

THE NOISE & TRACK MONITORING ADVISORY GROUP (NaTMAG) 10th May 2018

In attendance:

Lee Howes (Chair)	Gatwick Airport Ltd - Airspace & Environmental Performance Manager
Andy Sinclair	Gatwick Airport Ltd – Head of Airspace, Strategy and Engagement
Vicki Hughes	Gatwick Airport Ltd - Community & Industry Noise Engagement Manager
Kimberley Heather	Gatwick Airport Ltd - Flight Performance Team
Tara Whittaker	Gatwick Airport Ltd - Flight Performance Team
Goran Jovanovic	Gatwick Airport Ltd – Airspace Performance Lead
Markus Biedermann	Air Navigation Solutions
Jonathan Friel	Department for Transport
Brian Cox	Technical Advisor to GATCOM
Mike George	GATCOM
Ken Harwood	GATCOM
Peter Barclay	GATCOM
Alan Jones	GATCOM
Liz Kitchen	GATCOM
Leon Hibbs	Reigate and Banstead Borough Council
Adam Dracott	Horsham District Council

Item	Action
<p>1. Apologies</p> <p>Michael Payne – GATCOM</p> <p>Matt Brookes - Gatwick Airport Ltd - Airspace Technical Lead</p> <p>Jessica Patel - Gatwick Airport Ltd - Flight Performance Team</p> <p>Douglas Moule - Airline Operators Committee</p> <p>Charles Yarwood - GATCOM</p>	
<p>2. Previous Minutes</p> <p>1. Lee Howes highlighted to the group his concern regarding the lack of attendance from a member of Kent County Council at NaTMAG meetings. He noted that there had not been any representation since November 2016. Liz Kitchen suggested that an alternate County Council representative be offered a seat at NaTMAG such as East Sussex or Surrey County Council. Lee Howes mentioned that since the minutes are published online, the lack of representation from Kent may cause public concern. Alan Jones noted that there should be a member of GATCOM present at NaTMAG and not alternate representatives as is the case on Noise Management Board (NMB). Lee Howes agreed to raise this issue, on behalf of the NaTMAG membership, with GATCOM.</p>	<p>LJH 07/2018</p>
<p>3. Action Tracker</p> <p><u>01/2018 – Andy Sinclair to present report on the potential increased usage of the northern runway and added as an agenda item for the May meeting</u></p> <p>This was covered under agenda item 9 – Future Planning – CLOSED.</p>	

<p><u>02/2018 – FPT to circulate the FLOPSC dashboard after each meeting.</u> This was circulated prior to the May meeting and has since been moved to the diary annexe to remain as a standing item – CLOSED.</p> <p><u>03/2018 – FPT to liaise with Douglas Moule and NATS to collate technical information on how turn performance and wind affects Route 4 operations and Horley overflight.</u> This was circulated to members prior to the May meeting for feedback. Brian Cox suggested that there is only a requirement to include technical wording why aircraft may overfly Horley and does not require the addition of statistics. This will be included in the Q1 2018 Flight Performance Team (FPT) report – CLOSED.</p> <p><u>06/2018 – Lee Howes to liaise with ERCD on producing the 2017 noise contours in a timelier manner and if a GIS shapefile map could be included.</u> Lee Howes mentioned that the 2017 noise contours have been requested from the Environmental Research and Consultancy Department (ERCD) and that they are expected to be published in June 2018. Leon Hibbs asked if the Geographical Information Systems (GIS) shapefile could be included. Lee Howes explained that this will be included and both files will be made available on the Gatwick website. Brian Cox enquired whether the 2017 noise contours could be uploaded to Casper as a layer so that it could be viewed over the top of a map in Casper. Lee Howes explained that this was one of the improvements that Casper could include in the proposed changes to the system that will be discussed later in the meeting (agenda item 6 - Planned Improvements to the FPT) – CLOSED.</p>	
<p>4. Horley Overflight</p> <p>1. No representative from NATS attended the meeting so Lee Howes noted that there were a couple of months with slightly higher recorded figures of overflight. Only nine overflights were recorded for the month of April 2018. Mike George asked why no narrative was provided for weeks where the number of overflights was unusually high. Kimberley Heather explained that there was no need for any narrative as there are so few overflights, however there would be commentary provided (e.g. weather avoidance) if an event did take place. Mike George also mentioned about the majority of aircraft overflying Horley have previously been Norwegian aircraft. Kimberley Heather explained that there has been a decline in these events by Norwegian occurring since being in contact with the airline, however the FPT will continue to monitor activity with Norwegian. Lee Howes noted that this was a marked improvement on the ‘legacy’ situation and that it should be a key message to GATCOM.</p> <p>2. Alan Jones was concerned that prior to the Route 4 amendment, there were very few complaints from Outwood, however it was top of the list for individual complainants for Q1 2018. Lee Howes mentioned that we are seeing complaints from communities beyond all of the Noise Preferential Routes (NPR)’s and as part of the Casper improvements we want to be able to conduct more detailed analysis of whether complainants locations are under an NPR, under a Standard Instrument Departure (SID) route, Instrument Landing System (ILS), holding stack etc. He added that any further route changes to Route 4 following recent events with the Civil Aviation Authority (CAA) must be designed in such a manner that they should not impact overflight of Horley, however the FPT will continue to monitor this.</p>	

5. Departure Routes 3, 4 and 5

1. Andy Sinclair presented an update on developments with Route 3. Trax, an external consultancy are developing an Environmental Impact Assessment (EIA) of the Route 3 proposed amendment working closely with Heathrow Airport as several of their SID's conflict with Route 3. This work will underpin any future airspace change providing strong justification to take the project forward and will help to shape the airspace change process (ACP). He mentioned that Heathrow Airport have been very cooperative especially with providing data to support the EIA. The results of the assessment were expected by the end of July 2018, however it was hoped this could be brought forward to allow an update to be provided to NMB/11 on the 27th June. Leon Hibbs asked if the EIA proved successful, when the Route 3 amendment would be implemented. Andy Sinclair responded that this is dependent on the results of the EIA and that the timeframe for an ACP given the new CAP 1616 guidance, could be around two years. However, given this was an increase in the vertical extent of the route only, a shorter timeframe may be possible depending on the complexity of the change. Ken Harwood added that any changes to airspace need to be communicated effectively and managed appropriately. Lee Howes agreed that communications need to be managed and highlighted the importance of maintaining the amendments to Routes 3 and 4 as distinct items to the other airspace related activities that are going to take place.

2. Andy Sinclair presented an update on Route 4. He met with CAA legal and airspace representatives on the 20th April to discuss the next steps following the Judicial Review which quashed the CAA decision to make the amended route permanent. The meeting concluded that a single ACP, rather than two ACPs which had initially been the anticipated development path, would be required. The ACP, planned to commence this year, will focus on Area Navigation (RNAV) options but will necessarily include the historical patterns of traffic which were not given sufficient weight in the previous Route 4 ACP. The ACP will likely take a minimum of two years to complete. This will, in accordance with CAP1616, include engagement and consultation with local communities. The conventional SID routes, which are only used by 0.25% of Gatwick departures, will eventually be relocated from their current position back to their historical position on 13th September 2018 following a safety and obstacle assessment. The NATS Airspace System (NAS) will also be adapted on the same date to reflect the SID name changes. The Route 4 BIG 8M 8V SIDs, which were used for positioning flights between Gatwick and Heathrow Airports, will be de-notified at the same time. As magnetic variation had shifted the track of these routes, a full separate ACP would be required to move them back to their previous position so the decision has been taken to remove the SIDs which, in any case, were used infrequently. None of these conventional route changes would have an impact on traffic distribution. Mike George noted that conventional SIDs rely on the Variable Omni-directional Range (VOR) and since there are proposals to decommission these VORs, what would conventional SIDs use? Andy Sinclair explained that VORs were legacy technology and that the network of around 42 VORs in the UK would be reduced to less than 20. Alan Jones asked why can't RNAV be removed altogether for Route 4 and instead revert to using conventional navigation. Andy Sinclair explained that in taking this course of action it would not be possible to quantify how that change might be manifested, i.e. there would no way of predicting the flight paths aircraft might now take because it is likely that airlines would use RNAV-1 overlays of the conventional SID rather than fly the conventional route itself. These RNAV-1 overlays are requested by the airlines of their Commercial Flight Plan Service Providers (CFPSP), for example Jeppesen, and are not

defined by the airport, nor regulated by the CAA in the same way as a procedure published in the UK Aeronautical Information Publication (AIP). In fact, neither the airport nor the CAA would have sight of these overlays. Due to the way an RNAV-1 overlay is 'designed' and flown by the aircraft Flight Management System, the distribution of traffic may be altered. As each of the CFPSP design their own overlays for each airline to which they provide a service, and within that provide different overlays for different aircraft types, the pattern of traffic may become more dispersed or may not alter at all. It is also possible that the CFPSPs would continue to use the RNAV-1 coding they are currently using (i.e. that which is currently published). To be clear to revert to try to 'force' the airlines to fly these RNAV-1 overlays of the conventional route will not result in reversion of flight paths to the original Route 4 track. If a change were made which included a reversion to the previous conventional Route 4 SIDs and, in parallel, the RNAV-1 SIDs were withdrawn in order to 'force' the airlines to fly a conventional route, Gatwick would lose control of route conformance. They would then be unlikely to be in a position to regain control until an ACP had been completed, at least a two year endeavour. There is also a concern that there may be an increase in Horley overflight if there is no control over where aircraft are heading as they may be coded incorrectly. Liz Kitchen referred to Biggin Hill Airport and how their proposed growth might affect future airspace work. Andy Sinclair commented that Gatwick Airport and Air Navigation Solutions (ANS) had been consulted by Biggin Hill and the current instrument approach procedure ACP does not conflict with Gatwick Airport. The Future Airspace Strategy (FAS) will ensure that Biggin Hill and Gatwick Airport airspace plans are integrated. NATS have completed their modelling of traffic distributions from UK airports and have submitted a paper to the Secretary of State and Department for Transport (DfT) which includes Biggin Hill. Gatwick Airport has yet to view this paper and will be made available once it has been analysed by the DfT. This is expected to take a couple of months. Mike George was concerned that the south-east of the UK is so congested that FAS is going to be difficult to implement.

3. Andy Sinclair mentioned that work on Route 5 was completed in September 2017 and a data package was sent to the CAA to support the post-implementation review (PIR). There is currently a backlog of PIR's being undertaken by the CAA which has resulted in the outcome regarding Route 5 being placed on hold as it awaits CAA attention. The group agreed that an action should be raised that there is a concern of delays regarding a Route 5 decision and Andy Sinclair agreed to follow up with the CAA to check on progress.

4. Andy Sinclair presented slides on SID truncation. There will be no changes to the lateral or vertical profiles or displacement of traffic arising from these activities, however it will involve name changes to certain SIDs. This is due to take place on the 24th May 2018. Phase 2 was planned to take place in September 2018 and Phase 3 in December 2018 to rationalise the SIDs. Alan Jones asked where the SID names are sourced. Andy Sinclair explained that 5 letter name codes are randomly generated through a system managed by the International Civil Aviation Organisation (ICAO) and they need to be verified by NATS to ensure that names are not similar to others in the UK or in close proximity to Gatwick.

5. Ken Harwood queried if there have been any recent changes to aircraft overflying the Felbridge area or aircraft which departing in an easterly direction as he noted that some aircraft appear to be climbing higher and faster. Andy Sinclair noted that no airspace changes had taken place. He suggested that there may have been a slight impact from a recent period of flow restrictions between 4th and 24th April due to a transition at Swanwick Terminal Control switching from a paper flight strip system to an electronic version, known as EXCDS. Flow rates

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<p>were put in place to manage traffic to allow controllers time to familiarise with the new system. A consequence of the quieter airspace, in terms of traffic levels, would be that there were less airspace constraints and aircraft could climb higher quicker. NATS Swanwick introduced a reduced traffic flow of 20% for the first 10 days of transition and then 10% for the remaining 10 days. Goran Jovanovic mentioned that airspace is complicated and that NATS will attempt to vector aircraft higher as quickly as possible to avoid conflict with other traffic. He suggested that if there are certain practices that are being used that are beneficial, these should be recorded so that we can learn from them. Alan Jones mentioned that steeper aircraft climbs are usually vectored earlier but he believes that aircraft should remain in the NPR until the end as residents living beneath NPR's will experience aircraft at greater altitudes causing less disturbance. He has previously brought this up with the CAA and believes that this is a good opportunity to reduce those affected by aircraft noise. Andy Sinclair commented that vectoring can disperse traffic to allow aircraft to climb quicker and that work on future airspace designs and technology will be consider how vectoring will be used to complement future concepts.</p>	
<p>6. Planned Improvements to the FPT</p> <p>1. Lee Howes referred to the document provided to the group which lists all of the improvements requested by the FPT to Casper, the Noise and Track Keeping system used by the team. The team have reviewed all the functions of the Casper system including the tools used to analyse the airports noise climate. There has been an addition of 11 new mobile noise monitors, totalling 22 monitors available for analysing the noise climate around the airport. The team have been receiving many requests for new noise monitor locations so more requests can be fulfilled and they will also support the work of the NMB, for example the Reduced Night Noise (RNN) trial, currently in development. There are some areas which are yet to be monitored for noise so this is a good opportunity to gather more detailed data on noise levels and conduct comparisons before and after changes occur (e.g. the replacement of the Boeing 747-400 fleet with newer, quieter aircraft). The five fixed noise monitors will be replaced with 'live' 4G enabled microphones and the old monitors will be recycled into mobile monitors to be placed in the field. Additional noise monitors will be sourced at a later date. Newly placed monitors will be left for a minimum of 2-3 years in order to gather long term data sets to identify trends and, where appropriate, areas for improvement. The Gatwick Noise Monitoring Group (GNMG) is due to meet on the 23rd May, at which a workshop is to be held, with a proposal to meet more regularly, to discuss the usefulness of data collected from the monitors and how to improve the noise monitoring programme. Casper is to become more automated so that reports are generated automatically and this will also allow individual users (e.g. communities, airlines) to log in and download data sets of interest. The introduction of an automated telephone line for noise complaints is also in development by Casper. The team have already refreshed Casper Noise Lab to include historic data and maps that explain the noise climate in greater detail. This has now been made available on mobile devices. The automation of Casper will allow members of the FPT to focus more on its core objectives of addressing issues of noise. The team have also been undertaking training on 3D noise simulation and mapping analysis tools that will be introduced to the team such as BridgeNet and ArcGIS. It is anticipated that Casper will also be able to accept and respond to odour complaints and which can be mapped to identify certain areas where attention may be required. Leon Hibbs was pleased to hear this being introduced as he receives a number of odour complaints. Alan Jones commended the list of improvements and welcomed</p>	

<p>the automation of Casper so that the FPT could have more of a focus on analysis. He also mentioned that it would be a greater opportunity for NaTMAG to input into the GNMG.</p> <p>2. Lee Howes noted that there had been recent engagement between the FPT and Turkish Airlines regarding Continuous Descent Operations (CDO) performance and the result was that, in two months, their CDO performance has increased from 39% to 84%. Ken Harwood asked who decides where the noise monitors will be placed. Lee Howes noted that there were monitors reserved for the RNN trial which will be undertaken by the NMB and there is also a backlog of location requests that have been discussed at the GNMG. Brian Cox asked if there will still be a form of acoustic data verification following the automation of Casper data. Lee Howes explained that there will still be data verification by the acoustic consultancy to ensure data accuracy. Alan Jones noted that NaTMAG members do not get a chance to review community noise reports before they are published and if would be useful to do so. Lee Howes suggested that that an action be raised for the GNMG to feedback to NaTMAG on the outcomes of the community noise reports and noise monitor data trends. It was agreed amongst members that there should be a key message to GATCOM regarding the usefulness of the FPT Casper improvements.</p>	<p>FPT 09/2018</p>
<p>7. Noise Management Board update (incl. A320 FOPP modification data)</p> <p>1. Vicki Hughes presented to the group a set of slides regarding the priorities of the NMB. The last NMB/10 meeting was held on the 11th April 2018 and the draft minutes are now available online (www.gatwickairport.com/nmb) along with a review of the meeting. The last GATCOM meeting was on the 26th April and preceding this meeting was a dedicated noise drop-in session which received positive feedback for its usefulness. One of the priorities of the NMB was to introduce a low noise approach metric. The CDO workshops, which took place in October 2017, brought together airlines and industry members to discuss improvements and the definition of a supplementary metric to CDO, known as a low noise approach. This new metric is supported by Sustainable Aviation and Eurocontrol and is funded by FAS. It is currently being led by Gatwick Airport however, once it has been defined, it will apply to all airports across the UK. There is a 12 month workplan and data collection of 4 different aircraft types (i.e. A320, A380, B767-300 and a prop type) was being undertaken by ERCD with quarterly reports submitted to Sustainable Aviation and FAS. Liz Kitchen was concerned that aircraft performing a CDO do not always produce a noise benefit. Andy Sinclair highlighted that Gatwick Airport are top of the UK league table for CDO, however we want to focus on the most effective measure for noise mitigation. Turkish Airlines are a good example of how changing an airlines behaviour can bring a positive change in noise benefits.</p> <p>2. Vicki Hughes referred to the A320 family Fuel Over Pressure Protector (FOPP) modification data. From the 1st January 2018, a new charging regime was introduced to fine airlines that were still operating unmodified A320 aircraft. The statistics were presented and it was revealed that, on average, six aircraft per day operating at Gatwick Airport are unmodified and this equates to 97% of the total Gatwick A320 family air traffic movements modified. As of December 2017, both British Airways and easyJet had modified 100% of their fleets. Andy Sinclair noted that there had been positive verbal feedback from the communities on this work. Vicki Hughes added that the six per day unmodified aircraft were still being invoiced and the NMB is working on encouraging them to modify their remaining fleets. Mike George asked if the NMB were keeping a record of every single aircraft that had been modified. Markus Biedermann advised that the</p>	

<p>airline would need to provide a noise certification which will state that a modification has been applied to the aircraft. Vicki Hughes advised that performance reports on the A320 FOPP modifications will continue to be presented to NaTMAG and also circulated. The group agreed that the success of the uptake of FOPP modifications should be shared with GATCOM.</p>	<p>VH 10/2018</p>
<p>8. Reduced Night Noise Trial update</p> <p>1. Vicki Hughes mentioned the proposed RNN trial to reduce night time noise for communities around the airport. The trial is currently in its planning stage and will require noise monitors to determine whether RNAV could be used for aircraft on approach to the airfield to deliver noise benefits for communities. This will be a trial, it will not require an ACP and is within the requirements of CAP1616. Community Noise Groups (CNG)'s have requested quantification of the reduction of noise. There is concern that routes determined by the trial will be made permanent and this will not be the case. Communication between Gatwick Airport and CNG's can be difficult and there needs to be greater transparency so that the trial is well understood. There will a meeting prior to this, an NMB departures workshop on the 23rd May to discuss the trial and for CNG's to input. The NMB/11 meeting will ultimately determine if the trial will go ahead based on the collective decision. The next NMB/Airspace public meeting is confirmed for the 5th December 2018. Mike George noted that it is useful to hear through NaTMAG the updates and outcomes of the NMB and the RNN trial. Ken Harwood requested the review of the NMB/10 meeting be sent to him. Vicki Hughes agreed to issue this.</p>	<p>VH 11/2018</p>
<p>9. Future Planning</p> <p>1. Andy Sinclair presented a timeline of airspace change plans following the various stages of CAP1616, however he emphasised that this was an indicative timeline and is subject to change. Work to develop the Route 4 SID's ACP is due to commence in Q3 2018 and will likely take two years. As part of Future Airspace Strategy Implementation (South) (FASI(S))-LGW, airspace change design principles will be developed through the latter part of 2018. The consultation elements of FASI(S) will include input from other UK airports as well as NATS. As part of the FASI(S) oversight, it was expected that the Secretary of State will consider these various airport and NATS ACP's as a single proposal. FASI(S) is due to be implemented in Q1 2024 and will require contributions from all UK airports. The timescale for the RNN trial is not final until a decision is reached at the NMB/11 meeting. It was noted that the northern runway only uses conventional navigation for departing aircraft and it was expected at some point RNAV SID's would be introduced on the northern runway, currently scheduled for the end of 2019. Alan Jones was concerned about the terminology used for the northern runway and suggested that it should be the 'emergency' runway to minimise confusion regarding its use. Andy Sinclair agreed to share the Future Planning presentation with the group. It was currently expected that GAL would review its Master Plan by the end of 2018. GATCOM Steering Group are made aware of updates to the Master Plan. Mike George requested that the same updates be provided to NaTMAG. It was agreed that an invitation would be extended to a member of the Master Planning Team to attend the November NaTMAG meeting to provide an update.</p>	<p>AS 12/2018</p> <p>FPT 13/2018</p>

<p>10. END Update Process / Quarterly Report</p> <p>1. Lee Howes referred to the working draft of the Environmental Noise Directive (END) Noise Action Plan (NAP) for 2018-2024 and explained that there are ongoing revisions to the draft as feedback is being regularly received. A further draft will be made available to the next GATCOM Steering Group on 21st June and GATCOM meeting on 19th July for submission to DEFRA in August 2018.</p> <p>2. Lee Howes referred to the Q1 2018 update of the END NAP and mentioned that there was an amber action (19d). He noted that there will be a letter to the DfT regarding this action. Brian Cox asked why this action did not have a red status. Lee Howes explained that the original END NAP was coming to a conclusion for 2018 and this action is going to be covered this year. Lee Howes referred to action 37 regarding liaising with other UK airports to develop noise metrics. Work on defining noise metrics is currently part of the NMB workplan for 2018/19. He referred to action 41 regarding the night noise contours. The group agreed that the wording on this action needs amending to be more up to date. Alan Jones asked if the END NAP can contain a list of aims and priorities in a similar fashion to the NMB workplan. Andy Sinclair commented that the END NAP could prioritise certain actions to an extent, however, the NMB has a work plan with associated priorities. Alan Jones highlighted that the END NAP may be given more attention if a list of goals and targets were displayed in the report with commentary on actions that could easily be achieved and those which require further attention. This would assist with building trust as it will be clear why certain aims are achievable. Mike George agreed and a new suggested action plan action was proposed that could allow for aims and targets to be included in the END NAP at a later date, subject to targets and metrics being identified by the NMB. It was agreed that this is to be a key message to the NMB. Leon Hibbs asked if the amendments to the END NAP will be supplemented with updates at NaTMAG. Lee Howes confirmed this would be the case. Andy Sinclair added that the END NAP had evolved in response to feedback from GATCOM and Lee Howes will incorporate these comments into the draft noise action plan and will circulate to NaTMAG and GATCOM in due course.</p>	<p>LJH 14/2018</p> <p>LJH 15/2018</p>
<p>11. Ground Noise Report / Community Noise Monitoring</p> <p>1. Lee Howes referred to the figures produced in the Ground Noise Report for Q1 2018. He explained that there were no instances of non-compliance recorded for Auxiliary Power Unit (APU) usage. The Fixed Electrical Ground Power (FEGP) availability was very good. No ground noise complaints were recorded by the FPT. No new noise monitor location requests had been received, however the next Gatwick Noise Monitoring Group will take place on 23rd May where the community noise monitoring programme and improvements are listed as an agenda item.</p>	

<p><u>Key Messages to FLOPSC:</u></p> <ul style="list-style-type: none"> • There is a growing interest in the reasons for go-arounds and this should be continued to be investigated. <p><u>Key Messages to the NMB:</u></p> <ul style="list-style-type: none"> • A new END NAP action has been created, signposting to the future aims, targets and metrics that the NMB will devise. 	
<p>13. Dates of Next Meetings</p> <p>FLOPSC – Wednesday 30th May 2018, 9:30 – 12:00 in Barcelona, 5th Floor Destinations Place. NaTMAG - Thursday 9th August 2018, 10:00 – 13:00 in Barcelona, 5th Floor, Destinations Place. GNMG – Wednesday 23rd May 2018, 09:30 – 12:00 in Havana, 5th Floor, Destinations Place.</p> <p>All 2018 NaTMAG meetings will take place in Barcelona, 5th Floor Destinations Place.</p>	<p>For Info Only</p>