

Summary of responses to stakeholder insights

PROPOSED DESIGN PRINCIPLES

Ref	Stakeholder Insights	Source	Proposed Design Principle	Commentary
S	Safety is essential and sits alongside all design principles	Focus group and questionnaire responses	Our routes must be safe, and must comply with industry standards and regulations.	<p>Safety and security is paramount in everything we do at our airport and for the aircraft flying into and out of it. This would be expected of us by all airport users, the public and our regulator, the CAA.</p> <p>Safety is designed into all airspace and is a fundamental foundation for all aircraft and air traffic control systems and procedures. All routes that we design will undergo a full safety analysis and this will form the basis of safety approval by the CAA. Only when the routes are shown to be safe will they enter operational service. Where this is referred to as a Proposed Design Principle, it is in relation to safety in the sky, not other issues such as the health and wellbeing of people on the ground. These issues are addressed by other Proposed Design Principles. Safety in the sky relates to all aircraft, not just commercial aircraft in MAN's Controlled Airspace. This includes, for example, emergency and military aircraft.</p> <p>Once in operation there are multiple ground-based and aircraft-based systems that ensure safety is maintained.</p> <p>This Principle was primarily developed from feedback on Question 10 'meeting requirements' and appeared as a recurring theme throughout other question responses. Focus Groups and questionnaire responses consistently supported this Proposed Design Principle.</p>

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P	Changes must connect to the wider UK network and align with the FASI-N programme, taking into consideration the needs of neighbouring airports	Focus group and questionnaire responses	Any change must accord with the Civil Aviation Authority's Airspace Modernisation Strategy. Any airspace change must also allow connection to the wider UK En-Route network and be aligned with the Future Airspace Strategy Implementation for the North programme and take into consideration the needs of other airports.	<p>Airports are key engines of growth for the regional and national economy, providing connectivity, employment, and a hub for local transport schemes. The DfT is in the process of finalising its new Aviation Strategy, and the CAA has already published its Airspace Modernisation Strategy (AMS). Both of these documents are clear that airspace modernisation is key to ensuring airports operate effectively and efficiently, bringing the associated economic benefits from international connectivity to a region.</p> <p>In addition, both documents highlight the inefficiencies of the current outdated airspace system and set down a list of objectives that future airspace must deliver. These include:</p> <ul style="list-style-type: none"> - maintaining and enhancing high aviation safety standards - securing the efficient use of airspace; - improving environmental performance by better managing noise through the use of quieter operating procedures; - reducing emissions; and - avoiding flight delays <p>These objectives are addressed by the inclusion of this Proposed Design Principle.</p> <p>Because airspace works together as a system, our Future Airspace Project cannot be completed in isolation. All airports in the North are therefore working together within the FASI-N programme. This is part of a national programme, with many airports making changes at the same time. In order to co-ordinate this large-scale change, the DfT has created ACOG. This coordination will aim to make sure the new airspace system is the most efficient system for all. The CAA will make decisions on any issues relating to this coordination.</p> <p>This Principle was developed from feedback on Question 10 'meeting requirements'. Focus Groups and questionnaire responses consistently supported this Principle.</p>


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C	The region benefits from the positive economic impact of the airport expansion with consideration	Focus group and questionnaire responses	Our future airspace must enable best use of the capacity of our existing runways, in line with government policy	<p>The Future Airspace Project needs to deliver an airspace design that will enable MAN to make best use of its available runway capacity in order to meet the forecasted increased demand for air travel across the UK, and realise the associated economic and social benefits for those living and working in MAN’s catchment across the North.</p> <p>This principle aligns with MAN’s Statement of Need and government policy to make best use of the capacity of MAN’s existing runways. This is referred to in its policy adopted by the UK Government in June 2018, which stated that “government has set out its support of airports beyond Heathrow making best use of their existing runways, subject to related economic and environmental considerations being considered.”</p> <p>MAN is the only airport outside London with two full-length runways, with its second opening in 2001. Since then MAN has seen an increase in the use of both runways. Currently volumes stand at around 29m, with MAN’s most recent Sustainable Development Plan estimating that using the two runways to their full potential could enable passenger throughputs of up to 55m per year.</p> <p>Therefore, reference to ‘making best use’ in this Proposed Design Principle refers to ensuring future designs enable MAN to continue to grow to reach these passenger volumes. It is acknowledged this needs to be achieved alongside investment in MAN’s terminal facilities, with a £1bn transformation programme underway, and associated surface access improvements.</p> <p>The Principle was developed from feedback on Question 10 ‘meeting requirements’. Focus Groups and questionnaire responses consistently supported this Principle, provided the growth referred to is balanced against impacts of noise and emissions which are addressed in other Proposed Design Principles.</p>
E	Design the best possible routes, prioritising emissions savings	Focus group and questionnaire responses	We will minimise, and where possible reduce, emissions when we design routes. This may be achieved by selecting the most direct routes.	<p>This Proposed Design Principle was developed from feedback on Question 4 ‘balancing noise and emissions’ and relates to the reduction of CO2 emissions. It does not directly cover local air quality, although the impact on air quality will be measured as part of our environmental assessment of route options.</p> <p>Focus Group feedback showed a clear preference for flying the most direct routes possible to reduce emissions, whereas questionnaire responses were in favour of option two, highlighting the potential noise impact to communities in this case. As this Principle will be balanced with other Principles relating to noise impacts, we include this Principle to reflect the desire to reduce CO2 emissions where possible.</p> <p>One way we can achieve this is by making Continuous Climb Operations (CCOs) one of our design requirements for the new routes. CCOs provide a flight profile that eliminates the need for aircraft to level off on departure which leads to reduced fuel burn and CO2 emissions and can also reduce noise. Similarly, by using Continuous Descent Operations (CDOs) we can apply the same Principles to our arriving flights which will make them quieter and more fuel efficient. The use of these routes on climb and descent is also used by NATS which has confirmed that reducing CO2 is a common objective in its operations in the upper levels of UK airspace.</p> <p>Given current government policy gives greater priority to noise over emissions for routes below 7,000 feet, this Proposed Design Principle will be balanced by other Principles relating to noise.</p>

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N1	Reduce the impact of noise on people	Questionnaire responses	Our route designs should seek to minimise, and where possible reduce, the number of people affected by noise from our flights.	<p>The feedback to our Question 3 'flying over built up areas' was balanced, with many people highlighting impacts of flying over both rural and built-up areas. The common theme from both perspectives was the impact of noise upon people, including children, who live under flight paths. For example, it was discussed this can affect sleep, disturb peace and quiet and affect mental and physical health, especially at night. This has driven the inclusion of this Proposed Design Principle.</p> <p>This feedback is supported by the CAA Airspace Modernisation Strategy and government policy, which states that noise will be given greater priority than emissions for routes below 7,000 feet. We have created this Proposed Design Principle to ensure consideration of the impact of aircraft noise on people on the ground. In practice, this means we will consider local circumstances and where possible, we will prioritise routing flight paths over areas of low residential density to minimise the number of people affected by noise, and incorporate noise efficient operational practices such as climbing and descending continuously. It was, however, acknowledged that flights over less densely populated areas can create noise-related affects for those who live within them. This will be considered and balanced alongside other Proposed Design Principles.</p>
N2	The noise and emissions impact should be shared by the many, not focused on the few. Concentrate where you can avoid people, but spread where you can't	Focus group and questionnaire responses	Where practical, noise effects should be shared. The use of dispersion and/or respite, especially at night, will be considered to achieve this.	<p>This Proposed Design Principle was developed from feedback on Question 2 'concentrating or spreading out flight paths'. Focus Group and questionnaire feedback was in favour of spreading flight paths, noting that the main area of concern was noise impacts. All the Proposed Design Principles will be applied consistently. This means that no single community will be treated differently.</p> <p>Focus Group responses to Question 1 'avoid change or fly over new areas' showed a clear preference for flying over new areas to 'share the burden' (balanced by questionnaire responses) but there were concerns around the impact of noise on newly-affected areas. This is dealt with in this Principle, by looking at dispersion and respite as potential techniques to share the burden of noise impacts.</p> <p>Night was consistently raised as a period of particular importance in relation to noise impacts, and is generally defined as between the hours of 11:30pm and 6:00am (local time). However, we will review, with our stakeholders, the possibility of considering periods of respite outside of these times later in the process.</p>
N3	Avoid flying over noise sensitive areas, such as historical attractions, tranquil or rural areas, and sites of care or education	Focus groups	Where practical our route designs should avoid, or limit effects upon, noise sensitive areas. These may include cultural or historic assets, tranquil or rural areas, sites of care or education.	<p>This Proposed Design Principle was developed from feedback on Question 9 'areas that we should avoid flying over'. Feedback covered various priorities for people including those listed within the Principle.</p> <p>Avoiding overflight of all of these locations in every case would be impractical but we will endeavour to achieve this where possible. This issue will also be captured through our ongoing engagement, including consultation at Stage 3 of the CAP1616 process, when we will find out more about any local characteristics or noise sensitive areas that we should consider.</p> <p>In some cases, there will be a natural tension between this principle and N1, which seeks to prioritise routing flight paths over areas of low residential density. With this in mind, consideration of whether different types of area could be overflowed at different times of the day will be given.</p>

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A	Prioritise airport air traffic over other airspace users, except for emergency aircraft. Consideration should be given to the needs of other airspace users	Focus group and questionnaire responses	Our route designs should minimise the impacts on other airspace users by limiting Controlled Airspace.	<p>Whilst our airspace change and route designs will prioritise the needs of aircraft flying into and out of MAN, we also recognise the concept of maximising airspace access for other users.</p> <p> That reason, we are not proposing any increases to the existing size of the MAN airspace, or any changes to the access arrangements, and this includes access by air ambulance and military flights who are already afforded priority within UK aviation rules. We are also not proposing any changes to the corridor that provides access to Manchester City Airport for GA traffic.</p> <p>Equally, if there are portions of airspace (currently used by commercial traffic) that we will no longer use following the completion of our Future Airspace Project, we will consider returning them for GA use. This will be taken on a case-by-case basis and will be assessed for the safety and implications to other airspace users in the same way that we assure all airspace.</p> <p>This Proposed Design Principle was developed from feedback on Question 6 'other airspace users'. Focus Group feedback from aviation stakeholders requested consideration of other airspace users where possible, hence the inclusion of this Principle.</p>
T	Take advantage of technology and the opportunity to modernise to ensure future-proofing	Focus group and questionnaire responses	Our route designs should be based on the latest aircraft navigational technology widely available.	<p>As part of the UK AMS, we are required to modernise the routes and procedures in and out of MAN.</p> <p>This will be achieved by eliminating the reliance on technology related to many of the ground-based navigational aids and using the in-built technology of modern aircraft. In order to do this effectively, we will be engaging with all airlines to understand both the current and future navigational capabilities and technology of the aircraft that they use. This will tell us not only the standard to design to but also help us understand the need to update ground-based technology to support their future operation.</p> <p>With this knowledge, we can make sure that we design procedures to standards that can be flown by all types all aircraft flying into and out of MAN. As the capabilities of the aircraft evolve and improve, we will decommission any procedures that are no longer required.</p> <p>The technology used by modern aircraft has a high level of reliability, but in the unlikely event of technology failure, there are multiple fallback systems and cross-checks within the aircraft and within the air traffic control system that will ensure that the safety of the aircraft is maintained at all times. For example, all aircraft using these routes will have on board monitoring that detects any issues and will automatically switch to other systems to ensure their position. The use of technology and the resilience of systems is also addressed in our Proposed Design Principle S that relates to safety, and in the approval of routes by the CAA.</p> <p>This Principle was developed from feedback on Question 7 'aircraft types'. Focus Groups and questionnaire responses consistently supported prioritising new technology, with some suggesting a phased approach to implementation, either in terms of the introduction of new routes or the requirement of certain aircraft to use them, if this is possible in practice.</p>

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LONGLIST OF POTENTIAL PRINCIPLES

Longlist Ref	Stakeholder Insights	Source	Potential Design Principle	Commentary
1	Any changes made should be clearly beneficial; no change for change sake	Focus group and questionnaire responses	Where possible, implement change only where there is demonstrable benefit	An inherent feature of later stages of CAP1616 is to demonstrate a clear benefit/impacts analysis, including metrics on noise and other environmental and social factors. Therefore, it will be addressed later in the process and does not need to be included as a specific Draft Design Principle.
2	Utilise steeper departures and arrivals route to minimise noise impacts	Focus group	Manage noise by designing more noise efficient operational procedures	There are a number of operational procedures, including continuous climb and descent operational design, that could be employed to reduce noise and other impacts. We do not propose a specific Draft Design Principle on this matter because it is inherent in Proposed Design Principle P and in the government AMS.
3	Other sources of noise and emissions should be considered on local areas, not just the impact from aircraft	Focus groups	Impact of noise and emissions from other sources affecting an area should be taken into account, not just the impact from aircraft	Impacts on local areas will be captured through our ongoing engagement, including consultation at Stage 3, when we will find out more about any local characteristics or noise sensitive areas that we should consider. As such, this will be addressed later in the process and a Draft Design Principle is not proposed.
4	More focus should be placed on aircraft designers, to ensure that aircraft emissions are as low as possible	Focus groups and questionnaire responses	Focus should be placed on aircraft designers to ensure that aircraft emissions are as low as possible	This is not proposed as a Draft Design Principle because it is outside the scope of the airspace change process. However, aircraft manufacturers, and Manchester Airport, are part of the coalition 'Sustainable Aviation', which brings together airports, airlines, air traffic providers, and manufacturers to address environmental challenges within aviation. More information, including the industry position and targets on reducing carbon emissions, can be found at https://www.sustainableaviation.co.uk Proposed Design Principle E also addresses the issue of emissions reduction.
5	Aircraft should fly the most direct path on take-off (for speed and efficiency) but avoid local communities on descent/landing	Focus groups	Aircraft should fly the most direct path on take-off (for speed and efficiency) but avoid local communities on descent/landing	There are a number of operational procedures, including direct routes and continuous climb and descent designs, that could be employed to reduce impacts for people on the ground from aircraft noise and these will be assessed later in the CAP1616 process. We do not propose a Draft Design Principle on this matter because it is included in Proposed Design Principles E and N1.
6	Support or incentives should be offered to airlines/operators to adopt new aircraft technology	Focus groups	Support or incentives should be offered to airlines/operators to adopt new aircraft technology	This is not proposed as a Draft Design Principle because it is outside the scope of the airspace change process. However, the concept of working with airlines and operators that use MAN's airspace to encourage innovation is included within Proposed Design Principle T. We will design procedures to standards that can be flown by all types of aircraft flying into and out of MAN, but as the capabilities of the aircraft adapt and improve, any procedures that are no longer required will be decommissioned.
7	Implementation should be phased to allow operators of older aircraft time to adopt new technologies	Focus groups	Implementation should be phased to allow operators of older aircraft time to adopt new technologies	This is not proposed as a Draft Design Principle because it is inherent within Proposed Design Principle T. It is recognised that different aircraft have different navigational equipment and capabilities and our route designs will take account of all users to make sure they can fly the new routes from day one. Over time, routes based on old technology can be removed.

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8	Design routes to achieve the best balance in reducing noise and emissions, but include caps on how many routes can overfly one area	Focus groups and questionnaire responses	Design routes that are most efficient, but include caps on how many routes can overfly one area	Overall feedback across the questions supported 'sharing the burden' of impacts. This concept is encompassed within Proposed Design Principles E and N2, and therefore this isn't included as a stand-alone Draft Design Principle. We do not believe it appropriate to include an explicit cap because it is impractical to avoid some areas local to the runway ends.
9	Avoid flying over built-up areas, event spaces, military activity and areas with a large number of birds on the grounds of safety	Focus groups	Avoid flying over built-up areas, event spaces, military activity and areas with a large number of birds on the grounds of safety	Safety is of paramount importance, and reflected in the inclusion of Proposed Design Principle S. Avoiding particular areas for reasons other than safety, for example noise, is also included within Proposed Design Principles N1, N2 and N3. This will be further explored in ongoing engagement, including at consultation Stage 3. Therefore, the principles proposed here are included elsewhere and not proposed as a stand-alone.
10	Minimise the impact of aircraft noise by offering adequate sound insulation to properties	Focus groups	Minimise the impact of aircraft noise by offering adequate sound insulation to properties	This is not proposed as a Draft Design Principle because it is outside the scope of the airspace change process. However, we will continue to comply with government policy and legislative requirements for noise mitigation and compensation. More information on MAN's Sound Insulation Grant Scheme can be found at https://www.manchesterairport.co.uk/community/living-near-the-airport/sound-insulation-grant-scheme/
11	Minimise the impact of aircraft noise and emissions by designing higher flight paths	Focus groups and questionnaire responses	Minimise the impact of aircraft noise and emissions by designing higher flight paths	There are a number of operational procedures, including direct routes and continuous climb and descent designs, that could be employed to reduce impacts for people on the ground from aircraft noise, but these might not always reduce other emissions such as CO2, as an initial steep climb will require more fuel and thrust. All of these options will be assessed later in the process. We do not propose a specific Draft Design Principle on this matter because it is inherent in Proposed Design Principles E and N1.
12	To reduce emissions, reduce the total number of flights	Questionnaire responses	To reduce emissions, reduce the total number of flights	A number of people highlight the concern that any emissions savings on individual routes would be irrelevant if aviation growth is continued to be allowed. This is not proposed as a Draft Design Principle as it is outside the scope of airspace change. Designs will be developed in line with our Statement of Need and in line with government policy which states that "government has set out its support of airports beyond Heathrow making best use of their existing runways, subject to related economic and environmental considerations being considered."
13	To reduce emissions, promote the use of electric aircraft	Questionnaire responses	To reduce emissions, promote the use of electric aircraft	This is not proposed as a Draft Design Principle as it is not within the scope of the airspace change process. Aircraft manufacturers are part of the coalition 'Sustainable Aviation' which brings together airports, airlines, air traffic providers, and manufacturers to address environmental challenges within aviation. More information, including the industry position, targets and plans on reducing carbon emissions, can be found at https://www.sustainableaviation.co.uk
14	Save CO2 emissions, but avoid areas being overflown by both planes landing and taking off to give respite from noise	Questionnaire responses	Save CO2 emissions, but avoid areas being overflown by both planes landing and taking off to give respite from noise	Overall feedback across the questions supported 'sharing the burden' of noise impacts and reducing emissions. This concept is encompassed within Proposed Design Principles E and N2, and therefore this isn't included as a stand-alone Draft Design Principle.
15	Prioritise emissions over noise	Questionnaire responses	Prioritise emissions over noise	Proposed Design Principle E ensures that route designs will minimise, and where possible, reduce emissions. This Potential Design Principle is not proposed as it contradicts both concerns about noise impacts and current government guidance, which states that noise will be prioritised over emissions for routes below 7,000 feet. The balance of impacts is inherent within the CAP1616 process, with impacts for each route designed assessed later in the process.

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16	Avoid change which would mean impacting new areas / consequence of change should not negatively impact property prices	Questionnaire responses	Avoid change which would mean impacting new areas / consequence of change should not negatively impact property prices	<p>The feedback from some respondents who oppose change was primarily due to concerns over flying over new areas and an impact on house prices. This is an understandable concern but opposed by those who believe that the opportunity to modernise airspace to improve the situation for many and ‘share the burden’ should be taken. Opposing responses also note that historic routings may no longer have valid reasons for existence and new housing developments built since existing routes were designed may also mean that new populations are unfairly impacted.</p> <p>There is also a recognition amongst stakeholders that since existing routes were designed, the noise from individual aircraft is lower, but the frequency in use of the route has increased over time, driving support to take this opportunity to ensure new designs suit current and future needs.</p> <p>The UK AMS, which will see the introduction of new navigational technology, will mean that all routes will be affected by some change. In later stages, we will demonstrate a clear benefit/impacts analysis, including metrics on noise and other environmental factors to understand local circumstances for full consultation.</p> <p>We will also continue to comply with government policy and legislative requirements for noise mitigation and compensation which includes offering sound insulation or exploring alternatives where appropriate.</p>
17	Eliminate night-time flights	Questionnaire responses	Eliminate night-time flights	<p>This is not proposed as a Draft Design Principle as designs will be developed in line with the MAN Statement of Need and government policy which states that “government has set out its support of airports beyond Heathrow making best use of their existing runways, subject to related economic and environmental considerations being considered.” However, night-time traffic is limited by our Noise Action Plan, and is also included within Proposed Design Principle N2, which will look at measures to reduce the impact of noise on people, particularly at night-time, via things like respite or dispersion of routes.</p>
18	The needs of General Aviation (Sports and Recreation) should be included in design options to ensure safety for all	Questionnaire responses	The needs of General Aviation (Sports and Recreation) should be included in design options to ensure safety for all	<p>Safety is of paramount importance, and reflected in the inclusion of Proposed Design Principle S. The main feedback from the GA community was around reducing Controlled Airspace, which is included in Proposed Design Principle A, and so this isn’t included as a Draft Design Principle. However, we will continue to engage with all relevant stakeholders, including GA stakeholders, throughout the CAP1616 process to ensure views are captured and considered.</p>
19	General Aviation (Sports and Recreation) representatives should be included in discussions regarding design options to ensure needs are understood	Focus group and questionnaire responses	General Aviation (Sports and Recreation) representatives should be included in discussions regarding design options to ensure needs are understood	<p>This is not proposed as a Draft Design Principle as it relates to the airspace change process rather than the airspace design itself. We will continue to engage with all relevant stakeholders, including GA stakeholders, throughout the CAP1616 process to ensure their views and captured and considered.</p>

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20	Previous legal agreements in relation to departure route LISTO2Y/R, restricting aircraft by type on this route, should remain	Questionnaire responses	Previous agreements in relation to departure route LISTO2Y/R, restricting aircraft by type on this route, should remain	Whilst a desire to retain existing operating procedures such as those on LISTO2Y/R will be taken into account, feedback was in favour of designing routes that 'share the burden' and the impacts of noise and emissions and therefore it is important to consider the full range of options as part of the CAP1616 process. This Draft Design Principle is therefore not proposed. To the extent that commitments or expectations may exist, it is important to consider overall benefits and impacts, if necessary changing existing agreements, legal or otherwise, as appropriate.
21	Minimise the total number of people overflown	Questionnaire responses	Minimise the total number of people overflown	The concept of minimising the associated impacts for people under flight paths is captured within Proposed Design Principle N1 which seeks to design routes that minimise, and where possible reduce, the number of people impacted by aircraft noise. The wording here is not proposed as "overflow" has a specific technical meaning, while the concept of "overflow" is also difficult to measure and is influenced by an individual's perception. This is discussed in the CAA's Airspace Design Guidance: Noise Mitigation Considerations when Designing PBN Departure and Arrival Procedures (CAP1378) which highlights the difficulties in determining whether an aircraft is considered to be overhead or to the side of its expected flight path. For example, being "overflow" at 2000 feet has differing effects in terms of noise and emissions compared to being "overflow" at 7,000 feet. CAP1378 also points out that in most cases relief will mean relief from aircraft directly overhead at low altitude, but this not will not mean relief from all overflight/noise.
22	Consultation area should cover the full Peak District National Park area, not the boundary currently shown	Questionnaire responses	Consultation area should cover the full Peak District National Park area, not the boundary currently shown	This is not proposed as a Draft Design Principle, as it relates to the consultation process, not the design itself. The boundary shown in the consultation documentation for Step 1B is based on aircraft altitude up to 7,000 feet, which is the area that MAN has responsibility for re-designing flight paths under the CAP1616 process. The responses to our Step1B engagement are intended to be representative, as a full consultation is not required by the CAP1616 process until Stage 3. Responses received include responses from within the Peak District. Our stakeholder list includes both the Peak District National Park Authority and Parish Councils within the area, and is therefore considered representative. The Potentially Affected Area map is indicative to demonstrate areas potentially impacted under 7,000 feet, but it is important to note that no-one is excluded from responding or engaging in the process, and we have received a number of responses from outside the 7,000 feet boundary at Step 1B. Our ongoing engagement, including consultation at Stage 3, will allow us to continue to find out more about any local characteristics we should consider.
23	Improve ground-based operation to limit emissions of aircraft whilst taxiing or waiting to take-off	Questionnaire responses	Improve ground-based operation to limit emissions of aircraft whilst taxiing or waiting to take-off	Whilst this is not within the remit of the Future Airspace Project, and not proposed as a Draft Design Principle, modernisation and efficiency in our airspace will support efficiency on the ground. Aircraft on the ground are sometimes currently held due to restrictions in the current airspace design. Improvements to our ground-based operations are encompassed by work that is ongoing as part of the Manchester Airport Transformation Programme (www.mantp.co.uk) and by ongoing work to improve efficiency and reduce delays within airport operations and Air Traffic Control (ATC).

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24	Do not prioritise specific communities, apply principles consistently across all routes	Questionnaire responses	We will apply the design principles consistently, and will not focus on specific communities	This is not proposed as a Draft Design Principle as the concept of 'sharing the burden' amongst communities is captured within Proposed Design Principles E and N2, and all routes will be designed based on the latest technology available as in Proposed Design Principle T. We will find out more about any local characteristics that we should consider through our ongoing engagement, including consultation at Stage 3. In addition, the benefit/impacts analysis will be consistent across the Proposed Design Principles.
25	Separate departure routes as early as possible in order to prevent extended distances of concentrated aircraft	Questionnaire responses	Separate departure routes as early as possible in order to prevent extended distances of concentrated aircraft	A number of people highlight this concern, but it is not proposed as a Draft Design Principle because it is addressed in Proposed Design Principle N2, regarding the use of measures such as dispersion and respite to spread the impact of noise rather than concentrate it.
26	Avoid flying over Knutsford / Lymm / High Legh / Heatons / Altrincham / Alderley / Hale / Wilmslow / Bowdon	Questionnaire responses	Avoid flying over Knutsford / Lymm / High Legh / Heatons / Altrincham / Alderley / Hale / Wilmslow / Bowdon	We do not propose a Draft Design Principle of avoiding specific communities since avoiding overflight of all of these locations would be impractical and there is significant support for sharing impacts fairly. Proposed Design Principles that cover impacts are also included at E, N1, N2, and N3. Any local issues will also be captured through our ongoing engagement, including consultation at Stage 3, where we will find out more about any local characteristics or noise sensitive areas that we should consider.
27	Avoid flying over Tatton Park / Dunham Massey	Questionnaire responses	Avoid flying over Tatton Park / Dunham Massey	This is not proposed as a Draft Design Principle as it is encompassed within Proposed Design Principle N3 and will be captured within ongoing engagement about local characteristics or noise sensitive areas to be considered in consultation at Stage 3.
28	Consider the impact of overflight to domestic animals	Questionnaire responses	Consider the impact of overflight to domestic animals	This is not proposed as a Draft Design Principle as it would be impractical to avoid all domestic animals. However, Proposed Design Principle N1 will drive designs to avoid highly populated areas, and Proposed Design Principle N3 shows that we will continue to consider noise sensitive areas during the remainder of the CAP1616 process.
29	Avoid change, house location chosen due to health reasons	Questionnaire responses	Avoid change, house location chosen due to health reasons	This is not proposed as a Draft Design Principle as Proposed Design Principle N1 will drive designs to avoid highly populated areas and Proposed Design Principle N3 will consider noise sensitive areas. Feedback also consistently supported 'sharing the burden' of associated impacts of noise and emissions. Further information will also be gathered through ongoing engagement, including any local characteristics that should be considered.
30	Avoid change, some cannot choose where they live and can't afford to move	Questionnaire responses	Avoid change, some cannot choose where they live and can't afford to move	This is not proposed as a Draft Design Principle as Proposed Design Principle N1 will drive designs in relation to populated areas. This issue will also be captured through our ongoing engagement, including consultation at Stage 3, where we will find out more about any local characteristics or noise sensitive areas that we should consider. We will also continue to comply with government policy and legislative requirements for noise mitigation and compensation which includes offering sound insulation or exploring alternatives where appropriate.
31	Environmental requirements should also feature in the design principles	Focus Group	Environmental requirements should also feature in the design principles	This Potential Design Principle is not proposed because it is inherent within the CAP1616 process and within Proposed Design Principles E, N1, N2, N3, as well as within the MAN statement of need and government policy which states that "government has set out its support of airports beyond Heathrow making best use of their existing runways, subject to related economic and environmental considerations being considered." A clear benefit/impacts analysis, including metrics on noise and other environmental factors will also be included at consultation Stage 3.

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32	Expansion should be within reasonable limits to ensure that communities aren't impacted	Questionnaire responses	Expansion should be within reasonable limits to ensure that communities aren't impacted	Our designs will be developed in line with our Statement of Need and government policy regarding making best use of runway capacity, subject to environmental issues being addressed. This Draft Design Principle is not proposed because an inherent part of later stages of CAP1616 is to demonstrate a clear benefit/impacts analysis, including metrics on noise, social, local, and environmental impacts.
33	Where possible, avoid having areas overflow by several routes, even if this limits our ability to minimise noise and emissions	Focus group and questionnaire responses	Where possible, avoid having areas overflow by several routes, even if this limits our ability to minimise noise and emissions	This Potential Design Principle came from responses on Question 8 'multiple flight paths in the same area'. Feedback consistently supported the principle of sharing (fairly) the impacts between areas and communities. We do not propose this as a Draft Design Principle because we believe it is encompassed in Proposed Design Principle N2, which includes the use of measures such as dispersion and respite to spread the impact of noise.
34	Avoid flying over Jodrell Bank	Questionnaire responses	Our design will not affect the safeguarded zones for Jodrell Bank	A number of responses highlighted a risk of flying too close to Jodrell Bank Observatory due to the potential risk of interference with its radio telescopes. This is not proposed as a Draft Design Principle as we currently have a departure route over this location and did not receive any concerns from the observatory itself, despite numerous attempts to contact. We will continue to investigate this issue in later stages of the process.
35	All agreements and arrangements already in place must be considered as part of the redesign	Focus Groups and questionnaire responses	We will consider all design options, including those which may require the variation of existing legal agreements	This Potential Design Principle arose from feedback on Question 5 'taking account of current arrangements and agreements'. Focus Group feedback showed a preference for designing new routes without preconceptions. This is not proposed as a Draft Design Principle, as it is inherent in the CAP1616 process.