Bournemouth Airport RNAV ACP

ACP-2018-40

CAP1616 Step 3D – Categorisation of responses

Version 1.1

08th July 2020

HELIOS

an egis company

Context for the Change

1. Bournemouth Airport currently has ILS on both runway ends
   - 08 (Cat I) ~ 30% of landings
   - 26 (Cat III) ~ 70% of landings
2. Runway 08 ILS is obsolete
   - Installed second hand in 1984/5
   - Maintenance support at end of life
   - Irrecoverable failure will have serious operational consequences
3. There is a legal requirement to implement RNP approaches by 2024
   - Could provide 3-Dimensional capability to both runways,
   - Could improve resilience to Runway 26 operations.

Current Status of ACP

- Bournemouth Airport initiated a CAA CAP1616 Airspace Change Proposal (ACP) in 2018.
- The Bournemouth Airspace Change Proposal successfully commenced Consultation (Stage 3C) on **Friday 13 December 2019**.
- The initial plan was to run the public consultation ending Friday 27 March 2020. However, due to the COVID-19 shutdown, it was decided to extent the consultation to **Friday 15 May 2020**.
- During the consultation **34 responses were received**. Following the analysis, the admissible responses were consolidated to a **total of 33**, as there was one case of duplicate response received from the same person.
- These slides form our submission for CAP1616 **Stage 3D Categorisation of responses**.

Step 3D – Categorisation of Responses

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which may impact the Final Proposal	Response which does not impact the Final Proposal	Issues raised	'We asked, you said, we did' Justification
		RWY 08	RWY 26	RWY 08	RWY 26					
Organisation	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	N/A	N/A	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Organisation	[redacted]	No preference	No preference	No preference.	No preference.	Given the available information, the MOD do not have any objections to proposed changes.	—	—	—	No preference with no new suggestions
Individual	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	Option 3d is clearly the best and most cost-efficient option for the airport and operators, and it does not have any material impact on local communities in terms of noise.	Option 3d is clearly the best and most cost-efficient option for the airport and operators, and it does not have any material impact on local communities in terms of noise.	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	Most satisfactory option, taking into account the needs of all parties. Will allow safe, secure and efficient operations on RWY 08.	Will provide a safe and efficient operation.	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	Michael Bagshaw	No preference	No preference	I fully support the implementation on flight safety grounds with no preference for either sub-option.	I fully support the implementation on flight safety grounds with no preference for either sub-option.	—	—	—	—	No preference with no new suggestions
Individual	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	Bournemouth is both an important airfield for commercial aviation operations on the south coast, but is also a key training airfield. The Government is now recognising the importance of pilot training for UK aviation, and this is being held back by lack of instrument training facilities. It is important to note that training and examination facilities are required for both trainee pilots and recurrent training and retesting of existing pilots. Only Option 3d has the full approaches required for such training and testing. It is also worth noting that the RNAV approaches are considerably safer than the alternative NDB approaches, let alone the defunct ILS on R08. There is therefore also a safety case for this proposal, both for operations and training. I note that any noise impact on the ground is minimal from this proposal, so there is no net detriment to residents.	Bournemouth is both an important airfield for commercial aviation operations on the south coast, but is also a key training airfield. The Government is now recognising the importance of pilot training for UK aviation, and this is being held back by lack of instrument training facilities. It is important to note that training and examination facilities are required for both trainee pilots and recurrent training and retesting of existing pilots. Only Option 3d has the full approaches required for such training and testing. RNAV approaches are considerably safer than the alternative NDB approaches (if only as a back up to the ILS). There is therefore also a safety case for this proposal, both for operations and training. I note that there is no significant noise impact on the ground is minimal from this proposal.	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Organisation	Blackbushe Aviation	No preference	No preference	I have not had sight of all the documentation so cannot comment on either option intelligently. However, I support an RNAV approach as an enhancement to safety.	Please see my comments above	An RNAV approach must have an RNAV missed approach.	—	—	—	No preference with no new suggestions

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which may impact the Final Proposal	Response which does not impact the Final Proposal	Issue raised	'We asked, you said, we did' Justification
		RWY 08	RWY 26	RWY 08	RWY 26					
Individuals	Ian Searle	No preference	No preference	I am only concerned with noise levels over the village of Thorney Hill. Aircraft are currently flying directly overhead our property - a change that has become normalised over the past 6 months. Disappointingly your noise chart shows Thorney Hill as not being affected by noise - definitely not the case and I have reported a number of direct overhead flights (we have many on a daily basis). The consultation documents suggest flightpaths will be unchanged; hopefully the new process will actually keep aircraft on the arrival path indicated in the plans (shown as current flightpaths). I am convinced incoming aircraft are being directed too far south and that is causing our current noise pollution. I suggest noise monitoring equipment be brought to Thorney Hill to validate the data in your paper - which I suggest may be incorrect.		As I have indicated my concerns are simply about existing noise levels which have become much louder over recent months. I am hoping your plans will revisit the existing actual flightpaths which I believe are deviating from your research.	—	—	Existing noise level	We confirm that the noise modelling has been completed on the basis of existing radar plots of where aircraft have actually flown averaged over the period 16 June to 15 September. The existing noise levels in this case average below the 51dB LAeq level charted. Depending on wind conditions, it is possible that at times, the noise levels may approach the contours presented for the future scenario (see Figures 30 and 31 in the consultation document). Unfortunately, Thorney Hill is directly under the final approach (4NM) and it is not possible to move the track.
Individual	Rt Hon Sir Desmond Swayne TD MP	Support Sub-Option 3D	Support Sub-Option 3D	Area E 3c would continue to with night-time noise over Sopley, Bransgore and New Milton whereas 3d will reduce it Area G increased daytime training affecting Burley and Ringwood will be offset by a reduction in night-time noise	Area E 3c would continue to with night-time noise over Sopley, Bransgore and New Milton whereas 3d will reduce it Area G increased daytime training affecting Burley and Ringwood will be offset by a reduction in night-time noise	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	[redacted]	No preference	No preference	The provision of a GPS PBN approach will enhance flight safety and enable pilots to train on the future of approaches as this is very limited in the UK. I am not fussed about how the approach is designed.	The provision of a GPS PBN approach will enhance flight safety and enable pilots to train on the future of approaches as this is very limited in the UK. I am not fussed about how the approach is designed.	—	—	—	—	No preference with no new suggestions
Organisation	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	I believe Option 3d will offer greater availability if the airports radar control is not in use.	I believe Option 3d will offer greater availability if the airports radar control is not in use.	I operate several private jets that go to Bournemouth for maintenance. Required maintenance is has to be planned around business requirements and if it cannot take place due to a weather diversion this can impact the availability of the aircraft. A lack of an approach procedure on one runway end may make another maintenance provider in Europe more attractive with an impact on the local airport businesses and associated well paid skilled jobs.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions

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		RWY 08	RWY 26	RWY 08	RWY 26					
Organisation	SCA Ltd	Support Sub-Option 3D	Support Sub-Option 3D	I operate and fly a light private jet Premier 1 based at Bournemouth. It is fully PBN capable and our activity would be restricted if there were no 3D approach possibilities on runway 08. So a PBN approach is necessary for operational and safety reasons.	When the ILS is being calibrated or maintained on runway 26, it is highly desirable to have an alternative PBN 3D approach available. The current offset NDB/DME approach used as backup is less accurate and more restrictive than an appropriate PBN approach would be.	I am supportive of having PBN 3D approaches at Bournemouth Airport.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Organisation	Booker Aviation	Support Sub-Option 3D	Support Sub-Option 3D	As a Commercial Flight Training Organisation it is becoming increasingly more difficult to find airports with instrument approaches that are suitable and available for use by training aircraft. We fully support this option due to it's greater flexibility and usefulness for training.	As per Runway 08. The inclusion of the t-bar makes for a better training experience.	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	Stephen Pells	Support Sub-Option 3D	Support Sub-Option 3D	This system provides more commonality with RNP approaches at other airfields and allows the aircraft more time to establish on the various legs. It provides greater training benefit to students as the experience gained here is easily transferrable to other airfields in the UK and overseas.	This system provides more commonality with RNP approaches at other airfields and allows the aircraft more time to establish on the various legs. It provides greater training benefit to students as the experience gained here is easily transferrable to other airfields in the UK and overseas.	I feel that RNP approaches should be established as soon as possible as EASA mandates a PBN approach in ab Instrument Rating renewal, and these can be hard to find at present in the UK>	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	This option is the best option suited to training flights. As most instrument training is carried out in Light General Aviation Aircraft, this option may, in turn, encourage more Light General Aviation Aircraft to use and be based at Bournemouth Airport.	This option is the best option suited to training flights. As most instrument training is carried out in Light General Aviation Aircraft, this option may, in turn, encourage more Light General Aviation Aircraft to use and be based at Bournemouth Airport.	The Document has the title "Airspace Change Proposal". However, this is not a change of the size or structure of the airspace, so the title is misleading. As a result, there was concern that the site at Newton Peveril would be affected by a change in the size and shape of airspace. This users of the site, which is marked on CAA charts, were not contacted directly by BIA for their views.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	I fully support the need to update and upgrade in terms of the proposal being made, I have no real preference for either but overall fully support the need to do this	I fully support the need to update and upgrade in terms of the proposal being made, I have no real preference for either but overall fully support the need to do this	—	—	—	—	Supported preferred Sub-Option 3D with no new suggestions

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which may impact the Final Proposal	Response which does not impact the Final Proposal	Issue raised	'We asked, you said, we did' Justification
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Organisation	Bath, Wilts and North Dorset Gliding Club	No preference	No preference	Having reviewed your proposals, as published to date under this ACP, we have no immediate objections to what you propose. Should any changes arise that might cause aircraft to fly lower or for longer in Class G airspace we would have concerns. In the long run we would anticipate a reduction in the amount of Class D airspace below 7000ft as modern flight profiles are factored into new airspace designs, and this will no doubt be a topic for discussion and agreement under any forthcoming FASI(S) proposals.	Having reviewed your proposals, as published to date under this ACP, we have no immediate objections to what you propose. Should any changes arise that might cause aircraft to fly lower or for longer in Class G airspace we would have concerns. In the long run we would anticipate a reduction in the amount of Class D airspace below 7000ft as modern flight profiles are factored into new airspace designs, and this will no doubt be a topic for discussion and agreement under any forthcoming FASI(S) proposals.	FAO Bournemouth ACP team. This is a response to your ACP-2019-43 from the Bath Wilts and North Dorset Gliding Club. We are a members' gliding club based at BA12 7HF, between Warminster and Mere. We operate a gliding club for about 140 members. We are affiliated to the British Gliding Association (BGA), one of the NATMAC addressees for all ACPs under CAP 1616. Having reviewed your proposals, as published to date under this ACP, we have no immediate objections to what you propose. Should any changes arise that might cause aircraft to fly lower or for longer in Class G airspace we would have concerns. In the long run we would anticipate a reduction in the amount of Class D airspace below 7000ft as modern flight profiles are factored into new airspace designs, and this will no doubt be a topic for discussion and agreement under any forthcoming FASI(S) proposals. For information I include below a copy of the latest version of the British Gliding Association's Initial Engagement Design Principles Statement which explains our views on any new ACP. CAP1616 AIRSPACE CHANGE – INITIAL BGA ENGAGEMENT PRINCIPLES The CAP1616 Airspace Change Process requires that early in the pre-development stage of any design that sponsors of airspace changes engage with stakeholders to establish principles. With numerous CAP1616 ACPs expected over the coming months and years, the BGA has worked with the GA Alliance to establish a set of agreed principles that can be presented, submitted or otherwise used by GA Alliance organisations and their members when approached by a sponsor to discuss principles. In no particular order, the principles are; page1image326307904 Recognition that GA including sporting and recreational aviation has legitimate rights of access to airspace. Sponsors must show how they are integrating their proposal within the overall UK airspace modernisation context (for example, proposals which do not connect efficiently between upper and lower airspace (potentially under different airspace "management") would only inhibit overall airspace efficiency and therefore not receive our support. Reiteration that the UK airspace's default classification is G. Reiteration that ICAO Class E airspace default is without the addition of a TMZ or RMZ Expectation that data used, particularly forecasts, includes details of any and all assumptions and available supporting evidence re; - reasonably justified forecast traffic levels - analysis of overall airspace safety changes, ie based on modelling and evidence rather than subjective opinion Minimum size of existing and any proposed controlled airspace. Steeper and continuous climbs and descents for cost and environmental benefits as well as minimisation of controlled airspace footprint. Use of Class E airspace as an alternative to class C and D airspace. Optimisation of the development work above and below the 7,000ft NATS en-route split. Flexible use of airspace. Examine options for interoperability with existing e-conspicuity, eg ADS-B, FLARM and PilotAware. Efficient consultation. Plan GNSS approaches outside controlled airspace to minimise impact on GA including sporting and recreational aviation and to ensure their continued right of access to the airspace Updated Mar 20 Yours sincerely image002.png Mike@mikethorne.co.uk Michael A Thorne For and on behalf of Bath Wilts and North Dorset Gliding Club The Airfield Kingston Deverill Warminster Wilts BA12 7HF www.bwnd.co.uk	–	–	–	No preference with no new suggestions

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which impacts the Final Proposal	Response which does not impact the Final Proposal	Issue raised	'We asked, you said, we did' Justification
		RWY 08	RWY 26	RWY 08	RWY 26					
Individual	Edward Bellamy	Support Sub-Option 3D	Support Sub-Option 3D	Having the T bar gives slightly more flexibility to join the final approach track.	As per 08.	The introduction of RNAV (especially LPV) is welcome at BOH.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Individual	Linda Bratcher	No preference	No preference	It is important to the south economy that we are connected with Europe and the world, and we need the correct and safe infrastructure to be able to do that. Ensuring BOH as a travel connection hub is paramount to protecting jobs and livelihoods in the area.	It is important to the south economy that we are connected with Europe and the world, and we need the correct and safe infrastructure to be able to do that. Ensuring BOH as a travel connection hub is paramount to protecting jobs and livelihoods in the area.	It is important to the south economy that we are connected with Europe and the world, and we need the correct and safe infrastructure to be able to do that. Ensuring BOH as a travel connection hub is paramount to protecting jobs and livelihoods in the area.	—	—	—	No preference with no new suggestions
Individual	Lawrence Robson	No preference	No preference	Live on the flight path. Knew I was on the flight path when I bought the house. BOH needs to be the best airport in the south and provide all pilots with everything they need to perform a safe landing	BOH requires the best equipment in order to attract more business. Should do everything possible to get that in place	—	—	—	—	No preference with no new suggestions
Organisation	[redacted]	Support Sub-Option 3D	Support Sub-Option 3D	We understand the need to replace the existing ILS system now and support the use of a RNP approach but would like to use the opportunity of this change to reduce the aircraft noise in the area and to provide some energy savings. Our suggestions of areas where this could be done are given in the comments section below. We feel that the CAA, like us, should take their part in supporting measures which contribute to the objective of the UK becoming carbon neutral since it is only by everyone doing what they can, that this can be achieved.	We understand the logic of introducing a RNP approach for runway 26 at the same time as RNP replacing the ILS for runway 08, and support the proposed RNP approach but would like to use the opportunity of this change to reduce the aircraft noise in the area and to provide some energy savings. We note from figure 4 that Brockenhurst parish is by far the most affected by air traffic density with present and intended routeings, combined with the greater use of runway 26. We also note that PBN approaches will become the main type of approach in the relatively near term, between 2024 and 2030, and so, in effect, this is consulting on the main approach routeing and profile to be used into the airport and over Brockenhurst for the future. Accordingly the proposals for RNP approaches to 26 should be considered much more seriously than as an occasional alternative to the present ILS as their impact will be very significant. Our suggestions of areas where improvements to current proposals could be made are given in the comments section below. We feel that the CAA, like us, should take their part in supporting measures which contribute to the objective of the UK becoming carbon neutral since it is only by everyone doing what they can, that this can be achieved.	Full comment available on next slide	Yes	X	Noise	This organisation supports the preferred Sub-Option 3D. However, some new suggestions were provided in the additional comments section. Regarding the suggestion to implement a steeper approach, which was discussed during the Drop-in session in Stage 3C, it was concluded that two sets of PAPI lights would be needed, one for ILS and another one for the proposed RNP approach. This was considered unacceptable due to the impact on ATCO workload, given the mix of scheduled and training flights with increased potential for error and thus safety impact. With respect to other suggestions to introduce CDA from an earlier stage, and moving the ILS joining point to a different position, we understand that these changes may have a positive impact on the noise footprint. However, the suggested changes would require substantial additional work in adjacent airspace which is outside the immediate scope of this airspace change but may be considered within the future airspace changes under FASI - South programme .

We support the proposal to install RNP satellite-based aircraft approach equipment to the two runways 08 and 26. In itself this does not have to change the path of approaching aircraft and there could be little improvement in the disturbance to forest animals or residents. However the RNP installation can be used to provide approaches which give less disturbance to the tranquillity of the New Forest and some fuel saving. This would be beneficial to residents, ponies and wildlife, as well as cost-saving to the operating companies and a reduction in pollution. [redacted] are being pressed to encourage any measures which can contribute to the New Forest National Park Authority Policy of tranquillity in the forest and the National objective to become carbon neutral, as well as to reduce pollution.

The most straightforward change which Bournemouth airport could carry out is to increase the angle of approach from 3 degrees to say 3.2 or 3.3 degrees. This increases the height over the ground at any given distance for approaching aircraft and, even more importantly, reduces engine thrust needed on the approach. As well as reducing the noise footprint of approaching aircraft over areas of the New Forest, it also allows some fuel saving. It could be even more beneficial for the Forest if the approach angle change is combined with a planned continuous descent from an earlier stage of the arrival. Such changes have been proven elsewhere and are now used in a number of UK and non-UK airports. When we raised these points during the consultancy phase the airport said that they would not wish to offer an increased approach angle because they would still have to cater for the present approach angle.

They suggested this would involve the expense of two sets of landing lights and be confusing for trainee pilots. We understand that other airports offering an increased approach angle do not install two sets of lights, and simply brief the difference in what will be seen depending on the approach used, as well as approach guidance lighting frequently displaying differently for different sizes of aircraft, a fact which they are trained to cover. It seems to us that new pilots should be trained to be capable of using the single lighting system which is used despite different approach angles. It should also be noted that our suggestion is that the default approach to be used would be a marginally steeper approach, and so any approach lighting guidance could simply align with this rather than the 3 degree ILS. This would seem essential in the medium term in any event, as the documentation suggests PBN approaches will become the norm between 2024 and 2030, rather than the ILS. The proposal does show some fuel saving by reducing approach lengths in certain circumstances but there is no modelling for different approach angles.

We therefore ask the CAA to press Bournemouth airport to examine these approach procedures since it seems they can provide improvements in tranquillity over the New Forest, provide fuel savings and reduce pollution and carbon emissions. We recognise that the scale of the improvement on noise impact for the Forest and fuel consumption is limited but in our effort to support the National objective to become carbon neutral, we have to recognise that much of this has to be done by an accumulation of comparatively small savings. The present experience for residents of Brockenhurst is well demonstrated by Figure 4, showing our parish to be the most affected by air traffic density of any areas surrounding the airport. It clearly demonstrates that this exposure is typically in the form of a joining turn to align with the approach. In this turn, aircraft require a higher level of thrust to maintain a given altitude or descent path than if flying in a straight line. It is noticeable from the experience of Brockenhurst residents that the noisiest and most disturbing flights are those that perform this joining turn in level flight or with only a shallow descent, as the thrust of the engines has to come up significantly to compensate. This need not be the case, and it is imperative that the vertical profile of the RNP approach design ensures aircraft are in a proper descent, of 3 degrees or more, while completing this joining turn and overflying the village. If this requirement is not built in, we can see a 'T bar' approach design actually making the problem worse, but, if incorporated, it could greatly improve matters. We also note that the present 'T bar' design enshrines the point of joining the approach directly over the village (albeit that much radar vectoring also does the same thing). Why not make the joining point either (ideally) closer to the airport, or further out and at higher intercept altitude to improve matters? A 'T bar' at 7.5 miles and 2500 feet, or 15 miles and 4500 feet, even 9 miles and 2700ft would make a big difference to the village. In general we are not clear how one could justify retaining the status quo arrangements in the areas we have highlighted, when improvements are so readily possible at this point.

Given that these sorts of measures are being enacted at many commercial airports, they would seem to be entirely appropriate for adoption by training organisations based at Bournemouth if their trainees are to be prepared for the 'real' world. Given the significant impact of an airport on the surrounding population and environment, deciding to adopt such modest changes to improve its impact when the opportunity arises would seem the only reasonable course of action. In summary, when coming to your decision we urge you to take into account: 1) The disproportionate effect currently experienced by Brockenhurst; the likelihood that these RNP approaches will become the long term default approach, even on runway 26; 2) That there is a meaningful opportunity and benefit therefore in a steeper approach path, both in noise, emissions, and fuel saving terms, due to both required aircraft thrust and height over the ground; 3) That there is a rare opportunity to amend the lateral and vertical approach profiles to increase the separation from the village of Brockenhurst and other populated Forest areas by careful siting of any T bar, final approach intercept point, and required minimum continuous descent profile approaching the intercept point.

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		RWY 08	RWY 26	RWY 08	RWY 26					
Organisation	West Parley Parish Council	No preference	No preference	–	–	The situation is that the Instrument Landing System is now quite old, dating back to 1984. Although it has been upgraded over the years it has not been possible to replace it with a newer system, because the cost is somewhere in the region of a million pounds. As a result of the latest upgrade it has been necessary to alter the flight path angle of approach for landing aircraft. This means that, while West Parley will not be affected in any way, some areas adjacent to the New Forest will probably experience a greater level of noise. Take-off is in no way affected and planes will continue to use the existing flight path.	–	–	Noise	The proposed Sub-Option 3D may result in some concentration of aircraft tracks, and hence noise, as outlined in the consultation document (see Figure 21). The level of change will depend on the number of aircraft choosing this approach over the existing ILS. We expect that most commercial aircraft will continue to use the ILS as it supports Autoland. Consequently, we would not expect significant displacement of noise compared to today.
Organisation	Bournemouth Airport Consultative Committee	Support Sub-Option 3D	Support Sub-Option 3D	The current Instrument Landing System (ILS), runway 08 is old, having been installed second hand in 1984/85. We acknowledge that both the current equipment and maintenance support is no longer a feasible option, as we understand that the failure of the current ILS would result in serious operational consequences, therefore we support proposal 3d. Background information was given on the proposal and options, then discussed with our members, during a presentation at our meeting on 7th March 2019. Furthermore, our members were given information and details of the link to respond independently should they wish as sadly our meeting scheduled for the 5th March 2020 was cancelled due to the corona virus.	Taking into account our comments regarding Runway 08, we believe that it would be prudent to have the same equipment servicing both runways at Bournemouth.	–	–	–	–	Supported preferred Sub-Option 3D with no new suggestions

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		RWY 08	RWY 26	RWY 08	RWY 26					
Individual	[redacted]	Do not support either proposal	No preference	I believe that without ILS only LPV can provide the same approach altitude accuracy that can currently be enjoyed. Maintaining a 3 degree glideslope without ILS or EGNOS enhanced GPS will be more difficult for pilots, especially in turbulent conditions. Thus there are 2 factors that would be likely to increase noise experienced by those in area D of Broadstone as follows: 1. Higher likelihood of altitude deviation with LNAV/VNAV approaches increasing the possibility of increased noise due to low altitude deviation. 2. Probability of a less stable glideslope being achieved under LNAV/VNAV approach requiring more thrust changes thus creating higher noise levels. Furthermore, the airspace navigation control of provision and reliability of service will be out of local control and GPS reception can be subject to interference causing serious inaccuracies or complete lack of navigation. What assurances does the CAA have that EGNOS service will continue to be available with the UK having left the European Union? What happens if UK airspace and or operators do not have EGNOS access? Will it result in a permanent degradation of runway 08 glideslope accuracy resulting form ILS removal and possible LPV unavailability?	No comment, not in my area of concern	Why is your noise mapping geometry different between west and east? Are the maps you provide only for use of Runway 26 thus hiding the impact of Runway 08 use on Broadstone?	—	—	Noise EGNOS availability (after Brexit)	Re two points raised in RWY08 response: 1. noise mapping geometry: The methodology to produce noise contours for RWY 08 and 26 was exactly the same and is based on LAeq. The reason why noise contours for RWY 26 cover larger area than those for RWY 08 is that RWY 26 is used by more movements (approx. 70% of total traffic), thus the so-called equivalent noise is larger than for RWY08. 2. EGNOS availability: For UK public, business and organisation, there will be no noticeable change from 1 January 2021. It will be possible to use the freely available 'open' signal to develop products and services for consumers, and it will be possible to continue using the open position, navigation and timing services provided by Galileo and EGNOS. For more information refer to https://www.gov.uk/guidance/satellites-and-space-programmes-from-1-january-2021

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		RWY 08	RWY 26	RWY 08	RWY 26					
Individual	Trevor Laundy	Support Sub-Option 3D	Support Sub-Option 3D	Strongly supported on grounds of Utility, Safety and Reliability with appropriate consideration of environmental concerns.	Strongly supported on grounds of Utility, Safety and Reliability, with appropriate consideration of environmental concerns.	–	–	–	–	Supported preferred Sub-Option 3D with no new suggestions
Organisation	Studland Parish Council	Do not support either proposal	Do not support either proposal	Motion: Studland Parish Council objects to the Bournemouth International Airport Airspace Change proposals on the grounds of increased noise associated with aircraft. Such noise will impact the quality of life of the residents of the Parish of Studland.	Motion: Studland Parish Council objects to the Bournemouth International Airport Airspace Change proposals on the grounds of increased noise associated with aircraft. Such noise will impact the quality of life of the residents of the Parish of Studland.	–	–	–	Noise	It is expected that the increased concentration of aircraft, and potential increased number of movements in future (although it may take 3-4 years or even longer until traffic recovers in the aftermath of COVID-19) will lead to an increase in noise close to the initial approach segment, which is situated close the Studland CP. However, the noise in areas further from the defined track will be reduced, thus the overall noise footprint will be smaller.
Organisation	New Forest National Park	Support Sub-Option 3D	Support Sub-Option 3D	In conclusion, the National Park Authority would highlight that the Civil Aviation Authority has a statutory duty to have regard to the two statutory National Park purposes in making decisions that could affect the New Forest. Option 3d would appear to offer some limited benefits to communities within the National Park, which is welcomed. However, while acknowledging that this airspace change proposal is driven by the replacement of obsolete equipment, the Authority would request that the CAA and Bournemouth Airport examine the opportunities to further reduce impacts on the New Forest and its communities as part of this airspace review process.	In conclusion, the National Park Authority would highlight that the Civil Aviation Authority has a statutory duty to have regard to the two statutory National Park purposes in making decisions that could affect the New Forest. Option 3d would appear to offer some limited benefits to communities within the National Park, which is welcomed. However, while acknowledging that this airspace change proposal is driven by the replacement of obsolete equipment, the Authority would request that the CAA and Bournemouth Airport examine the opportunities to further reduce impacts on the New Forest and its communities as part of this airspace review process.	Refer to letter received from New Forest National Park	–	–	Noise	Supported preferred Sub-Option 3D with no new suggestions. Any further opportunities to reduce the noise impact on New Forest area is outside the scope of this airspace change. However, changes in airspace under the FASI(S) consultation may also lead to increased continuous descent operations which would also reduce the noise. The extent of this reduction would depend on the eventual airspace configuration and the airspace made available for Bournemouth operations given its proximity to Southampton.

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which may impact the Final Proposal	Response which does not impact the Final Proposal	Issue raised	'We asked, you said, we did' Justification
		RWY 08	RWY 26	RWY 08	RWY 26					
Organisation	AOPA	Support Sub-Option 3D	Support Sub-Option 3D	We support a T bar approach as we believe that this is the most flexible method particularly for Bournemouth airport.	Again the T approach for the same reasons as stated above.	As part of the UK approach to modernisation of airport approach procedures this proposal will maintain the safety of instrument approach procedures and from an economic point of view the GNSS replacement of the. ILS on 08 is far more cost effective as it offers lower costs overall to the airport particularly when it comes to maintaining an old ILS.. The French Government has a policy of replacing ILS with GNSS approaches as the ILS reaches the end of its operating life. BOH is also an important location for Pilot Training which underpins the commercial aviation sector in the supply of pilots.. Looking at the issues around noise it appears that there may be a reduction in noise from night time operations even if there is a slight increase in noise from daytime flights. WE support this plan.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Organisation	Minstead Parish Council	Support Sub-Option 3D	Support Sub-Option 3D	We support the safety- and cost-efficiencies of RNB approaches in general, and note your assessments of nil effects on both traffic quantity and noise over our Parish for approaches to 08.	We support the safety- and cost-efficiencies of RNB approaches in general, and trust that your assessments of the effects on traffic quantity and noise over our Parish are accurate especially given the Northern IAP of the 26 T is directly overhead.	We shall be considerably annoyed if this leads to an increase of traffic and noise over our parish given the location of the Northern "T" 26 IAP which would be contrary to your assessment.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions
Organisation	Royal Institute of Navigation	Support Sub-Option 3d	Support Sub-Option 3d	Sub-Option 3d includes Initial Approach segments to provide continuous navigation guidance throughout the Initial Approach, reducing the workload of pilot and controller compared to a radar vectored intercept at the Intermediate Fix. The initial approach segments permit a standard operation irrespective of the availability of the Bournemouth Radar Service. Bournemouth is an important airport for IFR training and examination and the the provision of an RNP approach with Initial approach segments maximises the training and test scenarios.	Sub-Option 3d includes Initial Approach segments to provide continuous navigation guidance throughout the Initial Approach, reducing the workload of pilot and controller compared to a radar vectored intercept at the Intermediate Fix. The initial approach segments permit a standard operation irrespective of the availability of the Bournemouth Radar Service. Bournemouth is an important airport for IFR training and examination and the the provision of an RNP approach with Initial approach segments maximises the training and test scenarios.	The Bournemouth consultation document has been reviewed by Royal Institute of Navigation's General Aviation Navigation Group and the RIN is pleased to respond to the consultation. The RIN supports the implementation of Required Navigation Performance Instrument Approach Procedures in accordance with International and regional civil aviation plans at Bournemouth as proposed in the consultation document. Bournemouth airport is well equipped and is one of the few airports in the South of England available for flight training by non-based aircraft. As training flights form a large part of Bournemouth's traffic, the addition of RNP approaches are essential for the airport's future business. The RIN notes there have been issues relating to the robustness of Global Navigation Satellite Systems (GNSS), such as GPS, and further notes the ILS serving runway 08 will be withdrawn from service when the RNP approach is operational and a 2 Dimensional approach supported by a conventional navigation aid will remain. Before there is widespread removal of conventional approach aids, RIN would welcome and support a higher profile of engagement by the CAA in the activities aimed at improving the robustness of Position Navigation and Time.	—	—	—	Supported preferred Sub-Option 3D with no new suggestions.

Individual or Organisation (Q1)	Name (Q2)	Consultation Option (Q7)		Response Rationale (Q8)		Any additional comment (Q9)	Response which may impact the Final Proposal	Response which does not impact the Final Proposal	Issue raised	'We asked, you said, we did' Justification
		RWY 08	RWY 26	RWY 08	RWY 26					
Organisation	British Gliding Association	No preference	No preference	Does not effect current glider activities.	Does not effect current glider activities.	Should further expansion of Class D airspace be considered the BGA would wish to be engaged at the outset.	—	—	—	No preference with no new suggestions
Organisation	The Honourable Company of Air Pilots	Support Sub-Option 3d	Support Sub-Option 3d	GNSS-based approaches can enhance operational safety. Option 3d is superior to 3c because 3b provides navigation guidance throughout the initial approach. This provides the flight crew with some surety and reduced their workload. Additionally, it reduces ATCO workload because ATCOs do not need to provide radar vectors. Most significantly, it provides an approach procedure that is not reliant on aerodrome radar, so will be available during and period when radar is not available. However, if the ILS is withdrawn then to assure resilience and continued operational safety following temporary or prolonged GNSS outage in the vicinity of the airport, the sponsor and CAA should ensure that suitable alternative procedures are also available.	GNSS-based approaches can enhance operational safety. Option 3d is superior to 3c because 3b provides navigation guidance throughout the initial approach. This provides the flight crew with some surety and reduced their workload. Additionally, it reduces ATCO workload because ATCOs do not need to provide radar vectors. Most significantly, it provides an approach procedure that is not reliant on aerodrome radar, so will be available during and period when radar is not available. However, if the ILS is withdrawn then to assure resilience and continued operational safety following temporary or prolonged GNSS outage in the vicinity of the airport, the sponsor and CAA should ensure that suitable alternative procedures are also available.	—	—	—	GNSS outage	Supported preferred Sub-Option 3D with no new suggestions. In case of GNSS outage, aircraft avionics raise RAIM warning and pilot initiates missed approach procedure. Airports with LPV approaches also receive SBAS NOTAM with scheduled outages.
Organisation	NATS	No preference	No preference	NATS SUPPORTS this proposal. NATS supports the proposed Options 3c or 3d, i.e. an RNP Approach solution, and will work in coordination with Bournemouth to ensure that the proposed preferred option can be integrated safely with the enroute ATC network. The introduction of either option 3c or 3d would create waypoints within that part of the Solent CTA which is normally delegated to Bournemouth. This delegation is currently defined in the letter of agreement between EGHH/EGHI and any necessary amendments to this LoA will need to be agreed and signed off.		—	—	—	—	No preference with no new suggestions

29 Hercules Way
Aerospace Boulevard
AeroPark
Farnborough I Hampshire
GU14 6UU I UK
Tel: +44 1252 451 651
www.askhelios.com

HELIOS
an egis company