

THE NOISE & TRACK MONITORING ADVISORY GROUP (NaTMAG) 6th February 2020

IN ATTENDANCE

Lee Howes (Chair)	Gatwick Airport Ltd - Airspace & Environmental Performance Manager
Kimberley Heather	Gatwick Airport Ltd – Airspace Office and Secretary to NaTMAG
Andy Sinclair	Gatwick Airport Ltd – Head of Airspace, Strategy and Engagement
Katie Mathias	Gatwick Airport Ltd & Helios
Daniel Kominak	Gatwick Airport Ltd – Airspace & Noise Programme Lead
Douglas Moule	AOC (easyJet)
Brian Cox	Independent Technical Advisor to GATCOM
Mike George	GATCOM
Liz Kitchen	GATCOM
Matthew Balfour	GATCOM
Leon Hibbs	Reigate and Banstead Borough Council
Robin Clarke	NATS
Liz Lockwood	GATCOM
Alan Jones	GATCOM
Adam Dracott	Mid Sussex District Council
Marc Schavemaker (Part/Guest)	British Airways
Jeremy West (Part/Guest)	Norwegian
Darren Brewer (Part/Guest)	easyJet

APOLOGIES

Andrew Burke	NATS
Ian Greene	DfT
Jonathan Friel	DfT
Caroline Salmon	GATCOM
Peter Barclay	GACC
Sally Franks	Air Navigation Solutions (ANS)

MEETING SUMMARY

- The Airline Operators Committee (AOC), along with representatives of easyJet, British Airways and Norwegian, attended to provide a Q&A session for NaTMAG members to ask questions on topics that they would be interested to hear a pilot's perspective on. Topics included Continuous Descent Operations (CDO), track keeping compliance, visual approaches, joining point data and other methods to reduce noise.
- The END Noise Action Plan reporting cycle for 2019 has begun earlier than the previous year due to aligning with the calendar year for reporting used by VINCI Airports. There have been a number of Action Plan Actions selected for focus for the year. The annual report replaces the Q4 report 2019 and will be circulated after the meeting and in advance of the GATCOM Steering Group.
- Action Plan Actions discussed included Action 24a and 25 regarding departure noise limits which are in the process of being reviewed by the Department for Transport with external consultants Helios. A proposal has been put forward and the next steps will involve a period of engagement with all stakeholders.

- Action Plan Action 47 was discussed regarding the ongoing contribution of the Noise Management Board (NMB). Two new Chairs have been appointed to lead the two new NMB Boards: the NMB Executive Board (NEX) and the NMB Community Forum (NCF). The first meetings of the NCF and NEX are due to commence in February and March 2020 respectively. An NMB surgery also took place on 17th January inviting members of Community Noise Groups to attend bi-lateral 30 minute sessions with the Chairs to discuss matters of interest.
- Action Plan Action 15 regarding the Low Noise Arrival Metric (LNAM) which is an additional metric to support compliance of CDO was discussed. A final draft report has been submitted to the CAA and the next step is to validate the metric. This forms part of the NMB Workplan for 2020.
- The Airline Noise League Table is currently running in shadow mode and will be validated by Helios to test if the model produces results as expected. Once validated the League Table will be published at regular intervals. It is expected that over time the League Table will evolve to include additional metrics. For now the next step will focus on Gatwick Airport and Helios reviewing and validating the model.
- The Gatwick Noise Insulation Scheme is currently undergoing a review being led by Environmental Resources Management (ERM). Face-to-face interviews and a postal survey were used to gather feedback from beneficiaries of the scheme. As this review is ongoing, there will be an update next meeting.
- There is a proposal for a 'Phase 3' development of the Noise and Track Keeping (NTK) system. Feedback was received from the NTK Workshop held on 6th November 2019 which has been built into the proposal. There are plans to increase the system capability and introduce new tools on the Gatwick noise website. Some of the improvements have already begun such as the enhanced functionality of WebTrak¹ on mobile devices (e.g. main menu and settings were improved, pop-up windows behaviour was resolved and all links to external websites have been fixed).
- The Ground Noise Summary detailed two instances of Auxiliary Power Unit (APU) non-compliance which were due to the low availability of Fixed Electrical Ground Power (FEGP) units on the stands at the time. NaTMAG members agreed that the ground noise summary was not detailed enough and requested that the previous style of Ground Noise Report be reinstated.
- Air Navigation Solutions (ANS) did not attend the meeting and therefore go-arounds were not discussed fully. It was noted that the number of go-arounds has increased annually from 0.49% in 2018 to 0.58% in 2019.
- The complaints backlog, which had developed as a result of the introduction of the new NTK system, has been reduced significantly since the previous NaTMAG meeting through the re-prioritisation of Airspace Office activity, a refinement of the process and securing additional resource in the Airspace Office. In November 2019, the complaints backlog was around 1,000 and since has been reduced to around 200 complaints outstanding as of the February meeting.
- Horley overflight has been an improving picture in recent years, however there have been some spikes in the weekly data which need to include commentary for consistency.
- The Route 4 Airspace Change Process (ACP) is ongoing with workshops held in October and November 2019; engagement was positive and much feedback during and following the workshops was received. Two Route 4 submissions are being prepared on design principles evaluation and initial options appraisal for submission to the CAA ahead of the Stage 2 Gateway at the end of February. Details of the Route 4 ACPs can be found on the CAA Airspace Change Portal².
- An update was provided on FASI-South, where currently a review of the design options is still ongoing. The aim is to align the schedule of Gatwick's airspace change process, including implementation, with other airports in the south of England based on a soon to be published Airspace Modernisation Master Plan. Gatwick hopes to be able to reduce the complexity of its airspace change proposal (ACP) and secure the early implementation of some elements of airspace change to allow some of the benefits to be secured early. The Master Plan for all airports

¹ <https://webtrak.emsbk.com/lgw2>

² <https://airspacechange.caa.co.uk/>

is being prepared by the Airspace Change Organising Group (ACOG) and is expected to be published in draft form in June/July 2020. Further, engagement on the FASI-S ACP will not take place until the Master Plan has been agreed and published.

- CDO performance was discussed and NATS explained how they monitor CDO performance for Gatwick and the other London airports. NATS do not have an airline engagement strategy unlike Gatwick. Gatwick data has shown a decline in core night CDO performance in recent months (as low as 75.28%). NATS have been asked to investigate the decline in performance. It was suggested that the increased use of the northern runway at night for maintenance may have an impact on CDO performance.
- It has been noted that the increase in aircraft joining inside 8NM (nautical miles) has been recorded at 2% of all arrivals whereas NATS believe it is around 1%. It was agreed that Gatwick will continue to work with NATS to investigate the joining point data.

MEMBERSHIP UPDATE

- Daniel Kominak was welcomed as the new Airspace and Noise Programme Lead for the Gatwick Airspace Office.

MINUTES OF THE PREVIOUS MEETING OF NaTMAG

- There were no issues or amendments relating to the previous meeting minutes.

ACTION TRACKER

Action	Comments
01/2019 FPT to engage with Sustainability Team and the Chief Planning Officer to highlight the issues surrounding odour complaints and air quality.	<ul style="list-style-type: none"> ▪ Open – Ricardo AEA were commissioned by Gatwick to conduct an assessment of air quality to allow mapping and measurements of odour with a report due once the research is complete. The latest update from Ricardo AEA is that they have procured two sensors for the project and they are currently evaluating their suitability. An update will be provided at the next meeting.
11/2019 NATS to present on their CDO airline engagement at the next meeting.	<ul style="list-style-type: none"> ▪ Closed – NATS were present at the meeting and gave an update under agenda item 6.
13/2019 ANS to give an update on go-arounds at the next meeting. Also to be added as an agenda item.	<ul style="list-style-type: none"> ▪ Open – ANS were not present at the February meeting and so this will remain on the agenda for the May meeting.
14/2019 GAL representative to Sustainable Aviation to raise item on study of the effects of aircraft noise on human health at the next Sustainable Aviation Quieter Group.	<ul style="list-style-type: none"> • Closed – The Head of Airspace, Strategy and Engagement attended Sustainable Aviation (SA) on 8th January 2020 and gave a verbal update on what was discussed at the meeting. • <u>Post-meeting note:</u> Whilst there was no recommendation for SA to fund the ICCAN proposed study as suggested by NaTMAG, the SA Quieter group received an update on work that had been conducted by Manchester Met University which is working with Aviation Noise Impact Management through Novel Approaches (ANIMA) to research critical health impacts and conduct a relative assessment of community health in relation to aviation noise³. This work is being reported through Sustainable Aviation. All reports are available on the ANIMA website. In particular output D2.3 Recommendations on Noise and Health⁴.

³ <https://anima-project.eu/anima-deliverables/>

⁴ <https://zenodo.org/record/2562749#.Xhzzq4j7SUK>

Action	Comments
	Separately, when raised with the DfT at the GAL/DfT Technical Quarterly meeting, the DfT helpfully highlighted the report due to be released by ICCAN in September which is expected to identify areas/subjects in which there were gaps in knowledge and studies should be undertaken; and a study being conducted by the University of Leicester titled ' <i>Aviation Noise and Cardio Vascular Outcomes (ANCO)</i> ' which was expected to report in 2021. This study aims to document the relationship between aviation noise exposure and health impacts. As this is the area of interest identified by NaTMAG it is proposed that the outcomes of the ICCAN report and University of Leicester study are awaited.
15/2019 Airspace Office to liaise with NATS to monitor aircraft joining inside 8NM to determine any trends or causal factors.	<ul style="list-style-type: none"> ▪ Open – NATS were present at the meeting and gave an update under agenda item 6, however there are alleged discrepancies between Gatwick and NATS data which requires further investigation.
17/2019 Airspace Office to conduct gate analysis of overflight of Slinfold.	<ul style="list-style-type: none"> ▪ Open – Due to the current workload constraints of the Airspace Office, this has been delayed until the May meeting.
18/2019 AOC to present with other airlines on the use of visual approaches for arriving aircraft at the February meeting.	<ul style="list-style-type: none"> ▪ Closed – The AOC, plus representatives from easyJet, Norwegian and British Airways offered a Q&A session where the use of visual approaches was discussed under agenda item 3.
19/2019 Airspace Office to circulate paper on Summer 2018 Night Jet usage figures.	<ul style="list-style-type: none"> ▪ Closed – This was circulated post-meeting.

AOC PRESENTATION ON VISUAL APPROACHES

- A member of the AOC invited representatives from easyJet, Norwegian and British Airways to take questions from NaTMAG members as part of a Q&A session.
- The Norwegian pilot of a Boeing 787-900 aircraft noted that they had been monitoring their track keeping record with Gatwick Airport and they had seen a marked improvement over recent months (99.65% of Boeing 787-900 aircraft were on track in December 2019 compared to 95.56% in August 2019). This was highlighted as a good example of airport and airline collaboration to improve compliance and reduce fuel burn. In addition, the use of carbon brakes on the Boeing 787-900 aircraft uses idle reverse as opposed to reverse thrust to slow the aircraft which is quieter.
- New trainee pilots are briefed on CDO performance. The website Skybrary⁵ is a useful reference tool pilot's use for aviation safety knowledge including how to reduce fuel burn. There are known issues with the use of wet-leased aircraft from other companies as these companies provide an aircraft as well as a crew and therefore may not be aware of Gatwick operational procedures. Although a wet-leased aircraft does not belong to an airline, it still carries the airline callsign and therefore any instances of non-compliance will be recorded against the airline. The use of wet-leased aircraft is more common during the busy summer season to cater for demand. CDO is not recorded at other international airports such as Amsterdam or in the US and therefore various compliance measures are used by pilots at different airports which is difficult for pilots to keep track of. CDO is regarded as the most efficient way of operating an aircraft on descent to an airfield. Track keeping involves a greater level of communication between the controller and the pilot to

⁵ https://www.skybrary.aero/index.php/Main_Page

provide accurate track distances as various conditions such as wind can affect the track distances communicated to pilots. Runway occupancy times are briefed to crews during their training to increase awareness. The size of the aircraft also is a factor in runway occupancy times as larger aircraft take longer to vacate the runway. Training is limited in the peak summer season as it is the busiest time where aircraft need to vacate the runway as soon as possible. Pilots in training do not have a lack of flying practice, the issue is more to do with their experiences with airport specific operations.

- Efficiency of the aircraft and airspace is currently a hot topic with airlines and airports particularly in the south-east of England. Newer aircraft types have better, improved technology which is most efficient. However, technological advancement is still in its early stages and it will take time for all airlines to be able to adopt these technologies. Aircraft pilots are well aware of the communities on the ground that they overfly and are committed to reducing noise for these residents.
- For stabilised approach criteria, pilots have been advised to use 170 knots to 5 miles as an optimum speed on approach to land the aircraft, which is not in line with flight procedures published in the AIP. The aircraft is also quieter at this speed. If the pilot slows the aircraft and applies the landing gear too early, this can make the approach unstable and increases drag and therefore noise for people on the ground. Early recognition by the pilot to optimise the approach for landing will be optimal for reducing noise. The pilots need to work with the ATC controllers to communicate accurate track miles for an optimal approach. In recent years there has been a shift in the focus on reducing noise on departure to also focus on arrivals noise.
- For the Instrument Landing System (ILS) joining point, pilots depend on track miles communicated by ATC and other aircraft in the vicinity to work out where the aircraft will join the ILS. Variability often causes issues, particularly with airspace congestion. Airspace development aims to help with this issue by offering predictability for pilots. NATS have vastly improved their communications to advise pilots if they can be given shorter clearance (within the specified joining point distance) to land or make a straight-in approach. Predictability with airspace development will also make improvements to CDO and track keeping. It was noted that it is important to share with the community the benefits of airspace change and modernisation, as there is increasing concern that aircraft are joining inside the 8NM joining point and creating more noise for those living in this area. NATS mentioned that they believe there may be some variation in the measurement of joining points between their data and what Gatwick Airport have published. They believe that the data for Q4 2019 shows 1% of arriving aircraft join inside the 8NM joining point whereas Gatwick have published around 2%. It was suggested that the data be presented in a bar chart as opposed to a line graph so that the data could be interpreted easily. Gatwick will continue to liaise with NATS regarding the increase in aircraft joining inside the 8NM joining point and therefore Action 15/2019 will remain open.

MATTERS ARISING

The following section is used to discuss matters of interest raised by NaTMAG members in the pre-meeting notes or raised by Gatwick Airport.

PRE-MEETING NOTES

- **END Noise Action Plan update**
 - The Environmental Noise Directive (END) Noise Action Plan (NAP) reporting cycle for 2019 has started earlier than the previous year due to aligning with the calendar year for reporting used by VINCI Airports.
 - There is a focus on the Action Plan Actions selected for the year. The report itself has been split into four sections with full scale updates on the activities relating to the Action Plan Action. It is expected that the quarterly END NAP will follow the same format. The report is due to be completed in the coming weeks and will be released to NaTMAG members for feedback when available and presented at the GATCOM Steering Group in March.

- **Action 01/2020:** Airspace Office to share the 2019 END NAP annual report with NaTMAG for feedback.
- Action Plan Action 24a and 25 regarding departure noise limits was discussed at a recent meeting with the DfT. The review of the noise limits was undertaken by external consultants Helios and a report was presented to the DfT in December 2019 to be in line with the aviation strategy consultation. The proposal has been put forward, the next stage will involve engagement with all stakeholders. The noise limits will be variable based on aircraft types and Quota Count (QC) value. It was noted that Gatwick has had few noise infringements in recent years which suggests that the noise limits need adjusting to capture the noisiest aircraft, however, nothing yet has been tested or verified. NaTMAG members agreed that the fining levels were too low for offending airlines and that there needs to be more of an incentive for airlines to invest in modern, quieter and more efficient aircraft. It was also noted that an aircraft passing over an area with an 80dB 'whine' will be more noticeable than a more modern aircraft passing over at 80dB without a 'whine' suggesting that noise and the tonal frequency is subjective. The newer Boeing 737-800 aircraft have more modern insulated engines which remove the noisy tones deemed 'annoying' to some who hear them. A new power setting in the aircraft reduces these tones on departure and gives the aircraft an optimal climb profile to reduce noise further to communities on the ground. A benchmark study has been proposed at other airports to compare noise levels, however this work has not yet begun. It was suggested that newer categories for QC could be introduced for quieter aircraft types as these should not be penalised by fines. It was noted that a full capacity aircraft will be heavier and lower and therefore could make more noise and this is more common during the summer months. The Gatwick landing fee encourages airlines to invest in quieter aircraft. All funds received through departure noise fines are passed directly to the Gatwick Airport Community Trust (GACT).
- Action Plan Action 47 regarding the ongoing contribution of the NMB was discussed. Two new Chairs have been appointed to each Chair the NMB Executive Board (NEX) and the NMB Community Forum (NCF). The Chair of the NEX attended the NMB Public Meeting on 3rd December 2019. The NMB Delivery Group will replace the Workplan Implementation Steering Group (WISG). There have been a number of induction meetings for the new Chairs in 2020, one of which was an NMB Surgery which took place on 17th January 2020 to give Community Noise Group members a chance to meet the new Chairs and ask questions in 30-minute sessions. Seven sessions were booked for the Surgery which was considered a good turnout. The NMB induction meeting took place on the 31st January which was an induction meeting for all community members. The next step is to decide NCF and NEX membership. The first NCF meeting will take place on the 26th February and the first meeting of the NEX will take place on the 18th March. The NMB Workplan will be discussed at both meetings.
- Action Plan Action 15 regarding the implementation of a Low Noise Arrival Metric (LNAM) was discussed. This is an additional metric to support Continuous Descent Operations (CDO) and compliance will be measured with CDO. There is a categorisation system (i.e. A, B, C) to measure the profiles of descending aircraft to define an optimal profile. A final draft report has been submitted by the CAA to members of Sustainable Aviation for review, however finalisation of the draft has been delayed due to staff sickness at the CAA. The next step is to validate the metric in a live environment as various conditions such as adverse weather and the type of aircraft can affect the descent profile and subsequently the impact of noise on the ground. Validation of the LNAM metric has been built into the 2020 NMB Workplan.
- The Airline Noise League Table is currently running in shadow mode with and will be validated by Helios using data from ANOMS. Currently, three metrics have been included in the table, however there are plans over time to evolve the League Table to include additional metrics.

- Regarding the review of the Gatwick Noise Insulation Scheme, this study is being led by external consultants Environmental Resources Management (ERM). This was also discussed at the last meeting of the Gatwick Noise Monitoring Group on 22nd January 2020. Beneficiaries of the scheme were contacted in summer 2019 via a postal survey and also a number of face-to-face meetings took place to gather feedback about their experience with the scheme. The main issue identified was with the company that installed windows and doors to homes. As this review is still ongoing, there will be a further update at the next meeting. It is emphasised that the review is unrelated to the DCO activities or any increased use of the northern runway etc.
- **NTK Phase 3 update**
 - An NTK workshop was held on 6th November 2019 where proposals for inclusion in a potential 'Phase 3' development of the NTK system were discussed including improvements internally and on the public facing system. Attendees were invited from NaTMAG and the Gatwick Noise Monitoring Group as well as the Customer Experience Manager from EMS Brüel and Kjær (B&K). Feedback from the meeting was collated into a document which has since been sent to EMS B&K to begin work. Some of the proposals such as improved functionality of WebTrak⁶ on mobile devices has already been achieved, however some further system improvements are still in progress. The adjustments to the online complaint form wording are in progress with EMS B&K and should be updated in the coming weeks.
 - Gatwick is aiming to secure funding to complete the work for Phase 3, this is hoped to be in place by the end of Q2 2020 where there will then be further scope for more complex items such as increasing the noise monitor fleet and providing additional tools for the public online such as the XPlane⁷ tool.
 - The plan for the current mobile noise monitor fleet deployed into the field is to keep them in the same location for as long as possible to benchmark for future data trends. It was suggested that there could be a monitor placed under 08SFD/Route 2 as there currently is no noise monitoring being undertaken in this area.
 - There is also a plan to increase the amount of historical data currently held in the NTK system as there is data only as far back as 2013. It would be useful for analysis purposes, particularly with complaints, to have a dataset of at least 10 years.
- **Ground Noise**
 - The question was raised in the pre-meeting notes as to why two Auxiliary Power Unit (APU) non-compliances were recorded on 9th and 23rd December 2019. It was explained that there was low availability of the Fixed Electrical Ground Power (FEGP) on the stands at the time and the aircraft were awaiting tow to another stand.
 - NaTMAG members agreed that the old format of the Ground Noise Report which was provided by Airside Compliance was more useful as it was more detailed than the summary tables that have replaced the report. The staff member who used to prepare the report is no longer with at Gatwick so the format has been changed to a summary report. The Airspace Office will enquire with Airside Compliance if a more detailed report can be provided. Post-meeting note: The Airspace Office contacted Airside Compliance to enquire if they are able to provide a more detailed report. They responded by indicating that they have simplified their reporting process to focus more on auditing and that these reports are time-consuming to produce and they would not be in a position to introduce them at the present time.
 - **Action 02/2020:** Airspace Office to liaise with Airside Compliance to enquire if they are able to provide a more detailed Ground Noise Report.

⁶ <https://webtrak.emsbk.com/lgw2>

⁷ <http://xplane.emsbk.com/xplane/>

- **Go-Arounds**
 - It was noted that there was no attendance from Air Navigation Solutions at the meeting and therefore the action on an update on go-arounds (Action 13/2019) will be delayed until the May meeting.
 - It was also noted that there has been an increase in the number of go-arounds as the percentage of go-arounds within total arrivals in 2018 was 0.49% compared with 0.58% in 2019. This will be a key message to FLOPSC.

- **Complaints**
 - The complaints backlog, which had developed as a result of the introduction of the new NTK system, is being addressed by the Airspace Office. The backlog has reduced from over 1,000 to 200 complaints outstanding since the previous NaTMAG meeting through the re-prioritisation of Airspace Office activity, a refinement of the process and through the introduction of an additional temporary Complaints Handler in the team.

- **Horley overflight**
 - Horley overflight is being monitored by NATS and data is sent on a weekly basis from the Airspace Office. NATS have 12 years' worth of Horley overflight data and they have confirmed that it has been an improving picture, especially since the amendment to Route 4 in May 2016.
 - It was noted that there have been inconsistencies with some of the spikes in the weekly data with some spikes having commentary such as weather or trainee controller reasons but other similar weeks have no commentary. The provision of commentary is the responsibility of NATS and they have agreed to ensure that any spikes in the data are investigated with the watches and controllers and commentary will be provided in future.

AIRSPACE UPDATE - ROUTE 4 AND FASI-S

- An update on the situation with Route 4 was presented explaining that the 2018 airspace change process is ongoing. There were workshops held in October and November 2019 where industry representatives, County, District and Parish council members and local community members were invited to give their feedback on the proposed changes and design options. Engagement at these workshops was positive and much feedback, during and following the workshops, was received.
- Two Route 4 submissions are being prepared on design principles evaluation and initial options appraisal and will be submitted to the CAA by 14th February where a decision is expected by 28th February. Progress is being made towards a consultation period in September/October 2020 with a schedule for a Consultation approval Gateway with the CAA in July 2020 deemed achievable.
- All the information relating to current Gatwick ACP's are available on the CAA Airspace Change Portal⁸. Gatwick ACP's can be found by selecting 'Airspace Changes by Sponsor Organisation' and scrolling to 'Gatwick'. All documents submitted to the CAA will be available on this portal. Route 4 – Redesign of RNAV SIDs is currently in Stage 2a which is the Develop & Assess stage ('during the develop and assess step, the change sponsor develops one or more options that address the Statement of Need and align with the defined design principles.') It was agreed that the online publication of these ACP's should be a key message to GATCOM.
- Regarding the 2012 Route 4 ACP, on the 6th January 2020, a draft decision by the CAA (CAP 1872) of the 2012 was published by the CAA. The objectives of the 2012 ACP were not achievable due to anomalies in the route over time. A response to the CAA ACP was submitted by Gatwick on 3rd February. It was agreed to share this response with NaTMAG members.
- **Action 03/2020:** Airspace Office to share the Gatwick response to CAA on Route 4 ACP.
- The CAA has required that the R-NAV SIDs be removed ASAP, and ahead of the implementation of the 2018 ACP solution. The CAA had also proposed that Gatwick publish the withdrawal of the

⁸ <https://airspacechange.caa.co.uk/>

R-NAV SIDs via NOTAM which would expedite the removal process. However, although this process is swift, it is not as effective as the standard process for the amendment of aeronautical information, the Aeronautical Information Regulation and Control (AIRAC) process; this view was supported by ATC and airline stakeholders when the issue of notification of the changes was discussed as part a Hazard Identification workshop in preparation for the change.

- A chart showing the Route 4 NPR outline with the average tracks for the current RNAV-1 SID alongside the same for the conventional SIDs. The average conventional SID track was shown to be around 700m further to the north than the current R-NAV SID track; this is in line with the expectation set out by the CAA in CAP1872. It will be the responsibility of the airlines to code the conventional SIDs in anticipation of the removal of the Route 4 SIDs. The publication of the CAA's final Route 4 Post Implementation Review is awaited before any further action will be taken.
- Discussions at the recently held Route 4 Hazard Identification workshop also highlighted the potential for significant disruption to the London Terminal Manoeuvring Area (LTMA) network as the Route 4 RNAV1 SIDs have been optimised to ensure the integrity of the current London Terminal Control operation. The potential operational impacts of accommodating different terminating points for each conventional SID will need to be determined and managed. GAL believes it is insufficient to merely 'brief Ops staff of operational consequences' as suggested. The mitigation of possible safety risks and likely operational impacts will require amendments to the runway 26L/R conventional SIDs and 08R RNAV SIDs as currently published. Discussions with NATS indicate that where truncations, or other amendments, to published SIDs are necessary the earliest AIRAC cycle through which these changes could be implemented would be AIRAC 10/2020, in September.
- An update was provided on FASI-South. Gatwick is now progressing stage 2a Develop and Assess. As part of our engagement for Stage 2 (options development and options appraisal) Gatwick held a series of workshops with county and borough council staff over October and November to help develop a series of options upon which we will consult. We are also engaged with ACOG on the development of the deployment scheduled; the current assumption is that the first of five deployments (the first not involving Gatwick) will take place over the winter of 2022/3. It is likely that Gatwick will be involved in the 2 subsequent deployments over the following 2 winters. Gatwick's future engagement plans will depend on which deployments Gatwick is scheduled to be part of. More definitive updates are likely to be available in late summer 2020 after the publication of a more mature Airspace Master Plan by the ACOG. Work with neighbouring airports is ongoing, and Gatwick is working with them, in conjunction with the ACOG, to develop a methodology that can be consistently used to de-conflict route options.

CDO PERFORMANCE

- NATS provided an update on their role with managing Continuous Descent Operations (CDO). They receive data directly from the Airspace Office's NTK system on a monthly basis which is then measured against NATS' own key performance indicators (KPIs) at their offices in Swanwick. NATS have four different definitions of CDO that Gatwick's data are measured against.
- Individual watches are notified if patterns emerge in non-compliant flights and NATS work with airlines on request, they do not have their own airline engagement strategy.
- Data from other London Airports – Heathrow, Stansted and Luton Airport - are collected as well and is shared with Sustainable Aviation. CDO compliance is also shown on a display screen at the Swanwick and Whiteley offices.
- NATS requested that the Gatwick airline engagement strategy be shared with them as NATS do not engage regularly with airlines on CDO. Gatwick ensures that engagement takes place with new airlines that begin operations at the airport to share best practice. New airlines are also presented with the Airline Operations Briefing Pack which details Gatwick specific operations. Any airline that is continuously underperforming with CDO, Gatwick will endeavour to engage with to drive continuous improvements and will invite Airfield Operations to these engagement meetings to discuss more detailed operational matters. Data on CDO is sent to airlines on a monthly basis. The top 10 high performing airlines have been given access to PerformTrak which enables them

to track their compliance by viewing specific flights that have complied with the noise abatement procedures.

- Gatwick has seen a decline in its CDO performance in recent months, particularly during the core night period which has been as low as 75.28% recorded in November 2019. NATS have been asked to investigate the poor performance.
- **Action 05/2020:** NATS to investigate why core night CDO performance has decreased in recent months.

JOINING POINT

- It has been noted that there is an increase in the percentage of aircraft joining inside the 8NM (nautical mile) minimum joining point (2% of all arrivals) recorded by the Gatwick Airspace Office, however NATS have published slightly lower figures (around 1%) which led to a discussion on how the joining point is monitored. It was suggested that a bar chart may show the data better than a line chart as it can be interpreted more easily. The airspace towards the west of the airport often becomes congested with Heathrow traffic meaning there is less room to manoeuvre aircraft to align with the Instrument Landing System (ILS). The Airspace Office along with NATS will review the joining point data to ensure that both are aligned.

ANY OTHER BUSINESS

- The timetable for the Noise Insulation Scheme review study will be shared once it has been completed.
- It was suggested that the two new Chairs of the NEX and NCF would be invited to attend the next NaTMAG meeting as observers.
- An email has been passed to NaTMAG through GATCOM regarding the early deployment of landing gear. Gatwick has responded to the Secretary to GATCOM explaining that a desktop study is due to be carried out as part of a workstream on landing gear deployment through Sustainable Aviation.
- The Airspace Office confirmed that no complaints were recorded by the phone line in January 2020 which posed the question as to whether it should continue. It was agreed to keep the phone line in place as an option for people who do not have access to the internet but that the voicemail message should still be altered from the current format.
- The Airspace Office Annual Report for 2019 draft is currently being finalised and will be circulated to NaTMAG members for feedback.
- **Action 04/2020:** Airspace Office to circulate the Airspace Office Annual Report 2019 for feedback when available.
- It was agreed that the uncertainty surrounding the various joining point data sources between Gatwick and NATS, as it varies between 1% and 2% of aircraft joining inside 8NM, should be a key message to GATCOM and to FLOPSC.

KEY MESSAGES

Key Messages to GATCOM:

- The Gatwick Route 4 and FASI-S ACP's documents and stages are available on the CAA Airspace Change Portal.
- Phase 3 developments to the NTK system have been proposed to EMS B&K and are beginning to be implemented.
- There is uncertainty surrounding the various joining point data sources used by NATS and Gatwick as the data varies between 1% and 2% of aircraft joining inside 8 nautical miles.

Key Message to FLOPSC:

- The increase in the number of go-arounds from 0.49% of total arrivals in 2018 to 0.58% of total arrivals in 2019 was noted in the meeting.

- There is uncertainty surrounding the various joining point data sources used by NATS and Gatwick as the data varies between 1% and 2% of aircraft joining inside 8 nautical miles.

DATES OF NEXT MEETINGS

FLOPSC – Wednesday 25th March 2020, 9:30 – 12:00 in Destinations Ops Boardroom, 8th Floor Destinations Place (arrive at 5th Floor Reception).

GNMG – Wednesday 22nd April 2020, 9:30 – 12:00 in Orlando, 5th Floor Destinations Place.

NaTMAG - Thursday 14th May 2020, 10:00 – 13:00 in Geneva & Barcelona, 5th Floor Destinations Place.

ANNEX A: ACTION SUMMARY

Action No/Year	Action/Decision/Next Step	Raised	Responsible	Plan date	Actual date	Status	Comments: Updated July 2020
01/2019	FPT to engage with Sustainability Team and the Chief Planning Officer to highlight the issues surrounding odour complaints and air quality.	Feb 2019	FPT	May 2019		OPEN	Ricardo AEA were commissioned by Gatwick to conduct an assessment of air quality to allow mapping and measurements of odour with a report due once the research is complete. The latest update from Ricardo AEA is that they have procured two sensors for the project and they are currently evaluating their suitability. An update will be provided next meeting.
13/2019	ANS to give an update on go-arounds at the next meeting. Also to be added as an agenda item.	Aug 2019	ANS	Nov 2019		OPEN	ANS were not present at the February meeting and so this will remain on the agenda for the August meeting.
15/2019	Airspace Office to liaise with NATS to monitor aircraft joining inside 8NM to determine any trends or causal factors.	Aug 2019	AO/NATS	Nov 2019		OPEN	ATS were present at the meeting and gave an update under agenda item 6, however there are alleged discrepancies between Gatwick and NATS data which requires further investigation.
17/2019	Airspace Office to conduct gate analysis of overflight of Slinfold.	Nov 2019	AO	Feb 2019		OPEN	Due to the current workload constraints of the Airspace Office, this has been delayed until the August meeting.
01/2020	Airspace Office to share the 2019 END NAP Annual Report with NaTMAG for feedback.	Feb 2020	AO	May 2020		OPEN	

Action No/Year	Action/Decision/Next Step	Raised	Responsible	Plan date	Actual date	Status	Comments: Updated July 2020
02/2020	Airspace Office to liaise with Airside Compliance to enquire if they are able to provide a more detailed Ground Noise Report.	Feb 2020	AO	May 2020		OPEN	
04/2020	Airspace Office to circulate Airspace Office Annual Report 2019 for feedback when available.	Feb 2020	AO	May 2020		OPEN	
05/2020	NATS to investigate why core night CDO performance has decreased in recent months.	Feb 2020	NATS	May 2020		OPEN	