

Southampton Airport Airspace Change Proposal

Date: 8th October 2013

Stakeholder Consultation 8th October 2013 – 31st January 2014

SouthamptonAirport

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1. Foreword by Dave Lees, Managing Director, Southampton Airport

We are very proud of our relationship with local communities and stakeholders, and are committed to being a responsible neighbour. The purpose of this document is to ensure you have an opportunity to have your say on this consultation about the introduction of new navigation technology at Southampton Airport. This will alter the way that aircraft approach the airport from the south.

Your opinions and feedback regarding the options available within this document are very important to us, and we encourage you to respond.

The stakeholder consultation runs from 8th October 2013 to 31st January 2014.

Dave Lees
Managing Director

2. Summary

Southampton Airport is proposing to introduce a Global Navigation Satellite System (GNSS) for aircraft landing from the south of the airport. Aircraft arriving from the south currently account for around 7,000 flights per year or approximately 15% of total movements at the airport. Initially, GNSS will be used in conjunction with existing approach procedures to the runway.

Why the airport is consulting on this:

- The VOR (an existing navigational aid we will describe in Section 4, Page 8) is scheduled to be decommissioned in 2016 and will no longer be able to support instrument approaches into the airport. The VOR does not belong to the airport and is being removed as part of a national programme of transition toward new navigation technology.
- The new system will provide an instrument approach that is aligned with the runway centreline. This is optimal for both flight operations and safety.
- It will also provide an opportunity for aircraft to be configured more efficiently as they approach to land, which is likely to have benefits in terms of reducing aircraft noise and emissions.
- It is consistent with UK Civil Aviation Authority (CAA) policy regarding the future implementation of new navigation technology.

This consultation is **NOT** about changes to:

- the routing or height of any departing aircraft
- night flight restrictions
- airport operating hours
- aircraft approaches from the north
- types of aircraft operating at the airport
- runway or airport capacity
- controlled airspace around the airport
- the airport's Section 106 Flying Controls Agreement with Eastleigh Borough Council
- published noise preferred routings

Southampton Airport is consulting on three possible options and these are explained in detail in Section 6, Page 13. These are:

- Option A (the preferred option) Introduce the GNSS approach
- Option B Introduce ILS to runway 02
- Option C Do nothing

On 31st July 2013, the airport commenced engagement with the CAA to begin a formal 'Airspace Change Proposal' (ACP) process. The CAA issues guidance on how airspace changes are undertaken and this can be found at: www.caa.co.uk/docs/33/CAP725.pdf

The changes being proposed are consistent with the airport's Noise Action Plan, a copy of which can be found at www.southamptonairport.com/noise

For further information on how Southampton Airport currently manages noise, please visit www.southamptonairport.com/noise

This consultation is aimed at the aviation community, local authorities and environmental organisations. However, we would also welcome comments from individuals and other relevant stakeholders.

3. Runway Operations

Southampton Airport has a single runway. The direction in which aircraft land and depart is dependent on the wind direction at the time. For performance and efficiency reasons, flights must depart and land into wind. Due to the prevailing south westerly wind direction in the region, only 30% of aircraft movements will arrive from the south and depart to the north. It is important to note that the wind conditions can change at various times throughout the day so the direction of take off and landing can also vary.

The runway at Southampton Airport is orientated on a 020 / 200 degree heading. Aircraft arriving from the south and departing to the north will be following a 020 degree heading, so they will be using runway 02. This means that an aircraft arriving from the north and departing to the south will be using runway 20, as it is flying on a 200 degree heading.

This is illustrated on the diagram in Figure 1, Page 6.

This consultation is only considering arrivals from the south, ie arrivals onto runway 02.

Figure 1 – Runway at Southampton Airport



This map is for illustrative purposes only.

4. Existing Approaches

There are a number of approach methods available to aircraft using Southampton Airport. These approaches fit into two approaches; Visual or Instrument. The flightpaths relating to these approaches are shown in Figure 2, Page 10.

Visual Approach

A visual approach is where pilots position the aircraft to land by using a visual reference to the airfield. The pilot will manually fly the aircraft and will align with the runway using a combination of visual referencing and various lighting systems that are on the ground at the airport. A visual approach can only be flown when visibility is good and when the clouds are above a certain height. The flightpath over the ground for a visual approach can vary slightly.

Instrument Approach

An instrument approach is where pilots utilise a system of navigation aids which help guide the aircraft into land during low visibility conditions and when the clouds are low. On-airport navigational aids communicate with the on-board systems of the aircraft, which assists the aircrew with navigation and helps them align with the runway. An instrument approach may also be used during good weather conditions.

There are three main instrument approaches currently available to aircrew landing at Southampton Airport:

1. VOR/DME– VHF Omni-directional Range with Distance Measuring Equipment

The VOR is best described as a bicycle wheel on its side. There are 360 spokes each representing 1 degree of a compass and each spoke will emit a straight line radio transmission which the aircraft will tune into, and follow, to guide them into the airport. Aircraft utilising this approach will follow an offset approach path to the runway and position with the runway centerline once the pilot has sight of the airport.

The reason for the offset approach is because the VOR is located in a position to the north east of the runway so it is not in line with the runway. The VOR is used in conjunction with the DME which, like the ILS, will inform the pilot of their distance from touchdown.

This is the equipment that will be removed in 2016, about which, this consultation is referring.

2. NDB – Non Directional Beacon

An NDB is a single aerial transmitter that does not transmit specific directional information to an aircraft, unlike a VOR. Instrumentation on board the aircraft will home into the transmissions, and the aircrew fly towards the beacon, making adjustments to the track as they fly towards the runway. The NDB flight path over the ground can vary slightly.

3. ILS – Instrument Landing System. (Only currently available on runway 20, ie from the north).

ILS is one of the most common instrument approaches in use at airfields around the world. The ILS consists of three ground based components which help the pilot to land by sending out a variety of signals which are received by the aircraft, as follows:

- a) The *localiser* will assist the aircraft to align with the centerline of the runway.
- b) The *glide path* enables aircrew to follow a set descent path of 3.1 degrees.
- c) The *Distance Measuring Equipment (DME)* informs the aircrew about their distance from touch down on the runway.

The ILS usually communicates directly with the autopilot system. This can be defined as a “precision approach”.

For further information on existing approaches to Southampton Airport, please see the airport’s Noise Management Document: www.southamptonairport.com/noise

Figure 2. Current approaches to runway 02



This map is for illustrative purposes only.

5. Consultation Proposal – Option A

Southampton Airport is proposing to introduce a Global Navigation Satellite System (GNSS) instrument approach to runway 02. Initially, this will be used in conjunction with the existing approaches to runway 02. This is what we refer to as Option A in this consultation document and is shown in Figure 3, Page 12.

The proposed GNSS approach will involve aircrew following Global Positioning Satellite (GPS) waypoints that are programmed into the flight management computer on board the aircraft. They work on the same concept as a car “sat-nav”, but provide vertical as well as horizontal guidance. GNSS approaches do not rely on ground based infrastructure. There are two main differences to this approach compared to existing approaches to runway 02:

- a) the approach will be a “straight-in” instrument approach. In other words, it will follow a straight line over the ground aligned to the centerline of the runway, compared to the current “offset” instrument approaches that have already been described. This is optimal for both flight operations and safety.
- b) aircraft will follow a set path over the ground, leading to greater consistency of flight paths. This in turn is likely to result in reduced noise, fuel burn and CO₂ emissions.

If you would like further information on GNSS approaches please visit <http://www.caa.co.uk/default.aspx?catid=1340&pageid=13338>

Figure 3. Proposed approach using GNSS



This map is for illustrative purposes only.

6. Consultation Options

Option A is to adopt the GNSS approach as described in Section 5, Page 11. This is the preferred option of Southampton Airport.

Option B Introduce ILS to runway 02

Option C Do nothing

Option B - Install an ILS on runway 02

Currently, only runway 20 has an ILS. In order to mitigate the removal of the VOR, it would be possible to introduce an ILS to runway 02. The route that aircraft would fly over the ground would be the same as a GNSS approach.

This is not the airport's preferred option for the following reasons:

- It would require a significant investment in ground based navigational aids
- GNSS approaches are consistent with the UK Future Airspace Strategy (FAS), in terms of a long term plan for instrument approaches into airports. Introducing an ILS would therefore be a retrograde step in terms of both technology and airfield efficiency. For further information on FAS, please visit www.caa.co.uk/FAS

Option C - Do nothing

Until 2016 when the VOR is de-commissioned, doing nothing would not impact on airport operations. However, this is not a preferred option as:

- when the VOR is removed, the availability of instrument approaches to runway 02 will be severely restricted
- there would not be a stable 'straight in' approach to runway 02. It would therefore not be possible to optimise safety and minimise noise, fuel burn and CO₂ emissions.

7. Environmental Impacts

The airport has also considered the environmental impact of this proposed change in relation to the following four areas:

- Air Quality
- Tranquility and Visual Intrusion
- CO₂ Emissions
- Noise

Analysis of each area reflects the fact that runway 02 is used for 30% of the time. This change will therefore apply to around 30% of total arrivals into the airport.

Air Quality

The airport has considered the effects the proposed change may have on local air quality and has identified three Air Quality Management Areas (AQMA's) within New Forest District Council's boundaries; Fawley, Totton and Lyndhurst. The Fawley AQMA has been identified as closest to the proposed change, at 2.5 nautical miles from the extended centerline. The proposed change does not fly directly over any of the identified AQMA's and, therefore, has little effect on the local air quality concentration at these points.

The airport also considered the effect on local air quality in the area surrounding the airport's 1,000 metre boundary. The proposed change does not alter the concentration or track of aircraft within four nautical miles from the end of runway 02. It will also have no impact on ground movements at the airport. The airport has therefore concluded that there would be no effect on air quality from the change. For further information on AQMA's, please visit: <http://aqma.defra.gov.uk/aqma>

Tranquility and Visual Intrusion

The area in which the GNSS approach will be introduced is already within controlled airspace designated for aircraft flying into or out of Southampton and Bournemouth Airports. This existing airspace is known as the Solent CTR (Control Zone) or Solent CTA (Control Area) and is illustrated in Annex D. Air Traffic Controllers use the Solent CTR/CTA on a daily basis to manoeuvre aircraft that are arriving or departing from both airports. This airspace is shown in Figure 8, Page 30.

The height and location at which aircraft fly is tactically managed by Air Traffic Control and will depend on a number of factors such as whether the aircraft is arriving or departing, the runway in use at each airport, other aircraft in the vicinity, and the dimensions of the relevant section of controlled airspace. The Solent CTR and CTA are classified as “Class D” airspace and are also regularly used by aircraft to transit the area that are not using Southampton or Bournemouth.

It is important to note that a large proportion of the New Forest National Park area is located within an area of uncontrolled airspace. Aircraft operating within uncontrolled airspace are not required to communicate with Air Traffic Controllers, and as such are not required to follow set routes. Southampton Airport does not have any control authority over these aircraft unless they are operating within controlled airspace. However, the aircraft pilot is still required to operate within the guidelines of the Air Navigation Order in relation to heights and aircraft separation.

Given the amount of daily flying activity that already takes place in the Solent CTR and CTA, the airport does not believe that there will be any significant positive or negative impact on tranquility and visual intrusion as a result of the proposal. However, although the height of aircraft arriving onto runway 02 will not change significantly, the airport anticipates that, by 2016, the majority of aircraft will use the GNSS approach to land on runway 02. The diagram in Figure 6, Page 27 illustrates actual flight tracks from January to March 2013.

It also shows the line of the GNSS approach in relation to areas on the ground and therefore the change in approach procedure we anticipate.

As this is likely to lead to slight variations in traffic routes over the New Forest, both the New Forest Borough Council and New Forest Park Authority have been directly engaged by the airport and invited to comment on this consultation.

CO₂ emissions

Following engagement with the airport's Flight Operations Committee (FLOPC) (a committee consisting of pilots, air traffic controllers and airport operations staff), there is a consensus that this new type of approach will allow aircraft to fly a smoother and more efficient approach to runway 02.

The current VOR approach that is used for arrivals onto runway 02 requires pilots to follow an offset approach into the airport as previously explained in Section 4. Once the pilot has the airport in sight, they will be required to make a turn to align with the runway. When an aircraft begins to turn, a higher engine setting is required to maintain airspeed and thus increasing CO₂ emissions, fuel burn and noise. The GNSS approach proposed will allow aircraft to fly on a straight line over the ground to land with minimal alterations to their direction of travel and engine settings. This type of approach will allow pilots to configure the aircraft more efficiently and potentially minimise fuel burn, CO₂ and noise during the approach.

Although this statement has been validated by FLOPC, it is unlikely that any benefit in terms of fuel burn could be measured, but we are confident that CO₂ emissions, fuel burn and noise will not increase.

Noise

The airport produces noise contours, which are a measure of noise energy, and show lines joining points of equal noise energy (measured in decibels, dB) around the airport. The closer to the source of the noise energy i.e. the aircraft engines, the higher the energy and the higher the dB value. At points further from the source, there is less noise energy and the dB value is lower. Noise can be affected by external factors, such as wind speed and direction, cloud cover and other meteorological factors.

It can also be influenced by human factors, such as individual perception, the age of a dwelling and other sources of noise or disturbance in the vicinity. The contours are modelled as a guide to noise levels and are not absolute.

In the UK, the Government uses 57 dB LA_{eq} to indicate the point where people start to become significantly annoyed by aircraft noise. The 57 dB LA_{eq} 16-hour noise contour for the airport can be seen on Figure 7, Page 28.

The extent of this contour only extends approximately one nautical mile from the end of runway 02. The proposed change does not alter the concentration or track of aircraft within four nautical miles from the end of runway 02, and the airport has concluded that there would be little overall effect on noise from the change.

Therefore, as there is little effect on the noise contours from the change, we believe there will no re-assessment needed of the contours post-implementation of the change. The airport also believes that even with some traffic growth, the noise contours in 5 year's time will still be unaffected by the change.

An ACP requires the change sponsor, in this case, Southampton Airport, to produce SEL contours, that is a contour that demonstrates any impact on night time operations of aircraft. As Southampton Airport operates very few night flights, and this change does not mean any increase to night flights, the airport believes that SEL footprint contours are not required.

Traffic Forecasts and Sources

Southampton Airport published an Airport Masterplan in 2006 which predicted a passenger throughput of 3 million passengers and 62,000 aircraft movements per year by 2015 and ultimately 6 million passengers by 2030. The recent economic slowdown has resulted in a significant reduction in air travel in the UK, including at Southampton Airport.

The airport has a current throughput of 1.7 million passengers and around 44,000 movements per year, which is lower than when the forecasts were published in 2006.

Southampton Airport is planning to produce an updated Masterplan in the next 18 months, which will include a revised forecast for passengers and aircraft movements

The number of aircraft movements (and therefore also the number of flights arriving from the south) has declined by around a quarter since 2005. This decline can be attributed to a variety of factors such as demand for air services from the airport, the UK and European economic outlook, and external factors such as the increase in price of aviation fuel. A table showing passenger numbers and aircraft movements from 2001 – 2002 is shown in Figure 4, Page 19.

The airport does not therefore consider that the introduction of the GNSS approach will be impacted by a significant increase in aircraft movements. It is also important to note that the introduction of the GNSS approach will not enable different aircraft types to operate from the airport, nor will it impact the amount of aircraft that arrive from the south (which we expect to remain at 30% of all arrivals in line with prevailing wind conditions in the region).

Figure 4. Number of passengers and aircraft movements for Southampton Airport – 2001 - 2012

Year	Number of Passengers	Aircraft Movements
2001	857,670	48,204
2002	789,325	46,767
2003	1,218,634	51,423
2004	1,530,776	54,484
2005	1,835,784	58,045
2006	1,912,979	55,786
2007	1,965,686	54,183
2008	1,945,993	50,689
2009	1,789,901	45,502
2010	1,733,690	45,350
2011	1,762,076	45,700
2012	1,694,120	43,284

Source: CAA Statistics

8. Consultation Process

The purpose of this consultation is to provide you with the chance to express your opinion and to comment on the airspace change proposal, and for the airport to share information with you.

Please remember that the proposal only relates to aircraft approaching from the south on runway direction 02.

The 'change sponsor' for this proposal is Southampton Airport and this requires the airport to be responsible for the proposal, including the consultation process, whilst the CAA's Safety & Airspace Regulation Group (SARG) is responsible for the process.

This proposal and stakeholder consultation has been developed in line with the CAA's 'Guidance on the Application of the Airspace Change Proposal' document, 'CAP 725'.

Our proposal will be subject to a 16-week stakeholder consultation commencing Tuesday 8th October 2013 and running until Friday 31st January 2014. A planned timetable for the consultation is shown in Figure 5, Page 21.

All feedback received will be given appropriate consideration before the formal proposal is prepared for submission to the CAA, which is likely to take place in Summer 2014.

A full list of consultees to this proposal can be found in Annex A.

Figure 5. Planned Consultation Timetable

Date	Action
8 th October 2013	Launch of Consultation at Southampton Airport Consultative Committee
8 th October 2013 – 31 st January 2014	Consultation Period
February and March	Analysis of Stakeholder Feedback
April	Summary Report on Consultation Published
June	Formal Submission of Airspace Change Proposal

All information regarding the airspace change proposal can be found on Southampton Airport’s website: www.southamptonairport.com/consult and a hard copy of the consultation document is available at Southampton Central Library, Civic Centre, Southampton SO14 7LQ – <http://www.southampton.gov.uk/s-leisure/libraries/local-libraries/central.aspx>

If you would like to request a hard copy of this consultation document, please contact the airport using any of the options below:

Email: consult@southamptonairport.com

Telephone: 023 8062 7070

Letter: Airspace Planning and Policy Officer
 Airspace Change Proposal
 Southampton Airport SO18 2NL

If you would like this document in an alternative format please call 023 8062 7070.

9. How Can Stakeholders Respond?

Southampton Airport welcomes all comments about the airspace change proposal, and would like to invite you to submit your feedback by any of the following methods:

Email: consult@southamptonairport.com

Letter: Airspace Planning and Policy Officer
 Airspace Change Proposal
 Southampton Airport SO18 2NL

Telephone: 023 8062 7070

Online: <http://www.southamptonairport.com/consult>

All feedback received will be analysed and be part of the airport's considerations. A summary report will be made publicly available on the airport website, www.southamptonairport.com/consult, as well as at Southampton Central Library.

All feedback received will be subject to public record and will therefore be submitted to the CAA. If you do not wish your personal information to be shared with the CAA, please ensure you notify us when we receive your feedback.

If you would like to make any comments regarding the CAA's guidelines for airspace change proposal (CAP725), please write to the CAA: Business Coordinator, Safety & Airspace Regulation Group, CAA House, 45-49 Kingsway, London WC2B 6TE, or email airspacepolicy@caa.co.uk.

10. Consultation Feedback Form

Please complete this form and return to the airport by 31st January 2014, using any of the following methods:

Email: consult@southamptonairport.com

Letter: Airspace Planning and Policy Officer
 Airspace Change Proposal
 Southampton Airport SO18 2NL

Name:.....

Address:.....

.....

.....

E-mail:.....

Consultation Options - (please tick your preferred option)

Option A GNSS Approach

Option B ILS

Option C Do Nothing

Additional Comments. Please feel free to add further pages.

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11. Glossary

ACP	Airspace Change Proposal
Air Navigation Order	Primary legislation for aircrews and aircraft operators – CAP 393
CAA	Civil Aviation Authority
CAP 725	Airspace Change Process Guidance Document
CTA	Control Area – airspace around an airport that has specified base and upper levels
CTR	Control Zone – airspace around an airport that extends from the surface to a specific level
dBA	Decibel
DME	Distance Measuring Equipment
FAS	Future Airspace Strategy
FLOPC	Flight Operations Committee
GNSS	Global Navigation Satellite System
GPS	Global Positioning Satellite
ILS	Instrument Landing System
Leq	Measure used to express average sound level
Mppa	Million passengers per annum
NATMAC	National Air Traffic Monitoring Advisory Committee
NDB	Non-Directional Beacon
Noise Contour	Illustrates impact of aircraft noise around airports
Section 106	Legally binding planning obligation between Southampton Airport and Eastleigh Borough Council
SEL	Single Event Level
VOR	VHF Omni-directional Range

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Figure 7	Southampton Airport Noise Contours – 2012 57 dBA Leq 16 hour
Figure 8	Airspace around Southampton Airport

Figure 6. Flight tracks to runway 02 – January to March 2013

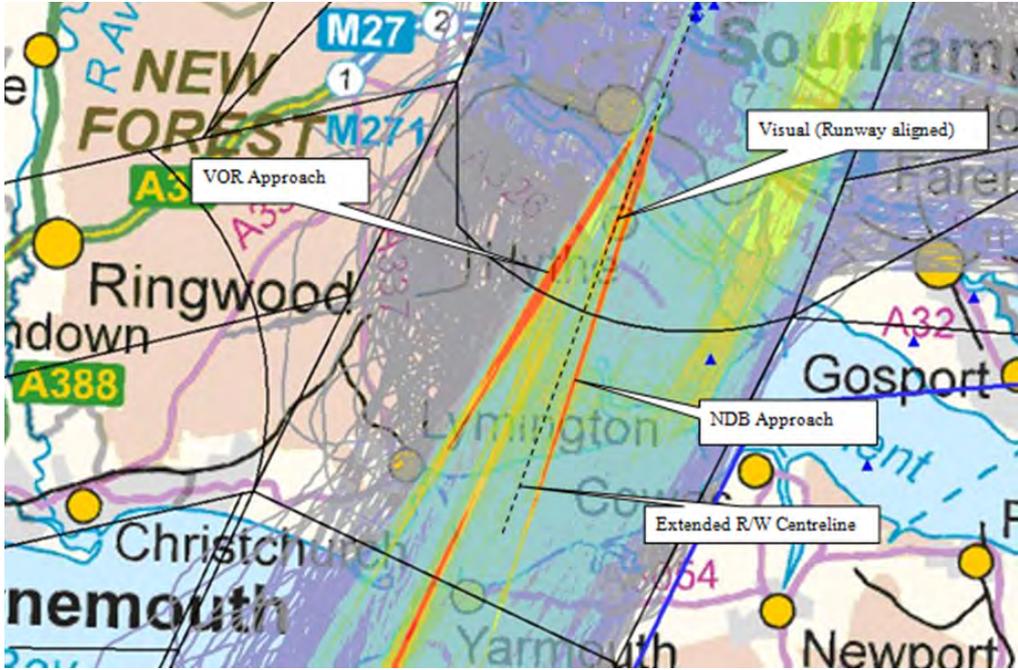
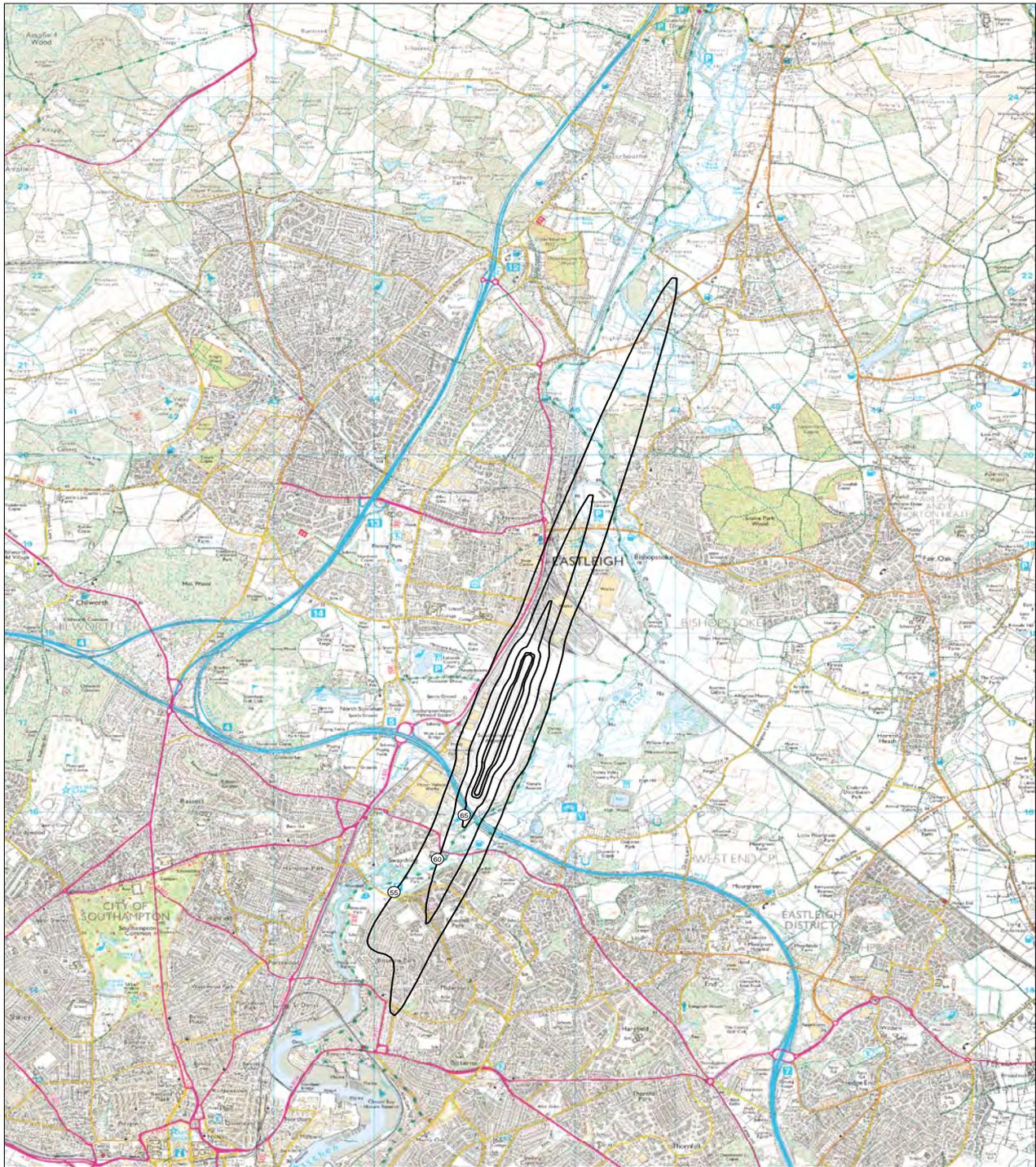


Figure 7. Southampton Airport Noise Contours - 2012 57 dBA Leq 16hour



SOUTHAMPTON AIRPORT
Year 2012 Annual L_{Aeq,16hr} Contours
Actual Modal Split 69% south / 31% north
Scale 1:25,000

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Leq Contours (a measure of average noise levels)

Noise exposure is depicted in the form of noise contours, ie lines joining places of constant Leq akin to the height contours shown on geographical maps or isobars on a weather chart. A computer model, validated with noise measurements, is used to estimate the noise exposure. The model calculates the emission and propagation of noise from departing and arriving air traffic.

The noise exposure metric used is the Equivalent Continuous Sound Level or Leq 16 hour (0700-2300 local time) which is calculated over the 92 day summer period from 16 June to 15 September.

In the UK, Leq noise contours are normally plotted at levels from 57 to 72 dBA in 3 dBA steps. The 57 dBA level denotes the approximate onset of significant community annoyance.

SEL Contours

SEL contours are Sound Exposure Level contours and are used in order to show the noise effect from an individual aircraft movement. The 90 dBA SEL corresponds to the threshold of sleep disturbance.

For further information on noise contours, please visit www.caa.co.uk/default.aspx?catid=68&pagetype=90&pageid=9269

Figure 8. Airspace around Southampton Airport



Key Showing Areas of Controlled Airspace

- Solent CTR
- Solent CTA

Annex A

List of Southampton Airport Airspace Change Process Consultees

Southampton Airport Consultative Committee
Hampshire County Council
Southampton City Council
Winchester City Council
Eastleigh Borough Council
Test Valley Council
West End Parish Council
Bishopstoke Parish Council
Hampshire Chamber of Commerce
Tourism South East
Winchester and District Trade Union Council
Bitterne Park Residents' Association
Townhill Park Residents' Association
Southampton Action for Access
High Flyers
Servisair
South West Trains
Eastern Airways

Southampton Airport Technical Working Group (a sub-group of the Southampton Airport Consultative Committee)
Southampton Airport Consultative Committee Chairperson
Winchester City Council
Southampton City Council
Eastleigh Borough Council
NATS
Flybe

Other Local Stakeholders
New Forest District Council
New Forest National Park Association
CPRE - Hampshire
Environment Agency – Solent & South Downs Area
Hythe & Dibden Parish Councils
Beaulieu Parish Council
Exbury & Lepe Parish Councils
Marchwood Parish Council
Dibden Parish Council
Boldre & East Boldre Parish Councils
Lyndhurst Parish Council
Denny Lodge Parish Council
Fawley Parish Council
Alan Whitehead MP
John Denham MP
Dr Julian Lewis MP
Mike Thornton MP

Southampton Airport Flight Operations Committee (FLOPC)
Flybe
Signature
Aurigny
NATS
Eastern Airways
Blue Island
Somers
SpecSavers
Police
XClusivejet
Cega Air Ambulance

NATIONAL AIR TRAFFIC MONITORING ADVISORY COMMITTEE (NATMAC)	
AOA	AOPA UK
AEF	BA
BAA	BAE SYSTEMS
BALPA	BATA
BBAC	BBGA
BGA	BHPA
BMAA	BMFA
BPA	BHA
easyJet	Euro UAV Systems Centre
GAPAN	GASCo
GATCO	HCG
Heavy Airlines	LAA
Light Airlines	Low Fare Airlines
NATS (NERL)	NATS
PPL/IR	UKAB
UKFSC	

Southampton Airport Airspace Change Proposal - summary

Stakeholder Consultation 8th October 2013 – 31st January
2014

Consultation Proposal

Southampton Airport is proposing to introduce a new satellite based navigation system (GNSS) instead of using ground based navigation aids, for aircraft landing from the south only, ie from Beaulieu and Hythe direction.

The airport is consulting on this because:

- An existing navigational aid is scheduled to be decommissioned in 2016 and will no longer be able to support instrument approaches into the airport. The navigation aid does not belong to the airport and is being removed as part of a national programme of transition toward new navigation technology.
- It will provide an instrument approach that is aligned with the runway centreline. This is optimal for both flight operations and safety.
- It provides an opportunity for aircraft to be configured more efficiently as they approach to land, which is likely to have benefits in terms of reducing aircraft noise and emissions.
- It is consistent with UK Civil Aviation Authority (CAA) policy regarding the future implementation of new navigation technology.

This consultation is **NOT** about changes to:

- the routing or height of any departing aircraft
- night flight restrictions
- airport operating hours
- aircraft approaches from the north
- types of aircraft operating at the airport
- runway or airport capacity
- controlled airspace around the airport
- the airport's Section 106 Flying Controls Agreement with Eastleigh Borough Council
- published noise preferred routings

For full information on this consultation, please visit www.southamptonairport.com/consult

Consultation Options

Option – A (the airport’s preferred option) – Introduce a new satellite based navigation system (GNSS) – as detailed above.

Option B – Install an Instrument Landing System (ILS) – described below

Option C – Do nothing – described below
Option A – Introduce GNSS (the airport’s preferred option)

There are two main differences to this approach compared to existing approaches to runway 02:

- a) the approach will be a “straight-in” instrument approach. In other words, it will follow a straight line over the ground aligned to the centerline of the runway, compared to the current “offset” instrument approaches. This is optimal for both flight operations and safety
- b) aircraft will follow a set path over the ground, leading to greater consistency of flight paths. This in turn is likely to result in reduced noise, fuel burn and CO₂ emissions.

Option B – Install an Instrument Landing System (ILS)

ILS is one of the most common instrument approaches in use at airfields around the world. The ILS consists of three ground based components which help the pilot to land by sending out a variety of signals which are received by the aircraft.

This is not the airport’s preferred option for the following reasons:

- it would require a significant investment in ground based navigational aids
- satellite based navigation aid approaches such as the GNSS, are consistent with the UK Future Airspace Strategy (FAS), in terms of a long term strategy for instrument approaches into airports. Introducing an ILS would therefore be a retrograde step in terms of both technology and airfield efficiency.

Option C - Do Nothing

Until 2016 when the navigation aid is de-commissioned, doing nothing would not impact on airport operations. However, this is not a preferred option either as:

- when this is removed, the availability of instrument approaches from the south will be severely restricted
- there would not be a stable, ‘straight in’ approach from the south. It would therefore not be possible to optimise safety and minimise noise, fuel burn and CO₂ emissions.

Environmental Impacts

The airport has also considered the environmental impacts of this proposed change in relation to the following four areas:

Air Quality

The proposed change does not alter the concentration or track of aircraft within four nautical miles from the end of the runway, and the airport has concluded that there would be no effect on air quality from the change.

Tranquility and Visual Intrusion

The area in which the new approach will be introduced is already within controlled airspace designated for aircraft flying into or out of Southampton and Bournemouth Airports.

It is important to note that a large proportion of the National Park area is located within an area of uncontrolled airspace. Aircraft operating within uncontrolled airspace are not required to communicate with Air Traffic Controllers, and as such are not required to follow set routes.

Given the amount of daily flying activity that already takes place in this area, the airport does not believe that there will be any significant positive or negative impact to tranquility or visual intrusion as a result of the proposal. However, although the height of aircraft will not change significantly, the airport anticipates that more aircraft will use the new approach.

As this is likely to lead to slight variations in traffic routes over the New Forest, both the New Forest Borough Council and New Forest Park Authority have been directly engaged and invited to comment on this consultation.

CO₂ emissions

Following engagement with the airport's Flight Operations Committee (FLOPC) (a committee consisting of pilots, air traffic controllers and airport operations staff), there is a consensus that this type of approach will allow aircraft to fly in a smoother and more efficient approach to runway 02, because it will allow aircraft to fly on a straight line over the ground to land with minimal alterations to their direction of travel and engine settings. This type of approach will allow pilots to configure the aircraft more efficiently and potentially minimise fuel burn, CO₂ and noise during the approach.

Although this statement has been validated by FLOPC, it is unlikely that any benefit in terms of fuel burn could be measured, but we are confident that CO₂ emissions, fuel burn and noise will not increase.

Noise

The proposed change does not alter the concentration or track of aircraft within four nautical miles from the end of the runway, and the airport has concluded that there would be little overall effect on noise from the change.

How can stakeholders respond?

All feedback received will be analysed and be part of the airport's considerations. A summary report will be made publicly available on the airport website, www.southamptonairport.com/consult, as well as at Southampton Central Library.

Email: consult@southamptonairport.com

Telephone 023 8062 7070

Online: www.southamptonairport.com/consult

Letter: Airspace Planning and Policy Officer
Airspace Change Proposal
Southampton Airport SO18 2NL

Consultation Timetable

Date	Action
8 th October 2013	Launch of Consultation at Southampton Airport Consultative Committee
8 th October 2013 – 31 st January 2014	Consultation Period
February and March	Analysis of Stakeholder Feedback
April	Summary Report on Consultation Published
June	Formal Submission of Airspace Change Proposal