- ments for us to con- sider in relation to the topics raised?	Removal of terminal registrations for lower powered use cases
	Speedcast has significant concerns about the proposal to remove terminal registrations for outdoor use cases even for low power deployments.
	The high gain in our antenna systems means that even low power trans- mission will potentially cause interference. If terminals are not registered, identifying the source of interference will be both challenging and time- consuming.
	The inability to, or delay in, identifying the interference source, which may be intermittent, will cause significant operational (and financial) penalties by our enterprise customers.
	Requirement for close coordination with medium powered use cases in urban areas and decision to make Medium Power licences (42 dBm EIRP,52 up to 10m height) more readily available in urban areas for the 3.8-4.2 GHz and 1800 MHz bands
	Speedcast's Aberdeen Newton Road teleport's relatively close proximity to urban areas and Aberdeen International Airport means that deploy- ment of medium powered use cases in urban areas is likely to negatively impact Speedcast's FSS C band operations. The coordination by ALL me- dium powered users, regardless of antenna height, will be critical in order to avoid interference. The risk of interference is heightened due to the rel- atively clear line of sight to the teleport which does not have any real pro- tection from trees, buildings or hills.
	Speedcast notes that multiple outdoor medium power use cases with an- tenna heights of 10m operating around its satellite earth station will cause severe C band interference.
	Speedcast proposes that the exception process should also be applied within a geographic protection zone around its Aberdeen Newton Road teleport. We believe that at the very minimum, a 30km radius is required - the actual required distance should be determined in collaboration with Speedcast. We also note that there is generally no safe distance for co- channel interference.
Question 5: Do you have any comments on our impact as- sessment?	No comments.

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Question 6: Do you have any comments on our equality im- pact assessment?	FSS operators, with incumbent licences and operations within the 3900 MHz band, require reassurance and regulatory certainty from OFCOM on their ability to continue to access this band in the manner that they have been previously granted. We strongly propose for a protection zone around incumbent FSS earth stations to enable operations to continue without interference from shared users.
Question 7: Do you have any comments on our Welsh lan- guage impact assess- ment?	No comments.