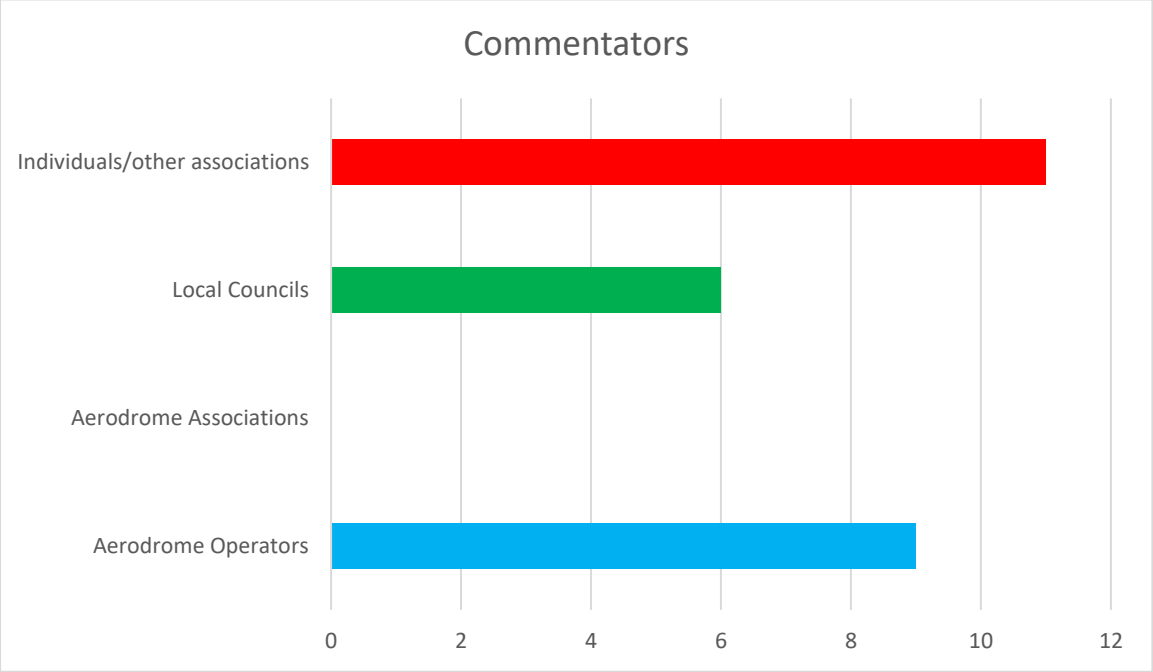
PUBLIC SAFETY ZONES

Summary of the outcome of the consultation

26 comments were received on the PSZ consultation:



There was a general support of the proposal from Aerodrome Operators but less so from individuals or associations. Some of the concerns relate to the continued high profile accidents involving commercial aircraft and some expressed concerns with the change from a risk based model currently used to define the zones to standardised zones based on crash data. Furthermore, there were many commentators asking for clarifications on how the zones will be produced and for further guidance on how the zones will be managed, both from an aerodrome operator and Local Planning Authority perspective.

Individual comments and responses

In responding to comments, a standard terminology has been applied to attest CAA's position. This terminology is as follows:

a) **Accepted** — CAA agrees with the comment and any proposed amendment is wholly transferred to the revised text.

b) **Partially accepted** — CAA either agrees partially with the comment or agrees with it but the proposed amendment is only partially transferred to the revised text.

c) **Noted** — CAA acknowledges the comment but no change to the existing text is considered necessary.

d) **Not accepted** — The comment or proposed amendment is not shared by CAA.

Comments received

Comment	*1* comment by: *Cotswold Airport* Can you confirm Cotswold Airport is in-scope for the PSZ, please see the emails below. I have not previously been aware of this, when under NATS.
Response	Noted The consultation is regarding the introduction of standardised zones for the PSZ. It is not extending the scope of aerodromes that warrant a PSZ. Therefore, if your airport does not currently have a PSZ they will not be required to have one following the consultation.

Comment	*2* comment by: *SASIG* Regarding the consultation on Public Safety Zones announced today, can you please identify the current 32 airports (mentioned in the notification) with PSZs in the UK who will be affected by this proposed change. As the Local Government Association's Aviation Special Interest Group, this will help us notify relevant Local Authorities.
Response	Noted We have sent the list of current aerodromes with a PSZ and thank you for your assistance in notifying the Local Planning Authorities.

Comment	*3* comment by: *I. J. Exley* Under the 'Proposal' section you have two statements which both cannot be correct:-

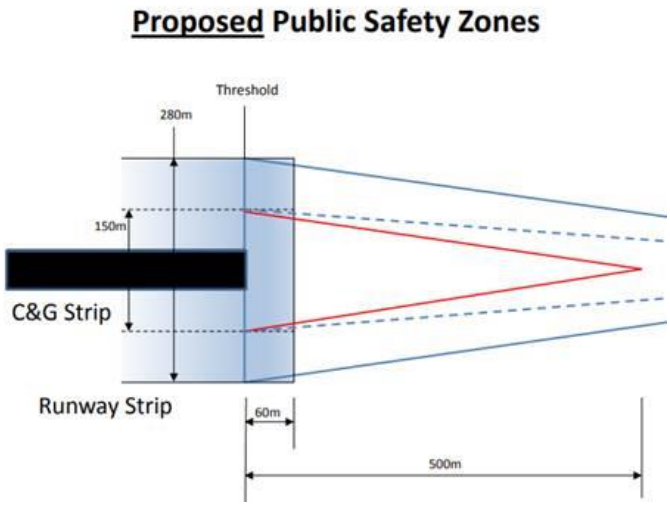
- **The width of the 1 in 10,000 risk contour at the landing threshold is equal to the relevant runway strip.**
- **The width of the 1:10,000 risk contour at the landing threshold is equal the cleared and graded area.**

I think you meant to say:-

- **The width of the 1 in 100,000 risk contour at the landing threshold is equal to the width of the relevant runway strip.**
- **The width of the 1 in 10,000 risk contour at the landing threshold is equal to the width of the cleared and graded area (CGA).**

In addition I found the diagram confusing. Firstly, it took me several minutes to realise that the 'C&G Strip' in the diagram apparently refers to the 'cleared and graded area' in the text. You may want to add a note to your diagram to decode 'C&G'.

I understand that the terms 'Runway Strip' and 'Cleared and Graded Area (CGA)' are defined in CAP 168 and that by definition the CGA lies within the dimensions of the Runway Strip. The width of the Runway Strip and the CGA seems to depend on the Runway Code Number. The dimensions shown in your diagram appear to apply to longer runways where the code number is 3 or 4. I don't know whether the dimensions shown in your diagram should be qualified with a runway minimum length.



I hope this helps. Please contact me if you need any further clarification of my remarks.

Response

Partially accepted

We thank you for your comments and have changed the text regarding the width of the 1:100,000 zone. The wording was targeted at aerodromes that currently have a PSZ. These tend to be Code 3 & 4 aerodromes however we do accept your point that this was not clear in the consultation.

Comment	*4* comment by: *N. Padgham* I welcome this pragmatic and sensible approach, and the savings it will make. However a review period of 10 years would keep the design current with future expected trends in aircraft safety improvements, further reducing the footprint of the safety zones.
Response	Partially accepted The CAA would like to thank you for your supportive comment and we will consider the review period you have proposed. Additional trends in accident data could be included in the review.

Comment	*5* comment by: *Luton Borough Council* In the text the following is written: **"NATS have given notice to stop providing the risk modelling service and this, combined with the change in aviation safety over the last number of years, has led us to review the PSZ Policy."** Could you clarify two things in relation to this paragraph: 1. What is the reason for NATs giving notice? Is it that the DfT were not prepared to adequately fund the service? 2. Please refer me to the evidence base upon which you are able to make the statement that there has been a "change in aviation safety over the last number of years"? In the next paragraph you state that: **"The proposed standardised shape, to replace the risk-based model profile, will capture 90-95% of accidents shown to be located outside the aerodrome boundary."** Again, could you please provide details of the research/evidence/reports that underlie this statement – copies in PDF form would be helpful. In the subsequent paragraph there are two statements that could do with further amplification, firstly: **"This proposal will reduce the burden, both financially and resource, on aerodromes to review the zones at least every 7 years."** Is the reason for changing the PSZ methodology one that has been driven primarily for financial reasons – I would anticipate that the main expense is to the DfT in funding NATS in providing this service? Can you also indicate how the area covered by the proposed PSZ contours at Heathrow with its 478,000 ATMs could possibly capture the 90-95% of accidents, and that the proposed PSZs for Heathrow being the same size as the much smaller Newquay (46,000 ATMs) or Shoreham (46,000 ATMs) can provide the public with sufficient confidence that safety is not being

	sacrificed for fiscal expediency? The second element that needs amplification in that paragraph is: **"Globally, there is an initiative to reduce the protection areas around aerodromes to take account of the flight performance of new aircraft types. This performance increases substantially with the introduction of each new aircraft type. The consequence of this is a decrease in the amount of accidents outside the aerodrome boundary. It is widely known that despite growing air traffic, the number of accidents is decreasing."** Please could you direct me to the global initiative to reduce the protection areas around aerodromes? It would be useful to have the evidence base for comments that are made in such an important consultation in order to provide an informed response. Further, the statements about 'performance increases substantially' and there is a 'decrease in the amount of accidents outside the aerodrome boundary' need to be supported, especially in the light of the accidents with the new generation Boeing 737MAX aircraft which are still not certified by the FAA. It would be useful to have the statistics as part of the supporting documentation that shows "the number of accidents is decreasing" rather than a rather patronising comment that says "it is widely known". In your consultation is there an error in relation to the comments about the width of the 1:10,000 risk contour, as I believe the first occurrence should be in relation to the 1:100,000, currently it says: **"The width of the 1 in 10,000 risk contour at the landing threshold is equal to the relevant runway strip."** Whilst the second occurrence, two paragraphs later says: **"The width of the 1:10,000 risk contour at the landing threshold is equal the cleared and graded area."** Finally, I wondered if you could provide me with plans that show the existing PSZs for Luton airport runways 07 and 27, with the proposed new PSZs superimposed over them. I have sought to annotate the Luton Council local plan policies map for the PSZs to the west of runway 07 (plan attached), but unfortunately the Council's boundary is virtually at the end of the runway 27, and the neighbouring authority (North Herts District Council) does not appear to have the PSZ plotted on their policies map, so I have sought to indicate what I believe to be the extent of the existing and the proposed PSZ superimposed over that (plan attached). I have asked the airport operator if this is accurate, but if you have a plan of the existing PSZs it should be quite easy to add the new standardised proposals on to it.
Response	Noted The CAA has provided you with a comprehensive answer to your detailed question. However, the CAA has provided a precis of the answers below for public interest. The CAA has worked with a number ICAO Working Groups, other States, aircraft manufacturers and industry associations to review the latest data to support our proposal, much of the data was provided in confidence therefore we are restricted

from releasing this data.

NATS decision to cease offering the modelling service was a business decision and not based on funding. Among other factors, the model and software used for modelling the zones was out of date and no longer fit for purpose. This decision provided an opportunity for the DfT and the CAA to review the PSZ circular and policy to ensure it remained fit for purpose. We believe the simplified proposal will allow the aerodrome operators and the relevant LPA to focus on managing the zones rather than trying to define them.

Air travel is a low risk and safe means of transport. The UK has an excellent air safety record, which is almost twice as good as the worldwide average and is among the best in Europe. Even with the increase in air traffic in recent years the number of worldwide accidents involving large commercial aircraft has approximately halved compared with 30 years ago. This is data readily available in various aviation related publications.

Regarding the 90-95% of aircraft accidents outside the boundary being within the new zone. As indicated above, this review was undertaken over many months with various groups, documents and data sets included in the review. It was not a single case review and as such did not generate one particular document.

The circular describes the baseline scope (ATM) for possible establishment of a PSZ. The policy supporting the circular allows the DfT to decide whether an aerodrome should establish a PSZ based on other risk criteria. That being the type of air traffic movements (Large/Small aircraft, Passenger/Cargo, etc.) as well as drawing on background knowledge of the types of activities at individual airports.

The global initiative we referred to are those being undertaken at ICAO level.

The CAA would like to thank you for your comment on the width of the 1:10,000 risk contour. It was a typo error and has subsequently been amended.

Comment

6 comment by: *J. Steel QC*

I have read the proposals and am fully in support of them. They are logical, standardised and sufficiently transparent.

The existing way in which a PSZ is drawn up is opaque, expensive, variable and based on questionable data. It is unnecessarily complicated.

A PSZ can have a significant and detrimental impact on land use and land values and its calculation should therefore be transparent and under the present system and policy, open to challenge. A standardised procedure can paradoxically be more acceptable to offsite land owners and airports than one based on obscure calculations and data which are drawn up on each occasion and may differ without clear reason.

The untutored layman's perception of a PSZ is that it indicates where an aircraft crash is likely, not the likelihood of a crash. This can cause unnecessary anxiety and occasionally overcautious decision making by landowners and local planning authorities.

The data interrogated and applied is normally a worldwide ICAO database of crashes of the relevant aircraft types some of which is wholly unrepresentative of the traffic expected at the airport being considered. This data can include aircraft incidents / crashes of older aircraft from countries with questionable safety regulation, training and management of civil aviation.

This can detrimentally affect airports used by historic and heritage aircraft, for example, but also used by other types too.

The data relied on to devise the PSZ can significantly distort the degree of risk, shape and resulting area within the PSZ which should if possible be avoided for the public benefit. This is likely to be a difficulty inherent in the standardised methodology too unless corrected now. The opportunity should be taken for reconsideration of the methodology, to consider relying on more applicable data, for example normally relying exclusively on EASA and US FAA regulated aircraft crash data except where exceptions apply and are applicable, for example at airports where the expected mix may include aircraft from areas mentioned above.

It is stated by DfT that the data set may not be sufficient (see below) but the distortion and inaccuracy caused by using worldwide data is potentially greater. A standardised procedure allows the opportunity to amalgamate EASA and FAA data from different but similar types where applicable to produce a sufficient and thereby more reliable database.

DfT standard response:

"We believe the level of individual risk around UK airports may in fact be lower than indicated by the DfT's model. This is because the model uses worldwide accident data. If the model only used data on aircraft accidents in Europe and North America for example, where accidents happen less often than in some other parts of the world, it is unlikely that there would be enough data in the model to make a reasonably reliable risk assessment. For this reason we have to use relevant worldwide aircraft accident data, but it means that we may be assessing the risk to be higher than it is in practice."

Response

Noted

The CAA would like to thank you for your supportive comment.

Comment

7 comment by: *Biggin Hill Airport*

Public Safety

Any future changes to runway dimensions would result in amendments to the Airport's PSZs. As airports expand to cater for the growth in aviation we must ensure that the new proposed PSZs for airports, especially those greater than 45,000 ATM's (1,500m in the outer risk contour), is fully reflected in the local planning process and engage with the Airport authority before major planning is

	permitted. Acknowledging the points detailed in Para 11 -12 *(Developments permissible within the PSZ*). Airports that, in the future, who may fall within the 1 in 100,000 outer risk contour (1,500m) **MUST** be protected to allow for the Airport to expand and not to be prohibited or restricted by future/existing developments that fall within PSZs. Any restrictions that limit the Airport from expanding will ultimately have a detrimental impact on the business traveller and the wider future economic growth of the region.
Response	Noted The proposal does not affect the management of the PSZ and the current planning laws with respect to PSZ areas remain unchanged. The policy itself contains guidance to local planning authorities to enable them to decide planning applications and consider road proposals affecting land within PSZs. While we appreciate that there may be some impact on an airport's expansion efforts in the future, it is not possible to account for a hypothetical expansion. Furthermore, buildings in the larger zone are not expected to impede the expansion of the airport. Presence of buildings in and of itself does not impede the growth of the airport under this policy.

Comment	*8* comment by: *Mid Ulster Council* I would be grateful if you could advise whether there are any such Airport Public Safety Zones in the Mid Ulster District Council Area? (see attached map of area) Whilst we do not have an airport within the district there are Aerodromes used by hobbyist aviators and we would like to clarify if these are affected by Airport Public Safety Zones.
Response	Noted The conditions for having a PSZ are not part of the consultation. Therefore we can confirm that you do not have any airports in your area that are subject to this consultation.

Comment	*9* comment by: *Berkeley Strategic Land Limited* I note that there is currently a consultation underway of revised PSZs around UK aerodromes. Is there a timeframe in mind for implementing these changes following the consultation period?
Response	Noted We are working with the DfT on the consultation. Following which we will analyse the responses and make the necessary changes to the PSZ Circular and Policy. We anticipate this process to take until at least the end of Q1

2021.

Comment

10 comment by: *D. Gleave*

1. Basic Policy Objective

The policy has been created, as stated in the consultation document, "in order to control the number of people on the ground at risk of death or injury in the event of an aircraft accident on take-off or landing".

The policy fails to achieve this, for one basic reason, it was not created to manage the number of people on the ground subject to aviation hazards. It was created to manage **the risk exposure of an individual**, **not the number of individuals**, expose to risk. This policy has never been a societal group risk exposure policy. Therefore, it fails at the stated objective. Societal risk exposure, for the likely number of people exposed to risk would have much lower probabilities of an accident associated with them. This could be up to four orders of magnitude lower.

The policy has never really been tested as to the reasonableness of not allowing an increase in the number of people living, working or gathering inside the zones. This appears to be grandfather rights as opposed to objective risk management. It is certainly not performance based risk management, nor does it meet an objective of decreasing risk over time.

2. Risk Contour

The risk contours are said to be based upon accident data. What was the dataset used? An enquiry to the CAA failed to answer the question. Previous versions of the model have been the subject of orders from the Information Commissioner to release the data but this was not complied with. How can an airport operator verify that the data are appropriate to their operation if the dataset and model are not public? It is a basic safety management requirement to only apply a standard, such as this policy, if the assumptions behind it are understood and valid and the whole concept has been verified. If the airport operator cannot demonstrate that as part of its safeguarding of the public at an inspection by the CAA then it should be the subject of regulatory enforcement action.

The zones are said to require adjustment if a runway is extended. How does the lengthening of a runway alter the approach accident rate if only the number of approaches is considered as the criterion for the shapes to apply?

The zones are said to require adjustment if a runway's threshold is moved. This is the same error as within the previous model. If the model only considers approach accidents as the dominant contributor to risk, then it has been demonstrated previously that the coordinate system should be based on the aiming point location on the runway rather than the threshold. This is basic aerodrome design

knowledge.

The use of constrained cost benefit analysis is not used by other high-consequence industries as it contains a house price geographic bias. Perhaps methods used by the other industries could be considered?

3. Risk appraisal

It is interesting that the Secretary of State has a higher acceptable risk value than the CAA's own Acceptable Level of Safety. The CAA does not allow any fatal accidents with the fatality being to an occupant of the aircraft and/or a third party. These two stated policy levels are incompatible. Obviously the CAA's ALoS is really a goal and not the performance measure that should be used otherwise all aviation activity must cease in the United Kingdom.

4. Establishment of Public Safety Zones

The 1 in 10,000 level has been set regardless of ATMs. How has this been verified in the model with the maximum number of movements? How were the data normalised for that location? Were the data using the point of first impact for deriving location or the final wreckage location? How has the model been adjusted for the ICAO Code F aircraft with greater dimensions and momentum that previous aircraft models?

The model does not curve at all. This means that departures are all assumed to fly straight ahead which is not the case. A simple examination of the Amsterdam Schiphol contours shows fingers that represent the routes.

Previous risk analysis showed significant mid-air collision hotspots in the vicinity of an aerodrome. These were sufficiently high probability to be included in this map. How has this been taken into account?

The probability of a go-around suffering a loss-of-control through a somatogravic illusion is within the scale of consideration for the PSZ contours. How as this been taken into account given that the UK has not learnt the lessons of the French BEA's ASAGA report about divergence of go-around from departure tracks?

5. Transport Infrastructure

Why does the Secretary of State consider that it is not necessary to remove existing roads and railway lines from within these zones? The lack of coordination within DfT is best shown with the M1 at Kegworth next to East Midlands Airport. Despite the crash of a 737 into the cutting there, the runway has been extended towards the motorway and then the Highways Agency has placed a huge non-frangible sign across the motorway to increase the risk to an aircraft's occupants and others within the cutting. Current aerodrome standards do not cater for this as the frangibility standards consider making no hazard for a departing aircraft that is underperforming its take-off climb. Landing aircraft frangibility standards would respect gravity and consider potential flightpaths and ground slides below runway

level. Whilst there may be defined procedures for the police to close the motorway in the event of a declared emergency, not every emergency is declared. The motorway comes to a standstill on a frequent basis.

6. Commercial modelling

It is stated that NATS no longer wish to carry out PSZ modelling work. There are several commercial companies that carry out this work, based in the UK. Why is it reasonable not to continue with another company?

7. Research findings

This model does not appear to reflect any of the research that has been carried out in the UK over the last twenty years at leading academic institutions. There is adequate information in the public domain to indicate methods that could be applied which are a significant advance on the 1997 NATS model and updates.

8. Likely legal challenges to its validity for use

Whilst it may be simple to apply, it is subject to significant legal challenge at a Public Inquiry or Coroner's Inquest in the event of a death suffered by a third party. The airport operator will not be able to hide behind the clause in the Health and Safety at Work, etc. Act, 1974 about applying an industry standard when the standard cannot be verified as applicable.

Response

Noted

The new PSZ is a standard shape generated from crash data gathered over recent years. It does not use a risk modelling system to generate the size of the zones. The 'simple' standard shape is designed to change the focus of managing the PSZ from one of using resource to generate a shape that is unique to each runway and consequently different for every runway, to one that is a standard dimension that Local Planning Authorities can understand and use to focus on the management of the activity within the PSZ. Therefore, any errors you have discovered in the previous models are not applicable to the proposal. We hope that addresses your concerns.

On the point around roads and railway lines, we do not consider that requiring the removal of these would be a proportionate response to the level of risk, given the associated cost. In addition, roads and rail normally do not experience a continued occupancy as the transport is continuously on the move and does not remain stationary for a considerable amount of time.

Comment

11 comment by: *Airbus Operations Limited (Hawarden Airport)*

Thank you for the opportunity to comment on this consultation. We are a code 4E aerodrome and operate large freighters from our aerodrome which is managed by Airbus Operations Ltd. We didn't have a PSZ declared in the past, but CAA have

	asked us a number of times about the anomaly in view of operating under approved instrument flight procedures, length of runway and type of operations. As in previous years our movements were largely over 18,000/year, so we believe that we are now in scope for an established PSZ. Obviously, this year they were significantly reduced due to the Covid-19 situation. Based on the document presented we have the following comments and questions: **Section 7. Establishment of public safety zones** *'PSZ has been established for > 18,000 movements (in line with ICAO approach area for an instrument runway)'* Q: Who is deciding which airport has the PSZs and what is the assessment based on? Q: If the airport didn't have a PSZ before, how is this determined now? Q: How does it link with IFPs (instrument flight procedures)? Or officially/non-officially safeguarded aerodromes? I'm thinking mainly for the consultation and decision process if the LPA does not follow the recommendations from the aerodrome? **18.Transport Infrastructure** We have the railway line between Chester and Holyhead under our PSZ (when established) for runway 22. Q: How is this going to affect any changes in the operation of the line, in view of Government's plans to electrify the line? **21. Public safety zone maps** Q:Who is revising the PSZ in the UK and how often? If one is not established yet, who determines if an aerodrome should have one? Q: Who produces the PSZ maps? Looking forward to further communication regarding this consultation.
Response	Noted We have attempted to answer your questions below: **Section 7. Establishment of public safety zones** A: This is ultimately a DfT decision, on which it takes advice from CAA. A: The decision is taken based on the type and size of the traffic operating from the airport. There are other considerations such as dangerous good carrying etc. A: There is no link between IFPs, Official safeguarding and PSZ. They are all assessed on different criteria and policy. **18.Transport Infrastructure** A: A new safety assessment will need to be done in conjunction with network rail to ensure the safety of train passengers as well as the aircraft. You may wish to consider similar work undertaken at Gatwick.

21. Public safety zone maps

A: As mentioned above, the DfT makes the decision to establish the requirement, and once established it will only need to be reviewed if you physically change the runway.
A: The aerodrome will produce the PSZ maps based on the Standard shape of the zones.

Comment

12 comment by: *London City Airport*

Do you have any further information -particularly a revised map- which would demonstrate the proposed changes to LCY`s current PSZ?

Response

Noted

As the aerodrome, you would be expected to produce the PSZ maps based on the Standard shape of the zones.

Comment

13 comment by: *Farnborough Airport*

Thank you for providing the opportunity to submit feedback as a part of the consultation on Public Safety Zone (PSZ) Policy.

Farnborough Airport welcomes this long-awaited review on how PSZs are established at airports with particular reference to the removal of the review period and the operational and financial resources associated.

As one of the few airports in the UK that have related operational restrictions, we see these proposals, which are being put forward as a direct result of changes in aviation safety, as a positive step forward with regard to any future planning obligations.

Response

Noted

The CAA would like to thank you for your supportive comment.

Comment

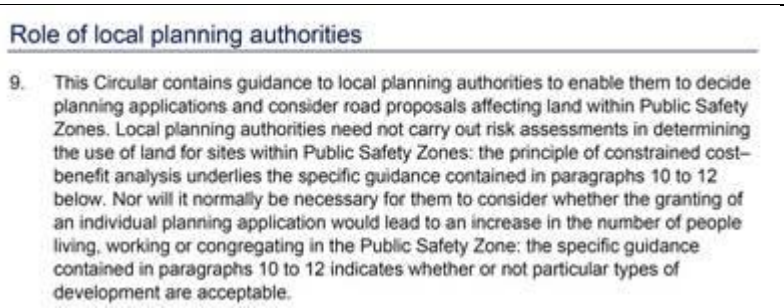
14 comment by: *Gatwick Airport Limited*

Further to the above mentioned consultation, subject to the clarity requested in my queries below, Gatwick Airport supports the proposals.

I would be grateful if you could help me out with a couple of queries please, as follows:

Proposed Public Safety Zone Circular – Role of LPAs

Under point 9 it states the following:



Role of local planning authorities

9. This Circular contains guidance to local planning authorities to enable them to decide planning applications and consider road proposals affecting land within Public Safety Zones. Local planning authorities need not carry out risk assessments in determining the use of land for sites within Public Safety Zones: the principle of constrained cost–benefit analysis underlies the specific guidance contained in paragraphs 10 to 12 below. Nor will it normally be necessary for them to consider whether the granting of an individual planning application would lead to an increase in the number of people living, working or congregating in the Public Safety Zone: the specific guidance contained in paragraphs 10 to 12 indicates whether or not particular types of development are acceptable.

It states that it won't normally be necessary for the LPAs to consider whether the granting of an individual planning application would lead to an increase in the number of people living, working or congregating in the PSZ as specific guidance is given under paras 10 – 12. I have had LPAs come back to me saying that if it is not for them to consider whether the granting of a planning application would lead to an increase in the number of people, what is their role? I think the wording needs to be made clearer. As I have an LPA come to me on more than one occasion wanting us to decide as to whether a proposed development complied with the circular and if not, it's the airport that needs to take the lead and object.

Public Safety Zone Maps

It sounds as though the CAA will distribute the revised PSZ maps to the LPA's and carry out any publicity required. I just wanted to check I have understood that correctly?

Thank you for your help, I will look forward to hearing from you.

Response

Partially accepted

Paragraph 9 does make sense if read in conjunction with Paras 10 to 12. In essence, it is saying the LPA does not need to do a risk assessment for planning proposals because if they follow Paragraphs 10 to 12, they have the risk assessment built in. Equally, they don't have to assess any increase in density because, again, if they follow the principles in Paras 10 to 12, that already restricts the numbers. However, your point on it not being clear is taken and this will be addressed in the new Circular.

As for the maps, the aerodrome operator will have to produce the maps and send them to both the CAA (for record) and the appropriate LPA. Should anybody require the additional copies i.e. developers, they could come to the CAA as the single point of contact.

Comment

15 comment by: *D. B. Nicholls*

1. Risk from new or expanded airports

Could the review be extended to include consideration of public safety in relation to airport expansion?

There has always been a policy and regulatory vacuum around this issue in the UK,

as public safety zone (PSZ) policy is concerned with controlling development around existing airports, not with decisions about whether or how much airports should expand. No national regulator seems to have been given responsibility for controlling risks from the latter.

To date, therefore, the issue has been left for the planning process to decide, on a case-by-case basis, and this has led to inadequate risk assessment. With a number of airports still actively planning for significant traffic growth or additional runways, there is a need for national policy and guidance.

The control of third-party risk from an expanded airport cannot be left to later stages of design, operation and regulation. Increases in crash frequency are largely driven by, and hence roughly proportional to, the increase in the number of aircraft movements. Where a new runway or significant growth is proposed, it would be unrealistically optimistic to assume that advances in safety management and technology will reduce per-movement risks sufficiently to compensate.

Suggestion: work together with DfT and other safety regulators to develop policy, criteria and guidance on public safety in relation to airport expansion.

2. Size of proposed PSZs

For some airports, the proposed PSZs would be much smaller than existing ones. For example:

	Risk contour/ PSZ length from threshold (m), for the larger PSZ			
	10-4 per year		**10-5 per year**	
Airport	**Existing**	**Proposed**	**Existing**	**Proposed**
Farnborough1	1700	500	4200	1000*
Gatwick2	650	500	2738	1500

* Farnborough currently has around 30,000 movements per annum, and so would only require a 1000m PSZ under the proposed system.

I appreciate that there will be some airports where the PSZs would become larger than they are today, but this does not offset the impact of reduced PSZs elsewhere, since the risks are to different groups of people.

Suggestion: review the adequacy of the PSZs, with specific attention to those airports at which the proposed system would lead to a significantly smaller area.

3. Robustness of the basis for proposed PSZs

The description on the consultation web page says (my underline):

"… the standardised shape that replaces the risk-based model profile and (sic) *has been defined using the latest data on accidents shown to be located outside the aerodrome boundary"*

Given the large reduction in PSZ size for some airports, as in comment 2 above, there needs to be a very high degree of confidence in these data and how they have been used to ensure that there is no erosion of safety margins, and that risks

are reduced to as low as reasonably practicable (ALARP).

However, as the data and models have not been published, it is impossible to comment on this, and there is no assurance for stakeholders.

It seems important that the basis for any safety policy, regulation or guidance should be clear and open to public scrutiny. One of the benefits of the approach to date was that it was relatively transparent: the NATS data, models and assumptions had been published. Without this transparency, I'm concerned that:

- there is a danger of encouraging a safety-by-compliance culture amongst duty holders such as airports and developers ('it must be safe, it's outside the PSZ') rather than a suitable and sufficient risk assessment
- it will be difficult to review and update the approach guidance when things change in the future – the rationale risks being lost.

Suggestion: the data, models and assumptions used to derive the proposed PSZs should be published. All aspects should be explained, including crash frequency and location, destroyed area and the cost-benefit and ALARP considerations leading to the selection of the 10^{-4} and 10^{-5} risk levels as criteria.

4. Links to obstacle limitation surfaces

It is unclear why the width of the PSZs should be tied to the widths of the Runway Strip or the Cleared and Graded Area (CGA). These surfaces are defined for entirely different purposes to PSZs so even if their widths are (coincidentally?), currently reasonable for PSZs as well, this will not necessarily always be the case. If these surfaces change (and the consultation webpage mentions '*…the initiative to reduce the protection areas around aerodromes*'), how will it be ensured that PSZs based on them remain valid?

From an intelligibility point of view too, I would have thought that a risk contour is an easier concept for planners and other stakeholders who are not aviation specialists to appreciate than the Runway Strip or CGA, given the complexities of how these surfaces are defined in CAP 168.

Suggestion the PSZs should remain linked to clear and relevant third-party risk considerations, and not to protection surfaces defined for other purposes. 3

5. Unavailability of the NATS model

The unavailability of a contractor to carry out the modelling doesn't seem a very strong reason to move to a less transparently risk-based system. Other models are available, such as from NLR https://www.nlr.org/capabilities/third-party-risk/. See also Eurocontrol's feasibility study of different approaches to third party risk modelling at https://www.eurocontrol.int/publication/feasibility-study-integration-third-party-risk-near-airports-impact

Suggestion: review the suitability of alternatives to the NATS model.

Many thanks for considering these points. I'd be happy to discuss, or explain further

	if anything is unclear.
Response	Noted The policy is designed to simplify the PSZ process, and shift the focus of resources from development of PSZ maps, to monitoring activity within the PSZ itself. As such, while the PSZ is not bespoke to each airport, we believe this is an appropriate response to meeting this policy aim, while taking into account advances in aviation safety, which have resulted in an overall reduction in the likelihood of an accident occurring around the end of a runway. For the same reasons, we are comfortable with the outcome of this policy change that some airports will see a reduction in the size of their PSZ. As mentioned in the consultation page, NATS decision to cease offering the modelling service provided an opportunity for the DfT and the CAA to review the PSZ circular and policy to ensure it remained fit for purpose with the 32 aerodromes that have a PSZ established. However, providing evidence to justify the new shape may be difficult to do as much of it has been given in confidence. We have worked with a number ICAO Working Groups, other States, aircraft manufacturers and industry associations to review the latest data to support our proposal. It was not a single case review and as such did not generate one particular document. We took the opportunity to use the data that had been produced for ICAO to primarily help design the new obstacle limitation surfaces that will be proposed by ICAO in the near future. This data also indicated where aircraft crash during their approach to the runway. The shape we have chosen captures 90-95% of those sites, the remaining ones being so far from the aerodromes that they would not have been captured by the existing risk model profiles. On Obstacle Limitation Surfaces (OLS), we would like to note that efforts on the international level reflect our own. ICAO is in the process of introducing a simplified approach to OLS and changes introduced to the PSZ in England reflect the trend. Another consideration to support the proposed change was due to the fact that NATS considered the current version of their risk modelling tool to be reaching its end of life. The crash data incorporated within the model hadn't been updated since a model refresh was included in the last DfT contract, and there were software version incompatibilities that made using the tool very difficult.

Comment

16 comment by: *Aviation Environment Federation*

Introduction

The Aviation Environment Federation (AEF) is the principal UK NGO campaigning on aviation's impacts for people and the environment. It was formed in 1975 to represent the interests of communities living around civil airfields and airports who were increasingly affected by the noise from a rapidly growing industry, and to seek solutions at a national and international policy level.

AEF has long believed that a policy along the lines proposed by the IPPR in 2003[1] would better serve the public health and safety interests of communities overflown by aircraft operating in the take-off or landing phases of flight by combining protection from excessive noise, poor air quality and crash risk.

The Proposal

Our understanding is that this policy has no status in statute. However, we consider it an important contribution to the government's general duty of care to communities which are subject to known crash risk. We are, therefore, disappointed that the proposal, by removing reliance on the model originating from the "Green Book"[2], decouples the specified land use constraints from the available data on crash rates, crash locations and crash consequences. The two justifications for change given are:

· *"NATS have given notice to stop providing the risk modelling service"*

NATS being unwilling to provide the modelling service does not justify the establishment of fixed annual individual risk contours. The DfT own the model, and there are a number of acknowledged experts able to provide the modelling service.

· *"The proposed standardised shape . . . will capture 90-95% of accidents shown to be located outside the aerodrome boundary."*

This vague assertion, which we assume refers to global crash location data, does not constitute a rational basis for the new policy: unless it can be demonstrated that crash distance from the runway ends is correlated with the number of air traffic movements at an

1 Institute for Public Policy Research, "The Sky's The Limit", 2003: "Public Safety Zones should be revamped as Public Health and Safety Zones. The health impacts of noise and air quality should be help to decide how much land use development to allow and how much money could be spent on local area mitigation and compensation projects"

2 Department for Transport, "Third Party Risk Near Airports and Public Safety Zone policy", 1997 airport, there is no justification for applying shorter lower risk zones to airports with traffic below 45,000 movements per annum.

Paragraph 1 of the Annex to DfT circular 01/2010 states that "Public Safety Zones are areas of land at the ends of the runways at the busiest airports, within which development is restricted in order to control the number of people on the ground at risk of death or injury in the event of an aircraft accident on take-off or landing." Paragraph 5 (4 in the proposed revision) states that "The Secretary of State regards the maximum tolerable level of individual third-party risk to public safety as a result of an aircraft accident as 1 in 10,000 per year." Both of these statements are unchanged in the proposed new circular although the revised implementation of the policy abandons any direct linkage with a mechanism for applying the tolerability threshold stated.

Nevertheless, the proposed new zones, in almost all cases, will be much smaller than the model based current zones despite the growth in air traffic which has occurred since these have been in place. It is probable, therefore, that the proposed zones will no longer encompass the land which is at or above the risk levels which are represented by the positions of the current boundaries. We, therefore, believe that, to achieve the objectives which are summarised in the quotations above without recourse to the risk models, the existing PSZs must be retained as the future fixed zones. We do not consider the release of the small areas of land between the existing and proposed zones from the constraints of the policy to represent a sufficient benefit to offset the likelihood of, at least in the short term, exposing people on the ground to inflated risk. It should be noted that individual risk does not fall significantly just outside the zone boundaries.

Naming of the zones

If new permanent zones are not to be directly underpinned by modelling, it is inappropriate to apply the "1 in 100,000" and "1 in 10,000" risk labels to differentiate them. We suggest that the outer fixed zone be named the Restricted Zone (RZ) and the inner zone the Exclusion Zone (EZ). These designations are used in the remainder of our comments.

Other applications of the model

As noted above, the amended circular confirms that the Secretary of State continues to regard the intolerable level of individual risk to be 1 in 10,000 per year notwithstanding the proposal hinges on the discontinuation of the risk modelling. In particular the proposal fails to acknowledge:

(a) that local planning authority's (LPA's) compliance with the Secretary of State's tolerability thresholds cannot be demonstrated in the absence of a modelling service

(b) that The Planning Inspectorate, an MHCLG subsidiary, has accepted that in determining airport applications the length of modelled annual individual risk contours may be regarded as a proxy for third party risk. (See the appendix for an example of how this has been applied.)

(c) That the crash model will no longer be available for calculation of risk in other

contexts (e.g. societal risk, risk to critical infrastructure and proposals for high-occupancy buildings close to the zones)

(d) That when proposals for transport infrastructure are being considered, the guidance in paragraph 18 "Transport infrastructure is . . . considered for Public Safety Zone policy purposes as if it is residential, commercial or industrial development" is often interpreted as a requirement to assess the exposure to individual risk of the most frequent user of the development (a bus driver, for example). This requires recourse to the use of the model.

Without updates, LPAs and others may rely on versions of the model which do not reflect the contemporary aviation safety record.

Uses of land beyond the zones

As has already been observed, the level of risk to individuals does not change radically when a zone boundary is crossed. We suggest that the circular should include a paragraph pointing out that development proposals for high occupancy buildings just outside the RZ should be considered carefully on a case by case basis.

Content of the Proposed Circular

As the revised zones remove the risk modelling underpinning the guidance in the Circular, we believe that the text requires much more radical revision than has been proposed. This should be aimed clearly at the target audience of local authority planners.

In particular

・Paragraphs 2 and 4: These should be re-drafted to recognise that the revised zones represent a simplification of the risk analysis which was embodied in the previous policy version (Circular 01/2010).

・Paragraph 3: In our experience, it is little understood that the “safety benefits” referred to here are quantified in the cost-benefit analysis as potential compensation for loss of life. We believe it is important that this point is understood by those making planning decisions within the policy guidelines.

・Paragraph 4: The sentence “The Secretary of State regards the maximum tolerable level of individual third-party risk to public safety as a result of an aircraft accident as 1 in 10,000 per year” must be revised to reflect the removal of any specific tolerability threshold from the policy.

・From paragraph 4 onwards: The references to the 1 in 10,000 and 1 in 100,000 risk levels and contours must be removed as they no longer apply.

・Paragraph 7: The sentence “This was in line with the ICAO approach area for an instrument runway” appears to be simply justification for the selection of one of the two zone lengths and is, therefore, irrelevant in the circular.

	・Paragraph 8: This questionable justification for the particular zones selected (see our earlier comment) would more appropriately be included in the revision to paragraphs 2 and 4. ・Paragraph 13: In our experience, the DfT has been unwilling to advise LPAs on the application of this policy. ・Paragraph 18: Experience of proposals for new transport infrastructure in Public Safety Zones indicates that interpretations of this guidance vary widely, from direction to assess individual risk for the most frequent users to consideration of societal risk. The DfT may wish to clarify its intentions in the revised circular.
Response	Partially accepted We have reviewed your comments and have amended the naming of the zones to show that they no longer reflect a specific level of risk. A PSZ now comprises of an outer boundary which is Public Safety Controlled Zone (PSCZ) and an inner, higher risk zone, which is the Public Safety Restricted Zone.

Comment	*17* comment by: *Heathrow Airport Limited* Heathrow Airport have considered the proposed Public Safety Zones (PSZ) and the effects they could have on the aerodrome from both a planning and safeguarding perspective. It is our opinion that the proposal would not adversely affect Heathrow. Therefore, we are in support of the proposed revisions to the Public Safety Zones.
Response	Noted The CAA would like to thank you for your supportive comment.

Comment	*18* comment by: *MAG* Thank you for the opportunity to comment on the proposed changes to the measurement of Public Safety Zones (PSZs) to introduce a standardised shape and distance. MAG has considered the implications of the changes for our three airports at Manchester Airport, Stansted Airport and East Midlands Airport; we conclude that we have no objections. With reference to Para 21. of the proposed Circular, we would appreciate some clarification on who will be responsible for producing and disseminating the new PSZ drawings to local authorities and the timescale for the implementation of the

new maps.

Response

Partially accepted

The CAA would like to thank you for your supportive comment. The CAA will ensure clarity on who is responsible for producing and disseminating the new PSZ maps will be included in the Circular.

Comment

19 comment by: *T. Henderson*

I write to object to the proposal to standardise the design of Public Safety Zones following the decision of NATS to stop modelling risk contours.

As I understand it, the previous design was based on a careful scientific approach to assessing the level of risk in these areas and took into account

I) the annual probability of a crash occurring near a given airport (crash frequency);

II) the distribution of such crashes with respect to location (crash location model); and

III) the size of the crash area and the proportion of people likely to be killed within this area (crash consequence model).

THIRD PARTY RISK NEAR AIRPORTS AND PUBLIC SAFETY ZONE POLICY Report for Department of Transport 1997

It is appropriate to adjust the size of the area in relation to the number and type of movements and complexity experienced by an airport rather than baldly state that one-size (or merely two) fits all circumstances.

In my view it is wrong to assume that a major airport, such as Heathrow, with 480,000 ATM a year and two runways should have the same area exposed to risk as a single runway aerodrome with 45,000 ATM. The fact that NATS is no longer willing to carry out the required analysis is not sufficient to justify the gross and dangerous simplification without more detailed explanation.

The policy document asserts " It is widely known that despite growing air traffic, the number of accidents is decreasing."

Evidence should be stated to support this. The issues over the poorly-designed control system of the Boeing 737MAX and concern over pilots becoming over-reliant on automation and lacking flying experience to manually handle planes does not sit well with the comment. In addition, there is a tendency with enhanced time-based separation to squeeze separations and timings until the pips squeak and the scope for reaction time is reduced. Nor am I reassured by the prospects of

	independent parallel arrivals with late curved turns onto the glidepath and the potential difficulties, unexplained, of incorporating missed approach procedures in a three runway airport.
Response	Noted The UK government is confident in its approach to ensuring high level of aviation safety which is exemplified by its excellent safety record. Data provided by International Civil Aviation Organisation safety reports are one source available to the public that demonstrates a historic decrease in accident rate and fatal accidents despite the continuous increase in traffic. This is the result of improving technology and stringent rules regulating aviation safety matters. Additionally, the CAA have worked with a number of ICAO Working Groups, other states, and aviation industry stakeholders to review and consider the latest data to confirm that the risk profile in Public Safety Zones has reduced, and the proposals in the current consultation document are proportionate to that risk.

Comment	*20* comment by: *Liverpool John Lennon Airport* Thank you for giving Liverpool John Lennon Airport the opportunity to comment on the proposals for the changes to the Public Safety Zones (PSZ). The consultation on the future structure and role of PSZ is welcome as the responsibility of delivering and the overall objective of the Secretary of States intention to minimise risks appeared seems to fall between the Aviation and the Planning regulators. The bullet points below summaries the comments that we are making on the consultation, if further clarification is required, please do not hesitate to call or email for more details. • The re-calculation of the risk contours on a 7-year circle means there will be changes in the shape and size of the risk contour. This results in buildings and areas of land moving in and out of the risk contours, which creates uncertainty for the airport, community, and the Local Planning Authority (LPA). Therefore, the airport company welcomes the increased certainty that the new proposed fixed standard PSZ risk contours will provide greater certainty long term certainty and be simpler to understand and explain. However, if these are not a permanent longer-term solution, there is no benefit changing this current risk contours from LJLA perspective as they are making them larger. • The proposed standard risk contours resolve the uncertainty over who and how the PSZ risk contours will be modelled in the future. At LJLA the proposed 1:10,000 is much larger but it does not incorporate any further buildings, if the proposed standard methodology had incorporated any new buildings, we would be very concerned about the obligations to purchase based on a standardise one

size fits all solution.

- The assumption is that the obligation to distribute and provide the new PSZ risk contour maps to the local LPA continues will remain with the Civil Aviation Authority.
- The updating of the PSZ risk contours needs to be accompanied with a revision of the Planning Circular. Therefore, it is essential that DfT/CAA work with MHCLG to ensure this is undertaken promptly, as LPAs will be evolving their respective Local Plans which the PSZ guidance will be seeking to influence and inform.
- The Airport Company would welcome clarification in the new guidance on the obligation to offer to purchase houses that no longer fall within the proposed 1:10,000 risk contour but may have been in previous versions of the 1:10,000 risk contour.

If further clarification is required on any of these points, please do not hesitate to call or email me.

Response

Noted

The CAA would like to thank you for your supportive comment. It is anticipated that guidance will be produced to support the change in PSZ Policy.

Comment

21 comment by: *Rushmoor Borough Council*

I am writing on behalf of Rushmoor Borough Council in response to the above consultation.

The proposal is to adopt a standardised zone profile for Public Safety Zones (PSZs), to be applied to all airports with above 18,000 air traffic movements a year. This will replace the modelled third-party risk assessment for individual airports previously undertaken every 7 years. It is noted that this is based on the knowledge that PSZ areas have not significantly changed in the last decade and that flight performance of new aircraft types has led to substantial improvements in aviation safety.

At Farnborough Airport, the proposed PSZ (greater than 45,000 ATMs) will be significantly smaller that the existing PSZ currently adopted, even though both represented the 1 in 100,000 individual risk contour for the airport. Rushmoor Borough Council recognises that the existing PSZ may have been conservative in its assessment of third party risk at the airport. However, given the lack of detail provided as part of the consultation, RBC is unable to offer a view on the proposed PSZ and would welcome further clarity on how it has been produced. We trust that the extent of the proposed PSZ will properly address the risk posed to the borough's residents that live on the flight path to the airport, specifically as the proposals will enable densification of residential development within areas that

currently lie within the existing PSZ.

There is no formal national policy that deals explicitly with safety when a new airport, or significant development at an existing airport, is proposed. Rushmoor BC have historically applied the general principles on which the PSZ Policy is based in determining the level of risk associated with proposals to increase business aviation flying at Farnborough Airport. This approach was originally informed by comments made by the Inspector at the Rushmoor Local Plan Review 1996-2011 examination, who concluded that the issues of risk to third parties should be addressed by reference to a constraint on the geographic extent of the 1:10,000 risk contour. This approach was further endorsed by the Inspector at the planning appeal into the 2009 planning application to increase the number of annual business aviation flight movements to 50,000, who considered that, in the absence of a national policy, the extent and nature of development covered by the PSZs as defined using individual risk contours could be taken as a rough proxy for the quantum of third party risk. The recently adopted Rushmoor Local Plan (February 2019) contains detailed policy for future development at Farnborough Airport, and includes Policy SP4.4 that deals specifically with safety. Given that there is no national policy that deals with third party risk in relation to development at airports, and that future PSZs will no longer be defined using Third-Party Risk modelling methodology, RBC would welcome guidance on how third party risk should be considered at airports as part of the land use planning regime.

Response

Noted

Comment

22 comment by: *Southend Borough Council*

Introduction

Southend Borough Council welcomes the opportunity to comment on the Public Safety Zone consultation from the Civil Aviation Authority. This is an officer response but has been circulated among Southend Councillors who sit on the Airport Consultative Committee for comment and incorporates their views.

The Airport is an important economic and transport asset to the Borough. However its location on the edge of a densely populated town creates challenges, with one of the main flightpaths being over a residential area. The safe operation of the Airport is therefore of great interest both to the Council and local residents.

Overall observations

It is recognised that a Review of the existing system of designating PSZ's is required given the withdrawal of National Air Traffic Services from undertaking modelling.

The consultation itself is very short and does not provide any supporting documentation illustrating the increase in aircraft safety or for how distances for

	the new zones that have been selected. It would have been helpful to have sight of this data to have further understanding of the approach taken. While it is recognised that the proposed approach will simplify the approach for operators and regulators it is also important that local authorities and the public have confidence in the new approach being taken. This is especially so in the context of the wider implications of airport operation, such as noise impacts. <u>Implications for Southend</u> The current PSZ within Southend extends 2.175km south west from the end of the runway. This is considerably more extensive than that now being proposed by CAA, which would be 1km in length based on 2019 levels of Air Traffic Movements. The PSZ in Southend is largely over existing housing. The PSZ at the north eastern end of the runway is within Rochford Borough Council area and is nearly all over agricultural land. A significant proportion of the fleet using Southend are understood to be older aircraft, especially the cargo fleet. The Airport has little influence on the aircraft used nor does the Council. The effect of the new proposal would be to significantly reduce the impact on dwellings in Southend. The PSZ is a material consideration on Planning Applications which fall within the prescribed area. <u>Points for consideration</u> • CAA should publish more supporting information justifying the need for the change and the reasoning behind the dimensions for the new PSZ's. In its current form the Council is not able to support the proposals without further re-assurance on the safety credentials of the older fleet. • Clarification should be provided on whether the PSZ outer zone automatically becomes 1.5km when an Airport hits the threshold of 42 000 Air Traffic Movements (ATM's) and if it falls away if the number of ATMs falls below the 18 000 minimum? • It would be helpful if guidance on the consideration of PSZ's for relevant planning applications is updated.
Response	Noted Additional guidance supporting the change in PSZ Policy will be produced. This initiative comes as the result of NATS ceasing to provide modelling services. Both the software and the model used have reached end of life state and were no longer fit for purpose. Furthermore, the data used in the model was using data points from parts of the world which have a poorer record than the UK, exaggerating the risks and inflating the size of the Public Safety Zones. These factors have fed into the decision to review the policy that was active since 2003 and ensure it was fit for purpose. The UK government is confident in its approach to ensuring high level of aviation safety which is exemplified by its excellent safety record. Data provided by the

	International Civil Aviation Organisation safety reports are one source available to the public that demonstrates a historic decrease in accident rate and fatal accidents despite the continuous increase in traffic. This is the result of improving technology and stringent rules regulating aviation safety matters. Additionally, the CAA have worked with a number of ICAO Working Groups, other states, and aviation industry stakeholders to review and consider the latest data to confirm if it supports our assumptions about the changes, which it did. The shape and dimensions of the PSZ are the result of the data review and encompasses between 90% and 95% of accidents on approach, despite some airports experiencing a reduction in the size of their respective PSZs. The remaining ones took place too far from the airport and would not have been captured even by the current risk mode. We have clarified parts explaining how and under what conditions an airport should introduce, remove or alter a PSZ. Changes to PSZs will have to be based on 3 years-worth of data to establish a pattern and avoid rapid changes. Guidance on the consideration of PSZ's for relevant planning applications will be reviewed in due course.
Comment	*23* comment by: *AGS Airports Group* This response is written on behalf of Aberdeen and Glasgow Airports, both part of the AGS Airports Group and we are pleased to have the opportunity to comment on the above consultation to ensure Aerodrome Safeguarding issues are appropriately considered. We welcome the proposed standardisation of public safety zones and note that this will reduce the overall PSZ area for both Glasgow and Aberdeen airports. A slight increase in the area covered by the 1:10,000 risk contour will now apply to both airports, however this will remain within the ownership boundary for each. We do seek clarity on the process and timescale for producing new maps and distributing these to affected planning authorities and airports, both to reflect the proposed standardisation and in the event of a future change to runway characteristics or number of ATMs. We also note that Scottish Government Circular 8/2002: Control of Development in Airport Public Safety Zones will require to be updated to reflect CAA's proposed changes. We trust this response is of assistance and would welcome the opportunity to discuss further should you wish clarification.
Response	Partially accepted The CAA would like to thank you for your supportive comment. With regard to applicability, the new policy applies to England only. It is up to devolved administrations to update their individual policies, because PSZ policy is impinges on planning matters and it is therefore a reserved matter.

Previous integrations of this policy presented by Devolved Administrations have followed England's approach, but this is not mandatory. It is therefore up to Devolved Administrations to decide how and when their respective policies will be introduced.

For context, in case of England the application date is also the date of publication. We therefore expect airports with a PSZ to begin updating their maps immediately. Those without a PSZ, but eligible to have one should discuss the situation with the CAA to agree on the next steps towards introducing a PSZ at their airport.

Comment

24 comment by: *Heald Green Ratepayers' Association*

I write on behalf of the Heald Green Ratepayers' Association, representing an area partially within the existing PSZ for Manchester Airport.

I have read the response of AEF to the consultation and agree with the points they make.

In addition, I make the following point.

Whilst it might be true that aircraft crashes close to airports have decreased in frequency, I would point out that the result of individual crashes have become more devastating over the years for the following reasons.

1. Aircraft physical size, particularly wingspan, has increased. As a result of this the width of the swathe of damage caused by a crashing aircraft has increased.

2. As landing and take-off speeds have increased, the kinetic energy of crashing aircraft has increased. As kinetic energy is proportional to the square of the speed, a small increase in speed causes a more substantial increase in kinetic energy. This leads to a correspondingly substantial increase in the length of the damage swathe and the demolition force caused by a landing/take-off crashing aircraft

3. The amount of fuel in the newer heavier aircraft has increased. The people I represent are regularly overflown by aircraft carrying upwards of 100 tonnnes of JetA. This increased fuel load, paricularly when combined with higher speeds, means a much increased area of post-impact fire.

Additionally, I would point out that public perception and attitude to safety have sharpened over the years. In particular, attitudes to public safety have been brought into prominence by the Grenfell Tower tragedy. It will be a brave department which promotes any change to safety regulation which could even be perceived as lowering safety standards.

I would respectfully propose that the existing PSZ system be not tampered with.

Response

Noted

Comment

25 comment by: *S. Jones-Hall*

Overarching General Comment

There is no differentiation between Public Safety Zones (PSZ) for airports flying dedicated freighters or passenger planes.

As you will be aware dedicated freighters tend to be older planes and therefore are more likely to be accident or incident prone. Consequently a larger PSZ would be required. Further, dedicated freighters tend to be larger planes.

Para 2: Risk Contour

The focus is purely on frequency of planes whilst of importance. The operating maximum take off weight, length and wingspan must be taken into account. This particularly the case for large dedicated cargo planes and planes that require a long runway. Further the altitude must be taken into account. Last but not least the origin of the aircraft and its crew must also be taken into account. A one size fits all approach is reckless and risks lives.

This year alone - the year of COVID 19 and reduced flying - we have seen the following plane crashes which would ALL fall out with the proposed PSZs:

A. 11 August 2020, a Boeing 737 aircraft landed 1000 metres beyond the threshold of the runway before skidding off and sliding into a ditch. 18 people were killed.

B. 24 June 2020, an Airbus A320 crashed about 1,340 metres short of the runway killing all 97 people on board.

C. 28 May 2020, an Airbus SE A320 glided into a neighbourhood as pilots were attempting to return to the runway killing 97 people.

D. 26 January 2020, Caspian Airlines Flight 6936, a McDonnell Douglas MD-83, overruns the runway on landing at Mahshahr Airport, Iran, landing on a road beyond the runway. All 144 passengers and crew survive.

E. 5 February 2020, a Boeing 737-800 operating Pegasus Airlines Flight 2193 from Izmir skids off the runway on landing at Istanbul Sabiha Gökçen International Airport, and breaks into pieces. Three people were killed and 179 injured.

F. 7 August 2020, Air India Express Flight 1344, a Boeing 737 flying from Dubai International Airport to Calicut International Airport, suffers a runway excursion upon landing. Both pilots and 18 passengers were killed in the accident.

G. 22 August 2020, an Antonov An-26 operating a South West Aviation cargo flight from Juba to Aweil, South Sudan, crashes upon take-off, killing 8 of the 9 occupants on board.

H. 13 November 2020, a Volga-Dnepr An-124,the Antonov had difficulties

braking, and it overshot the runway by some distance.

In November this year, Russian cargo airline Volga-Dnepr has grounded its fleet of Antonov An-124 aircraft; however, Antonov Airlines has not grounded its fleet.

Let us not forget that in March 2019, the 737 MAX was grounded worldwide after 346 people died in two crashes, Lion Air Flight 610 and Ethiopian Airlines Flight 302.

Para 7: Establishment of PSZ

At para 7 requirement for PSZ when 18,000 ATMs a year places too high a burden on the Local Planning Authority and its councillors. There needs to be a clear and jargon free method of ascertaining when an airport requires a PSZ.

If an airport is a Nationally Significant Infrastructure Project; it must have a PSZ. It surely follows that this would also be part of the planning process.

If an airport forecasts that within a reasonable lifetime of an airport there will be 18,000 ATMs; it must have a PSZ.

At the end of the day we are talking about people's homes and businesses. It is clearly not right that planning is given to a housing or employment/ business development that once built or soon after will fall within a PSZ.

It is clearly not right when there is a pressing need for housing that decisions cannot be taken with for example review of and adoption of Local Plans as to where housing and employment land and its infrastructure (schools, doctors etc) can be built that will last at least for the duration of a council's Local Plan out with a PSZ.

There also must be a means for a local Council that will after all bear the brunt and cost of the social, medical and reputational risk if there is an accident on take-off or landing to require a PSZ of an airport of a size and at a time that it sees reasonably fit.

Response

Noted

Comment

26 comment by: *A. Haughton*

I wish to respond to the Public Safety Zones Proposed Circular in relation to London City Airport.

London City Airport is in a highly developed area which has become predominately residential immediately around the airport. There are many other developments proposed around the area, including in the 2010 PSZ.

The current London City Airport Public Safety Zone model is dated 2010 and the airport since then has had a further expansion approved, that includes an increase in its airspace, and has also released a follow up to its 2006 masterplan in 2020.

	Masterplans should be reviewed every five years and this in 9 years late. The London City Airport PSZ encompasses third party, private and publicly owned land and water. DfT circular 01/2010 Annex 3 states that Third party individual risk contours around airports will be remodelled at intervals of about seven years, based on forecasts about the numbers and types of aircraft movements fifteen years ahead. These forecasts have been provided during the CADP Development permissions and the PSZ is still not current. It is paramount that residents, businesses and developers have proper current based PSZs to understand the changes in the proposals and to understand the impacts. Without this up-to-date information, a consultation is flawed and I cannot fairly and properly respond as I am legally allowed to do so. All airports included in the consultation should have current PSZ modelling, it is patently unfair if some airports do and others do not. I am requesting that the consultation be paused or halted until I have the current and proper London City Airport modelling and map so I can respond to a consultation that has a huge impact on public safety and development.
Response	Noted