

## Consultation on Proposed Amendment of CAP 168 – Licensing of Aerodromes

### Comment Response Document

CAP 168 – Chapter 1				
No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1	Editorial	Para 1	It is unclear which text is to be removed from the current CAP168. On the assumption that ANO references will replace the existing text copied verbatim from the ANO, this is supported and ensures that no out of date text remains in CAP168 when the ANO is amended.	Noted, assumption correct.
2	Editorial	Para 1	It is unclear which text is to be removed from the current CAP168. On the assumption that ANO references will replace the existing text copied verbatim from the ANO, this is supported and ensures that no out of date text remains in CAP168 when the ANO is amended.	Noted, assumption correct.
3	Editorial	Para 1	Not certain what text is to be removed, assume that ANO ' <i>references</i> ' will replace the existing text copied verbatim from the ANO, should ensure that no out of date text remains in CAP168 when the ANO is amended. In addition the 'Air Navigation Order' is statute (legislative) law in the UK and should therefore feature before any ref to ICAO.	Noted, assumption correct.  Not accepted. The ANO is the Statutory Instrument by which UK fulfils its Chicago Convention obligations.

4	Technical	Para 1.2	This seems to contradict another CAA consultation document namely – Proposal to amend article 126 of the UK Air Navigation Order to permit Flight Training for Aeroplanes and Helicopters from Unlicensed Aerodromes	Noted - the proposal mentioned forms part of the Light Aviation Aerodromes Study Group, consultation for which ended 10 July 2008.
5	Editorial	Para 1	It is unclear which text is to be removed from the current CAP168. On the assumption that ANO references will replace the existing text copied verbatim from the ANO, this is supported and ensures that no out of date text remains in CAP168 when the ANO is amended.	Noted, assumption correct.
6	Editorial	Para 2.1	OK	Noted.
7	Editorial	Para 2.1	OK	Noted.
8	Editorial	Para 2.1	OK	Noted.
9	Editorial	Para 2.1	OK	Noted.
10	Technical	Para 3.1	The term “The protection of an ATZ may not be provided” is ambiguous and could imply either that an ATZ shall not be provided or may not be available.	Noted – if an ATZ is in place, the hours that the ATZ is active must be promulgated in the AIP.
11	Editorial	Para 3.1	Good, removes ambiguity	Noted.
12	Editorial	Para 3.1	Good, removes ambiguity	Noted.
13	Editorial	Para 3.1	Good, removes ambiguity.	Noted.
14	Editorial	Para 3.1	Good, removes ambiguity	Noted.
15	Editorial	Para 4.1	OK	Noted.
16	Editorial	Para 4.1	OK	Noted.
17	Editorial	Para 4.1	Good, provides additional clarity	Noted.
18	Technical	Para 4.3	Comment that the use of the word “variation” could be confused with a Licence Variation (non compliance). Text could be clearer as we assume this effectively applies to a change of ownership details (para 8.1). If this is not the case, then additional clarity is required as to when payment of the “fee” would be applicable.	Accepted - unable to change ‘variation of a licence’ to ‘amendment of a licence’ without changing the ANO and re-issuing all licences. Add final sentence ‘A variation in this context means a change or amendment to an existing aerodrome licence.’ We suggest that this paragraph is read in conjunction with existing para 7.2 and new para 8.1. See para 2.1 Scheme of Charges for correct fees.
19	Technical	Para 4.3	Can you please confirm that this Section and the associated application process is not also applicable to ‘variations’ to licensing criteria?	This process applies to the licence document. See response at Comment 18.

20	Technical	Para 4.3	Comment that the use of the word “variation” could be confused with a Licence Variation (non compliance). Text could be clearer as we assume this effectively applies to a change of ownership details (para 8.1). If this is not the case, then additional clarity is required as to when payment of the “fee” would be applicable.	Accepted - unable to change ‘variation of a licence’ to ‘amendment of a licence’ without changing the ANO and re-issuing all licences. Add final sentence ‘A variation in this context means a change or amendment to an existing aerodrome licence.’ Suggest this para is read in conjunction with existing para 7.2 and new para 8.1. See para 2.1 Scheme of Charges for correct fees.
21	Technical	Para 4.3	Comment that the use of the word “variation” could be confused with a Licence Variation (non compliance). Text could be clearer as we assume this effectively applies to a change of ownership details (para 8.1). If this is not the case, then additional clarity is required as to when payment of the “fee” would be applicable.	Accepted - unable to change ‘variation of a licence’ to ‘amendment of a licence’ without changing the ANO and re-issuing all licences. Add final sentence ‘A variation in this context means a change or amendment to an existing aerodrome licence.’ Suggest this para is read in conjunction with existing para 7.2 and new para 8.1. See para 2.1 Scheme of Charges for correct fees.
22	Technical	Para 4.3	“Variation” also relates to aerodrome non-compliances with CAP 168 –confusing when applied to changes to the licence conditions or to the aerodrome boundary.	Accepted - unable to change ‘variation of a licence’ to ‘amendment of a licence’ without changing the ANO and re-issuing all licences. Add final sentence ‘A variation in this context means a change or amendment to an existing aerodrome licence.’ Suggest this para is read in conjunction with existing para 7.2 and new para 8.1. See para 2.1 Scheme of Charges for correct fees.
23	Editorial	Para 5	Good clarification	Noted.
24	Editorial	Para 5	Clarification	Noted.
25	Editorial	Para 5	Good clarification.	Noted.
26	Technical	Para 5	Doesn’t really clear up what is required, at odds with those details in NOTAL 3/2008. Map required in 5.1 doesn’t clearly define what is meant by the boundary of the aerodrome land, para 5.2 only states what it is not. Is the map forming schedule 1 (as detailed in 5.3) that as detailed in para. 2 of NOTAL 3/2008 ?	Not accepted - same wording as in NOTAL.  Not accepted - same as in paras 1 and 10 of NOTAL 3/2008. The map referred to in para 2 of the NOTAL is the map for inclusion in the Aerodrome Manual and is addressed in Chapter 2 of CAP 168, not Chapter 1.

27	Technical	Para 5.3	This change reflects requirements specified in CAA Notice to Aerodrome License Holders 3/2008, the NOTAL contains more guidance than has been added to CAP168 and clarification is required. The NOTAL suggests that the boundary should include land containing approach lights, or other navigational aids, as it makes reference to the definition of 'aerodrome' in Article 155 of the Air Navigation Order (ANO) 2005, which is; 'any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft', this is not as clearly defined in the CAP168 proposed amendment.	Not accepted. The map forming Schedule 1 to the licence should include the area set aside for the <u>movement</u> of aircraft requiring the use of a licensed aerodrome, therefore land containing approach lights does not have to be included. Para 10 of the NOTAL clarifies the area to be included in the Schedule to the licence, and this wording is the same as at para 5.3 in Chapter 1.
28	Editorial	Para 8.1	OK regarding the change indicated, but in general it is not clear how this is connected to the statements in para 4.3.	Noted - this para is an amendment to current para 7 (re-numbered para 8) and should be read in the context of the current para 7.
29	Editorial	Para 8.1	OK regarding the change indicated, but in general it is not clear how this is connected to the statements in para 4.3.	Noted - this para is an amendment to current para 7 (re-numbered para 8) and should be read in the context of the current para 7.
30	Editorial	Para 8.1	OK regarding the change indicated, but in general it is not clear how this is connected to the statements in para 4.3.	Noted - this para is an amendment to current para 7 (re-numbered para 8) and should be read in the context of the current para 7.
31	Editorial	Para 8.1	OK	Noted.
32	Editorial	Para 10	OK	Noted.
33	Editorial	Para 10	OK	Noted.
34	Editorial	Para 10	No comment regarding this aerodrome but it is recognised as a potential issue for other airports.	Noted.

**CAP 168 – Chapter 2**

<b>No.</b>	<b>Type of Comment (General, technical, editorial)</b>	<b>Part / Section / Para / Sub para</b>	<b>Comment</b>	<b>CAA Comment</b>
1	Technical	Para 6.1.4j	We would consider the term Unmanned Aerial Vehicle (UAV) to be a more familiarly used term.	Not accepted – ‘Unmanned Aerial Systems’ is the term used by the relevant operators and regulators, as explained in CAP 722. UAS comprises individual System Elements including those of unmanned aerial vehicle (UAV), the Ground Control Station (GCS) and any other System Elements necessary to enable flight.
2	Technical	Para 6.1.4j	We would consider the term Unmanned Aerial Vehicle (UAV) to be a more familiarly used term.	Not accepted - ‘Unmanned Aerial Systems’ is the term used by the relevant operators and regulators, as explained in CAP 722. UAS comprises individual System Elements including those of unmanned aerial vehicle (UAV), the Ground Control Station (GCS) and any other System Elements necessary to enable flight
3	Technical	Para 6.1.4j	The term Unmanned Aerial Vehicle (UAV) is a more familiarly used term.	Not accepted – ‘Unmanned Aerial Systems’ is the term used by the relevant operators and regulators, as explained in CAP 722. UAS comprises individual System Elements including those of unmanned aerial vehicle (UAV), the Ground Control Station (GCS) and any other System Elements necessary to enable flight
4	Technical	Para 6.2.1	Requires recalibration of RVR not sure how this can be achieved with human RVRs with lights spaced at >25m	Noted- the CAA believes that recalibration of RVR will not be necessary. The change involves reporting the distance differently.
5	Technical	Para 6.2.1	Can this be carried out by medically fit AFS or ATC personnel?	Yes - the medical requirements are addressed in para 5.3.
6	General	Para 7	Accepted, although we question the need for the detail at Attachment A.	Noted - this replaces but does not change the requirement in NOTAL 3/2007.

7	General	Para 7	Accepted, although we question the need for the detail at Attachment A.	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
8	General	Para 7	7.2.1 Requires submissions in Word 2000 - EMA Aerodrome Manual compiled using Word 2003 – are they compatible? 7.2.3 Clarity required - Do we have to put a line in the margin, underline the new text and strike through the old text? This could make the document illegible. Otherwise proposal accepted, although question the need for Attachment A.	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
9	General	Para 7.2.2	To impose a restriction on the number of pictures and graphics within any document could limit it's effectiveness. In many cases the inclusion of a visual cue to support the text is most beneficial.	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
10	General	Para 7.2.4	Whilst the suggested filing system is a useful tool in storing and retrieving documents, this would be best managed by CAA. Individual airports, airport companies and even departments may already have an efficient filing system in place and management of the CAA document database is an issue for CAA.	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
11	General	Para 7.2.9	This is likely to be too small – standard firewalls accepted up to 5MB	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
12	General	Para 7.2.10	Why not? There are concerns over things getting lost in the CAA system	Noted - this replaces but does not change the requirement in NOTAL 3/2007.
13	General	Para 7.2.10	Manuals should at least be copied to the Regional Offices	Noted - this replaces but does not change the requirement in NOTAL 3/2007. CAA Regional offices have access to documents filed electronically.
14	General	Appendix 2A, all parts	No comments.	Noted.
15	General	Appendix 2A ALL PARTS	No comments	Noted.
16	General	Appendix 2A ALL PARTS	No comments.	Noted.

17	Technical	Appendix 2A Para 5.3.1	This paragraph makes reference to a standard that is not set by the CAA. For this reason, there should be a statement directing Licence holders to implement an in-house policy (similar to the text used for medical assessment for RFF staff) suggested: <i>License Holders are advised to determine an appropriate medical standard to be met by personnel engaged in the role of RVR observer. License Holders should ensure that initial and ongoing medical assessment is conducted by a competent organisation.</i>	Not accepted - the CAA believes that the eyesight requirements for operating on the Manoeuvring Area are sufficient.
18	Technical	Appendix 2A Para 5.3.1	What is gained by making the requirements less prescriptive? Does the removal of the specific eyesight and hearing requirements and replacement with the proposed text refer to Airside Manoeuvring Area drivers or anyone whose work is carried out on the manoeuvring area?	Noted - the requirements are based around the objective. Those who have the necessary eyesight requirements to operate on the Manoeuvring Area (normally aerodrome operations or RFFS staff) do not require additional capabilities to conduct HORVR checks. This has been confirmed with CAA Medical Dept, which also believes that the existing requirement is too prescriptive and onerous.
19	Technical	Appendix 2A Para 5.3.2	This Paragraph is no longer applicable or requires clarity as the prescriptive requirement is no longer in place. The CAA medical department are unlikely to provide advice or to clarify the parameters of a requirement that has been set by an Airport in-house. Even though the requirement should be commensurate with that for those operating on the manoeuvring area, this is also an in-house Aerodrome policy. Clarification is required to define what input the CAA medical department will have if any and if this is in the form of guidance on testing practices then this should be stated.	Accepted - paragraph deleted.
20	Technical	Appendix 2A Para 5.3.2	What is the purpose of this reference? If there is more specific guidance available should it not be included here?	Accepted - paragraph deleted.

21		Appendix 2B, para 5.1	We disagree with some of the proposed statements in new para 5.3. Specifically, we do not accept that it is appropriate to mandate that work in progress should cease across the movement area, not even indeed the manoeuvring area. It is possible to put acceptable safe control measures in place to continue WIP safely on the airfield and including the manoeuvring area, e.g. in a fully fenced area with access under clear control.	Accepted - text to be modified to reflect circumstances where work in progress may be continued during LVPs.
22		Appendix 2B, para 5.1	We disagree with some of the proposed statements in new para 5.3. Specifically, we do not accept that it is appropriate to mandate that work in progress should cease across the movement area, not even indeed the manoeuvring area. It is possible to put acceptable safe control measures in place to continue WIP safely on the airfield and including the manoeuvring area, eg in a fully fenced area with access under clear control.	Accepted - text to be modified to reflect circumstances where work in progress may be continued during LVPs.

23	Technical	Appendix 2B Para 5.1	<p>The Proposed text for Para 5.1 is:</p> <p>5.1 The point at which LVPs are implemented will vary from one aerodrome to another depending on local conditions and facilities available. However, a period of time is required to prepare and safeguard the aerodrome and, in particular, the movement area, in readiness for the LVPs. The point at which LVPs are to be implemented must be clearly defined in terms of a specific RVR, expressed in metres, or cloud ceiling measurement, expressed as a height in feet, and must be promulgated in relevant notices and documentation to all those persons involved.</p> <p>The phrase 'or cloud ceiling measurement, expressed in feet' should be removed. The UK is unique in specifying cloud ceiling as a variable for initiating LVPs. Such measures should be initiated in response to deteriorating RVR <u>only</u>, not cloud ceiling.</p>	<p>Noted - however, the intent is to retain the capability to initiate LVPs on the basis of low cloud. Cases occur in the UK where very low cloud can limit ground operations.</p> <p>The CAA does not dictate when LVPs should be in force. The Aerodrome Licence Holder (ALH) should develop the procedures based on the level of protection required at the aerodrome. The cloud ceiling variable is included for initiating LVPs to protect the ILS in conditions of low cloud; again, we do not specify at what height that should be. This element should be included in the development of the Low Visibility Operations Plan.</p>
----	-----------	-------------------------	--	---

24	Technical	Appendix 2B Para 5.1	<p>Aeroplane operators are required to take RVR (only) into account in determining Aerodrome Operating Minima for approaches in weather conditions worse than Category I, ie when LVPs will be required. To require aerodromes to assess cloud ceiling as well as RVR for initiation of LVPs constitutes an additional, and unwarranted, regulatory burden on the aeroplane operators. Furthermore, such a requirement for aerodrome operators is specifically and explicitly contrary to the guidance contained in ICAO Annex 14, which states in the Introductory Note to Chapter 1:</p> <p><i>This Annex contains Standards and Recommended Practices (specifications) that prescribe the physical characteristics and obstacle limitation surfaces to be provided for at aerodromes, and certain facilities and technical services normally provided at an aerodrome. It is not intended that these specifications limit or regulate the operation of an aircraft.</i></p>	Noted.
----	-----------	-------------------------	--	--------

25	Technical	Appendix 2B Para 5.1	<p>Initiation of LVPs on cloudbase does indeed limit and regulate the operation of aircraft in a way which ICAO Annex 6 does not! ASD is therefore operating considerably outside its remit if it continues to require cloudbase to be assessed as a measure for initiation of LVPs.</p> <p>There have, on several occasions, been significant operational problems at Heathrow when LVPs were in force (from low cloud) even though the RVRs were well above Cat I minima. The inevitable flow-rate restrictions which followed caused wide scale operational disruption and, consequently, significant cost to operators.</p> <p>It is time that the UK came into line with the rest of the world as far as initiation of LVPs was concerned. Please remove the reference to cloud base from this para.</p>	Noted.
26		Appendix 2B Para 5.3	<p>We disagree with some of the proposed statements in new para 5.3. Specifically, we do not accept that it is appropriate to mandate that work in progress should cease across the movement area, not even indeed the manoeuvring area. It is possible to put acceptable safe control measures in place to continue WIP safely on the airfield and including the manoeuvring area, e.g. in a fully fenced area with access under clear control.</p>	Accepted - text to be modified to reflect circumstances where work in progress may be continued during LVPs.

27		Appendix 2B Para 5.1	<p>BALPA fully supports the comments made by BA concerning the removal of cloud ceiling as a criterion for the introduction of LVPs. BA makes the case eloquently, so those points are not repeated here, save to say that they are endorsed by BALPA. From personal experience of being in the then CAA Directorate of All Weather Operations when the whole concept of LVPs was originated, it is believed that LVPs on cloudbase/ceiling are a hangover from the UK's pioneering of autolands etc. Cat 1 AOM are predicated on an approach success rate of only 90%, so pilots faced with a Cat 1 ILS approach with low cloud used to do, rightly or wrongly, an autoland 'to be sure of getting in', and some probably still do. Occasionally the autoland would go awry because Cat 2/3 protection etc would not be in place, hence the introduction of LVPs for low cloud. There is probably nothing inherently wrong in doing such an autoland, provided that people are aware of the lack of protection and are ready for its consequences.</p> <p>It is believed that cloud-related LVPs might even have been a personal foible of a particular person in CAA All Weather Ops that have not been shown in practice to be operationally necessary or desirable, as evidenced by the UK's non-standard use of this criterion. Mixed in with this might have been the requirement for BEA to do a high number of Trident autolands in CAVOK, then the bottom end of Cat 1, and then Cat 2 in order to get Cat 3 certification. At one time incoming Tridents announced a practice autoland and LVPs were applied by ATC even in CAVOK.</p> <p>Whatever the history, it is just that, history, and time to call an end to it. However, it does need to be accompanied by a pilot awareness programme of the amount and type of protection applying to a low cloud approach in Cat 1.</p>	<p>Noted - the need for protection is paramount - safety over capacity.</p> <p>Also see comment number 24.</p>
----	--	-------------------------	---	--

27		Cont....	<p>One example of how inappropriate are LVPs in low cloud is that at Heathrow, one of the Low Vis Procedures is to restrict severely the operation of tugs between the Maintenance Area and the Central Area. To do this when the ground visibility is relatively good but it happens to be cloudy is illogical and does cause operating problems for airlines.</p>	
28		Appendix 2B, Para 5.1 to 5.3	<p>Disagree with some of the proposed statements in new para 5.3. Don't accept that it is appropriate to mandate that work in progress should cease across the movement/ manoeuvring area. It is possible to put acceptable safe control measures in place to continue WIP safely on the airfield (including the manoeuvring area), for example in a fully fenced area with access under clear control.</p> <p>In addition the potential for confusion still exists in the terminology currently used.</p> <p>In CAP 168 Chapter 2, Appendix 2B Low Visibility Operations, the term 'Low Visibility Procedures' is used in para 1.2 as a generic description for the operating methodology at ALL aerodromes when specific weather parameters fall below a prescribed level, regardless of whether or not that aerodrome is capable of supporting CATII or CATIII operations. Aerodromes supporting CATII / CATIII operations are required to develop ADDITIONAL procedures to safeguard these approaches (para 1.3).</p> <p>The same terminology (LVPs) is used in both cases, despite the statement in para 9.3 that, '....a pilot will expect a precision approach aid to be fully safeguarded and available for Category II or III use if LVPs are declared to be in force at the aerodrome.'</p>	<p>Partially Accepted - we have replaced the generic term 'procedures', used throughout the Appendix, with alternative terminology to ensure the term 'procedures' is only used in the context of Low Visibility Procedures. The remainder of this comment falls outside the subject of the consultation.</p>

29		Cont....	<p>Thus, aerodromes with a CAT I ILS (a 'Precision Approach Aid' as defined in the Glossary) are required to declare 'LVPs in Operation', despite not being able to support CAT II / III ops.</p> <p>Arguably perhaps, pilots using the approach aid will be aware that it is only CAT I, but of such ambiguities are accidents born.</p> <p>Worse still however, is the situation at aerodromes which support CAT II / III ops on one runway but only CAT I ops on the reciprocal runway. Crews used to performing CAT II / III approaches on the better equipped runway when LVPs are declared to be in force might easily overlook the fact that the reciprocal runway only supports CAT I ops.</p> <p>Para 10.2 declares <b>boldly</b>, '<b>At aerodromes that support Category II or III operations and in conditions that preclude Category I operations, under no circumstances should LVPs be declared to be in force if the appropriate safeguards for category II or III operations are not fully in place to protect the landing aids and runway.</b>'</p> <p>Note that this prohibition states 'at aerodromes that...' without differentiating with respect to the runway in use. It appears to assume that at an aerodrome, either NO runways support Cat II / III ops or ALL runways do. It does not allow for the mix, where one runway supports it and another does not, despite the fact that in conditions of poor visibility with an adverse wind, it may still be necessary to depart traffic from the CAT I runway, even if arrivals on the out of wind runway are precluded.</p>	
----	--	----------	--	--

30		Cont....	The effect of this, is that such aerodromes are required by para 1.2 to develop LVPs and are then prohibited by para 10.2 from declaring them. To overcome this ambiguity, the terminology needs to be revised in order to cater for such eventualities. It is suggested therefore, that at aerodromes which only support CAT I landings and at aerodromes having a mix of CAT I and CAT II / III runways, the term ' <b>Departure LVPs in force</b> ' be employed when wind conditions preclude arrivals on the CAT II / III runway and for departures from CAT I runways. This would make it clear that LVPs were NOT in force for arriving traffic.	
31	General	Appendix 2B Para 5.3	Please provide us with some examples of what is considered 'essential operational safety vehicles and personnel'. A key question is whether the bird control vehicle should be on the manoeuvring area during LVP.	Noted - the aerodrome operator should determine which are the essential vehicles and personnel.
32	Technical	Appendix 2B Para 5.3	This does not give any flexibility, especially if in LVPs with no possibility of aircraft movements. If safe control measures are in place then works should be able to continue.	Accepted - text to be modified to reflect circumstances where work in progress may be continued during LVPs.
33	Technical	Appendix 2B Para 5.3	Does this still apply if the runway is non operational?	Noted - it is for the aerodrome operator to decide if there is an impact.
34	General	Appendix 2C	Para 1 – accepted. Para 2 – We would suggest that a reference could be included to ICAO Doc 9859 at Para 2. Para 2d – Good addition.	Accepted - footnote added to refer to Doc 9859.
35	General	Appendix 2C Para 1	Accepted.	Noted.
36	General	Appendix 2C Para 1	Accepted	Noted.
37	General	Appendix 2C Para 2	Para 2 – We would suggest that a reference could be included to ICAO Doc 9859 at Para 2.	Accepted - footnote added.
38	General	Appendix 2C Para 2	Good condition. Could be enhanced by referencing ICAO Doc 9859	Accepted - footnote added.
39	General	Appendix 2C Para 2d	Good addition.	Noted.

40	General	Appendix 2C Para 2d	Good addition.	Noted.
41	General	Appendix 2C	Para 1 – accepted. Para 2 – we would suggest that a reference could be included to ICAO Doc 9859 at para 2. Para 2d – good addition	Accepted - footnote added.
42	General	Appendix 2D	The insertion of the former NOTAL content is generally acceptable, however, we would suggest that the text should be more concise. An example is the reference to Annex 4 Amendment 54. We suggest that an additional reference should be included, to ICAO Doc 9870 – Manual for Preventing Runway Incursions.	Partially accepted - the CAA considers that the text included is relevant and provides suitable guidance to aerodrome operators and others for the prevention of runway incursions. However, the suggestion to include a reference to ICAO Doc 9870 is accepted.
43	General	Appendix 2D	The insertion of the former NOTAL content is generally acceptable, however, we would suggest that the text should be more concise. An example is the reference to Annex 4 Amendment 54. We suggest that an additional reference should be included, to ICAO Doc 9870 – Manual for Preventing Runway Incursions.	Partially accepted - the CAA considers that the text included is relevant and provides suitable guidance to aerodrome operators and others for the prevention of runway incursions. However, the suggestion to include a reference to ICAO Doc 9870 is accepted.
44	General	Appendix 2D	The insertion of the former NOTAL content is generally acceptable, however the text could be slightly more concise. An example is the reference to Annex 4 Amendment 54. An additional reference should be included, to ICAO Doc 9870 – Manual for Preventing Runway Incursions.	Partially accepted - the CAA considers that the text included is relevant and provides suitable guidance to aerodrome operators and others for the prevention of runway incursions. However, the suggestion to include a reference to ICAO Doc 9870 is accepted.
45	Editorial	Appendix 2D Para 1.1	'preventive' should this read 'preventative'?	Accepted - text changed.

46	Technical	Appendix 2D Para 2.1	<p>Suggest new sixth bullet point: 'At aerodromes where engineers or other non-pilot personnel taxi aircraft, the same training considerations as above for airside drivers should be applied'.</p> <p>The practice of engineers taxiing large aircraft is not widespread in the UK but it can and does happen, particularly with USA operators. This practice is perfectly legal and the potential for runway incursions involving such operations is recognized by the FAA, who issue a self-training DVD for such personnel. The term 'engineers' is used to encompass both ground engineers and flight engineers. Also, at UK aerodromes with GA operations, it is a frequent practice for totally non-certificated persons to taxi aircraft, albeit mainly restricted to aprons etc. BALPA believes that the UK CAA should address these two types of operation and require training to at least the level of airside drivers. It is believed that at present there is no requirement or even a recommendation for any training at all.</p>	<p>Not accepted - The CAA does not believe that this needs to be included. CAP168 is directed at Licensed Aerodromes. Aircraft Operators are responsible for ensuring that their staff are competent to undertake the task required; additionally, aerodromes should have arrangements in place for oversight of organisations operating on the aerodrome.</p>
47	General	Appendix 2D Para 2.2	<p>I am aware that this guidance was already listed in the current vn, however, we would like to take this opportunity to comment on this paragraph.</p> <p>The purpose of a tabletop exercise is to test the effectiveness of procedures. Tabletop exercises are a suitable for testing the resultant reporting procedures or emergency procedures that may be initiated as a result of a runway incursion; however, I am unclear as to how a runway incursion can be tested by tabletop. I understand it may be utilised as a very relevant scenario to test other procedures such as resultant emergency procedures but surely the correct place to consider the 'effectiveness of potential prevention measures' is at the relevant safety committee or LRST?</p>	<p>Noted - Tabletop exercises can also be used proactively to test potential scenarios or to examine aspects of an aerodrome's infrastructure and operations. Examples could include tests on the consistency between visual aids at runway entrances, and examining aspects of the emergency plan.</p>

48	Technical	Appendix 2D Para 2.2	How often is 'regular' with regard to tabletop exercises?	Noted - as determined by the Aerodrome Licence Holder.
49	Technical	Appendix 2D Para 2.5	'Hot spots' are used at various airports to refer to both Dangerous Goods parking areas and also helicopter landing areas. Might it be appropriate during this rewrite to draw particular attention to this point and offer guidance that Licence holders should ensure that all previous references to 'hot spots' are replaced by suitable alternative terms?	Noted - the term 'Hot Spots' has been included because it has been defined by ICAO and is contained in its guidance.
50	Technical	Appendix 2D Para 2.5	Suggest adding ATC to the groups of people to whom hot spots should be highlighted.	Accepted - text amended.
51	Technical	Appendix 2D Para 2.6	Suggest an example be provided to show how this will look on the AIP chart.	Noted - this information has not changed from that included in NOTAL 6/2007, which this replaces.
52	Technical	Appendix 2D Para 2.11	Suggest the inclusion of a frequency for the periodic assessment of potential hot spots, e.g. annual, every 2 years?	Not accepted - the frequency should be determined by the aerodrome operator and the Local Runway Safety Team, and should reflect the circumstances at each aerodrome.
53	General	Appendix 2D Para 2.12	Suggest a reminder in this paragraph of how long the publication cycle is.	Noted - this information is available on the AIS website.
54	General	Appendix 2E	A positive revision.	Noted.
55	General	Appendix 2E	A positive revision.	Noted.
56	General	Appendix 2E	A positive revision.	Noted.
57	Technical	Appendix 2F	Could this paragraph be replaced with a reference to CAP 781, on the assumption that all the guidance is included in the new document? As written, the grammar would at least benefit from revision. The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Partially accepted. Changes have been made to the text and a reference to CAP 781 added.
58	Technical	Appendix 2F	Could this paragraph be replaced with a reference to CAP 781, on the assumption that all the guidance is included in the new document? As written, the grammar would at least benefit from revision.	Partially accepted. Changes have been made to the text and a reference to CAP 781 added.
59	General	Appendix 2F	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.

60	Technical	Appendix 2F	Could this paragraph be replaced with a reference to CAP 781, on the assumption that all the guidance is included in the new document? The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Partially accepted. Changes have been made to the text and a reference to CAP 781 added.
61	General	Appendix 2F Para 4.1	Suggest more detail to describe the safety zone and what it is designed to do. Also, suggest inclusion of what may be deemed acceptable markings to indicate the extent of such an area.	Partially accepted - additional text provided.
62	Technical	Appendix F, 3.4	Safety Management, Safety Cases and Project Plans should address this and CAP 781 (for which there was no apparent consultation)	Noted - CAP 781 was developed jointly with industry.
63	Technical	Appendix 2F Para 3.4	What documents are required?	Noted – documents determined by aerodrome operators' SMS, depending on the WIP.
64	Technical	Appendix 2F Para 3.4	Does this apply to minor works or repairs	Noted – see above
65	Technical	Appendix 2F	Could this paragraph be replaced with a reference to CAP 781, on the assumption that all the guidance is included in the new document? As written, the grammar would at least benefit from revision.	Partially accepted. Changes have been made to the text and a reference to CAP 781 added.
66	General	Appendix 2F	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.

**CAP 168 – Chapter 3**

No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1	General	Para 3.8	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.
2	General	Para 3.8	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.
3	General	Para 3.8	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.
4	General	Para 3.8	Is this a recommendation or a requirement?	Noted - the second sentence indicates that Aerodrome Licence Holders should determine the need for blast pads.
5	General	Para 3.8	This will cause land acquisition issues at some of Highlands and Islands Airports	Noted - as above.
6	General	Para 3.8	The insertion of the former NOTAL content is noted as a positive improvement to guidance.	Noted.
7	General	Para 3.8.1	Suggest that the blast pad/runway ends relevant paint markings are re-iterated here, plus a drawing to support or reference to the drawing elsewhere.	Not accepted - visual aids are prescribed in Chapter 7. Additionally, they have been removed, as ICAO has not adopted them.
8	General	Para 4.3.3	This has no impact at our aerodrome, hence no comment made. Consistency with ICAO Annex 14 is supported.	Noted.
9	General	Para 4.3.3	Consistency with ICAO Annex 14 is supported.	Noted.
10	General	Para 4.3.3	Consistency with ICAO Annex 14 is supported.	Noted.
11	Technical	Para 4.3.3	ICAO states 'wherever practicable' This needs to be added to the text	Noted - the UK acceptance of different circumstances is permitted through the inclusion of the paragraph relating to runways in the bottom third of code number 3. This has been retained with minor modification.
12	Technical	Para 4.3.3	This will cause land acquisition issues at some of Highlands and Islands Airports	Noted - see comment 11 above.
13	Technical	Para 4.3.3	This will increase the number of obstacles in the strip	Noted - see comment 11 above.
14	General	Para 4.3.3	No impact at EMA, no comment to make. Consistency with ICAO Annex 14 is supported.	Noted.

15		Para 4.3.3	A common rationale through this document is: 'Consistency with ICAO Annex 14'. However, there are at present many filed differences to ICAO Annex 14. These differences have been established for decades and are based on sound operational use. Changes to CAP 168 should be based on a safety case detailing why these differences are now no longer safe. Changes should not be based on an arbitrary requirement to harmonise CAP 168 with Annex 14, and, certainly not be based on possible future requirements by EASA.	Noted.
16	General	Para 4.5.1	No comment.	Noted.
17	General	Para 4.5.1	No comment.	Noted.
18	General	Para 4.5.1	No comment.	Noted.
19	General	Para 4.5.1	No comment.	Noted.
20	Technical	Para 4.5.1	Please confirm that 'Jet inlet forces' means the same as 'Jet blast'? If not jet blast then please clarify what effects jet inlet forces may have on the area before the threshold.	Accepted - text amended to include jet blast.
21	Technical	Para 7.7.2	This would be nearly impossible to achieve at airports with end on taxiways and displaced thresholds without major works. Further consultation required.	Accepted - this change requires significant review. Not to be included in this amendment.
22	Technical	Para 7.2.2	A grammatical improvement should be made by inserting a full stop after "curves" on line 5. In the new text, reference is made using the word "fillet", though this is not explained above. This could be added after "curves" on line 5, such as "to provide a pavement design feature referred to as a fillet".	Accepted - this change requires significant review. Not to be included in this amendment.

23	Technical	Para 7.7.2	<p>This proposal has potential to have a very significant impact on aerodromes with displaced thresholds. We would consider that this change warrants a Regulatory Impact Assessment and should have been included as a specific question in the consultation as described earlier.</p> <p>Notwithstanding this, we recognise the desirable need to align with ICAO guidance and are supportive of this in principle. However, it is noted that the proposal is not specified as an ICAO Standard, but as guidance. The Standard requires that an aircraft at a runway-holding position does not infringe the OFZ.</p> <p>In summary, we strongly recommend that this proposal is subject to further consultation and assessment before being included in CAP 168.</p>	Accepted - this change requires significant review. Not to be included in this amendment.
24	Technical	Para 7.7.2	<p>The likely cost of achieving compliance with the proposal to remove aircraft hold points from approach surfaces would, if achievable, be significant and at the very least comprise Civil engineering works, Electrical works, AGL control software alterations and line markings.</p> <p>In addition, a major impact would be the long-term effect on Runway Capacity resulting from moving the holds further back from the Runway and increased congestion on taxiway systems.</p> <p>As far as is known, operations have not adversely been affected with hold points at the current distances and have not suffered any adverse safety events. Is there any incident data to support the proposal?</p>	Accepted - this change requires significant review. Not to be included in this amendment.
25	Technical	Para 7.2.2	<p>A grammatical improvement should be made by inserting a full stop after “curves” on line 5. In the new text, reference is made using the word “fillet”, though this is not explained above. This could be added after “curves” on line 5, such as “to provide a pavement design feature referred to as a fillet”.</p>	Noted - this change requires significant review. Not to be included in this amendment.

26	Technical	Para 7.7.2	<p>This proposal has potential to have a very significant impact on aerodromes with displaced thresholds. We would consider that this change warrants a Regulatory Impact Assessment and should have been included as a specific question in the consultation as described earlier.</p> <p>Notwithstanding this, we recognise the desirable need to align with ICAO guidance and are supportive of this in principle. However, it is noted that the proposal is not specified as an ICAO Standard, but as guidance. The Standard requires that an aircraft at a runway-holding position does not infringe the OFZ.</p> <p>In summary, we strongly recommend that this proposal is subject to further consultation and assessment before being included in CAP 168.</p>	Accepted - this change requires significant review. Not to be included in this amendment.
27	Technical	Para 7.7.2	<p>The likely cost of achieving compliance with the proposal to remove aircraft hold points from approach surfaces would, if achievable, be significant and at the very least comprise Civil engineering works, Electrical works, AGL control software alterations and line markings.</p> <p>In addition, a major impact would be the long-term effect on Runway Capacity resulting from moving the holds further back from the Runway and increased congestion on taxiway systems.</p> <p>As far as is known, operations have not adversely been affected with hold points at the current distances and have not suffered any adverse safety events. Is there any incident data to support the proposal?</p>	Accepted - this change requires significant review. Not to be included in this amendment.
28	Technical	Para 7.7.2	<p>The changes to AGL and taxiway configurations would be extremely costly for what benefit?</p>	Accepted - this change requires significant review. Not to be included in this amendment.
29	Technical	Para 7.7.2	<p>ICAO states that an aircraft at a holding point does not infringe the OFZ.</p>	Accepted - this change requires significant review. Not to be included in this amendment.

30	Technical	Para 7.2.2	Inserting a full stop after “curves” on line 5 would make a grammatical improvement. In the new text, reference is made using the word “fillet”, though this is not explained. This could be added after “curves” on line 5, for example; “to provide a pavement design feature referred to as a fillet”.	Noted - this change requires significant review. Not to be included in this amendment.
31	Technical	Para 7.7.2	This proposal has potential to have a very significant impact on aerodromes with displaced thresholds. We would consider that this change warrants a Regulatory Impact Assessment and should have been included as a specific question in the consultation as described on the separate form for response to Questions. Notwithstanding this, we recognise the desirable need to align with ICAO guidance and are supportive of this in principle. In this respect, we would propose that the requirement should be considered for all future design on aerodromes, but not applied retrospectively. We also note that the proposal is not specified as an ICAO Standard, but as guidance. The Standard requires that an aircraft at a runway-holding position does not infringe the OFZ. In summary, we would strongly urge that this proposal is subject to further assessment before being included in CAP 168.	Accepted - this change requires significant review. Not to be included in this amendment.
32	Technical	Para 7.2.2	Reference is made using the word “fillet”, no explanation given. One could be added after “curves” on line 5, i.e. “to provide a pavement design feature referred to as a fillet”.	Noted - this change requires significant review. Not to be included in this amendment.

33	Technical	Para 7.7.2	<p>This is a very broad brush statement. The first point, any large aircraft will effect the ILS localiser signal, although flight checking will ensure that such interference is not unacceptable. This paragraph will actually mean many holding points should be moved a considerable unspecified distance away from the sensitive area. At EMA the main parallel taxiway should, according to this paragraph, be taken out of service.</p> <p>Secondly, where there is an ILS, most Cat 1 holding points are on the edge of the cleared and graded area but within the ILS sensitive area. At EMA all cat 1 taxiway holding positions would have to be taken out of service. Without holding areas there would be no method of tactically changing the departure order.</p> <p>Thirdly, there are a large number of airports with displaced runways will find that the holding points giving access to the start of roll position would be unusable. This means all aircraft requiring a full length departure would either have to line up from a remote holding point or backtrack. Both will reduce runway capacity and increase the use of conditional clearances.</p> <p>At EMA we would have to remove all Cat 1 holding points, use Alpha 2 as the main access for runway 27 departures. For 09, we would loose Foxtrot taxiway and all holding points west of A9. All departures would have to depart from H1 and backtrack. Loosing foxtrot means our main freight apron would have only one taxiway entrance, Juliet, but holding at H1 would block access through Juliet.</p>	Accepted - this change requires significant review. Not to be included in this amendment.
34	Technical	Cont....	<p>In a nutshell we could only comply with this paragraph by almost completely closing our west apron freight operation. The operational impact of removing Cat 1 holding points at EMA would be severe.</p>	Accepted - this change requires significant review. Not to be included in this amendment.

35	Technical	Para 7.7.2	<p>This proposed change will have a major impact at most BAA airports, including Heathrow, Gatwick, Stansted, Edinburgh and Glasgow which feature one or more displaced thresholds, this is likely to be repeated at other single runway UK airports.</p> <p>Taxiway holds at all BAA airports are positioned in accordance with the current guidance in CAP168, which places aircraft outside of the Obstacle Free Zone. This guidance applies whether the hold is before a displaced threshold or after a threshold, there is no distinction made in CAP168. The proposed amendment to CAP168 would class aircraft on some parallel taxiways and holds before displaced thresholds as infringements of the approach surface. There is no indication of the timescale for the implementation of this new guidance, but any retrospective changes required as a result of this proposed amendment would reduce runway capacity and increase taxiway congestion. This is because many holding points would need to be relocated further from the runway increasing the time for aircraft to line up, effectively increasing runway occupancy time and reducing the runway capacity. The relocated holds will reduce the length of taxiways available for aircraft queuing before the holds and may increase congestion as these queues will extend further back into the taxiway system. We propose to supply examples of this impact for Gatwick Airport where runway capacity gains achieved over a number of years could be eroded by this proposed amendment.</p>	Accepted - this change requires significant review. Not to be included in this amendment.
----	-----------	------------	--	---

36	Technical	Cont...	<p>In addition to the impact on current runways, most of the new runways designed by BAA in response to Government policy on aviation as set out in the <i>Air Transport White Paper (ATWP) 'The Future of Air Transport'</i> feature displaced thresholds. Displaced thresholds have been introduced on these planned future runways to reflect constraints imposed by terrain or major infrastructure, such as trunk roads, motorways and rail lines or to lessen the blight on local communities from aircraft noise. It may be difficult to deliver effective usable future runways at some locations without the use of displaced thresholds.</p> <p>Whilst we understand the desire to make CAP168 consistent with ICAO Annex 14 Volume I, we believe that the guidance given in Annex 14 Volume I is ambiguous and should be reviewed before being adopted in the UK. Chapter 3, Table 3.2 indicates that Obstacle Free Zone has been used to decide the position of Category I, II or III holds. Chapter 3, paragraph 3.12.3 states that; <i>"A runway-holding position shall be established on a taxiway if the location or alignment of the taxiway is such that a taxiing aircraft or vehicle can infringe an obstacle limitation surface or interfere with the operation of radio navigation aids."</i> This paragraph directly conflicts with Table 3.2 as aircraft holding at distance specified in this table would conflict with the Transitional Surface, one of the obstacle limitation surfaces. Paragraph 3.12.9 introduces specific reference to the <i>"obstacle free zone, approach surface, take-off climb surface"</i> and refers back to paragraph 3.12.3 which, if complied with, would have already resulted in a hold which</p>	Accepted - this change requires significant review. Not to be included in this amendment.
----	-----------	---------	--	---

37	Technical	Cont....	<p>would not introduce an infringement of the approach or take-off climb surfaces, these both being part of the obstacle limitation surfaces referred to in paragraph 3.12.3.</p> <p>During the design of the Stansted G2 Airport Project the content of <i>PANS OPS, Volume II (Doc 8168-OPS/611), Chapter 21 ILS</i> and the <i>Manual on the use of the collision risk model for ILS operations (ICAO Doc 9274)</i> was discussed with CAA/SRG. The apparent conflict with the guidance in Annex 14 and these documents was recognised by BAA and CAA. We believe this guidance casts further doubt on the relevance of the guidance in Annex 14 which forms the basis of the proposed amendment to CAP168.</p> <p>BAA believes that before implementing this proposed amendment the impact upon current and planned future UK airports should be fully investigated. Any such investigation should consider as a minimum the following;</p> <ul style="list-style-type: none"> <li>• the level of risk resulting from a holding or taxiing aircraft infringing an approach surface versus one which does not, benchmarked against the target level of safety in relevant PANS OPS or ICAO documents</li> </ul> <p>whether avoidance of the obstacle free zone or the obstacle limitation surfaces is the most appropriate criteria in locating holding points (recognising that aircraft routinely infringe the transitional surface whilst on parallel taxiway set at the required separation from a runway)</p>	Accepted - this change requires significant review. Not to be included in this amendment.
----	-----------	----------	---	---

38	Technical	Cont....	<ul style="list-style-type: none"> <li>• the operational history of holding aircraft infringing the approach surfaces at UK airports</li> <li>• the consequences of moving holds in terms of cost, capacity, and other operational or environmental issues</li> </ul>	Accepted - this change requires significant review. Not to be included in this amendment.
39 - 41	Technical	Para 7.7.2	<p>This proposal would be unacceptable to Birmingham International Airport and would have significant impact on our current and future operations, without providing any obvious benefit.</p> <p>However, of far greater concern would be the impact of achieving compliance with the proposals which would involve moving the primary Hold for Runway 33 approximately 40m further back from its current location, and that serving Runway 15 an even greater distance. This would significantly affect Runway Capacity now, and create an even greater reduction in Runway capacity in the future ..</p> <p>The existing holds have been operated in there current position for many years without incident, perfectly safely, and we see no justifiable reason to change when such a significant impact would result. The holds themselves are not obstacles and the aircraft at the holds are only temporary by virtue of their reason for being there.</p> <p>Air Traffic Control have indicated that by increasing the line-up time for aircraft, and in particular wide-bodied aircraft, separation minima in use at Birmingham would almost certainly have to be increased, further limiting capacity.</p>	Accepted – this change requires significant review. Not to be included in this amendment.

42	Technical	Para 7.8.1	<p>While the Taxiway separation/object clearance will change for Codes A, B, C, D and F there are no proposed changes to the taxiway width or to the outer edge of main gear to taxiway edge clearances.</p> <p>Will taxiway fillets constructed today be unaffected by the proposals, whilst taxiway c/l to object clearances will be affected?</p> <p>Are you envisaging any changes to taxiway widths/fillet sizes as a result of these proposals?</p>	Noted - there are no changes to taxiway width requirements. This will apply only to new construction dated after the publication of this amendment to CAP 168.
43	Technical	Para 7.8.1	<p>Increase in wingtip clearance dimensions to code B taxiways / taxilanes. Has an assessment been made as to what the impact will be?</p> <p>At AAL this will result in building onto the side of a taxiway or losing 4 parking stands.</p>	Noted - formal assessment has not been made, as this will apply only to new construction dated after the publication of this amendment to CAP 168.
44	General	Para 7.8.1, Table 3.4	<p>It is not clear whether the proposed revision includes the removal of paragraph 7.8.2. Could the last two lines of para 7.8.2 be added to para 7.8.1 instead?</p> <p>As per our response to Question 1, we are supportive of the proposed changes that align with ICAO.</p>	Noted - no change to paragraph 7.8.2 is considered necessary. It provides a potential benefit to aerodromes.
45	General	Para 7.8.1 Table 3.4	<p>It is not clear whether the proposed revision includes the removal of paragraph 7.8.2. Could the last two lines of para 7.8.2 be added to para 7.8.1 instead?</p> <p>As per our response to Question 1, we are supportive of the proposed changes that align with ICAO.</p>	Noted - see comment number 44.
46	General	Para 7.8.1 Table 3.4	<p>Table 3.4, the rationale should not be based on bringing the UK requirements in line with ICAO and possible future EASA taxiway minimum separation distances. Changes to this table should be based on a detailed safety study and only changed if safety implications are identified.</p>	Not accepted - the requirements of ICAO have been determined by safety analysis. The provisions in paragraph 7.8.2 remain.
47	Editorial	Para 7.8.1 Table 3.4	No units of measurement defined!	Accepted - unit of measurement (metres) included.

48	General	Para 7.8.1 Table 3.4	It is not clear whether the proposed revision includes the removal of paragraph 7.8.2. Could the last two lines of para 7.8.2 be added to para 7.8.1 instead? Addition of, or reference to Table 1.4 and Figure 1.4 from ICAO Aerodrome Design Manual Part 2 would provide rationale behind proposed change and enable separation distance formula to be better used and understood. As per Question 1 response the proposed changes that align with ICAO are supported.	Noted - no change to paragraph 7.8.2 is considered necessary. It provides a potential benefit to aerodromes. Additionally, the rationale for the change has been provided.
49	General	Para 7.8.1	It is not clear whether the proposed revision includes the removal of paragraph 7.8.2. Could the last two lines of para 7.8.2 be added to para 7.8.1 instead? As per our response to Question 1, we are supportive of the proposed changes that align with ICAO.	Noted - see comment number 48.
50	General	Para 7.10.3	Good additional guidance.	Noted.
51	General	Para 7.10.3	Good additional guidance.	Noted.
52	General	Para 7.10.3	Good additional guidance.	Noted.
53	General	Para 7.10.3	Good additional guidance.	Noted.
54	General	Para 9.2.1	Consistency with ICAO Annex 14 is supported.	Noted.
55	Technical	Para 9.2.1	This has implications for smaller airports where the runway strips are only 30m or 40m either side of centreline. ie the clearway width would be wider than the strips!!	Accepted - text amended - width to be that of the visual strip or 75m, whichever is the lesser.
56	General	Para 9.2.1	Consistency with ICAO Annex 14 is supported.	Noted.
57	General	Para 9.2.1	Consistency with ICAO Annex 14 is supported.	Noted.
58	General	Para 9.2.1	Consistency with ICAO Annex 14 is supported.	Noted.

59	Technical	Para 9.2.1	For the same reason as above the provisions of the Supplement to Annex 14 should be included to allow for a 105m strip. The ICAO provision makes perfect sense for the non-precision runways defined; ie smaller minor airports, where it is sometimes not possible to have a 150m strip. In the Australian CAA document Manual of Standards Part 139 – Aerodromes published January 2008 a common sense approach seems to have been made to this subject. It accounts for the fact that one size certainly does not fit all. See Part 139 section 6.2.15 onwards. The application of standards applicable where large passenger carrying aircraft are operating should not necessarily be forced on minor aerodromes. This could be greatly to the detriment of the network of principally GA aerodromes in this country which need to be maintained. If the 150 metre strip gives sufficient safety for the A340 or B747 then a 105m strip will give the equivalent level of safety for smaller aircraft operating in the lower Code 3 range.	Not accepted - the Annex 14 Supplement addresses only the width of the graded areas of the runway strip, not the strip width itself.
60	General	Para 9.4	Consistency with ICAO Annex 14 is supported.	Noted.
61	General	Para 9.4	No impact at this aerodrome so no further comment. Consistency with ICAO Annex 14 is supported	Noted.
62	General	Para 9.4	Consistency with ICAO Annex 14 is supported.	Noted.
63	General	Para 9.4	No impact at EMA so no further comment. Consistency with ICAO Annex 14 is supported.	Noted.

64	Technical	Para 9.4 (see 9.4.2)	Both of these proposed changes only remove the steeper slope for the clearways associated with Code 1 or 2 runways, they do not bring the guidance in CAP168 in line with that in Annex 14. Annex 14 does not describe a Horizontal Plane Clearway or Runway Continued Plane Clearway, and we believe that this is an opportunity to reconsider the continued inclusion in CAP168 of these additional requirements which are not deemed necessary by ICAO. If the safety benefits of these additional requirements can be demonstrated then we suggest that these should be tabled to ICAO for inclusion in Annex 14, if however these cannot be proven then we believe they should be removed to bring CAP168 fully into compliance with Annex 14, not partially, as currently proposed.	Partially accepted - this amendment does not propose a change to the requirement for the type of clearway, only to the slope requirements. However, the comment relating to codes 1 and 2 runways is accepted and slope requirements will be reinstated.
65	Technical	Para 9.4.1.4	Topographical surveys will be required to assess impact on declared clearways	Noted - existing slopes retained.
66	General	Para 9.4.2	Consistency with ICAO Annex 14 is supported.	Noted.
67	General	Para 9.4.2	No impact at this aerodrome, so no further comment. Consistency with ICAO Annex 14 is supported.	Noted.
68	General	Para 9.4.2	Consistency with ICAO Annex 14 is supported.	Noted.
69	General	Para 9.4.2	No impact at EMA so no further comment. Consistency with ICAO Annex 14 is supported.	Noted.

70		Para 9.4.2	Both of these proposed changes only remove the steeper slope for the clearways associated with Code 1 or 2 runways, they do not bring the guidance in CAP168 in line with that in Annex14. Annex 14 does not describe a Horizontal Plane Clearway or Runway Continued Plane Clearway, and we believe that this is an opportunity to reconsider the continued inclusion in CAP168 of these additional requirements which are not deemed necessary by ICAO. If the safety benefits of these additional requirements can be demonstrated then we suggest that these should be tabled to ICAO for inclusion in Annex 14, if however these cannot be proven the we believe they should be removed to bring CAP168 fully into compliance with Annex 14, not partially, as currently proposed.	Accepted - existing slopes retained.
71	Technical	Para 9.4.2.1	Topographical surveys will be required to assess impact on declared clearways	Accepted - existing slopes retained.
72	Editorial	Para 9.4.2.1	For standardisation with rest of Chapter, should 1.25% read '1.25% (1:80)'	Accepted - text amended.
73	General	Para 11.3.3	No comment.	Noted.
74	General	Para 11.3.3	No comment	Noted.
75	General	Para 11.3.3	No comment.	Noted.
76	General	Para 11.3.3	No comment	Noted.
77	Technical	Appendix 3A Para 4.1.1	Does BBA fall into this category?	Noted - aerodromes should determine whether materials selected meet these requirements.

78		Appendix 3A Para 4.1.1	<p>This should be read in context with our response to the consultation on CAP 683 (Chapter 2 – general comment).</p> <p>A clear description of the engineering and friction features of macro and micro texture is welcome, perhaps aided by diagrams (FAA Advisory Circular is a good example). Addition of Polished Stone Value (PSV) could also be considered.</p> <p>On line 8, “texture” should be more closely defined as macro texture.</p> <p>Reference should also be made to CAP 683, or conversely to this Appendix within the relevant Chapter of CAP 683.</p> <p>The new text could be grammatically improved; “A design requirement for a new surface may include other materials that provide the necessary characteristics of friction DOL and offer at least 1mm Macro texture depth”.</p> <p>We recognise and support this provision to allow for the use of new innovative pavement materials.</p>	Accepted in part - major recast of Appendix taking comments into account.
79		Appendix 3A para 4.1.1	<p>This should be read in context with our response to the consultation on CAP 683 (Chapter 2 – general comment).</p> <p>A clear description of the engineering and friction features of macro and micro texture is welcome, perhaps aided by diagrams (FAA Advisory Circular is a good example). Addition of Polished Stone Value (PSV) could also be considered.</p> <p>On line 8, “texture” should be more closely defined as macro texture.</p> <p>Reference should also be made to CAP 683, or conversely to this Appendix within the relevant Chapter of CAP 683.</p> <p>The new text could be grammatically improved; “A design requirement for a new surface may include other materials that provide the necessary characteristics of friction DOL and offer at least 1mm Macro texture depth”.</p> <p>We recognise and support this provision to allow for the use of new innovative pavement materials.</p>	Accepted in part - major recast of Appendix taking comments into account.

80		Appendix 3A Para 4.1.1	<p>A clear description of the engineering and friction features of macro and micro texture is welcomed, could be aided by diagrams (FAA Advisory Circular is a good example). Addition of Polished Stone Value (PSV) could also be considered.</p> <p>On line 8, "texture" should be more closely defined as macro texture.</p> <p>Reference should also be made to CAP 683, or conversely to this Appendix within the relevant Chapter of CAP 683.</p> <p>The new text could be grammatically improved; "A design requirement for a new surface may include other materials that provide the necessary characteristics of friction DOL and offer at least 1mm Macro texture depth".</p> <p>The provision to allow for the use of new innovative pavement materials is supported.</p>	Accepted in part - major recast of Appendix taking comments into account.
81		Appendix 3A, para 4.3.1	As above, a clear definition of the terms macro and micro texture is required, possibly aided by a diagram. A better explanation of the calculation is also needed in order to make sense.	Accepted in part - major recast of Appendix taking comments into account.
82		Appendix 3A Para 4.3.1	As above, a clear definition of the terms macro and micro texture is required, possibly aided by a diagram. A better explanation of the calculation is also needed in order to make sense.	Accepted in part - major recast of Appendix taking comments into account.
83		Appendix 3A Para 4.3.1	This is very specific and does not allow for possible new developments	Not Accepted - previous para limited design to only 3 x 3mm. New wording allows more flexibility.

84		Appendix 3A Para 4.3.1	<p>This should be read in context with our response to the consultation on CAP 683 (Chapter 2 – general comment).</p> <p>We welcome a clear description of the engineering and friction features of macro and micro texture, perhaps aided by diagrams (FAA Advisory Circular is a good example). Addition of Polished Stone Value (PSV) could also be considered.</p> <p>On line 8, “texture” should be more closely defined as macro texture.</p> <p>Reference should also be made to CAP 683, or conversely to this Appendix within the relevant Chapter of CAP 683.</p> <p>The new text could be grammatically improved; “A design requirement for a new surface may include other materials that provide the necessary characteristics of friction DOL and offer at least 1mm Macro texture depth”.</p> <p>We recognise and support this provision to allow for the use of new innovative pavement materials.</p>	Accepted in part - major recast of Appendix taking comments into account.
85		Appendix 3A Para 4.3.1	As above, a clear definition of the terms macro and micro texture is required, possibly aided by a diagram. A better explanation of the calculation is also needed in order to make sense.	Accepted in part - major recast of Appendix taking comments into account.
86		Appendix 3A Para 4.3.1	Suggest the inclusion of ‘/’ or ‘divided by’ in between ‘(3x3)’ and ‘(25)’	Accepted - figures removed.
87	Editorial	Appendix 3A Para 5.2	This appears to be a drafting error. Assuming it should only read as per the first sentence, this is satisfactory.	Accepted - text amended.
88	Editorial	Appendix 3A Para 5.2	This appears to be a drafting error. Assuming it should only read as per the first sentence, this is satisfactory.	Accepted - text amended.
89	Editorial	Appendix 3A, para 5.2	This appears to be a drafting error. Assuming it should only read as per the first sentence, this is satisfactory.	Accepted - text amended.
90	Editorial	Appendix 3A Para 5.2	This appears to be a drafting error. Assuming it should only read as per the first sentence, this is satisfactory.	Accepted - text amended.

91	Editorial	Appendix 3A Para 5.2	Duplicated sentence?	Accepted - text amended.
92		Appendix 3D, Para 5.4.1(b)	The additional text is positive advice.	Noted.
93		Appendix 3D Para 5.4.1	There are not too many new vehicles without some form of ABS. Does this mean at some point we will be getting into specially manufactured vehicles?	Accepted - additional guidance concerning ABS added.
94	General	Appendix 3D Para 5.4.1(b)	The additional text is positive advice.	Noted.
95	General	Appendix 3D Para 5.4.1(b)	The additional text is positive advice.	Noted.
96	General	Appendix 3D Para 5.4.1(b)	The additional text is positive advice.	Noted.
97	General	Appendix 3D Para 8	We would propose that the words “arrangements for” on line 4 is replaced with the words “provision of equipment”. This is to avoid the interpretation of “arrangements” that could be seen as including drainage, treatment or fixed facilities are required	Accepted - text amended by replacing “arrangements” with “facilities”, which gives more flexibility in interpretation than equipment.
98	General	Appendix 3D Para 8	We would propose that the words “arrangements for” on line 4 is replaced with the words “provision of equipment”. This is to avoid the interpretation of “arrangements” that could be seen as including drainage, treatment or fixed facilities are required.	Accepted - text amended by replacing “arrangements” with “facilities”, which gives more flexibility in interpretation than equipment.
99	General	Appendix 3D Para 8	Arrangements for the provision of de-icing/anti-icing equipment are between the airline and their ground handler only.	Accepted - text amended by replacing “arrangements” with “facilities”, which gives more flexibility in interpretation than equipment.
100	General	Appendix 3D 8.1	Cannot see why this should an aerodrome responsibility, as it is an airline responsibility under their own JAR-Ops requirements	Noted - ICAO Annex 14 includes a Recommended Practice that facilities be provided.
101	General	Appendix 3D 8.1	ICAO reference states - aeroplane de-icing/anti-icing facilities should be provided at aerodromes where icing conditions are expected to occur - this needs to be added	Accepted - text amended.
102	General	Appendix 3D 8.1	ICAO does not define ownership	Noted - text includes reference to aerodrome participation.

103	General	Appendix 3D 8.1	<p>The wording is such that there is potential for a/c operators to assume that aerodrome licence holders (ALHs) are responsible for <b>providing</b> the aircraft anti/de icing facilities.</p> <p>Suggest further clarification to identify where responsibility lies.</p> <p>A/c operators and service providers enter into contractual agreement regarding this provision, just as they do in other areas such as catering, cleaning and baggage handling. ALHs provide infrastructure and approve licences to operate airside which include all of the above provisions.</p>	Accepted - text amended.
104	General	Appendix 3D, para 8	<p>We would propose that the words “arrangements for” on line 4 is replaced with the words “provision of equipment”. This is to avoid the interpretation of “arrangements” that could be seen as including drainage, treatment or fixed facilities are required.</p>	Accepted - text amended by replacing ‘arrangements’ with ‘facilities’, which gives more flexibility in interpretation than equipment.
104A	General	Para 8.1	<p>Amendment to the proposed text to read:-          “The licence holder should also ensure that where necessary, <b>facility</b> arrangements for the de-icing / anti-icing of aircraft are provided ...”</p> <p>The current wording could also give indication that de-icing / anti-icing process and de-icing / anti-icing equipment should also be provided.</p> <p>This amendment would bring into line the proposed text with the current ICAO requirements “Aeroplane de-icing / anti-icing facilities should be provided at an aerodrome where icing conditions are expected to occur”.</p>	Accepted - text amended by replacing ‘arrangements’ with ‘facilities’, which gives more flexibility in interpretation than equipment.

105	General	Appendix 3F Para 3.1	<p>QinetiQ believes that the CAA should adopt a more progressive approach to amending paragraph 3.1 on runway inspections than that proposed. Regulation on FOD detection needs to recognise the development of automated FOD detection technology, the benefits offered by this technology and the growing market for this technology. QinetiQ proposes amending this paragraph to recognise automatic FOD detection technology as equivalent to standard visual inspections of runways. This can help airport operators deploying this technology better use runways, boost capacity and reduce operations costs without compelling other operators to deploy the technology.</p>	<p>Noted - the CAA recognises the benefits available from FOD detection and other technologies to enhance the aerodrome inspection regime; however, it sees such systems supporting, but not necessarily replacing, movement area inspections, which identify items which cannot be highlighted by such systems, e.g. broken light fittings or surface contamination.</p>
-----	---------	-------------------------	---	---

106	General	Appendix 3F Para 3.1	<p>In recent years, QinetiQ and a number of other companies have brought to market systems designed to automatically detect foreign object debris (FOD) on runways. Automatic FOD detection technology has proven superior to visual inspections of runways. Automatic FOD detection technology is constant and is unaffected by aircraft movements. It is able to detect smaller FOD threats and facilitate faster removal of these threats. Automatic FOD detection technology enhances runway safety and reduces the cost of FOD damage.</p> <p>QinetiQ's <i>Tarsier</i> system, with its combination of millimetre wave radar, digital signal processing and high resolution camera system, has proven highly effective in detecting FOD on runways. The system has proven popular with airport operators and is currently deployed at leading international airports such as London Heathrow, Dubai, and Vancouver International.</p> <p>Automatic FOD detection is first and foremost a safety innovation. However, the technology offers airport operators additional capacity benefits. It speeds FOD detection and removal, minimising any interruption to runway use. These capacity benefits could be increased if automatic FOD detection technology was considered equivalent to certain visual inspections in regulation and airport operators were permitted to reduce visual inspections. Fewer visual inspections mean fewer interruptions to runway usage and help maximise capacity. Reducing visual inspections also helps airport operators cut operating costs.</p>	Noted - see response to comment number 105.
-----	---------	-------------------------	---	---

106		Cont...	QinetiQ advocates amending paragraph 3.1 on runway inspections to recognising automatic FOD detection technology as equivalent to visual inspections. This would allow airport operators deploying this technology the option of reducing daily visual inspections. This would not change current practices for airport operators without the technology nor compel these operators to deploy the technology. QinetiQ sees this as smart regulation.	
107	General	Appendix 3F Para 3.1	Consistency with ICAO Annex 14 is supported.	Noted.
108	General	Appendix 3F Para 3.1	QinetiQ strongly encourages the CAA to use the review of CAP 168 to advance UK regulation on runway inspections and demonstrate a considered and responsive approach to regulating for safety.	Noted - see response to comment 105.
109	General	Appendix 3F Para 3.1	Consistency with ICAO Annex 14 is supported.	Noted.
110	General	Appendix 3F Para 3.1	Consistency with ICAO Annex 14 is supported.	Noted.
111	General	Appendix 3F Para 3.1	Consistency with ICAO Annex 14 is supported.	Noted.
112	General	Appendix 3F Para 3.1	Suggest replace 'they' with 'the inspections'.	Accepted - text amended.
113	General	NOTES	When can we expect a CAP (Light) to cover "Special Category" aerodromes?	Noted - CAP 168 (Light) is currently being developed.
114	General	NOTES	No other comments about the consultation document	Noted.

**CAP 168 – Chapter 4**

<b>No.</b>	<b>Type of Comment (General, technical, editorial)</b>	<b>Part / Section / Para / Sub para</b>	<b>Comment</b>	<b>CAA Comment</b>
1	General	Paras 6.4, 7.2, 703	<p>These paragraphs collectively determine the height and extent of the Outer Horizontal Surface. Where it exists the Outer Horizontal Surface has a height of 150 metres for all runway configurations except one.</p> <p>A visual runway having a length between 1100 and 1199 metres has an OHS height of 100 metres. If such a runway were to be lengthened the OHS height would increase to 150 metres. If it were to be shortened there would be no OHS. If the Visual runway were to be changed to an Instrument runway the OHS height would increase to 150 metres.</p> <p>This appears inconsistent, anomalous and without foundation.</p> <p>This is a situation that needs to be resolved because it is causing unnecessary safeguarding work for airports and developers.</p> <p>Ways of resolving the anomaly include:</p> <ul style="list-style-type: none"> <li>- Amending runway length defined in [7.3] from 1100m to 1200m</li> </ul> <p>Amending [6.4] to read <i>The outer limits of the conical surface are contained in a horizontal plane located 105m above the inner horizontal surface except where the code number of a runway is 1. In these cases the plane is located 35m above the Inner Horizontal Surface.</i></p>	Not accepted - changes to the OLS are not proposed as part of this consultation or change to CAP 168.
2	General	Para 12 (all parts)	Consistency with ICAO Annex 14 is supported, along with the relevant references to CAP 764 and Annex 14.	Noted.
3	General	Para 12 (all parts)	Consistency with ICAO Annex 14 is supported, along with the relevant references to CAP 764 and Annex 14.	Noted.

4	General	Para 12 (all parts)	Consistency with ICAO Annex 14 is supported, along with the relevant references to CAP 764 and Annex 14.	Noted.
5	General	Para 12	Consistency with ICAO Annex 14 is supported, along with the relevant references to CAP 764 and Annex 14.	Noted.
6	General	Paras 12.1	Will the ANO Article 133 be amended to reflect this change in definition of obstacles to be lighted or if not will 168 be applicable?	Accepted - proposed text withdrawn.
7	General	Para 12.2.2	Will the ANO Article 133 be amended to reflect this change in definition of obstacles to be lighted or if not will 168 be applicable?	Accepted - proposed text withdrawn.
8	Technical	Para 12.2.6	There is still a conflict between para 12.1.3 (obstacle over 150m require to be lit) and 12.8.1b (obstacles between 45m and 150m require to be lit)	Not accepted - 12.1.3 refers to objects whereas 12.8.1 refers to obstacles.
9	General	Para 12.9.1d	Does this mean additional lighting for all turbines?	Noted - it does not mean additional lighting for each turbine, notably when part of a wind farm. The development's operator would normally propose a lighting regime to meet the requirement. Please see CAP 764.
10	General	Para 12.9.1d	Can we insist on this, bearing in mind there is little support from within CAA to enforce the existing requirements?	Noted. Outside the requirements of CAPs 393, 764 and 168, the CAA cannot insist but experience has shown that agreement can usually be reached.
11	General	Para 12.9.1d	Who is responsible the airport or the owner?	Noted - should the wind turbine require to be lighted, the owner would be expected to light it.

12		The Outer Horizontal Surface	<p>ICAO Annex 14 does not require the provision of an outer horizontal surface and BAA has previously questioned the reason for the current requirement within CAP168. The <i>ICAO Airport Services Manual, Part 6, Control of Obstacles</i>. provides guidance on the need to provide an outer horizontal surface. If CAP168 is to be brought into line with ICAO SARPs we believe that it should reflect the guidance in this document. The outer horizontal surface specified in the above ICAO document considers structures of significance <i>“if they are both higher than 30m above local ground level, and higher than 150m above aerodrome elevation within 15000m of the centre of the airport where the runway code number is 3 or 4”</i>. CAP 168 does not make this distinction as the figure of 30m is ignored, if this was applied it would remove the limitation which the CAP168 outer horizontal surface places on development where the terrain is close to or above the level of the outer horizontal surface. An additional benefit this change would bring would be a reduction in the workload of all parties involved in discharging the responsibilities placed upon them by the Safeguarding Direction in area where it seems it may be unnecessary. BAA are prepared to work with CAA to consider adoption of ICAO guidance.</p>	Noted - this does not form part of this consultation. The offer to work together to review this is welcomed.
13	General	Para. 12	I am pleased that paragraph 12 requires wind turbines to have lights and I hope that this request will be retained in the case of special category aerodromes.	Noted.

**CAP 168 – Chapter 5**

No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1	Editorial	Para 1.2	A reference to CAP 680 still exists in Para 1.2, not shown in the consultation document as an amendment.	Accepted - text has been amended.
2	General	Para 2.1	Consistency with ICAO is supported and welcomed.	Noted.
3	General	Para 2.1	Consistency with ICAO is supported and welcomed.	Noted.
4	General	Para 2.1	Consistency with ICAO is supported and welcomed.	Noted.
5	General		No comments	Noted.
6	General	Para 2.1 (e)	Definition of 'competent'? Otherwise consistency with ICAO is supported and welcomed.	Noted - the CAA uses the dictionary definition.
7		General	If the proposal is to address all wildlife hazards as well as bird hazards by the addition of 'birdstrike or wildlife strike events' then this should be reflected in all references in this Chapter, eg. Suggest that <ul style="list-style-type: none"> <li>- Chapter could be named 'Bird and Wildlife Strike Risk Management for Aerodromes'</li> <li>- Para 1 to address wildlife</li> <li>- Para 2 could be renamed Wildlife and Bird Control Management</li> </ul> etc	Not accepted. The CAA is unable to enact changes to terminology due to consistency with CAP 392 Mandatory Occurrence Reporting Scheme, the Air Navigation Order and an EC Occurrence Reporting Directive.

**CAP 168 – Chapter 6**

<b>No.</b>	<b>Type of Comment (General, technical, editorial)</b>	<b>Part / Section / Para / Sub para</b>	<b>Comment</b>	<b>CAA Comment</b>
1	General	Para 1.1.2	No impact at this aerodrome so no further comment.	Noted.
2	General	Para 1.1.2	Noted	Noted.
3	General	Para 1.1.2	Noted.	Noted.
4	General	Para 1.1.2	The addition of the word turboprop has seriously implication for the smaller Highlands and Islands Airports if there is a recommendation to install high intensity lighting.	Not accepted - as this is only a recommendation, UK AIP AD 1.1.2 Table 4 sets out mitigations with regard to increased visibility minima to account for reduced AGL.
5	General	Para 1.1.2	No impact at EMA so no further comment.	Noted.
6	General	Table 6.1	No impact at this aerodrome so no further comment.	Noted.
7	General	Table 6.1	No impact at EMA so no further comment.	Noted.
8	General	Para 5.4.3	The additional text improves clarity.	Noted.
9	General	Para 5.4.3	The additional text improves clarity.	Noted.
10	General	Para 5.4.3	The additional text improves clarity.	Noted.
11	General	Para 5.4.3	The additional text improves clarity.	Noted.
12	General	Para 5.7.1	The additional text improves clarity and is welcomed.	Noted.
13	Technical	Para 5.7.1	There is no centreline lighting at any of the HIAL airports the implication is that all airports will have to increase their take-off minima to 400m.	Noted - take off minima is not changed by this amendment.
14	Technical	Para 5.7.1	JAR-OPs allows aircraft to take-off in less than 400m if the operators are certified to do so, regardless of lighting this raises a potential conflict.	Not accepted - this situation has existed for a number of years and no change has been made to minima.
15	General	Para 5.7.1	The additional text improves clarity and is welcomed.	Noted.
16	General	Para 5.7.1	The additional text improves clarity and is welcomed.	Noted.
17	General	Para 5.7.1	The additional text improves clarity and is welcomed.	Noted.

18	General	Para 5.7.2	The additional paragraph improves clarity, however, we would welcome further practical advice or guidance on how to prevent some dazzle when a runway is in use for both take-off and landing and the lighting is necessarily at a high brilliancy setting due to visibility conditions.	Noted - paragraph now deleted. Aerodrome Licence Holders, in partnership with their Air Navigation Service Provider (ANSP) and Operators, should develop strategies to deal with this particular circumstance.
19	General	Para 5.7.2	The additional paragraph improves clarity, however, we would welcome further practical advice or guidance on how to prevent some dazzle when a runway is in use for both take-off and landing and the lighting is necessarily at a high brilliancy setting due to visibility conditions.	Noted - paragraph now deleted. Aerodrome Licence Holders, in partnership with their ANSP and Operators, should develop strategies to deal with this particular circumstance.
20	General	Para 5.7.2	The additional paragraph improves clarity, however, we would welcome further practical advice or guidance on how to prevent some dazzle when a runway is in use for both take-off and landing and the lighting is by necessity in a high brilliancy setting due to poor visibility conditions.	Noted - paragraph now deleted. Aerodrome Licence Holders, in partnership with their ANSP and Operators, should develop strategies to deal with this particular circumstance.
21	General	Para 5.7.2	The additional paragraph improves clarity, however, further practical advice or guidance on how to prevent some dazzle when a runway is in use for both take-off and landing and the lighting is necessarily in a high brilliancy setting due to visibility conditions would be welcomed	Noted - paragraph now deleted. Aerodrome Licence Holders, in partnership with their ANSP and Operators, should develop strategies to deal with this particular circumstance.
22		Para 5.7.3	A diagram/drawing may be helpful to support this text.	Noted - however, we believe that a diagram is not required.
23	General	Para 5.7.3	The additional paragraph improves clarity.	Noted.
24	General	Para 5.7.3	The additional paragraph improves clarity.	Noted.
25	General	Para 5.7.3	The additional paragraph improves clarity.	Noted.
26	General	Para 5.7.3	The additional paragraph improves clarity.	Noted.
27	General	Para 5.9.5	Noted	Noted.
28	General	Para 5.9.5	Noted.	Noted.
29	General	Para 5.9.5	Noted.	Noted.
30	General	Para 5.9.5	Noted.	Noted.
31	General	Table 6.1	Noted.	Noted.
32	General	Table 6.1	Noted	Noted.
33	Editorial	Para 6.2.2	The text in the NPA states 'Runway' followed by a table of Taxiway C/L light spacing. Assume the reference should be 'Taxiway'?	Accepted - text amended.

34		Para 6.2.2	Please see the response to Question 4. The rationale for leaving two definitions in this respect at 350m or 400m should be examined as it is likely to lead to confusion and potential error in our view. The intended harmonisation with ICAO is noted.	Noted - to be referred to ICAO Visual Aids Working Group.
35		Para 6.2.2	Please see the response to Question 4. The rationale for leaving two definitions in this respect at 350m or 400m should be examined as it is likely to lead to confusion and potential error in our view. The intended harmonisation with ICAO is noted.	Noted - to be referred to ICAO Visual Aids Working Group.
36		Para 6.2.2	Please see the response to Question 4. The rationale for leaving two definitions in this respect at 350m or 400m should be examined as it is likely to lead to confusion and potential error in our view. The intended harmonisation with ICAO is noted.	Noted - to be referred to ICAO Visual Aids Working Group.
37		Para 6.2.2	Please see the response to Question 4. The rationale for leaving two definitions in this respect at 350m or 400m should be examined as it is likely to lead to confusion and potential error in our view. The intended harmonisation with ICAO is noted.	Noted - to be referred to ICAO Visual Aids Working Group.
38	Technical	Para 6.5.1	Where fitted should not the Runway Guard lights be on at all times regardless of visibility. It has certainly reduced runway incursions at two airports.	Partially accepted – runway guard lights should be illuminated when RVR is less than 1200m. There is nothing to prevent them being illuminated at all times.
39	Technical	Para 6.5.1	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
40	Technical	Para 6.5.1	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
41	Technical	Para 6.5.1	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
42	Technical	Para 6.5.1	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.

43		6.5.2	Delete "Runway Guard Lights should not exceed 36cms in height." This then allows RGL's to be installed on frangible mountings to comply with the requirement for frangibility as required by Appendix 6A para1.3.2 Also, a frangible mounting allows for electrical disconnection in case of aircraft/vehicle colliding with it. Currently, in the UK, RGL's are mounted flush to the floor and a collision usually results in a "squashed" fitting with the potential for exposed live electrical wires/components, sparks and eventually fire initiation.	Noted - although not addressed to the consultation, the opportunity to amend the wording has been taken.
44	Technical	Para 6.5.4	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
45	Technical	Fig 6.11.	Is this an option to what is already installed rather than a change?	Noted - this is an option, not a change, to what is already installed.
46	Technical	Para 6.11	Illustration is good. Suggest amending text to "Unit containing a pair ..." for A and "Inset unidirectional..." For B.	Accepted - should be FIG 6.11.
47	Technical	Para 6.11	Illustration is good. Suggest amending text to "Unit containing a pair ..." for A and "Inset unidirectional..." For B.	Accepted.
48	Technical	Para 6.11	Illustration is good. Suggest amending text to "Unit containing a pair ..." for A and "Inset unidirectional..." For B.	Accepted.
49	Technical	Para 6.11	Illustration is good. Suggest amending text to "Unit containing a pair ..." for A and "Inset unidirectional..." For B.	Accepted.
50	Technical	Para 6.5.4	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
51	Technical	Para 6.5.4	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.
52	Technical	Para 6.5.4	For absolute clarity and the avoidance of doubt, should this also state that the lights face away from the runway? Or add to para 6.5.2.	Accepted - new text included.

53	Technical	Para 6.6.1	HIAL had these lights installed at some airports but they were removed at CAA SRG's request. Is this a reversal of policy? CAA SRG also requested that we follow CAP 655 even though it has been withdrawn!!	Noted - scope of policy widened to include Configuration B.
54	General	Para 6.6.1	We acknowledge this improvement as it reduces potential for driver error that can lead to runway incursion.	Noted.
55	General	Para 6.6.1	We acknowledge this improvement as it reduces potential for driver error that can lead to runway incursion.	Noted.
56	General	Para 6.6.1	We acknowledge this improvement as it reduces potential for driver error that can lead to runway incursion.	Noted.
57	General	Para 6.6.1	We acknowledge this improvement as it reduces potential for driver error that can lead to runway incursion.	Noted.
58	General	Para 6.6.2	Noted	Noted.
59	General	Para 6.6.2	Noted	Noted.
60	General	Para 6.6.2	Noted.	Noted.

61	Technical	Para 6.2.2 (concerning Table 6.2)	<p>BAA accept the minimum RVR change to 350m. But we do have a significant issue with the existing Note stating that spacing may only be reduced by up to 10% to facilitate pavement design. This was introduced in a previous CAP 168 amendment - the key reason thought to be the possible increased glare on pilots if the lights are closer together. The BAA design team have worked within this constraint for some time and inform me that its application is very difficult during the "setting out" stage for project design work. Strongly recommend this note is removed (does it exist within Annex 14?). There are often situations where the application of a 7.5m spacing (or within 10% less) is very hard to achieve due to the location of joints in pavements.</p> <p>We cannot locate the AGLs too close to joints because it would weaken the pavement structure. It would be far better if, where the situation merits, if the spacing could be reduced by more than 10% (as was the case previously). Design teams are aware that there is a need to keep the number of lights to a minimum - since that would mean more lights to clean, inspect and maintain. We do not accept that having some spacings (especially on a bend) of between 5 to 6m (rather than between 6.75 and 7.5m) would "significantly" increase the glare experienced by pilots. Is there any work to verify this concern?</p>	Accepted – text to be changed to permit + or – 10%.
62	General	Para 6.6.2	Noted.	Noted.

63	Technical	Para 7.1.1	We acknowledge the proposed change and welcome the invitation to seek advice from the CAA. We would add that there has also been debate about the colour of the lights as there is a dichotomy with the rationale for blue edge lights on taxiways, where an aircraft should be able to safely manoeuvre its undercarriage. On an apron, if an aircraft manoeuvred with wheels close to the blue edge lights, there is a strong likelihood of a collision. We therefore question whether the apron edge lights should in fact be red?	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.
64	Technical	Para 7.1.1	We acknowledge the proposed change and welcome the invitation to seek advice from the CAA. We would add that there has also been debate about the colour of the lights as there is a dichotomy with the rationale for blue edge lights on taxiways, where an aircraft should be able to safely manoeuvre its undercarriage. On an apron, if an aircraft manoeuvred with wheels close to the blue edge lights, there is a strong likelihood of a collision. We therefore question whether the apron edge lights should in fact be red?	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.
65	Technical	Para 7.1.1	Does this mean that reflective markers/studs are no longer acceptable in any visibility?	Noted - these are still acceptable under certain circumstances as per para 7.1.1.
66	Technical	Para 7.1.1	The installation of blue edge lights on the apron implies that aircraft can take their wheels within 4.5m of the edge this could cause conflict with adjacent obstacles.	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.
67	Technical	Para 7.1.1	Suggest that if edge of apron is within xx m of obstruction that red edge lights are used to prevent aircraft wings coming into contact with adjacent obstacles.	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.

68	Technical	Para 7.1.1	We acknowledge the proposed change and welcome the invitation to seek advice from the CAA. We would add that there has also been debate about the colour of the lights as there is a dichotomy with the rationale for blue edge lights on taxiways, where an aircraft should be able to safely manoeuvre its undercarriage. On an apron, if an aircraft manoeuvred with wheels close to the blue edge lights, there is a strong likelihood of a collision. We therefore question whether the apron edge lights should in fact be red?	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.
69	Technical	Para 7.7.1	We acknowledge the proposed change and welcome the invitation to seek advice from the CAA. We would add that there has also been debate about the colour of the lights as there is a dichotomy with the rationale for blue edge lights on taxiways, where an aircraft should be able to safely manoeuvre its undercarriage. On an apron, if an aircraft manoeuvred with wheels close to the blue edge lights, there is a strong likelihood of a collision. We therefore question whether the apron edge lights should in fact be red?	Accepted - text will not be amended but guidance on applicability of apron and taxiway edge lighting will be provided. The CAA considers that red lights are not suitable.
70	Technical	Para 7.2.2	Acknowledged, provided that guidance will be available from the CAA as suggested in the consultation proposal for para 7.1.1.	Noted.
71	Technical	Para 7.2.2	Acknowledged, provided that guidance will be available from the CAA as suggested in the consultation proposal for para 7.1.1.	Noted.
72	Technical	Para 7.2.2	Acknowledged, provided that guidance will be available from the CAA as suggested in the consultation proposal for para 7.1.1.	Noted.
73	Technical	Para 7.2.2	Acknowledged, provided that guidance will be available from the CAA as suggested in the consultation proposal for para 7.1.1.	Noted.

74	Editorial	Para 12.3.14	Recommend that you refer to "fittings" as "light assemblies" or "AGL assemblies". In the safety context of this paragraph, the focus of this clause must not be on the removable light fitting only. Taken literally, it might be thought that the structural issues concern the light fittings only. This is far from the reality BAA have experienced. The structural problem could be associated with blanking plates (so there is no "fitting" at all), adapter rings or the integrity of the surrounding grout and pavement. It is crucial that any inspection regime includes these parts of a typical "AGL assembly". The wording should not imply the issue solely rests with the light fitting itself. (Perhaps the term to be used, requires a slot in the Glossary to ensure there is no misunderstanding on the scope of inspections).	Accepted - text amended.
75	General	Para 12.3.14	Dependent on the frequency determined by risk assessment, this may require more frequent visit by contractors, this may prove difficult on the Island locations where there is no on site expertise and there is total reliance on mainland expertise.	Noted - the requirement is unchanged.
76	Editorial	Para 12.3.14	In the same para (12.3.14) - next to last para... "e.g." should be "i.e."	Accepted - text amended.
77	General	Para 12.7.4	Suggest the inclusion of who to contact (CAA Aerodrome Inspector?) and what amount of notice is deemed appropriate.	Not accepted - contact and development requirements are addressed in other CAPs and NOTALs (e.g. CAPs 729 and 781).
78	Technical	Para 12.7.5	How does the Aerodrome Licence Holder ensure the competence of flight check crew?	Noted - the Aerodrome Licence Holder should satisfy himself as to the competence of flight crew, which might normally have been acquired through training or previous experience.
79	Editorial	Para 12.3.15b	Same comment as 12.3.14. (with regard to replacing the word "fitting").	Accepted - text amended.
80	General	Para 12.3.15b	Is this really essential for airports who have only one or two movements per day?	Noted - yes, risk assessment will dictate the maintenance programme.
81	General	Para 12.3.15b	Is this a visual inspection or is it more onerous?	Noted - either, depending on the risk assessment.

82	General	Para 12.7.4	Are CAA personnel likely to be available at the same time that the flight checks are scheduled to be available?	Noted - every effort would be made to ensure availability when requested should the CAA choose to participate.
83	General	Para 12.7.5	Does this mean that only persons with flight crew qualifications can carry out flight inspections?	Noted - the Aerodrome Licence Holder should satisfy himself as to the competence of flight crew and lighting inspector, which might normally have been acquired through training or previous experience.
84	General	Para 12.7.5	Does this mean that flight checks must be undertaken purely by an external body and the associated costs?	Noted - some airports have developed the competence in-house.
85	General	Para 12.7.7	Would help if we understood where this is to be applied i.e. "temporary" needs defining or reference if it already is elsewhere.	Noted - additional wording to clarify guidance inserted in paragraph.
86	General	Para 12.7.7	This is extremely onerous and expensive, it is also very difficult to achieve, particularly in remote Island locations.	Noted - additional wording to clarify guidance inserted in paragraph.
87	General	Para 12.7.7	Temporary lighting is deployed at Island locations for emergency ambulance flights usually at short notice. Is this suggesting flights checks be undertaken for this?	Noted - additional wording to clarify guidance inserted in paragraph.
88	General	Para 13.1.2	CAA SRG also requested that we follow CAP 655 even though it has been withdrawn!!	Noted - CAP 655 was deleted in consultation paragraph.
89	General	Para 13.4.2	EMC levels required for survey before new equipment installed. How many incidents have there been to ascertain if the implications of this issue?	Noted - several incidents have led to an AAIB recommendation. The text is intended to remind aerodrome operators of this when undertaking changes to the aerodrome infrastructure.

90	Technical	Figure 6A.12	Having accepted the minimum RVR change to 350m above, should this not apply to the text in Figure 6A.12 and many other similar figures? These figures often cite 400m as the minimum RVR trigger for further requirements rather than 350m. It would make the application of design criteria straighter forward if they were all harmonised 350m, unless there is a good reason not to do so. We only point out Fig 6A.12 because it is included in the amendments sheet and we noted the "400m" figure.	Accepted - text amended.
91	General	General	As a general observation, we noted many changes were as a result of Annex 14 alignment or the removal of "filing of differences".	Noted.

## CAP 168 – Chapter 7

No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1	General	Para 2.3.4	The flexibility is welcomed.	Noted.
2	General	Para 2.3.4	The flexibility is welcomed.	Noted.
3	General	Para 2.3.4	The flexibility is welcomed.	Noted.
4	General	Para 2.3.4	The flexibility is welcomed.	Noted.
5	General	Fig 7.14	No impact at aerodrome so no further comment.	Noted.
6	General	Fig 7.14	Noted	Noted.
7	General	Fig 7.14	No impact at EMA so no further comment.	Noted.
8	General	Para 3.2.7	Consistency with ICAO is supported and welcomed. However, flexibility is required for stands where it is not possible to erect a clear sign, such as stands that are drive through or self-manoeuvring. We suggest use of the term “where feasible” as used in ICAO Annex 14, Para 5.4.6.1. In addition, ICAO specifies colours to be used, which would also be welcome.	Accepted - text amended. ‘Where practicable’ to be used instead of ‘where feasible’.
9	General	Para 3.2.7	Consistency with ICAO is supported and welcomed. However, flexibility is required for stands where it is not possible to erect a clear sign, such as stands that are drive through or self-manoeuvring. We suggest use of the term “where feasible” as used in ICAO Annex 14, Para 5.4.6.1. In addition, ICAO specifies colours to be used, which would also be welcome.	See comment number 8.
10	General	Para 3.2.7	Consistency with ICAO is supported and welcomed. However, flexibility is required for stands where it is not possible to erect a clear sign, such as stands that are drive through or self-manoeuvring. We suggest use of the term “where feasible” as used in ICAO Annex 14, Para 5.4.6.1. In addition, ICAO specifies colours to be used, which would also be welcome.	See comment number 8.

11	General	Para 3.2.7	Consistency with ICAO is supported and welcomed. However, flexibility is required for stands where it is not possible to erect a clear sign, such as stands that are drive through or self-manoeuving. We suggest use of the term “where feasible” as used in ICAO Annex 14, Para 5.4.6.1. In addition, ICAO specifies colours to be used, which would also be welcome.	See comment number 8.
12	General	Para 3.2.71.	ICAO states “where feasible” - suggest adding this to the text particularly for small airports where movements rates are extremely low. Most HIAL airports are too small to achieve this.	Noted - only required where the Aerodrome Licence Holder assesses need.
13	Editorial	Para 3.3.1	Accepted. We suggest that an example is illustrated in Appendix 7A.	Accepted - drawing inserted.
14	Editorial	Para 3.3.1	Accepted. We suggest that an example is illustrated in Appendix 7A.	Accepted - drawing inserted.
15	Editorial	Para 3.3.1	Accepted. We suggest that an example is illustrated in Appendix 7A.	Accepted - drawing inserted.
16	Editorial	Para 3.3.1	Accepted. We suggest that an example is illustrated in Appendix 7A.	Accepted - drawing inserted.
17	General	Para 3.6.3	This is acknowledged, though we question the application of where green colour is used in signage.	Noted - Green is used to indicate Take-OFF and Landing (TLOF) Helideck.
18	General	Para 3.6.3	This is acknowledged, though we question the application of where green colour is used in signage.	Noted - Green is used to indicate Take-OFF and Landing (TLOF) Helideck.
19	General	Para 3.6.3	This is acknowledged, though we question the application of where green colour is used in signage.	Noted - Green is used to indicate Take-OFF and Landing (TLOF) Helideck.
20	General	Para 3.6.3	This is acknowledged, though we question the application of where green colour is used in signage.	Noted - Green is used to indicate Take-OFF and Landing (TLOF) Helideck.
21	General	Para 4.3	The insertion of the former NOTAL content is noted as a positive improvement.	Noted - requirements for blast pad markings have not been accepted by ICAO. Therefore, they will not be included in this amendment. NOTAL 1/2008 remains extant pending ICAO providing guidance.

22	General	Para 4.3	HiAL airports currently have no blast pads, is a 30m requirement essential for the type of aircraft operating out of our airports SAAB 340/Twin Otter together with extremely low frequency? Exceptions may be Inverness and Dundee.	Noted - please see CAP 168, Chapter 3, paragraph 3.8.1 which uses the term "may" rather than "must" for the provision of extra pavement. The aerodrome should determine whether additional paved surface is required.
23	General	Para 4.3	The insertion of the former NOTAL content is noted as a positive improvement.	Noted – requirements for blast pad markings have not been accepted by ICAO. Therefore, they will not be included in this amendment. NOTAL 1/2008 remains extant pending ICAO providing guidance.
24	General	Para 4.3	The insertion of the former NOTAL content is noted as a positive improvement.	Noted - requirements for blast pad markings have not been accepted by ICAO. Therefore, they will not be included in this amendment. NOTAL 1/2008 remains extant pending ICAO providing guidance.
25	Editorial	Para 4.3	Blast pad markings – would benefit from chevron markings being shown on drawing 7.22 (f).	Noted - requirements for blast pad markings have not been accepted by ICAO. Therefore, they will not be included in this amendment. NOTAL 1/2008 remains extant pending ICAO providing guidance.
26	General	Para 4.3	The insertion of the former NOTAL content is noted as a positive improvement.	Noted - requirements for blast pad markings have not been accepted by ICAO. Therefore, they will not be included in this amendment. NOTAL 1/2008 remains extant pending ICAO providing guidance.
27	General	Para 4.5.4	Noted.	Noted.
28	General	Para 4.5.4	Noted.	Noted.
29	General	Para 4.5.4	Acknowledged.	Noted.
30	General	Para 4.5.4	Acknowledged.	Noted.
31	General	Para 4.7.1	Comment only ...This could be extremely onerous. This is because in nearly all cases the route is NOT difficult to follow. As long as we understand what is meant by "where the route is difficult to follow" on the second line, we assume its application will be quite rare.	Noted - this section of text has not been changed.

32	General	Para 4.7.1	Consistency with ICAO is supported and welcomed. The dimensions stated appear to accord with those largely used in the UK at relevant aerodromes.	Noted.
33	General	Para 4.7.1	Consistency with ICAO is supported and welcomed. The dimensions stated appear to accord with those largely used in the UK at relevant aerodromes.	Noted.
34	General	Para 4.7.1	Consistency with ICAO is supported and welcomed. The dimensions stated appear to accord with those largely used in the UK at relevant aerodromes.	Noted.
35	General	Para 4.7.1	Consistency with ICAO is supported and welcomed. The dimensions stated appear to accord with those largely used in the UK at relevant aerodromes.	Noted.
36	Editorial	Para 4.7.2	Editorial: use one spelling for "centreline".	Accepted - text amended.
37	Technical	Para 4.7.2	We welcome the option to use these enhanced markings. It is noted that their effectiveness largely relies on consistent application as an international standard. With the variety of options for the lighting and marking of a runway entrance that currently exist in ICAO and other States, there is growing evidence that this leads to confusion with pilots and is a cause of runway incursions. We would support a more clear and unambiguous mandatory standard that applies to runway entrance design in ICAO, with the objective of enhancing interoperability.	Noted - the UK continues to push for consistent standards for markings internationally.
38	Technical	Para 4.7.2	Proposal does not appear to have clear benefit – the markings appear confusing and make the area around the hold very busy, particularly if combined with proposals in 4.8 (see comment below).	Noted - the CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO Standards and Recommended Practices (SARPs). The markings provide another tool that aerodromes can use to prevent runway incursions.

39	Technical	Para 4.7.2	Proposal does not appear to have clear benefit – the markings appear confusing and make the area around the hold very busy, particularly if combined with proposals in 4.8 (see comment below).	Noted - the CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO SARPs. The markings provide another tool that aerodromes can use to prevent runway incursions.
40	Technical	Para 4.7.2	We welcome the option to use these enhanced markings. It is noted that their effectiveness largely relies on consistent application as an international standard. With the variety of options for the lighting and marking of a runway entrance that currently exist in ICAO and other States, there is growing evidence that this leads to confusion with pilots and is a cause of runway incursions. We would support a more clear and unambiguous mandatory standard that applies to runway entrance design in ICAO, with the objective of enhancing interoperability.	Noted - the UK continues to push for consistent standards for markings internationally. The CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO SARPs. The markings provide another tool that aerodromes can use to prevent runway incursions.
41	Technical	Para 4.7.2	Proposal does not appear to have clear benefit – the markings appear confusing and make the area around the hold very busy, particularly if combined with proposals in 4.8 (see comment below).	Noted - the CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO SARPs. The markings provide another tool that aerodromes can use to prevent runway incursions.
42	Technical	Para 4.7.2	Is this a mandatory requirement even if there has been no history of incursions?	Noted - the text indicates that the marking may be used where necessary as part of an aerodrome's runway incursion prevention measures.

43	Technical	Para 4.7.2	We welcome the option to use these enhanced markings, which our aerodrome had previously proposed to the CAA for use, but was denied at the time. It is noted that their effectiveness largely relies on consistent application as an international standard. With the variety of options for the lighting and marking of a runway entrance that currently exist in ICAO and other States, there is growing evidence that this leads to confusion with pilots and is a potential factor in runway incursions. We would support a more clear and unambiguous mandatory standard that applies to runway entrance design in ICAO, with the objective of enhancing interoperability.	Noted - the UK continues to push for consistent standards for markings internationally.
44		Para 4.7.2	Diagram 5.2.8.6A location? Not part of current 168 and therefore should be part of this consultation process. Therefore when do the lines change from a 3m length to a 2m one?	Noted - these reflect a recently introduced ICAO requirement to help prevent runway incursions. The location is included in the NPA.
45	Technical	Para 4.7.2	Proposal does not appear to have clear benefit – the markings look confusing and make the area around the hold very busy, particularly if combined with proposals in 4.8 (see comment below)	Noted - the CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO SARPs. The markings provide another tool that aerodromes can use to prevent runway incursions.
46	Technical	Para 4.7.2	The opening sentence 'Where necessary...' infers that markings are intended to be utilised at hold points where extra conspicuity is required, however, this conflicts with the statement 'Where provided, the enhanced taxiway centre line marking shall be installed at each taxiway/runway intersection' which infers that if an Aerodrome opts to utilise the markings, they must do so at each and every hold point.	Noted - CAA policy is to install the enhanced taxiway markings only at those entrances identified where additional protection is necessary.

47	Technical	Para 4.7.2	It is noted that their effectiveness largely relies on consistent application as an international standard. With the variety of options for the lighting and marking of a runway entrance that currently exist in ICAO and other States, there is growing evidence that this leads to confusion with pilots and is a cause of runway incursions. We would support a more clear and unambiguous mandatory standard that applies to runway entrance design in ICAO, with the objective of enhancing interoperability.	Noted - the CAA believes that this requirement will clearly define the markings and conforms to forthcoming ICAO SARPs. The markings provide another tool that aerodromes can use to prevent runway incursions.
48	Technical	Para 4.8.1	Have the possible friction issues been taken into account	Noted - CAP 168 requires in Chapter 7, paragraph 4.1.3, that markings should have similar friction coefficient as the surrounding pavement.
49	Technical	Para 4.8.1	In the 3rd line of the para, shouldn't "mandatory instruction marking" be replaced with "runway designation marking"? Since we are talking about a particular marking in this clause.	Accepted - text amended to include the runway designation marking.
50	Technical	Para 4.8.1 & Para 4.8.2	Where Operationally required. As above, we welcome these enhanced markings and clarity on specification, but would observe that a consistent application is required in order to make an improvement to interoperability from the perspective of pilots. The use of a clear written warning of "Runway Ahead" appears to be a more effective runway incursion prevention message than the use of runway designation.	Noted - new policy will clearly define the markings. ICAO has not adopted the use of 'Runway Ahead'.
51	Technical	Paras 4.8.1 & 4.8.2	As above, we welcome these enhanced markings and clarity on specification, but would observe that a consistent application is required in order to make an improvement to interoperability from the perspective of pilots. We strongly feel that the previous use of a clear written warning of "Runway Ahead" was a more effective runway incursion prevention message than the use of runway designation.	Noted - new policy will clearly define the markings. ICAO has not adopted the use of 'Runway Ahead'.

52	General	Paras 4.8.1 & 4.8.2	<p>Not keen on phraseology 'where operationally required' – what does it mean?</p> <p>The idea that supplementary Instruction markings (Runway Designators) should be added to 'some' but not necessarily all, is surely counter productive to Runway Incursion safety – all the holds closest to the Runway should be identical – if only some have enhanced designators, then there is a greater risk of those without being mistaken as something other than a Runway Hold. Preference would be for a 'Runway Ahead' marking but which ever option is finally introduced should be done at all Runway holds.</p>	<p>Noted - the term is intended to indicate where an Aerodrome Licence Holder considers additional protection to be necessary. The wording is consistent with usage in ICAO Annex 14. The markings are intended to provide a consistent approach should the Local Runway Safety Team (LRST) deem them to be necessary. (ICAO wording).</p>
53	General	Paras 4.8.1 & 4.8.2	<p>As above, we welcome these enhanced markings and clarity on specification, but would observe that a consistent application is required in order to make an improvement to interoperability from the perspective of pilots. We strongly feel that the previous use of a clear written warning of "Runway Ahead" was a more effective runway incursion prevention message than the use of runway designation.</p>	<p>Noted - new policy will clearly define the markings. ICAO has not adopted the use of "Runway Ahead".</p>
54	General	Paras 4.8.1 & 4.8.2	<p>Not keen on phraseology 'where operationally required' – what does it mean?</p> <p>The idea that supplementary Instruction markings (Runway Designators) should be added to 'some' but not necessarily all, is surely counter productive to Runway Incursion safety – all the holds closest to the Runway should be identical – if only some have enhanced designators, then there is a greater risk of those without being mistaken as something other than a Runway Hold. Preference would be for a 'Runway Ahead' marking but which ever option is finally introduced should be done at all Runway holds.</p>	<p>Noted - the term is intended to indicate where an Aerodrome Licence Holder deems additional protection to be necessary. The wording is consistent with ICAO Annex 14. The markings are intended to provide a consistent approach should the LRST deem them to be necessary. (ICAO wording)</p>

55	General	Paras 4.8.1 & 4.8.2	Not keen on phraseology 'where operationally required' – what does it mean? The idea that supplementary Instruction markings (Runway Designators) should be added to 'some' but not necessarily all, is surely counter productive to Runway Incursion safety – all the holds closest to the Runway should be identical – if only some have enhanced designators, then there is a greater risk of those without being mistaken as something other than a Runway Hold. Preference would be for a 'Runway Ahead' marking but which ever option is finally introduced should be done at all Runway holds.	Noted - the term is intended to indicate where an Aerodrome Licence Holder deems additional protection to be necessary. The wording is consistent with ICAO Annex 14. The markings are intended to provide a consistent approach should the LRST deem them to be necessary. (ICAO wording)
56	Technical	Paras 4.8.1 & 4.8.2	As above, we welcome these enhanced markings and clarity on specification, but would observe that a consistent application is required in order to make an improvement to interoperability from the perspective of pilots. We strongly feel that the previous use of a clear written warning of "Runway Ahead" was a more effective runway incursion prevention message than the use of runway designation.	Noted - new policy will clearly define the markings. ICAO has not adopted the use of 'Runway Ahead'.
57	Editorial	Para 4.8.2	Same as above applies to Ch 7 para 4.8.2 in the first line. Also spelling of "centreline" in the 3rd line.	Accepted - text amended.
58	Editorial	Para 4.8.2	Last sentence begins 'On', should read 'In'.	Accepted - text amended.
59	Technical	Para 4.8.3	Calculations for a 4m character height and the Code E/F requirement for double inscription, identify that the markings will not fit across a 23m or 25m wide pavement. This needs to be recalculated and revised accordingly, taking into consideration the requirement for "L" and "R" suffixes for aerodromes with more than one runway in parallel.	Not accepted - 4m is the maximum character size and can be scaled down to 2m. See Appendix 7C para 2.

60	Technical	Para 4.8.3	Calculations for a 4m character height and the Code E/F requirement for double inscription, identify that the markings will not fit across a 23m or 25m wide pavement. This needs to be recalculated and revised accordingly, taking into consideration the requirement for “L” and “R” suffixes for aerodromes with more than one runway in parallel.	See comment number 59.
61	Technical	Para 4.8.3	Our calculations for a 4m character height and the Code E/F requirement for double inscription, show that the marking will not fit across a 23m or 25m wide pavement. This needs to be calculated and revised accordingly, taking into consideration the requirement for “L” and “R” suffixes for aerodromes with more than one runway in parallel.	See comment number 59.
62	Technical	Para 4.8.3	ICAO does state – where impracticable to install – this should be added to the text	Accepted - text amended.
63	Technical	Para 4.8.3	Calculations for a 4m character height and the Code E/F requirement for double inscription, identify that the markings will not fit across a 23m or 25m wide pavement. This needs to be recalculated and revised accordingly.	Not accepted - 4m is the maximum character size and can be scaled down to 2m. See Appendix 7C para 2.
64	General	Para 4.9 (all sub paras)	Consistency with ICAO is supported and welcomed. For consistency, some of the references that are in CAP 642 should be incorporated into the reference at Ch 3, Para 10.2, including the 1m clearance between wing tip and edge of stand marking.	Noted - CAP 642 currently under review.
65	General	Para 4.9 (all sub paras)	Consistency with ICAO is supported and welcomed. For consistency, some of the references that are in CAP 642 should be incorporated into the reference at Ch 3, Para 10.2, including the 1m clearance between wing tip and edge of stand marking.	Noted - CAP 642 currently under review.
66	General	Paras 4.9 (all sub paras)	Consistency with ICAO is supported and welcomed. For consistency, some of the references that are in CAP 642 should be incorporated into the reference at Ch 3, Para 10.2, including the 1m clearance between wing tip and edge of stand marking.	Noted - CAP 642 currently under review.

67	General	Paras 4.9 (all sub paras)	Consistency with ICAO is supported and welcomed. For consistency, some of the references that are in CAP 642 should be incorporated into the reference at Ch 3, Para 10.2, including the 1m clearance between wing tip and edge of stand marking.	Noted - CAP 642 currently under review.
68	Technical	Para 4.9.1	Does this not conflict with CAP 642 which recommends that if stand entry guidance is not available (ie APIS etc or mirror technology) marshalling should be used?	Noted. No conflict - these markings are intended to provide obstacle separation and area delineation.
69	General	Para 4.9.2	Suggest the inclusion of some examples of best practice for airbridge operating areas.	Noted - ACI handbook and other guides provide best practice examples, as does CAP 637.
70	General	Para 4.9.2	This is not required at HIAL airports due to small size and simplicity, particularly where there is usually only one aircraft on the ground at any one time.	Noted.
71	General	Para 4.9.2	Are CAA happy that 'best practice' as recommended by one of SRG inspectors is used i.e. IATA/ACI and not ICAO?	Noted - the requirements are not intended to limit the markings installed and hence are consistent with IATA/ACI. Therefore, detailed specifications for the markings have not been included.
72	Technical	Para 4.9.3	There may be some scope for confusion as to whether lead in and stop arrows are 'apron markings'.	Noted - lead-in arrows and stop arrows are defined as apron markings, which are directly related to the movement of aircraft. The markings described are defined as markings used to define the areas intended for use by vehicles.
73	General	Para 4.9.4	If 'best practice' used should CAP 637 not be amended?	Noted - CAP 637 will be reviewed in due course.
74	General	Fig 7.14	Noted	Noted.
75	Editorial	Figs 7.20 & 7.21	We believe that the two figures have been given the incorrect figure references and titles and should be reversed for consistency with the existing CAP 168. Alternatively, this is a correction to the existing CAP 168? Please clarify.	Accepted - text amended.

76	Editorial	Figs 7.20 & 7.21	We believe that the two figures have been given the incorrect figure references and titles and should be reversed for consistency with the existing CAP 168. Alternatively, this is a correction to the existing CAP 168? Please clarify.	See response to comment number 75.
77	Editorial	Figs 7.20 & 7.21	We believe that the two figures have been given the incorrect figure references and titles and should be reversed for consistency with the existing CAP 168. Alternatively, this is a correction to the existing CAP 168? Please clarify.	See response to comment number 75.
78	Editorial	Figs 7.2 & 7.21	We believe that the two figures have been given the incorrect figure references and titles and should be reversed for consistency with the existing CAP 168. Alternatively, this is a correction to the existing CAP 168? Please clarify.	See response to comment number 75.
79	General	Table 7.20	I would suggest that this be also aimed at sign manufacturers.	Noted.
80	General	Table 7.20	There appears to be a discrepancy in the references.	See comment number 79.

## CAP 168 – Chapter 8

No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1		Para 1	What is the launch date of this document and will there be a transitional period to allow for adjustment etc.	The target is to issue the document before the end of the year. It is not considered necessary to have a transitional period, however an effective date will be specified.
2		Para 1.1 / 1.2	Should these paragraphs be reversed ie 1.2 renumbered to 1.1 and visa versa ?	Not accepted. The basis of the requirements are set out in the licence so it is the logical place to start.
3		Para 2.2	Table 8.1 does not appear in the chapter	Accepted. The table will be included.
4		2.4	Table 8.1 is not included in the draft.	Accepted. The table will be included.
5		2.6	Para 2.6 states that the RFF Category provided shall be no less than that needed for the highest category of aeroplane planned to use the aerodrome. Should this statement be more explicit to define that this is applicable to aircraft requiring the use of a licensed aerodrome?	Not accepted. As CAP 168 is guidance for licensed aerodromes as stated in 1.4, it is felt unnecessary to repeat that requirement.
6		2.7 – 2.10	These paragraphs appear to replace 'temporary depletion' What is not clear is the position regarding movement restrictions. Should the text be defined as implying that movements of aircraft cannot take place unless the appropriate level of RFFS is in place, or, is the onus placed on the Captain of the aircraft to decide whether to continue with the operation despite a reduction in RFFS category? The text should be amended to clarify this.	Partially accepted. To clarify the position 2.8 will be removed. Remove in 2.10 all after '..... RFF personnel'. Add 'including supervisory level'. 2.10 to become a note at the end.

7		2.10	References to 'changes in level of protection' are ambiguous and when read in conjunction with Para 2.3 seem to imply that the previous ability to utilise temporary depletion is no longer available. There is a reference to temporary depletion in 2.10 but due to the lack of definition and the removal of the previous guidance available in the current 168 (Section 4) it is not clear whether this is still permitted and under what parameters is it allowable? There is no restriction to depletion stated in this draft due to unforeseen circumstances. Para 2.8 only offers scenarios that may result in a reduction. Para 2.10 implies that the option to deplete i.e. to reduce the category is available as it is advised that Licencees should consider reserve facilities to limit the need for this reduction. If this is the case, has the lower limit of two categories below that promulgated also been removed?	Not accepted. The previous requirement regarding temporary depletion has been replaced with the development of contingency plans. However see the proposals in item 6 above.
8		2.10	Remove the word 'consider' and change 'developing' to 'develop' in order to add weight to the requirement for contingency planning	Accepted.
9		Para 2.11	What is the rationale for the continued use of 15 minutes, in particular remote or island areas where the A/c may be over the mainland within 5 or 6 minutes?	Partially accepted. There needs to be a requirement to allow an aircraft to return in the early stages, however it is accepted that short flights occur. Insert at the end '...or until the aircraft has reached its destination', whichever is the shorter.
10		3.1	The final sentence of this paragraph is not clear. The word 'assessed' could be replaced by 'provided' if the inference of this sentence is that, for rescue purposes, the aerodrome RFFS will probably require support and assistance from other aerodrome and community departments and agencies.	Not accepted. This is an ICAO SARP and reflects that a response will include resources other than the Rescue and Fire Fighting Services (RFFS).
11		3 & 4	These two sections seem to be duplicating the remission factor, and there is no mention of the 700 movements rule.	Not accepted. Sections 3 & 4 do not deal with remission.

12		4.3	Para 4.3 refers to 'response area'. Is this definition still required as the response objectives no longer refer to the response area?	Partially accepted. To make these imported ICAO SARPS clearer it is proposed to make 'shall' and 'should' bold, and join 4.4 and 4.6.
13		4.3 / 4.6	4.3 Defines 'response area' yet 4.6 refers to 'movement area'	Accepted. The definition in 4.3 will be altered to align with that in 4.6.
14		Para. 4.4	These paragraphs state response times of 2 and 3 minutes, what is the required response time?	This will be clarified. See item 12 above.
15		Para. 4.5	As above.	This will be clarified. See item 12 above.
16		Para 4.4 / 4.5	The same operational objective is stated with <b>two</b> different times?	This will be clarified. See item 12 above.
17		5.1	Should 'During flight operations' be replaced with 'During promulgated operating hours'	Not accepted. This ICAO SARP is considered to be appropriate.
18		Section 5, para 5.5	<p>It is recognised that the two-minute response time may not always be achievable to all areas of an aerodrome/heliport where helicopters may arrive or depart, especially training areas, which may be designated outside the aerodrome boundary. In these cases the RFFS should respond as quickly as possible. In the case of training areas designated outside the aerodrome boundary, the operator of the helicopter has a duty of care to ensure that the appropriate RFFS requirements and response are provided."</p> <p>This gives flexibility and good direction in relation to the required response times.</p>	Noted.
19		6.1 / 6.2	In para 3.1 it states that the principal objective of RFFS is to 'initiate rescue' whilst in 6.1 it infers that RFFS should make provision for rescue. Therefore there appears to be a conflict. To clarify, 6.1 could be removed as 6.2 and 6.4 make the same points	Accept. 6.1 is an ICAO SARP. 3.1 amended.

20		Section 8 Paragraph 8.1:	All responding rescue and fire fighting personnel shall be provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner."  Due to the materials used in helicopter construction (composites) would it be advantageous to add to Breathing Masks (filter) in Table 8A.5 - one per person protecting against composite materials?	Not accepted. Masks are a part of Personal Protection Equipment (PPE) - an assessment should be carried out to determine what particular protection is appropriate. Move masks out of Table 8A.5.
21		Para 8.3	This element makes reference to Fire Service Circulars in relation to medical standards. The medical standards are in the CLG document "recruitment and retention of fire fighters" and should be referenced in place of FSC's	Accepted.
22		Para 8.3 (Table 8.3)	Column 1 should read Aerodrome Category (RFF) in line with Table 8.1	Accepted.
23		Table 8.1?	Table 8.1 for Aircraft Category appears not to be included in the new draft?	Accepted.
24		Table 8.1	Table 8.1 for Aircraft Category appears not to be included in the new draft?	Accepted.
25		Table 8.1?	Table 8.1 for Aircraft Category appears not to be included in the new draft?	Accepted.
26		Table 8.2 appliances	European, US and Australian Appliance requirements are for a minimum of 3 foam producing appliances, why is the UK model different?	Accepted. Impact analysis to be carried out.
27		Table 8.2	Monitor requirement for Cat 10 is 4, ICAO Airport Service manual requires 3?	Accepted. Impact analysis to be carried out.

28		Table 8.3	This table imposes a requirement for 4 appliances to maintain category 10. Table 9.2.33 in ICAO Annex 14 only requires 3. EASA is moving to align all EU countries into a common standard. As table 8.3 only applies to the UK and imposes a commercial disadvantage on UK airports the authority should adopt 9.2.33 in its entirety and specify 3 appliances for cat 10 where the capacity of these is able to achieve the table 8.3 minimum quantities of media	Should read 'Table 8.2'. Accepted. Impact analysis to be carried out.
29		Table 8.3 Extinguishing Agents	The proposed table 8.3 does not reflect media substitution is this an oversight?	Accepted. Media substitution will be inserted. Table 8.3 doubles up on quantities in columns 4 & 7, note needs to refer to 13.7, 13.8 and 15.1.
30		Table 8A.7	Example Training competence (initial and ongoing) gives a good clear list of competencies to concentrate on.  Extraneous Duties- Due to the dual role of many heliport personnel would it be prudent to mention extraneous duties as stated in CAP 168 Chap 8 Section 7?	Accepted.
31			Proposal to include Heliports and Helicopters to allow the use of CAFS as a extinguishing media.	Compressed Air Foam Systems (CAFS) are well used in small quantities and obviously provide an effective method of applying foam. There is a gap in the knowledge of its performance on large fires and there is currently no standard for CAFS. Research is proposed for a CAFS standard and its use for larger fires.
32		Para. 8	I have read through the proposals and can find no cause for objection. However, AOPA is concerned with several small aerodromes that operate in the special category and which are in membership of the Association. I note from paragraph 8, though, that the revised requirements for RFFS for these aerodromes are not included, as they will be incorporated in a separate CAP. I ask, please, that I have sight of these at an early stage.	The NOTAL setting out the requirements for RFFS Category Special aerodromes has been issued.

33		9	There is no reference to supervisory management or command training. An additional paragraph along the lines of 'RFFS personnel with supervisory management and / or incident command responsibilities shall receive appropriate training.	Accepted. Add after training '... appropriate to their role and task'.
34		9.3	Can you expand on training in human performance ? What would that look like and how will it be measured ?	Training in human performance is included in the standards set out in CAP 699.
35		9.3	The reference 'human performance training' requires definition. Will this be included in the glossary of terms? It is also suggested that the term <i>Human Factors principles</i> is included for further clarity on the subject matter as detailed in Annex 14.	Partially accepted. A note will be added to clarify that such training is included in the standards in CAP 699.
36		9.4	Suggest the following re-wording The RFFS training facilities shall be commensurate with type and size of the range of aircraft expected to operate at the aerodrome.	Partially accepted. Remove 9.4 as 9.1 covers types of aircraft.
37		9.5	This paragraph requires amplification. The word 'consideration' infers that training is optional.	Accepted. 9.5 to be removed as covered in Chapter 9.
38		Para 10	Should this para not also refer to PUWER regulations	Accepted. Consolidate sections 10 and 23
39		10.1 – 10.4	In these paragraphs the word 'should' to be replaced with 'shall'	Partially accepted. 10.1 is an ICAO SARP. The requirements of PUWER will be included.
40		Para 11.3	Refers to ASM part 1 for guidance on appliances including monitors. As the ICAO Document does not mandate the use of air aspirating monitors the authority should include a statement to that fact and offer the option of a roof turret or an aspirating monitor.	Not accepted. The ASM only requires a monitor. This allows the development of suitable monitors including new technology e.g. EBT. Foam performance is set out elsewhere.
41		Section 11	Would it be advantageous to add reference to CAP 699 Standards for the Competence of Rescue and Fire Fighting Service?	Not accepted as helicopters and 1&2 are treated in a similar manner.
42		Para. 12	I am pleased that paragraph 12 requires wind turbines to have lights and I hope that this request will be retained in the case of special category aerodromes.	Not relevant to this chapter. Dealt with elsewhere.

43		Para 13.5	Evidence provided by who?	By the Licence Holder if they wish to make the case for alternatives.
44		Para 13.8	..two loads change to ...two discharges?	Not accepted. This is an ICAO SARP, however it will be clarified by a worked example.
45		Para 14	No mention of high performance powders or reductions etc... Complete section missing	Accepted. Substitution will be added.
46		14	Monnex has in the past attracted a 50% reduction in requirement against standard powders, this appears to have been removed. Should it be reinstated?	Accepted. Substitution will be added.
47		14	Discharge rates – the required discharge rate at Cats 8-10 is difficult to achieve using current equipment, the rate of 4.5kg/sec should be reviewed.	Accepted. Will be removed.
48		Para 14	Complimentary media has in the past been substituted at a rate of 1 kg for 1 litre up to 50% of the media required. No reference is made to this effect in the NPA. The authority should consider including this statement.	Accepted. Substitution will be added.
49		Para 14	In the past where Monnex as a specific powder has been provided, a substitution of up to 50% has been permitted based on its superior performance. No statement to this effect is included and the authority should consider including such a reference.	Accepted. Substitution will be added.
50		Para 14	The complimentary discharge rates specified for category 8 to 10 are an increase on the current CAP and are difficult to achieve using present installations. As the suppression capability has been assessed at rates lower than this the authority should consider reviewing this level and amending accordingly.	Accepted. Substitution will be added.

51		Para 14	The previous edition of CAP 168 stated that 'complementary extinguishing agents shall be any combination of dry powder and gaseous agents' (Para 7.1). This statement has been removed and as a result, Table 8.3 when read in conjunction with Para 14 seems to imply that the amount of complimentary agent required in Para 9 must be comprised of either DP or HH due to the term 'or' in the column. It is suggested that the caveat 'or a combination of both' is added at an appropriate location if this option is still permitted.	Accepted. Add in 'and/or a combination'.
52		14.1 / 14.5	There appears to be conflict between the content of these 2 paragraphs. On the one hand 14.1 indicates that the complementary agent 'should' be dry powder whilst 14.5 appears to make halon an option	Accepted. Add in 'and/or a combination'.
53		Para 14.7	Difficult to achieve 1.35kg/sec now...! is there a transition period to achieve 2.25kg/sec? or is it for new builds only...?	Accepted. Will be removed.
54		Para 14.7	A discharge rate of 4.5kg/sec for dry powder.  The size of hose needed to deliver such a quantity of Dry Powder would be very difficult to mount inside most (if not all) known appliance lockers due to the bend radius. This in turn would probably mean that only a roof mounted unit such as a Snozzle would be sufficient - is this the intention?	Accepted. Will be removed.
55		Para 14.7	A discharge rate of 4.5kg/sec for dry powder.  The size of hose needed to deliver such a quantity of Dry Powder would be very difficult to mount inside most (if not all) known appliance lockers due to the bend radius. This in turn would probably mean that only a roof mounted unit such as a Snozzle would be sufficient - is this the intention?	Accepted. Will be removed.

56		14.7	<p>A discharge rate of 4.5kg/sec for dry powder.</p> <p>The size of hose needed to deliver such a quantity of Dry Powder would be difficult to mount inside almost all known appliance lockers as the bend radius would probably mean only a roof mounted unit such as a Snozzle would be sufficient?</p>	Accepted. Will be removed.
57		14.7	<p>Discharge rate for complimentary agents. How 4.5 kg/sec evolved for cat 8 to 10 ? Current powder units cannot achieve this alone. 2 x units will have to be used in unison to achieve this with the extra personnel that entails. When would this come into force / lead in times if it was implemented ?</p>	Accepted. Will be removed.
58		Para 14.7	<p>Category 8-10 discharge rates of 4.5kg/sec, pressures and pipe work to deliver these rates may create problems in restricted locker space/pods</p>	Accepted. Will be removed.
59		Para 15.1	<p>If using high performance powder is it necessary to have 200% reserve?</p>	Not accepted. If the amount is reduced so will the reserve, but it still needs to be 200%.

60		Para 15.1	<p>Para 15.1 requires clarity. It is unclear whether this first sentence means that 200% reserve is required for foam and complimentary media (combined) or that 200% is required of each. (i.e. 200% foam &amp; 200% compl media).</p> <p>There appears to be no reference to the ability to utilise the substitution of water for complimentary media. Has this ability been removed although it is still allowable by ICAO criteria? If it is the case that this has been removed, then this change coupled with the requirement to store 200% complimentary agent may have a serious cost implication to some aerodromes that may have to make alterations to appliances to allow them to carry specific complimentary media that cannot be held in store. Please can you clarify the requirement.</p> <p>The phrase 'to be provided in the rescue and fire fighting vehicles' implies that the reserve media should be held on the vehicles. If this statement is only to show the requirement then 'to' should be replaced with 'must' or 'should' as appropriate.</p>	<p>Not accepted. It is 200% for all media.</p> <p>Accepted. Substitution will be added.</p> <p>Not accepted. The phrase is intended to allow the reserve to be carried on the vehicle or stored elsewhere.</p>
61		Para 16.4	It may be necessary to also test the operational foam in the foam tank too.	Accepted. Add in "including appliance tanks"
62		16.4	<p>Some foam stocks require Prevac Valves that are attached to the top of the</p> <p>IBC (s)</p> <p>Do we know the impact to the quality of foam with this type of storage and therefore the amount of quality assessment required ?</p>	Not accepted. Not an issue for this CAP.
63		Para 17	No mention of aspirating foam for the monitors	Not accepted. The foam specification is set out in the ICAO Airport Services manual. There is no requirement for aspirating monitors.
64		Para 17.2 / 17.3	Should specify minimum foam test frequency requirements. Paragraph18	Not accepted. The test period is stated in 18.1.

65		17.6	The foam induction rate should be 5-7% as a range centred on an agreed 6% induction rate. The range for 3% should reflect the same ratio.	Accepted. '6 %' will be '5-7%' '3%' will be '3-4%' '1%' will be '1.1%'
66		Para 17.6	The stated foam induction rates do not show a variance below the fixed rate of 6%. The authority should consider amending the document to allow a variance between 5% & 6% with the objective to achieve and maintain 6%	Accepted. '6 %' will be '5-7%' '3%' will be '3-4%' '1%' will be '1.1%'
67		Para 18	Use of training foam may be used to determine correct functionality? HIA currently use this process because of the environment and cost.	Noted.
68		Para 18.2	Refers to ...described in paragraph 18... should be 17?	Accepted.
69		Para 20.2	Last para should be cross referred to para 18 and visa versa	Accepted.
70		22.1	Could be interpreted to mean that the license holder is responsible for providing PPE to responders other than airport personnel (e.g paramedics) Change the wording to 'All RFFS personnel shall be provided with personal protective equipment to enable them to safely perform their duties in an effective manner'	Accepted - put in RFFS. Add to sections 10 & 11.
71		Para 20	Need for a testing regime	Not accepted. Covered in comment number 23.
72		Para 27	Should reference to ATC be ATS to cover FISO airports.	Accepted.
73		Table 8.3	If the aim is to align with ICAO Annex 14 should not the table from the annex be directly imported in the CAP possibly as an appendix.	Not accepted. It is considered more useful to have amounts of foam concentrate. See worked example.
74		Table 8B.4	Remove reference to H3	Not accepted. May be needed in the future.
75		Table 8B S 8.4	This section appears to require low category aerodromes to provide a water rescue craft and any requirement for this type of equipment is best served under section 14.1. CAA should consider removing 8.4	Accepted. Remove 8.4.
76		Annex 8a 5.2	Very difficult to achieve 2 minute response time without changing the FATO/TLOF	This is an ICAO SARP which has recently been re-confirmed.

78		Appendix 8B 2.3	This section appears to contradict sections 3 and 4 in the main document and should be reviewed to align all sections relating to temporary depletion.	Accepted.
79		Appendix 8B 2.3	This section contradicts the direction contained in 3 and 4 in the main body of the document. The authority should review this and align the relevant sections in the document	Accepted.
80		Appendix 8B Section 8.4	The inference within this section appears to mandate low category aerodromes to provide a water rescue facility. This would be a significant burden. Any such requirement would be better represented in the main body in 14.1. The authority should consider removing this section from 8B 8.4	Accepted.
81		Appendix 8B Section 4	Does not define remission or refer to the less than 700 movements rule. This section could be interpreted as meaning that all category 2 aerodromes can operate at cat 1 regardless of movement numbers.	Accepted. Number of movements will be inserted.
82		General Comment	As a training provider, IFTC has recognised that the proposed changes would have a significant impact on current teaching and current training materials. It would be appreciated if CAA could provide IFTC instructional staff with a workshop so that an in depth understanding of revisions and their intended interpretations can be gained.	Accepted.
83		Additional Comment	Would prefer to have adjustable foam induction systems within fire appliances to take into account foam output depending upon the type of incident.	Partially accepted. The concern is safety and training issues. Further research is proposed.
84		General Comment	Halon should be replaced by gaseous agents in line with the ICAO states letter.	Accepted.
85		All	The word Halon is used in various sections and this should be replaced with gaseous agents in line with the ICVAO states letter and afford the opportunity for airports to utilise different agents which may meet the extinguishing requirements or be developed in the future.	Accepted.

**CAP 168 – Chapter 9**

No.	Type of Comment (General, technical, editorial)	Part / Section / Para / Sub para	Comment	CAA Comment
1		Para 1.2	Drop the words “Local Authority” as gives impression of just Fire Service. Best to use words “Cat 1 Responders”	Accepted - to be checked.
2		Para	We welcome the proposal to formalise the proposal that airports should maintain liaison through LRF, regardless of whether a duty exists under the CCA 2004. This will generate a greater awareness and co-ordination of overall humanitarian response.	Noted.
3		Para 2	Welcome the proposal to formalise the proposal that airports should maintain liaison through LRF, regardless of whether a duty exists under the CCA 2004. This will generate a greater awareness and co-ordination of overall humanitarian response.	Noted.
4		Para 2	We welcome the proposal to formalise the proposal that airports should maintain liaison through LRF, regardless of whether a duty exists under the CCA 2004. This will generate a greater awareness and co-ordination of overall humanitarian response.	Noted.
5		Para 2.1	Should also mention other guidance e.g. Integrated Incident Management; Emergency Response & Recovery. Also (in Scotland), “Preparing Scotland”	Accepted.

6		Para 2.5	This is only in England. Scotland, Wales & NI have different groups e.g. Scotland has a “Strategic Coordinating Group (SCG)”	Accepted.
7		Para 2.6	This is only in England. Scotland, Wales & NI have different groups e.g. Scotland has a “Strategic Coordinating Group (SCG)”	Accepted.
8		Para 2.8	Incorrect web address – should be <a href="http://www.ukresilience.gov.uk">www.ukresilience.gov.uk</a> - We understand that the address provided in the consultation document may be withdrawn in the near future.	Accepted.
9		Para 4.1	The new thinking is to have “Core Group Members” and “Non-Core Group Members”. This should be decided locally not prescriptive “Should be represented”	Not accepted. The wording allows for local selection.
10		Para 4.1	Another problem is that staff at the emergency services sometimes have a fairly rapid turnover so that it is not possible to get them to commit to attending a standing committee. The best you can hope for is to try and invite people on an ad hoc basis and try and get their input and communicate with them. The scenario put forward here of a standing committee is not an achievable objective for many small aerodromes. The best system for a small aerodrome is to prepare an emergency plan based on the input they can get from the emergency services etc on an ad hoc basis - the important point is that the licensee should attempt to communicate with the local services.	Noted.

11		Para 4.1	These paragraphs do not reflect the reality faced by many small aerodromes, which is that local emergency services are extremely reluctant to make staff available to participate in table-top discussions and practice situations. E.g. the local ambulance service sent a representative to one meeting we held and have declined to come since then, they say they do not have sufficient staff and they say that in any case they have no points to make. We cannot force them to attend!	Noted.
12		Para 4.1	A further important point is that the local services are not in a position to make changes to their standard emergency response. E.g. there is apparently no means for our air traffic service staff to communicate with local authority fire crews at an incident which happens outside the aerodrome boundary - the local authority radios cannot cope! Also the standard procedures they have for incident control cannot realistically be adapted since fire crews from a long distance away might respond to an incident.	Noted.
13		Para 4.2	These paragraphs do not reflect the reality faced by many small aerodromes, which is that local emergency services are extremely reluctant to make staff available to participate in table-top discussions and practice situations. E.g. the local ambulance service sent a representative to one meeting we held and have declined to come since then, they say they do not have sufficient staff and they say that in any case they have no points to make. We cannot force them to attend!	Accepted. See Chapter 8, Appendix 8B, Para 14.1.

14		Para 4.2	Another problem is that staff at the emergency services sometimes have a fairly rapid turnover so that it is not possible to get them to commit to attending a standing committee. The best you can hope for is to try and invite people on an ad hoc basis and try and get their input and communicate with them. The scenario put forward here of a standing committee is not an achievable objective for many small aerodromes. The best system for a small aerodrome is to prepare an emergency plan based on the input they can get from the emergency services etc on an ad hoc basis - the important point is that the licensee should attempt to communicate with the local services.	Accepted. See Chapter 8, Appendix 8B, Para 14.1.
15		Para 4.2	A further important point is that the local services are not in a position to make changes to their standard emergency response. E.g. there is apparently no means for our air traffic service staff to communicate with local authority fire crews at an incident which happens outside the aerodrome boundary - the local authority radios cannot cope! Also the standard procedures they have for incident control cannot realistically be adapted since fire crews from a long distance away might respond to an incident.	Accepted. See Chapter 8, Appendix 8B, Para 14.1.
16		Para 4.2	Should be for the EP Group to decide. As Cat 2 responders, we can only ask for these points to be considered.	Accepted.
17		Para 4.2(g)	Insert incidents as well as accidents. This will allow review of actual incidents that did not result in the Annex 13 and AAIB definition of an accident.	Accepted.

18		Para 4.2(g)	Insert 'incidents' as well as accidents. This will allow review of actual incidents that did not result in the Annex 13 and AAIB definition of an accident.	Accepted.
19		Para 4.2(g)	Insert 'incidents' as well as accidents. This will allow review of actual incidents that did not result in the Annex 13 and AAIB definition of an accident.	Accepted.
20		Para 4.2(g)	Insert 'incidents' as well as accidents. This will allow review of actual incidents that did not result in the Annex 13 and AAIB definition of an accident.	Accepted.
21		Para 5  5.7	ICAO SARPS – The text should be clear about the UK terms to avoid any confusion – we need to be sure about references to various centres to avoid any confusion. For example – 'Rescue Co-ordination Centre' and 'Rendezvous Points' - are they the same? More detail is required in order to understand the reference to "the plan shall observe human factors" – and where/how that should be reflected in any plan?	Partially accepted. Where terms are used they will be clear as to their use. But there are a lot of different terms used within the UK.  More detail will be added.
22		Para 5	ICAO SARPS – The text should be clear about the UK terms to avoid any confusion – we need to be sure about references to various centres to avoid any confusion. For instance – Rescue Co-ordination Centre and Rendezvous Points - are they the same?	Partially accepted. Where terms are used they will be clear as to their use. But there are a lot of different terms used within the UK.
23		Para 5	Refers to rescue coordination centre, RVP and Emergency Operations Centre but gives no definition of these centres or whether they are all the same. For example, can the RVP and Emergency Operations Centre be the same area?	Partially accepted. Where terms are used they will be clear as to their use. But there are a lot of different terms used within the UK.

24		Para 5.1	Should include Environment	Accepted.
25		Para 5.5	Not entirely consistent with the UK nationally agreed structure of "Strategic, Tactical & Operational". Gold, Silver & Bronze are the everyday utilised words, but not in Scotland	Accepted.
26		Para 5.7	More explanation required to understand the reference to "the plan shall observe human factors" – and where/how that should be reflected in any plan?	Accepted. More detail will be added.
27		Para 5.7	ICAO SARPS – The text should be clear about the UK terms to avoid any confusion – we need to be sure about references to various centres to avoid any confusion. For example – 'Rescue Co-ordination Centre' and 'Rendezvous Points' - are they the same? More detail is required in order to understand the reference to "the plan shall observe human factors" – and where/how that should be reflected in any plan?	Partially accepted. Where terms are used they will be clear as to their use. But there are a lot of different terms used within the UK.
28		Para 5.7	This is a bit of a 'throw away' remark that doesn't actually say anything. Needs expanding to explain in more detail what is required.	Accepted. More detail will be added.
29		Para 5.8	Not entirely consistent with the UK nationally agreed structure of "Strategic, Tactical & Operational". Gold, Silver & Bronze are the everyday utilised words, but not in Scotland	Accepted.

30		Para 5.9	As 4.2. We cannot dictate to the Cat 1 Responders. This seems unworkable	Accepted. This is an ICAO SARP. Further explanation will be added.
31		Para 5.11	I assume this is Cat 1	Accepted. This is an ICAO SARP. Further detail will be added.
32		Para 5.14	Would be better to state appropriate SAR as it is too prescriptive.	Accepted - refer to SAR strategic framework.
33		Para 6	Rationale indicates that Orders and Instructions have been removed but then 6.4 states "the model instructions that follow".	Accepted.
34		Para 6  6.2	Rationale indicates that Orders and Instructions have been removed but 6.4 then states "the model instructions that follow" Rather than identify the Senior Airport Fire Officer (SAFO), it would be better to refer to Airport Fire Officer in Charge (OIC) and/or Manager Fire & Rescue. There needs to be a clear reference to the inner and outer cordons and the role of the Police Bronze Commander to avoid any confusion when drawing up multi-agency Incident Scene Management Plans.	Accepted.  Accepted. The term 'Airport Incident Commander' will be used.  Not accepted. This is covered in national guidance.

35		Para 6.2	Why the licence holder? Should be competent person as licence holder may not get access to the site	Not accepted. This is the requirement to plan.
36		Para 6.2	Rather than identify the senior airport fire officer – SAFO – it would be better to refer to airport fire officer in charge OiC. There needs to be a clear reference to the inner and outer cordons and the role of the Police Bronze Commander to avoid any confusion in drawing up multi agency Incident Scene Management Plans.	Accepted. The term ‘Airport Incident Commander’ will be used.  Not accepted. This is covered in national guidance.
37		Para 6.2	Rationale indicates that Orders and Instructions have been removed but 6.4 then states “the model instructions that follow” Rather than identify the Senior Airport Fire Officer (SAFO), it would be better to refer to Airport Fire Officer in Charge (OiC) and/or Manager Fire & Rescue. There needs to be a clear reference to the inner and outer cordons and the role of the Police Bronze Commander to avoid any confusion when drawing up multi-agency Incident Scene Management Plans.	Accepted.  Accepted. The term ‘Airport Incident Commander’ will be used.  Not accepted. This is covered in national guidance.
38		Para 6.2	This paragraph gives responsibility for the accident site to the SAFO. Under the Civil Contingencies Act this is the Police’s duty not the Airport’s. This is referred to in paragraph 16.1.	Accepted.
39		Para 6.4	At the beginning of the section it says that emergency orders and instructions have been removed, and then paragraph 6.4 says “the model instructions that follow”. Are they staying in or not?	Accepted.

40		Para 7.3	Include 'ICAO' to make clear which document is being referred to. It would be useful to have a full list of reference documents relevant to this chapter.	Accepted.
41		Para 7.3	Include ICAO to make clear which document is being referred to. It would also be useful to have a full list of reference documents relevant to this chapter.	Accepted.
42		Para 7.3	Include 'ICAO' to make clear which document is being referred to. It would be useful to have a full list of reference documents relevant to this chapter.	Accepted.
43		Para 7.7	or consider the requirements of the NHS to triage on site and await the medical response...?	Accepted. Insert '...or alternative arrangements agreed with the NHS'.
44		Para 8.2	As per 2.5. Need to include SCG	Accepted.
45		Para 8.4	This statement is not correct and does not consider foreign aircraft. It does not align with the Civil Contingencies Act. The responsibility for the post accident arrangements for survivors, friends and relatives is a joint responsibility between airport, airlines and agents and LRF responder	Partially accepted. The wording will be reviewed.
46		Para 8.4	This statement is not correct and does not consider foreign aircraft. It does not align with the Civil Contingencies Act. The responsibility for the post accident arrangements for survivors, friends and relatives is a joint responsibility between airport, airlines and agents and LRF responders.	Partially accepted. The wording will be reviewed.
47		Para 8.4	This statement is not correct and does not consider foreign aircraft. Nor does it align with the Civil Contingencies Act. The responsibility for the post accident arrangements for survivors and friends and relatives is a joint responsibility between airport, airlines and agents and LRF responders, though primarily with airlines / AOC holders.	Partially accepted. The wording will be reviewed.

48		Para 8.4	This statement is incorrect (that the aircraft operating company is responsible for post-accident arrangements for any survivors who are not injured, as well as relatives and friends). Under the Civil Contingencies Act the Police and Local Authorities have responsibility for these, not the Airline. EMA consulted their local LRF and the view of the Chief Constable was that this is incorrect and should be amended to reflect the legislation.	Partially accepted. The wording will be reviewed.
49		Para 8.5	Would be done under command & control at the scene. Part of operational commanders duties	Accepted.
50		Para 9.1	Cat 1 Responders	Accepted.
51		Para 9.2	Needs to be reworded from “appliances” to take account of various vehicles e.g. Police Appliances?	Accepted.
52		Para 12.2	Strategic, Tactical & Operational?	Accepted.
53		Para 12.2	Incorrect web address – should be <a href="http://www.ukresilience.gov.uk">www.ukresilience.gov.uk</a> - We understand that the address provided in the consultation document may be withdrawn in the future.	Accepted.

54		Para 13	Should reference be made to Operational, Tactical and Strategic by comparison?	Accepted.
55		Para 14.1	Not always nearby. Cannot be prescriptive as some locations have dedicated areas within Police Station or Fire Station. Site is decided by Cat 1 Responders. Decisions can be made at the wrong level if Tactical is too close to the scene. Operational commander should decide where casualty clearance etc should be sited not role of tactical	Not accepted – wording taken from Civil Contingencies Act (CCA) guidance.
56		Para 15.2	This is highly unlikely at a single site incident. Incident would need to involve the region/national before they would get involved.	Not accepted – wording taken from Civil Contingencies Act (CCA) guidance.
57		Para 16.1	Incorrect web address – should be <a href="http://www.ukresilience.gov.uk">www.ukresilience.gov.uk</a> - We understand that the address provided in the consultation document may be withdrawn in the near future.	Accepted.
58		Para 17	Can an airport not have the choice of the minimum requirement or have a modular process over a longer period of say 4 years? Something that could be demonstrated similar to CAP 699.	Not accepted. However there is a proposal for a modular approach to ICAO.
59		17	No mention of night exercises or the dispensation to defer exercises where an aerodrome has experienced an incident that fully tested all components of the plan	Partially accepted. This is an ICAO SARP. The timing of exercises is a local decision. Where an incident has occurred see 17.2 c).

60		Para 17	Old school thinking. Exercises would be best done as modules to test the plan from end to end. Mini exercises can be done at any time to test the emergency services response. Problem areas not always with emergency response.	Not accepted. However there is a proposal for a modular approach to ICAO.
61		Para 17.3 (b)	Incorrect web address – should be <a href="http://www.ukresilience.gov.uk">www.ukresilience.gov.uk</a> - We understand that the address provided in the consultation document may be withdrawn in the near future.	Accepted.
62		Para 18.2	Why this specific size? Very prescriptive or is it to conform to the road traffic act? If so you should say so.	Accepted. The section on signs will be rearranged to be clearer.
63		Para 18.2 c	Suggest a few more examples of RVP signage, e.g. with RVP designators and direction arrows to assist in compliance with road sign regulations (size, colours, height above ground etc).	Accepted. The section on signs will be rearranged to be clearer. RVP directional signs, example and sizes will be added.
64		4 table 9A	Notwithstanding the content of para 4.1 ATC should be included in aerodrome services and environment agency should be added to local authority and other services.	Accepted. ATC and Environment Agency to be added.