Stage 5 Clarification Questions for ACP 2018-65
Supplement – Stansted Climb Performance Evidence Issue 1.0

#	Submission Document Name, Page/Para	Question/Issue	Tech/Conslt/ Env/Econ/ ATM/IFP/ General	Date of response	Response – State if and where a submitted document will be changed.
1	Para 2.1, 2.2	What is 'adequate CAS containment'? Is there a 'potential issue' with containment or is the issue about compliance with containment policy?	Tech/Gen		The issue is about compliance with CAS containment policy. *Proposed update to para 2.1-2.2 of Supplement:* *2.1 …we became aware that the SIDs routeing through these volumes had altitude restrictions that may not comply with the CAA's Controlled Airspace Containment Policy 2014.* *2.2 This non-compliance would manifest should the CAS volumes be reduced as per the ACP. It may be theoretically possible that aircraft using the SIDs climb at the minimum rate defined on the current charts.*
2	Para 2.4	How will containment be 'guaranteed' under 'all circumstances'?	Tech/Gen		The solution would ensure the same containment as extant arrangements, thereby neutralising the compliance issue. *Proposed update to para 2.4:* *2.4 This will provide a solution to neutralise the CAS containment compliance issue…*
3	Para 4.6.2 and other paras re 'achieving' the Gate.	This references Para 10C.1 of CAP493, it appears to imply that the threshold for achievement has been confused with level flight and passing a level; please confirm that 400ft, as per CAP493 Para 10C.1(3) was used to show the Gate was exceeded. If not, what methodology was applied to confirm that an aircraft had indeed passed the Gate level.	Tech/Gen		In hindsight it was inappropriate to reference CAP493 as this was a 'snapshot' of data points, which was not being used in the context of an ATC operational environment. From an analysis point of view, we state the assumption that data points within 200ft can be considered as having met the Gate altitude. *The reference to CAP493 will be removed, references to controllers will be removed throughout, and replaced by a single statement in Section 4 re the assumption above.* *The first reference to 'within 200ft' will also have a footnote reminder, with no further reminders necessary.*

4	Para 4.6.5, 4.6.7, etc.	What are the comparison flights being used for; are they to show that the other aircraft are anomalies (eg para 4.6.5)? If aircraft are not making the Gates in some instances (para 4.7.6) then would they need to increase their thrust in order to make the proposed climb restrictions (para 5.1)? Can you confirm that there will be no change to climb rates for all operators? Will the proposed changes increase the workload on controllers in any way?	Gen/Env/ATM		The comparison flights demonstrate that the same aircraft type on the same day travelling similar distances – i.e. closely-equivalent flight conditions – meet or exceed the Gate altitudes. We chose the nearest equivalent flights, but an overwhelming number of similar flights (by four orders of magnitude) met or exceeded the Gate altitudes compared to those slightly underperforming which are considered outliers/anomalies. As noted in the document, 0.2% is eight individual flights in 39,825 flights over 121 days across two different SIDs, working out at 0.04% per relevant SID, and even these outliers behaved only slightly differently from all other similar flights. It is also possible that one, some, or all eight would have made the Gate altitude without changing thrust settings by trading airspeed for height gain before the Gate location, but we cannot state this for certain. There may also have been flight deck or ATC reasons. In the worst-case scenario, all eight of the c.40,000 sample may have needed to slightly, temporarily, increase climb rate power to acquire 1-300ft of altitude. In this unlikely scenario, there would be no impact on the CAP1616 primary noise metrics due to the negligible number of flights, and the small amount of additional power needed to gain 1-300ft given that the overwhelming majority of comparable flights meet or exceed the Gate altitude. We therefore cannot guarantee that there would be no changes to thrust settings due to this proposal. However, the evidence we have supplied strongly suggests that this would apply only to rare outliers, would not be discernible, and would not have a measurable environmental impact. The proposed changes would have no impact on controller workload. *Section 5 to be updated to incorporate the above.*

5	Para 7.2.1	Ryanair only confirm that the SIDs will not be 'limiting', do you accept that Ryanair will not alter their thrust settings as a result of the proposed changes?(Jet2 are clear with regard to thrust usage, Para 7.3).	Gen/Conslt		We accept that this means Ryanair will not need to alter their thrust settings. There were no anomalous Ryanair flights. *A change to the document is not considered necessary.*
6	Para 7.4	'Ryanair and Jet2 accounted for c.72% of Stansted flights. We contend this is sufficient evidence that Stansted operators understand and accept these proposed changes. Other operators at Stansted have a far smaller proportion of flights (fewer than 4%)'; this is not clear. 28% of operators have not been engaged with or 4%?	Gen/Conslt		We accept that the way the proportions of flights are described could be confusing. *We will update Section 7's text to clarify that operators accounting for 72% of flights were engaged, and that other operators accounting for the remaining 28% of flights were not engaged.*
7	Para 5.1 and 8.2	Para 8.2 and Para 5.1 re environmental impacts, are inconsistent. Can you confirm that there will be no environmental impacts?	Gen/Env		The inconsistency will be resolved. As per Item 4 re Section 5 above, the evidence we supplied shows we cannot guarantee no change in environmental impacts due to rare outliers, however we are clear that the evidence also shows that impacts would be so small as to not be discernible or measurable. *We will update Section 5 as per item 4 above, and will ensure Section 8 uses consistent language.*
8	Para 8.4	States that the changes will not restrict climbs when compared to the current SIDs; is this correct? Can you confirm that the changes are fully compatible with other procedures from adjacent airfields/airports?	Tech		Sometimes aircraft must level off at intermediate altitudes as annotated on the SID charts, due to interactions with other routes. The likelihood of levelling off would not change under this proposal and ATC behaviour would not change. This proposal is fully compatible with procedures serving adjacent aerodromes. *A change to the document is not considered necessary.*

We will upload Issue 1.1 of the Supplement document to the CAA portal.