

# noise

London Gatwick Airport **Noise Report**



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# Introduction

**Noise Communication Solutions Ltd (NCS) is a company working in the aviation industry helping airlines and airports recognise and mitigate the effects of their operations on local communities.**

NCS also operates Environmental Noise Accreditation (ENA), a world first in accrediting airports, airlines and Air Navigation Service Providers (ANSPs) in their management of noise. The accreditation provides a robust and independent verification of the Noise Management Function (NMF) and tests three key areas of noise management: Operational Noise, Noise Mitigation and Noise Communications.

NCS has worked with many airports including Heathrow, Gatwick, Stansted, Luton, Jersey, Biggin Hill and Southampton and has now been commissioned by Gatwick Airport Ltd (LGW) to provide an independent assessment of its noise management against other South East airports and two significant European hubs, in order to provide balance and context.

We were also commissioned by Virgin Atlantic Airways to peer review their noise policy, which we believe to be one of the world's first dedicated airline noise policies. This was published in November 2013.

This independent noise review for Gatwick Airport encompasses ENA's core concepts and principles (although this is not a certified accreditation), and has been prepared in line with ENA's accreditation process.

Through a series of interviews, follow up questions, research and knowledge, we have peer reviewed Gatwick Airport's noise management function. We have undertaken a series of interviews with Airport Management, conducted 'desktop' research into specific noise performance data, as well as reviewed noise communication initiatives undertaken by not only the airport but also other comparative airports - Heathrow, Stansted, Amsterdam Schiphol and Frankfurt.



# Management Summary

**This report is an independent assessment of Gatwick Airport's current, and planned, noise management practices and performance, and will help identify its approach to noise management compared to similar airports, together with recommendations of how they can implement further improvements.**

Gatwick Airport has invested heavily in the transformation and refurbishment of the airport since the purchase, and the results are clearly improving both airline and passenger experiences.

In line with this investment, Gatwick Airport believes it now has one of the world's most innovative and advanced noise management programmes and we would wholeheartedly endorse that view.

Programmes include many excellent noise initiatives aimed at delivering superior noise performance with the involvement and collaboration of the local community and wider stakeholders.

Some of the initiatives and best practice examples we observed are below, (more detailed reviews of these are contained further on in this report). A selection of these initiatives have been recognised within London First's report "Flight Path to Growth".

- Noise Seminar, inviting 'no holds barred' face-to-face stakeholder questioning
- Introduction of CASPER with the enhanced time delay of 15 minutes for the community
- London Airspace Consultation ensuring stakeholders are involved in shaping the airspace around Gatwick Airport
- Fly Quiet & Clean programme to promote the airport's noise initiatives and communications
- PRNAV implementation to provide respite options for the local community
- Regular and well communicated community noise monitoring and reporting
- Minutes of noise meetings and reports for consistent quality checking
- League tables of performance against peer airports/ noise functions
- Track keeping trials to test best practice and implement co-ordinated and proven routings
- GATCOM Consultative Committee held in public session
- New Noise Insulation Scheme
- The Annual Monitoring Report ensuring longer term performance trending

However, we believe there are a number of improvements that could further enhance Gatwick Airport's status:

- more community consultation/collaboration
- implementing the 'Sound Lab' technology alongside the new CASPER community system
- building on the success of the Airport Consultative Committee and implement appropriate review recommendations
- providing more information on the dedicated noise website
- proactive stakeholder feedback

These will be the subject of follow up projects by the airport to implement our recommendations.

The basis for our positive assessment is the evident investment in both short and longer term linked initiatives to improve the noise performance at Gatwick Airport. We often see laudable efforts in one or the other, but to see co-ordinated initiatives in both time parameters is rare. These alone set the airport apart from all but the very best performing airports and is testament to its aspiration to become the best airport in the World.

The impact of all these initiatives - if maintained with the diligence and enthusiasm that we saw in the staff and managers we met - will ensure that Gatwick Airport remains a force to be reckoned with in the management of noise. We very much look forward to working together with the airport to help it achieve its aspirations.

We have found Gatwick Airport's noise management function to be robust and resilient and it has invested a significant amount of time and effort in its noise management activities and people, to ensure top performance amongst UK and Worldwide airports.

# Context

**Gatwick is the world's busiest single runway airport. It handled 35.4 million passengers during 2013, using 244,552 air transport movements and GIP will have invested £2 billion in the airport by 2018.**

**With a catchment area of 12 million people within one hour's commute of the airport, it contributes £2 billion to the local economy. The airport has set out to be the most innovative airport in Europe by undertaking a series of quality improvement initiatives to enhance passenger and stakeholder experiences in and around the airport. For example, from investments in railway, station, car parking and smartphone apps, through to a European first Airspace Change proposal embracing state-of-the-art Performance Based Navigation (PBN) technology.**

**NCS has conducted an intensive and extensive independent review of Gatwick Airport's noise management function - the primary operational team involved with noise - as well as reviewed the many and varied processes and initiatives employed to deliver noise targets and objectives.**

# Key Initiatives

## Noise Action Plan (NAP)

In line with European Noise Directive 2002/49/EC, the airport has submitted its updated Noise Action Plan to Defra. The noise action plan has been revised from the airport's first plan which addressed the five year period between 2010 – 2015, to now address 2013 – 2018 in recognition of updated Noise Mapping data and contours.

Gatwick Airport has 55 actions within its NAP and it appears all are being addressed and/or currently being developed. The NAP has a wealth of best practice initiatives that we consider to be innovative and robust. For example, its Fly Quiet & Clean programme, rotating respite and the 'London Airspace Management Programme' (LAMP) initiative.

We believe there is an opportunity to better track and report progress throughout the NAP's five year lifecycle by making better use of the airport's noise website. As part of our investigation we have reviewed Gatwick Airport and other airports' documents and found it difficult to pinpoint where the achievements are. We would recommend the airport provide direct links to the output – for instance, a link to the Fly Quiet & Clean programme.

## Fly Quiet & Clean (FQC) programme

As mentioned above within the NAP commitments, Gatwick Airport launched its Fly Quiet & Clean programme in 2012 and to quote from the airport's 'Flying Forward' brochure, "FQC pulls together a unique framework of all our noise initiatives." The core of FQC is detailed as A-CDM (Airport Collaborative Decision Making), Airspace Development and 'precision based navigation' (PRNAV), but there are nine separate commitments in total within the programme.

We want to take the opportunity to review some of these initiatives and so have included sub-sections that address a selection of these main objectives for the airport, for instance the London Airspace Consultation and Noise Seminar.

A-CDM is not something we will be covering in this report, but Airspace Development and PRNAV were very significant factors in compiling this report. Both initiatives are bringing substantial changes in the way the airport operates for local communities, stakeholders and airport management.

The six remaining initiatives within FQC appear to be implemented on an almost daily basis, as part of the airport's general 'modus operandi, for instance:

- the innovation group
- work with Sustainable Aviation (SA)
- airlines
- Arrival and Departure codes of practice
- strategic future
- NAP

# Key Initiatives (continued)

An initiative within the FQC programme has been to review 'go-around' performance. A go-around is a standard procedure used by airlines and air traffic control to re-land an aircraft that may not have been 'stable' on its approach path. By working with NATS in 2013, Gatwick Airport identified ways to improve aircraft approach stability in order to reduce go-arounds. This work involved a review of final approach practice and this has indicated a 60% reduction in go-arounds due to unstable approaches during easterly operations.

This in turn offers obvious environmental advantages in terms of fuel burn, CO2 and noise.

Overall, we believe Gatwick Airport's programme to be solid and fit for purpose. It is unique and appears to provide the framework needed to pull together the airport's noise initiatives. We feel more could be done to track and report, and to update, progress through the programme, perhaps through the airport noise website and/or a regular community newsletter.

## London Airspace Consultation

The London Airspace Consultation (LAC), which Gatwick Airport refers to as the 'Big ACP', was launched jointly by the airport and NATS (formerly National Air Traffic Services) in October 2013 and is the first stage of the London Airspace Management Programme (LAMP) initiative. The consultation ran for a period of three months and has now closed.

This unique partnership between an airport and an Air Navigation Services Provider (ANSP) jointly undertaking a considerable airspace change together is believed to be a world first. Gatwick Airport is taking ownership (again for the first time) of changes below 4,000 ft, which should ultimately deliver the latest and most innovative piece of airspace in the world, while NATS are responsible for changes above 4,000 ft. The airspace change proposal puts forward state of the art innovative air traffic management techniques such as point merge, PRNAV and PBN.

European Member States are required to revise airspace in order to maximise the use of new navigation technologies. To quote from the airspace change document directly, "change is therefore inevitable; our focus in this consultation is on how best to enable that change."

We have reviewed the airspace change documentation, website and presentations as well as spoken with key team members involved, and we note the intensity and attention to detail that was put into the consultation as a whole. The airport presented the LAC project jointly with NATS to the Consultative Committee – GATCOM – as well as launching it through a series of press briefings, community briefings, engagement with individuals and engagement with stakeholders through the Flight Performance Team (FPT) and on the internet using a dedicated website.

This is a significant and important airspace change, the likes of which has not been seen since NATS consulted on 'Terminal Control North' in 2008. We believe this consultation was defined and individual and made it easier for communities to have their input and say, and is certainly a world leading example of innovative best practice. It provided a chance for stakeholders to have their input on areas of airspace rather than routes, allowing everybody to contribute effectively to the change rather than being consulted on defined routings.

NATS said recently "the airspace change programme is essential if we are to contribute to, and ensure, the success of the UK's Future Airspace Strategy (FAS). The airspace above London is the most complex in the world and as traffic levels increase, change is necessary to ensure safety and service levels. The net effect will be reduced noise and respite built into the final design."

Our view is this consultation was a genuine chance for people to shape a consultation from the earliest stage. Never before has an airport taken ownership of the consultation jointly with NATS for flight changes below 4,000 ft. Innovation, technology and communication will be the key to the success of this ground-breaking consultation alongside community participation and a real appetite to make difficult decisions in order to achieve sustainable change.

The consultation has now finished and a publicly available Consultation Summary Report will be made available, and we understand this should be by May 2014. Therefore, we are unable to comment on the outcome or findings of the consultation.

## PRNAV on all nine departure routes

Precision based satellite navigation (PRNAV), is one of the world's most up-to-date and innovative aircraft navigation techniques. Gatwick Airport conducted extensive trials on its departure routes in order to gain an insight into how PRNAV could be best implemented on them, and how PRNAV can be best utilised to serve the local community in terms of providing respite.

Respite gives predictability, transparency, ownership and peace of mind to communities and we have observed that Gatwick Airport wholeheartedly supports this initiative as a much-needed noise programme that its local community is able to buy-into, support and drive.

PRNAV, through a series of collaborative trials, and a full Airspace Change Proposal (ACP) public consultation in 2012, has now been implemented on all of the airport's departure routes.

We believe this to be a unique position for an airport, and is very much a first for UK-wide implementation of the Future Airspace Strategy (FAS).

# Key Initiatives (continued)

## **New noise and track keeping system – CASPER**

In our opinion, this is a benchmark example of best practice that an airport provides for its local community and stakeholders. The ability for a community to ‘self-serve’ a noise enquiry about a particular aircraft over a specific area is one of the biggest wins for them. To be able to put their postcode into a ‘one-stop-shop’ online service and tailor their enquiry with very specific information about flights in and around their location provides a trusted way to ‘self-serve’ information.

Many airports worldwide provide this online facility and Gatwick Airport is no different. But, the airport has recently changed its noise and track keeping system provider to one that is relatively new to the market. This system, known as CASPER, is both the behind-the-scenes management system used to monitor, report and analyse all daily aircraft movements into and out of the airport, as well as the being the external facing system available to communities for tracking flights and noise in and around their area.

The key to this new system, we feel, is the 15 minute delay in providing the community with information. Time delays across the world’s flight tracking systems can vary from 0 minutes (real-time) to over 24 hours. Aircraft flight-tracking systems are popular around the world and products such as Flight Radar 24 and Pro are available, but none compares to an airport’s own system dedicated exclusively to that airport’s flights. The reasons for this are that, we believe, airport systems provide much more detail for a local community, such as every flight into and out of just that airport (as apposed to selected flights that use a specific Mode of radar), its noise readings, placement location of noise monitors, historical information and in some cases noise contours.

In the coming months, Gatwick Airport is introducing a unique enhancement for CASPER known as ‘Sound Lab’. Sound Lab will be a bolt on service to CASPER, which will enable communities to put in their postcode and obtain historical data on aircraft noise and track keeping specific to their area. What makes this unique is the ability to obtain historical and trend data. We believe the information available will go back to 2010.

## **Annual Noise Seminar**

Gatwick Airport held its first noise seminar under new GIP ownership in 2012. This seminar saw the Fly Quiet & Clean programme launched, and featured a variety of presentations from experts in the noise field. Presentations were heard from a balanced representation from airlines, airport operations, air traffic control, environment and community groups.

We believe this noise seminar offered an excellent opportunity for the airport to bring noise to life for its stakeholders. The invited audience included members of GATCOM, NATMAG, FLOPC, local parish, district and town councils, local community and residents’ groups, businesses and members of the local community who had been interacting with the FPT in terms of noise complaints or enquiries.

In order that all interested parties had the opportunity to see the seminar, the airport published the presentations and video from the day on its YouTube channel. Again, we believe this initiative to be a UK first and a clear lead in terms of best practice.

This noise review has been written and published for launch at Gatwick Airport’s noise seminar on 19 March 2014.

## **New Noise Insulation Scheme**

Gatwick Airport launched its new noise insulation scheme at the beginning of February 2014.

Local solutions for local issues is the mantra of the Airport’s Commission Aviation Noise Discussion Paper, and we believe the airport has embraced this concept wholeheartedly by designing a scheme which, quite literally, goes further than any other in addressing the main criticism of noise insulation schemes and their noise contour boundaries – that of addressing noise from arriving aircraft.

Gatwick Airport has created a noise contour taken from 45 mppa modelling and extended it by a further 15 km from start of roll along the extended centreline of the runway. This has given the airport the opportunity to include nearly double the amount of homes than the previous scheme (1,187 previous, 2,047 new), increase the area inside the contour from 26 km<sup>2</sup> to 43 km<sup>2</sup>, as well as including 12 community noise sensitive buildings where, we believe, there were six in the previous scheme. The contribution from the airport is £3 million phased over four years.

This scheme provides noise insulation for those affected by flights on their final approach (on the ILS) into the airport from either end of the runway (directions 08 and 26), which we understand has never been seen before in a scheme such as this.

The scheme is, in our opinion, generous and innovative.

# Observations

Within this section, we have appraised Gatwick Airport using Environmental Noise Accreditation's (ENA) key concepts and principals. Under ENA, undertaking a full verification accreditation process results in the airport being awarded an accreditation level for the maturity of its individual noise management function. For the purpose of this report, we have not undertaken the full verification and auditing process. Moreover, we have taken a top-level review whereas ENA requires a full evidential audit through a three-stage process.

There are nine ENA concepts:

- Leadership
- Policy & Strategy
- People & Management
- Resources
- Process
- People Satisfaction
- Customer Satisfaction
- Performance Results
- Social Responsibility

ENA thoroughly scrutinises and verifies against these concepts in the context of noise and is aligned to (in the case of European airports) European noise targets and objectives.

In the case of Gatwick Airport, we have, through a comprehensive series of interviews, follow up questions, research and knowledge, observed the following within each concept:

## **1. Leadership – how management and staff in leadership roles define success and inspire and drive continual improvement in the reduction of noise.**

There is a well-established senior management team which is constantly striving to deliver the best possible noise management and mitigation service to customers and stakeholders as part of the overall business and environmental development plans for the airport.

There are regular meetings ensuring communication is thorough, appropriate and timely, and several communication channels disseminate information throughout the NMF and other airport support teams and stakeholders.

This focus has enabled the organisation to successfully deliver a wide range of NMF initiatives and investment in a very specific area. There is strong team spirit within the NMF and individual targets are implemented which have been developed from airport and management strategic objectives in order to deliver the desires and expectations of stakeholders.

## **2. Policy & Strategy – the NMF incorporates the airport's values and operational standards into the definition, communication, reviews and improvement of noise policies and strategies.**

The NMF knows and understands how its role contributes to the overall success of the business. Policies exist for major activities and are freely available to staff and stakeholders.

There are clear policies and strategies in place for noise management within eight key targets:

- 1 Demonstrating that all things reasonably practicable are being done to minimise noise impacts
- 2 Quietest fleet practicable
- 3 Quietest practicable aircraft operations, balanced against NO<sub>x</sub> and CO<sub>2</sub> emissions
- 4 Effective and credible noise mitigation schemes
- 5 Engagement with communities affected by noise to better understand their concerns and priorities, reflecting them as far as possible in airport noise strategies and communication plans
- 5 Organising effective and efficient management of noise
- 7 Achieving full understanding of aircraft noise to inform priorities, strategies and targets
- 8 Influencing Planning Policy

These targets are fully in line with ICAO's 'Balanced Approach' and Sustainable Aviation's Noise Road-Map.

Within Policy & Strategy, other observations include:

- Noise impacts are identified and actions taken to address these.
- Noise mitigation schemes are in place.
- There is a noise policy and strategy in place, including Land Use Planning, Quieter Fleet and Wake Vortex. We feel that the airport would benefit from a dedicated noise communications strategy to both define the innovative and proactive programme of noise communications and shape its approach.
- There is stakeholder input and consultation and a collaborative approach is clear.
- There is community involvement in plans to improve noise performance and we understand Gatwick Airport are in the early stages of discussions with leading NGO, the Noise Abatement Society, with a view to partnering and jointly launching some ground-breaking research in order to bring about a more pragmatic and strategic approach to noise management.
- Community noise monitoring and reporting is undertaken and the airport provides full output reports of the monitoring to communities and these are available online. This is a great example of best practice and the airport could focus these placements on driving a community outreach programme, together with case studies.

# Observations (continued)

## 3. People & Management – realising the full potential of human resources

NMF staff are encouraged to improve their knowledge, skills and competencies and team members are supported in their quest for professional qualifications and certification of accomplishments.

Career development opportunities exist and team members are supported with career moves in line with their aspirations. There is regular appraisal, and personal development plans exist for each team member.

## 4. Resources – there is access to the resources and tools necessary to achieve objectives

The team is located all together in an open plan office with easy 'open door' access to senior managers. Locations of teams ensure improved communications and collaborative working.

The NMF team is adequately resourced and has a mature, robust and resilient management system. The NMF team has access to a collection of sources of knowledge, all contributing to a high degree of expert knowledge.

Within People & Management, other observations include:

- There is clear engagement with industry and an appetite to be involved with research and development to bring about aircraft noise reduction through technology. While the airport recognises it cannot directly change this, it can influence and understand better, in order to convey industry messages to its local communities.

## 5. Processes – how the NMF reviews, documents and revises its processes and procedures in order to meet its goals and objectives

There is a set of standard documented policies, processes and procedures available for the NMF team and support staff to use in order to deliver a consistent and timely service.

- Noise and track keeping processes are in place for detection, remediation and reporting, including night noise, CDA, track keeping, noise infringements, joining point and ground noise.
- Enquiries and complaints are logged, investigated and responded to, as well as publicly reported.
- Noise, track keeping, complaints and enquiries are reported publicly, and trend analysis is undertaken and used for trials, stakeholder information, and consultation and community reports.

## 6. People Satisfaction – how well the organisation measures satisfaction of noise management team members in their role

Staff turnover and sickness absenteeism is extremely low and appears to be well managed. Many of the NMF team have been with the organisation for several years. The NMF team is keen to consistently deliver a great service and team members are looked after by the company, which gives rise to job satisfaction and great customer service.

An employee satisfaction programme exists for all airport employees, including the NMF. This is important to see for us, as we passionately believe that there cannot be world class customer service and stakeholder engagement without those key team members being happy and fulfilled in their roles. This is crucial for local communities to work together with airports.

We understand the airport has aspirations to be included in the Sunday Times top 100 best employers index, and is undertaking this process over the coming months.

## 7. Customer Satisfaction – customer satisfaction information is regularly captured and used, and aligned to the airport's objectives and stakeholders' expectations

An integral part of an organisation's credibility, responsibility and transparency is knowing how its customers view it - in the case of the NMF its customers are its stakeholders. We understand there is a customer satisfaction survey due to be conducted as a result of a noise action plan action. While we have no results to comment on, anecdotal evidence suggests that the level of service provided by the NMF is extremely good, it is well thought of and valued as a service.

There are several points of contact to the NMF for the local community; online, email and telephone, with social media playing an increasingly important role in disseminating information.

## 8. Performance Results – the NMF's performance results are measured against its KPIs and targets

The NMF measures and reports on many aspects of noise performance, for instance, CDA compliance, track keeping, noise infringements, joining point and night noise adherence. This is measured and reported through a dedicated noise and track keeping monitoring system and reports are presented to management, staff and stakeholders through forums such as GATCOM and NATMAG. This information is also available through the airport's dedicated noise website and is up-to-date to, and including, quarter 3, 2013.

Historical data is also available through the website and the NMF. Within Performance Results, other observations include:

- Information that compares performance of airlines is gathered and reported in order to bring about continuous improvement and to best practice.

## 9. Social Responsibility – the NMF strives to understand and respond to the expectations of its stakeholders. It comprehensively achieves and measures results with respect to society

The NMF team is committed to a wide range of recycling activities and works with the airport's Community Fund to engage in charitable and community activities. All monies received from noise fines are put into the airport's Community Fund, together with Gatwick Airport's 2013 donation of £188,000. During 2013, there were no noise violations to fine.

Within Social Responsibility, other observations include:

- The airport fines airlines that breach the departure noise limits and these monies are put directly into the airport's community fund.

# A case study

## **Gatwick Airport Night Noise (Arrivals) Respite Trial**

As a direct response to stakeholder feedback from local community groups and GATCOM, Gatwick Airport embarked on operating a 'Night Noise (Arrivals) Respite Trial'. The objective was to provide a predictable form of respite from the noise impact of overflying aircraft during the night period.

The aim was to remove overflights (below 6,000 ft) from pre-agreed noise impacted areas on a pre-determined date/time basis during summer 2013, over 57 consecutive nights. Through consultation with GATCOM and NATMAG, areas were identified that NATS could avoid while positioning arrivals on to their final approach from midnight until 5 am. Flights directly under the final approach could not be changed because the electronic guidance of the ILS cannot be varied, but flights further out under the guidance of ATC can be varied.

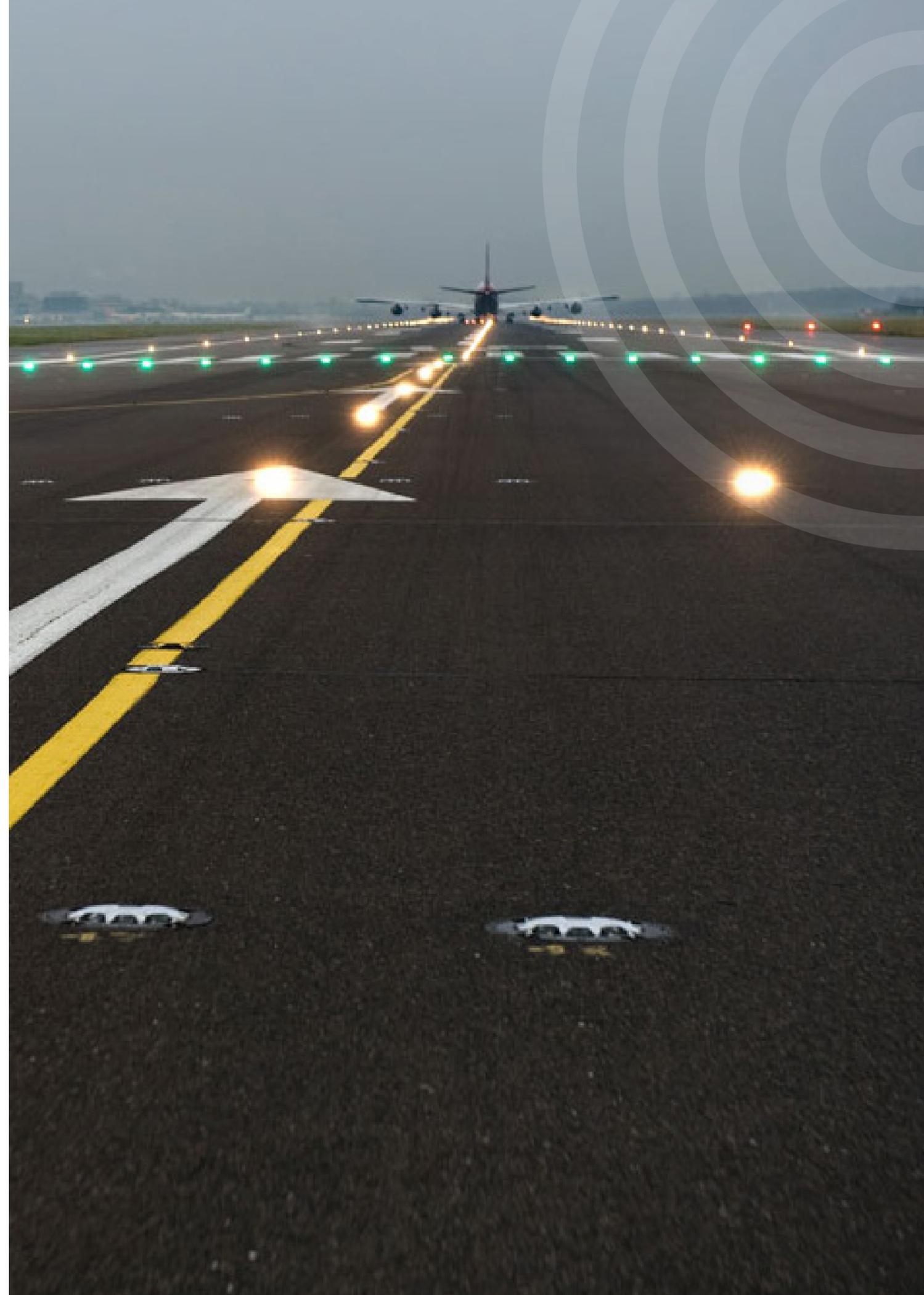
A consultation brief was sent to every GATCOM and NATMAG member containing information explaining the process used for identification of the suggested noise areas, determination of these areas' priority status and an outline of the methodology proposed for the trial.

Presentations were made by the airport and NATS to GATCOM and NATMAG and the airport used tracks and diagrams taken from actual flight patterns, showing both density and height examples of current flights and impacts.

Following initial feedback, comments and suggestions from stakeholders, the trial commenced on 15 August 2012 and finished on 10 October 2012. Further consultation with GATCOM and NATMAG following the trial period was undertaken and from this, Gatwick Airport now expect to feed this positive feedback directly into the London Airspace Consultation and the local community want the airport to develop this further.

Gatwick Airport clearly worked in collaboration with its many stakeholders to deliver a key project within the Fly Quiet & Clean programme. We feel this case study clearly demonstrates the airport's processes of engagement and the output resulting from this leading and innovative project.

The outcomes from this trial will be fed directly into the London Airspace Consultation.



# Comparisons

This graphic shows a selection of key facts, noise initiatives, best practice examples and performance indicators demonstrated graphically as a comparison of five airports, including Gatwick Airport.

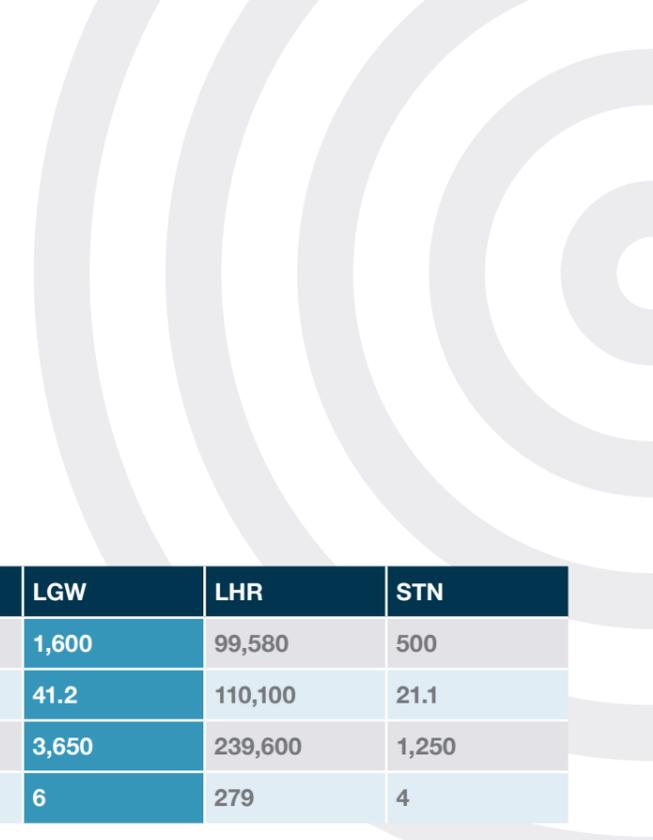
We reviewed a selection of key noise and general airport indicators for five airports, such as number of runways, CDA performance, number of noise complaints, track keeping and a selection of noise communications initiatives.

The output from this desktop research is contained in the tables on page 19 and 21 and where possible we have compared like for like for 2013. However, some information was extremely difficult to find and where no information was available or we could not find it, we have indicated this in the table.

The information shows that Gatwick compares very favourably, and in some instances out-performs, this group of airports. Examples of this are within the categories of noise infringements, time delay on web portal, number of noise complaints and 1,000 ft infringements.

Airport 2013	Measure	Gatwick	Heathrow	Stansted	Amsterdam Airport Schiphol	Frankfurt
Runways		1	2	1	6	4
MPPA	Million Passengers Per Annum	35.4	72.3	17.8	52.5	58.0
Cargo	Tonnes	96,939	1.4m	211,738	1.5m	2.1m
ATMs	Air Transport Movements	242,552	469,552	132,234	426,000	472,692
Noise Infringements		0	43	5 (2012)	Information unavailable	Information unavailable
CDA	24hr (%)	91.4	85.1	94.6 (2012)	Information unavailable	Information unavailable
Track Keeping	Performance (%)	98	94.4	98.95 (2012)	Information unavailable	Information unavailable
1000ft Monitoring		0	540	0 (2012)	Information unavailable	Information unavailable
Lden	2006	11,900	725,500	9,400	9,700	13,740
Noise Complaints		2,979	18,717	742 (2012)	5,286 (2012)	3,300* (2012) (not specific to noise)
Fly Quiet Programmes		Fly Quiet and Clean	A Quieter Heathrow	No	Not known	Alliance for More Noise Abatement 2012
Noise Seminar		Yes (Annual)	No	No	Not known	Yes
Community Maps		Yes	Yes	Yes	Yes	Yes
Noise Insulation Scheme		Yes	Yes	Yes	Yes	Yes
Dedicated Noise Website		Yes	Yes	Yes	No	Yes
Complaint Response Time		8 working days	5 working days	No policy could be found	Could not find information	Information unavailable
Noise Action Plan		Yes	Yes	Yes	Yes	Yes

\*approx



## Noise Contours 2012\*

	57 dBA Leq (actual)	LGW	LHR	STN
	Households	1,600	99,580	500
	Km2	41.2	110,100	21.1
	Population	3,650	239,600	1,250
	Noise Sensitive Buildings	6	279	4

\*Currently only 2012 data is available from the Civil Aviation Authority, which produces the designated airport's contours.

## Noise Infringements

		LGW	LHR	STN
	2010	0	127	21
	2011	4	72	24
	2012	0	73	5
	2013	0	43	Not available
	Total	4	272	50 to 2012

## Time delay on public web portal

	LGW	LHR	STN	FRA	AMS
	15 minutes	24 hours	24 hours	2 hours	Realtime - noise date only

# Glossary of terms

Term	Description
<b>A-CDM</b>	Airport-Collaborative Decision Making
<b>ACP</b>	Airspace Change Proposal
<b>ANSP</b>	Air Navigation Service Provider
<b>CDA</b>	Continuous Descent Approach
<b>dba</b>	Decibel A-Weighted
<b>Defra</b>	Department for Environment, Food & Rural Affairs
<b>ENA</b>	Environmental Noise Accreditation
<b>FAS</b>	Future Airspace Strategy
<b>FLOPC</b>	Flight Operations Performance Committee
<b>FPT</b>	Flight Performance Team
<b>FQC</b>	Fly Quiet & Clean
<b>GATCOM</b>	Gatwick Airport Consultative Committee
<b>GIP</b>	Global Infrastructure Partners
<b>ICAO</b>	International Civil Aviation Organisation
<b>ILS</b>	Instrument Landing System
<b>LAC</b>	London Airspace Consultation
<b>LAMP</b>	London Airspace Management Programme
<b>Lden</b>	24-hour Leq
<b>Leq</b>	Equivalent Continuous Noise Level
<b>LGW</b>	London Gatwick Airport
<b>mppa</b>	Million Passengers Per Annum
<b>NAP</b>	Noise Action Plan
<b>NATMAG</b>	Noise and Track Monitoring Advisory Group
<b>NATS</b>	Formerly National Air Traffic Services
<b>NCS</b>	Noise Communication Solutions
<b>NGO</b>	Non-Government Organisation
<b>NMF</b>	Noise Management Function
<b>NPR</b>	Noise Preferential Route
<b>NTK</b>	Noise Track Keeping
<b>PBN</b>	Performance Based Navigation
<b>PRNAV</b>	Precision Navigation
<b>SA</b>	Sustainable Aviation
<b>SID</b>	Standard Instrument Departure

## Declaration

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