Application by RiverOak Strategic Partners Limited for an Order granting Development Consent for the reopening and development of Manston Airport in Kent

REQUEST FOR COMMENTS AND FURTHER INFORMATION

Response by No Night Flights to the Department for Transport letter dated 17th January 2020 – NNF25

"23. The Secretary of State invites the Applicant and other Interested Parties to submit any comments they have on two late representations from Five10Twelve Limited dated 17 October 2019 and 27 October 2019, which it states are an evidenced Rebuttal to the Applicant's Overall Need Case [REP11-013]."

Comments on Five10 Twelve's representation dated 17th October 2019

Mismatch in the calibre and experience of RSP's aviation consultant vs those critiquing her work

1. Respected aviation consultants with many years' experience commenting on UK aviation have submitted document after document to the Examination. York Aviation has submitted compelling evidence that there is no national need for an additional dedicated cargo airport in the UK.

2. Five10Twelve is correct to point out that York Aviation is a consultancy of good standing in this field, and that it has on its client list Stansted Airport, Luton Airport, Birmingham Airport, Manchester Airport, Ryanair, London City Airport, Belfast City Airport and Lydd Airport as well as the Department for Transport in relation to Heathrow Airport. York Aviation's evidence-based submissions to the Examination have been strongly supported by Altitude Aviation – another respected aviation consultancy, as well as by No Night Flights (NNF).

3. By contrast, RSP relied entirely on the work of an independent consultant, Dr Sally Dixon, to produce RSP's statement of need. Dr Dixon admitted to the Examining Authority (ExA) that she has no prior experience in this field.

4. Dr Dixon's work has been carefully assessed by York Aviation, Altitude Aviation, No Night Flights and others. It is a series of assertions rather than an evidence-based work on which the SoS could rely to vindicate interfering with the property rights of others so as to develop a new, nationally significant, dedicated cargo airport on the old airfield at Manston. In four of its submissions to the Examination – NNF06, NNF07, NNF08 and NNF11[1] – NNF undertook a paragraph by paragraph critique of Dr Dixon's submissions. The hundreds of pages of these four NNF submissions set out very clearly the fact that RSP has **not** demonstrated that there is a need for a new dedicated cargo airport in the UK. There simply is not the demand for one. Indeed, dedicated cargo ATM numbers in the UK have halved in recent years, and there is

1 NNF06 is TR020002-003497-NNF, NNF07 is TR020002-003498-NNF, NNF08 is TR020002-003499-NNF, NNF11 is TR020002-003502-NNF.

currently spare capacity for dedicated air cargo in the UK at existing airports such as East Midlands, Stansted and some of the regional airports.

5. In our submission NNF13,[2] we set out a brief summary of the multiple flaws in the approach that Dr Dixon took to her work for RSP. That two page summary is attached. We urge the SoS to take account of it.

6. The substantial evidence submitted by a number of Interested Parties to the Examination is to be preferred to the work of Dr Dixon, who is inexperienced in this field of expertise.

No national need for a new dedicated cargo airport

7. The Planning Act 2008 sets out the criteria by which the Planning Inspectorate must assess any application for a Development Consent Order (DCO) for a Nationally Significant Infrastructure Project (NSIP). The key criterion for RSP's DCO application is that RSP's project should be "*expected to have the effect*" of increasing "*by at least 10,000 per year the number of air transport movements of cargo aircraft for which the airport is capable of providing air cargo transport services*".[3]

8. Using publicly available evidence, we, and other Interested Parties, have demonstrated conclusively that a redeveloped cargo airport at Manston cannot be expected to have the effect of increasing by at least 10,000 cargo ATMs a year the current capacity of the site. In a series of submissions to the Examination, we have assessed past operations at Manston; the realities of the UK air freight market; and RSP's proposals. Like other Interested Parties; we conclude that the evidence demonstrates that there is no need for a new nationally significant airport for dedicated freight in the UK and that, even if there were, there is no credible case that one could be developed at the very edge of the country on the Manston site. To paraphrase a well-known saying, even if RSP were to build it, the clear market evidence given past operations and recent comments from air cargo operators is that "they will not come".

9. Our submission NNF06[4] demonstrates conclusively that Dr Dixon has overlooked the fact that there is currently (at the time of writing that document) more than 1 million tonnes of unused capacity available in the UK airports system for dedicated cargo. Stansted can handle another 10,374 cargo ATMs and an additional 163,100 tonnes. East Midlands can handle nearly another 900,000 tonnes, estimated at current load factors to equate to another 53,000 dedicated cargo ATMs. In addition, there is spare capacity at a range of other regional UK airports for dedicated cargo, as well as more spare capacity beyond that for belly hold cargo.

10. In October 2017 the DfT produced its forecast for dedicated freight ATMs at UK airports between now and 2050. The DfT said:

11. > *"At the airport level the number of freighter movements has been volatile with some evidence of overall national decline in recent decades. In the absence of clear trends for individual airports, the modelling now assumes that the number of such movements will remain unchanged from 2016 levels at airport level across the system [until 2050]."*[5]

2 NNF13 is TR020002-003575-NNF.
3 Planning Act 2008 section 23 (5)(b)
4 NNF06 is TR020002-003497-NNF.
5 Department for Transport UK Aviation Forecasts October 2017, paragraph 2.56

12. As the DfT has recognised, there is no demand for a new dedicated cargo airport. The DfT forecasts no growth in cargo ATMs for the next thirty years. Given this, it would be perverse of the DfT to use the DCO process to take land and support substantial environmental blight in the interests of developing a new and wholly unnecessary dedicated freight airport at the very edge of the country.

13. Five10Twelve is right to point out what many Interested Parties have already told the ExA – the idea of a dedicated cargo airport at Manston has been considered by Government before. Most recently the Airports Commission considered the possibility and rejected the notion that the airport at Manston could have a useful role to play in national aviation strategy.

14. Five10Twelve is also right to point out that a number of parties have set out for the ExA that there is no national policy statement on aviation that supports the idea that the UK needs a new dedicated cargo airport at all, let alone one on the site of an airport that has thrice failed to build a sustainable dedicated air cargo business.

15. As Five10Twelve correctly identifies, the Government has already determined its preferred approach to increasing runway capacity in the South East of the UK, and that is to support the expansion of Heathrow Airport. At paragraph 4.49 of the Aviation 2050 Green Paper, the Government says:

16. *"The government supports continued growth of the air freight sector […]. It has already taken action by supporting the Northwest Runway scheme at Heathrow, which has been estimated to nearly double the capacity for freight at the airport to 3 million tonnes per year."*

No evidence that a new dedicated cargo airport at Manston would be viable

17. Five10Twelve is right to highlight that paragraph 4.5 of the Airports NPS confirms that viability will be an important factor in consideration of airport expansion: "*The Secretary of State will have regard to the manner in which benefits are secured and the level of confidence in their delivery.*" RSP did not submit to the Examination any evidence as to the future viability of a fourth attempt to develop a dedicated cargo airport at Manston and its aviation consultant, Dr Dixon, confirmed to the ExA that considering whether or not such an airport could be viable was **not** part of her remit. She told the ExA that she assumed that RSP would "adopt the right level of pricing". RSP did not identify any evidence that showed that it had considered whether or not its aviation aspirations for the old airfield would be deliverable and also economically sustainable.

18. In our submission NNF02 "No Room for Late Arrivals"[6] we set out the history of commercial failure at Manston Airport and the reasons for that failure. In NNF04,[7] we summarised the key conclusions in Kent County Council's (KCC's) March 2015 position statement on Manston Airport – "*Manston Airport under private ownership – the story to date and future prospects"*. In that document, KCC also described the substantial financial support that it had given to Manston Airport over the years as well as to RSP's Mr Tony Freudmann's previous aviation dreams. All of that public money was lost. KCC concluded on p12:

6 NNF02 is TR020002-003493-NNF.
7 NNF04 is TR020002-003495-NNF.

19. *"The truth is that Manston has failed over a prolonged period of time to run as a commercially successful airport. Kent County Council gave strong support to various investors but the reality of commercial aviation at Manston Airport led to very significant losses. In fact, in the 16 years since it was taken into privately* [sic] *ownership it has incurred losses by those who have tried to operate it in excess of £100 million."*

20. In NNF03[8] we set out our summary of the work by Falcon Consultancy as to the likely viability of a reopened airport at Manston. Falcon concluded on p21 that air cargo capacity is growing far more quickly than demand for airfreight and said: *"The climate for cargo-only aircraft operations could not be much worse."*

21. Falcon's report continued on p9:

22. *"Manston Airport was up for sale for some time. That there was no interest reflects its poor business reputation, (it has never made a profit in all the years since the RAF moved out) and the general industry perception that it is not in an ideal location. It has failed to fulfil its perceived role as a regional airport."*

23. In NNF05[9] we set out our summary of the work by Avia Solutions as to the viability of a reopened airport at Manston. Avia said that it took a consistently generous view in its financial models of the numbers that Manston could achieve. Avia concluded:

24. *"… there is virtually no incentive for operators to move operations to Manston, there are alternative UK airports that offer competitive services on reasonable terms. The UK doesn't need another airport for freight that has no USP."*

25. *"There is no compelling reason to believe that the airport would be able to generate appreciably more freight activity than previously, […]" (p.30)*

26. *"… There is no viable long-term prospect of an economically viable airport being established at Manston. It should also be noted that the scenario outlined above excludes any return to the investor, and we have therefore effectively weighted the cost of equity at zero in our model." (p.44)*

27. *"While we consider that a re-opened Manston Airport would attract some passenger services and regain freighter operations at a level similar to its historic performance, our financial assessment is that this would be insufficient to support financially viable operations of the airport." (p.10)*

28. We urge the SoS to take an **evidence-based decision** on this issue. Respected aviation consultancies such as York Aviation, Altitude Aviation, Falcon Consultants and Avia Solutions have all concluded that a new airport at Manston will not be viable. In addition to these aviation experts, other interested parties such as KCC, Five10Twelve and NNF have all submitted well-researched and evidence-rich documents that set out the economic reality of trying to develop a new dedicated freight airport in a declining UK market for freight ATMs at a site that signally failed to attract business when the number of UK dedicated freight ATMs was at twice the current level. Against this impressive array of facts, evidence and (in the case of the expert consultancies) in-depth aviation experience, RSP's case rests on the work of a lone consultant

8 NNF03 is TR020002-003494-NNF.
9 NNF05 is TR020002-003496-NNF.

who has no experience in the field and who did not consider whether a dedicated cargo airport at Manston would be financially viable.

29. The balance of evidence is against RSP. There is no need for a new dedicated cargo airport in the UK; no evidence that developing such an airport at the very edge of the country would be successful; and no national policy statement that supports such a proposal. This DCO application should be rejected.

March 2019

No Night Flights

www.nonightflights.info

NNF13 – Need

TR020002: COMMENTS FOR DEADLINE 4 from No Night Flights

1. In this document No Night Flights (NNF) comments on the Applicant's answers to the ExA's First Written Questions on the subject of Need.

2. RSP's entire case that a reopened airport at Manston could meet the criteria for an NSIP is built on the work of one person – Dr Sally Dixon. NNF has submitted four volumes of work which are well-researched, evidence-based critiques of Dr Dixon's work. In addition NNF has submitted a fifth volume – a factual review of the UK air cargo sector. NNF does not intend to go into all the factual shortcomings of Dr Dixon's arguments here. If the ExA reads those NNF reports (NNF06, NNF07, NNF08, NNF11, and NNF02 *"No Room for Late Arrivals"*), it will see the many ways in which her assertions lack factual foundation.

3. The focus in the pages that follow is first to deal very briefly with Dr Dixon's overall approach to her four reports and to set out how that approach falls far short of the standard that one would expect in a planning examination of this potential significance. We then go on to provide specific responses to the Applicant's answers to the ExA's questions on the subject of Need.

4. It is not necessary to possess special expertise in the topic to see that Dr Dixon's work is fatally flawed:

- Dr Dixon continues to rely on two reports by York Aviation, despite York Aviation's repeated public statements that she has misunderstood and misrepresented its work. This fatally undermines Dr Dixon's credibility
- She has disregarded official data from the CAA and forecasts by the DfT about the long decline in the UK dedicated air freight market and a future in which there is expected to be zero growth
- She quotes selectively from her sources, disregarding or falsifying the picture apparently intended by the author. In our critiques NNF has set out numerous examples of this. This tendency by Dr Dixon means that the ExA cannot rely on her work as being a fair reflection of the sources she quotes
- She quotes from papers that are not available to the public
- In calculating her demand forecasts – central to the RSP proposal – she dismisses a normal analytical quantitative approach in favour of a qualitative judgement. She then relies on a small and unrepresentative sample of industry-related interviews. She pays most attention to the minor players. Coyne Airways – a cargo airline with a fleet of just four planes – and the local hauliers represent 90% of the interview quotations in the Azimuth report. This is vitally important as these interviews are the basis for <u>everything</u> that follows – the cargo ATM predications, the NSIP proposition and then the job numbers. They are at the heart of RSP's claim that this proposal qualifies as an NSIP. Dr Dixon's "qualitative methodology" doesn't lend itself to scrutiny – we'll never know what convinced Dr Dixon to arrive at her ATM forecast. For the ExA to rely on her work as a sound basis for a forecast of 17,100 cargo ATMs in year 20 would be an act of faith, not of evidence-based judgement
- Dr Dixon says it is necessary to translate her qualitative interviews into a quantitative forecast. However, she then eschews what she describes as *"the difficulty in identifying a realistic formula"* in favour of describing how she believes commodities are *"likely"* to be transported in the future. That is not a sound basis for determining an NSIP
- She then applies a multiplier to her annual ATM forecast for years 11 to 20. That multiplier is 4%. In each of the three different iterations of her work to date she produces a different source for that multiplier. None of them is credible. She cites an Airbus global growth

forecast that is not in the report she cites. Next she cites the DfT which has said that it anticipates zero growth in UK cargo ATMs. Finally, in her July 2018 report she quotes no source at all. We deal with this in detail in NNF07

- Dr Dixon then demonstrates a basic failure of arithmetic. The DfT's figure of 4% (which she misapplies) describes growth in the amount of cargo on freighters (not growth in the number of freighters) over a period of five years. Dr Dixon applies that 4% annually, meaning that the growth in her long-term forecast of cargo ATMs starts in a bad place and is then absurdly exaggerated.
- Dr Dixon fails to take account of the Airports National Policy Statement which says that an additional runway at Heathrow will allow Heathrow to handle twice as much freight as it handles today. She contradicts the Government – whose view was arrived at following years of consultation and research by the Airports Commission - saying that, even when the new runway is in place, *"there will be a need for additional capacity particularly for freight"*. She provides no evidence to support this assertion
- She says that the UK needs a new cargo airport at Manston because *"By 2000, UK air freight had become constrained". She ignores the fact that Manston was operational between 1999 and 2014, handling just 550 cargo ATMs a year, and yet the market did not flock to use Manston in what she claims were years of constrained capacity*
- She overlooks the current capacity for tens of thousands more cargo ATMs at East Midlands and Stansted, let alone the additional capacity at some other regional airports
- She fails to assess the plusses and minuses of the UK's established competitor airports against the criteria used by freight operators. She also ignores the plans for capacity increases at major UK freight airports
- She suggests operators currently sending air freight by truck would fly that freight to Manston instead were it open. This ignores the role that trucking plays in the movement of air freight across Europe (not just the UK) and she provides no evidence to support her contention
- She relies on global forecasts which are built on trends in the global market which have not been experienced in the UK
- She uses forecasts of freight tonne kilometres (FTKs) to suggest an increase in UK cargo ATMs. The two are not synonymous
- She uses passenger growth trends and forecasts to suggest a need for a new cargo airport
- She relies upon studies that either measure the wrong metric; or measure the wrong market; or that focus entirely on London; or are already demonstrably over-inflated; as well as relying on forecasts whose author says she has abused and simply failed to understand the work
- She says that e-commerce will increase demand for air freight, ignoring the fact that e-commerce over the last two decades has come from nowhere to account for 16.5% of UK sales. However, UK air freight tonnage in that period stagnated at around 2.3m tonnes, and the number of freighter ATMs has fallen dramatically since 2000. Clearly, e-commerce is having little discernible impact on the number of UK dedicated freight ATMs.

5. We have been unable to identify who, if anyone, has peer reviewed Dr Dixon's work. In any event her track record in the field of airport acquisition and development inspires little confidence in her abilities. Dr Dixon has previous experience of Manston airport – she does not come to this DCO process as an objective commentator, looking at the airport for the first time. In the period 2000 to 2002, Dr Dixon worked at Wiggins with Mr Freudmann. Her role

was Strategic Acquisition. She made recommendations as to which new airports Wiggins should acquire and wrote business plans for the airports in the Wiggins network. Wiggins' particular focus at that time was on former military airfields that had significant excess land that would be available for development – just like Manston. Not one of the acquisitions made by Wiggins in this period was a success: Dr Dixon had a major role in the airport acquisition strategy that helped to plunge Wiggins (by then renamed Planestation) into liquidation. This was the strategy that Mr May, a seasoned turnaround agent, described as *"merely vapour"* when he tried to rescue the company.

Comments on the Applicant's answers to the ExA's written questions

ExA SE 1.5, 1.6 and 1.12 - Job creation forecasts

6. Dr Dixon's job creation forecasts are what she has described to members of the NNF Committee as a "mash up" of numbers drawn from East Midlands Airport (EMA) and former staffing levels at Manston. East Midlands is not a good comparator for what she says could be developed at Manston. In 2016 EMA had 540 employees. Those jobs depended on 22,119 cargo ATMs and 4.6m passengers – 55,000 ATMs in total. Dr Dixon says Manston will have 1,024 employees for 26,468 ATMs – this is almost twice as many employees for half the number of ATMs.

7. EMA says it supports 6,000 jobs. That includes the jobs created by the large employers DHL, TNT and UPS who all base aircraft at the airport and on Royal Mail using the airport. None of these employers are credibly expected to be based at Manston. Dr Dixon assumes a further 2,393 direct jobs at Manston.

8. Dr Dixon says that the catalytic jobs figures she uses are not necessarily accurate in a UK setting. She says there is a need for *'extensive research'* which is '*outside the bounds of this report'*. However, this does not stop her from asserting that 4 catalytic jobs will be created for every direct job that she forecasts.

9. We have been here before.

10. In 2001 Tony Freudmann's team at Wiggins promised that there would be 6,000 jobs at Manston by 2010. In 2008 Infratil predicted 3,500 jobs by 2018 and 7,500 jobs by 2033. The airport never supported as many as two hundred jobs during its fifteen years of commercial operation.

11. In her calculations, Dr Dixon fails to take into account the jobs that – in a flat market for dedicated cargo ATMs – will be lost from other UK airports were Manston to succeed in attracting existing air cargo business to it. She fails to take into account the jobs that (if her assessment of the market preferences were right) would be lost to road haulage companies and to the Port of Dover and the Channel Tunnel were cargo operators to switch to flying cargo to Manston rather than trucking it to and from Europe as they do now. She fails to take into account the jobs that will be lost in the burgeoning tourism industry locally as a result of having cargo and other aircraft overflying Ramsgate 24/7. She quotes other seaside towns which have airports and says that they have not lost tourism jobs. Her comparators are not good matches in terms of either the proximity of the airport to the town or the extent to which arrivals and departures have no option but to overfly substantial residential and leisure areas. Her comparator airports are not dedicated cargo airports with permission to fly planes rated QC4 at any time of day or night. Southend, for example, prohibits planes rated more than QC1 at night and few planes rated more than QC2 are allowed during the day. In 2017 Bournemouth used just 60 QC points for night flights for the entire year.

12. Dr Dixon makes unsubstantiated claims about the number of construction jobs that the Manston Airport project could create. She says that *"comparisons with similar projects have been made"* but provides no evidence. She says only that the RPS Group has calculated the forecast figures. No insight is given into these calculations.

ExA ND 1.14

13. Dr Dixon says that there has been an increase in UK air freight. She entirely fails to mention that there has also been a severe reduction in the number of freighter ATMs. It is freighter ATMs that is core to this DCO application.

14. The Department for Transport said in 2013 that *"…since 2001 the number of freighter ATMs has declined.*" The Department for Transport talks about: *"…the sustained nature of this trend over a ten year period…"* In fact, in the UK, the number of dedicated freight ATMs has fallen from a high point of 110,371 ATMs in 2000. By 2010 there were 51,766 cargo ATMs and numbers have stayed at that level since with just 52,330 ATMs in 2017. This means that the number of dedicated air freight ATMs in the UK has more than halved in less than twenty years.

15. It should be clear to the Government that there is no need for an additional airport to service this declining demand.

16. Dr Dixon also says in answer to the ExA ND1.14 that the DfT's assumption of 0% growth in freighter ATMs for the next three decades "*is not a forecast*". The 2017 document in which the DfT's prediction appears is titled "UK Aviation Forecasts". The DfT says that the document: "*comprehensively updates the last DfT forecasts of January 2013, describes how the forecasts are prepared and includes the forecasts for the shortlisted capacity options."* The DfT says that the model that underpins its forecasts: "*comprises a suite of interrelated components to produce forecasts for demand*". It is clear from this that the DfT is using its model to predict future demand. We call this a forecast, as most people would.

17. About freight ATMs the DfT says: *"An assumption about the number of freighter ATMs is nevertheless required in the model as freighters potentially affect the space for passenger ATMs available where capacity constraints exist … At the airport level the number of freighter movements has been volatile with some evidence of overall national decline in recent decades. In the absence of clear trends for individual airports, the modelling now assumes that the number of such movements will remain unchanged from 2016 levels at airport level across the system."* It is clear from this that the DfT has used its model to predict freight ATMs. In response to Dr Dixon's letter the DfT repeated its description of this as an assumption. This assumption as to the future number of dedicated freighter ATMs is clearly helping the DfT to forecast the impact that these ATMs might have on airport capacity. In everyday language, this is a forecast.

18. We understand why Dr Dixon resists this idea. The fact that the number of cargo ATMs in the UK has halved since 2000, and the fact that the DfT predicts no increase between now and 2030 is potentially fatal to RSP's ability to develop a compelling case in the public interest to take the site from its owners. All RSP can fall back on in the light of the DfT's prediction about zero growth in RSP's chosen market are RSP's claims that it can take business from other UK airports (creating no net national benefit) or that it can magic up 10,000 ATMs from air freight that is currently being trucked to and from the UK. Dr Dixon has produced nothing of substance to support either of these claims.

19. We urge the ExA to put RSP to proof on this. Dr Dixon has failed to convince that these three potential sources of business – overall growth in UK cargo ATMs; ability to take business from established UK freight airports; and/or persuading cargo operators to swap cheap trucking for

expensive cargo ATMs – are credible; that they amount to an NSIP; and that there is a compelling case in the [public interest for this DCO to be awarded.

ExA ND 1.17 and ND 1.37

20. Dr Dixon says that it is impossible to provide an accurate account of the loads of air freight that are currently trucked by road. She quotes Sterling values for food imports and then says: "*Whilst there is no accurate means by which to adjust a Sterling value to a tonnage, and take into account those products already transported by air, it is clear that the proportion of freight trucked by road that included high value, low weight and/or time sensitive items is considerable*."

21. Frankly, it is in no way clear how she arrives at this assertion.

22. The report to which she refers is dealt with in NNF06 at paragraph 4.4.8. The report focusses first and foremost on East Midlands Airport and makes the point that it is cheaper to truck freight than it is to fly it. The report makes clear that it is talking about the large volume of transhipment (70%) through Heathrow and says: *"This is where freight is consolidated from short haul flights or trucks from a range of origins and is transferred onto long haul flights for onward shipment."* There is no implication in the report that the freight customers trucking their goods to and from Heathrow would prefer to send them by air. York Aviation and Altitude Aviation make it clear that trucking of air freight is a settled component of the market as operators seek the cheapest possible air freight rates available over a distance of hundreds of miles by road. Altitude Aviation says that "*The increasing use of truck feeder services is due to cost efficiencies and is not restricted to the UK*." Trucking of air freight is not a response to insufficient capacity for dedicated cargo ATMs.

23. Dr Dixon quotes Steer Davies Gleave in 2010 on the issue of the trucking of air freight to and from the UK. In 2010 Manston was operational and was actively chasing cargo business. Manston handled just 491 cargo ATMs that year, and 28,103 tonnes of cargo. The airport's owners are on record as saying that the airport at that time could handle up to 400,000 tonnes of cargo with no change to its runway or stands. It is clear that there was ample spare capacity at Manston in 2010. If it really is more economical to use a dedicated freighter service into Manston rather than trucking cargo over the Channel, this would have been happening in 2010 but it did not. The market has indicated very clearly how it weighs up the advantages of trucking air cargo and transporting it by dedicated freighter.

24. The assertion that air freight is being trucked into the UK from the continent purely because there is not enough capacity for it to be flown in is critical to RSP's claims that there is enough demand for an additional dedicated freight airport in the UK to warrant CPOing the Manston site. And yet RSP produces no evidence. Dr Dixon has admitted in a public presentation that her premise is based on evidence that is "*purely anecdotal*". She says in her answer to ND 1.37 that she "*assumes that a significant amount of the 2.2 million tonnes of freight that lands at Frankfurt is destined for locations other than Germany, including the UK".* She also *"assumes that some freight is destined for London*." These assumptions are no basis on which to rest a DCO application in which 720 acres of land could be taken from its legal owners.

25. Could the ExA please direct Dr Dixon to deal with the arguments put forward by York Aviation and Altitude Aviation on this subject as it is central to her thesis that trucked air cargo can be translated into cargo customers wanting to fly freight from Manston in dedicated freighters?

We expect the ExA to press hard for solid evidence to support these claims. Without that evidence, there simply is no case for a new cargo airport at Manston.

ExA F 1.16

26. RSP says that the proposed redevelopment of the Manston site "*is considered highly unlikely to result in a dominant market position within the South East of England or the wider air cargo sector in the UK".* If RSP achieves its forecast of 17,100 cargo ATMs p.a. it will be by far the biggest dedicated cargo airport in the South East of England, outstripping Stansted's c.10,000 cargo ATMs p.a. At 17,100 cargo ATMs, the proposed cargo airport at Manston would be the second biggest dedicated cargo airport in the UK with around a third of the total market. This would clearly be a dominant position. RSP needs to explain whether it believes in its forecast of 17,100 cargo ATMs or whether it thinks that being the biggest airport for dedicated cargo in the South East and having 33% of the entire UK market is not a dominant position.

ExA ND 1.2

27. RSP says that air freight and the businesses which support it deliver over 46,000 jobs in the UK economy. RSP also claims that its proposals for a cargo airport at Manston will deliver 23,270 jobs. It is hard to separate out the non-freight jobs from Dr Dixon's figures. However, if we subtract the passenger, airline and MRO jobs from the direct jobs, and then subtract the multiplier jobs related to the non-freight jobs, we are left with something like 17,100 cargo-related jobs.

28. It is not controversial that air freight operations require fewer jobs than passenger operations to support them. RSP expects the ExA to believe that its cargo operation at Manston will support 37% of the UK economy jobs that depend on air freight and the businesses which support it. This lacks credibility and the ExA should scrutinise very carefully RSP's calculations around job creation.

ExA ND1.15

29. Dr Dixon says that RSP's proposals have taken into account the spare capacity at East Midlands and that airport's plans for significant growth in its freight business. There is no trace of this in her Azimuth I report. She devotes just two paragraphs to East Midlands. The East Midlands Airport 2015 Sustainable Development Plan says that the airport plans to grow its dedicated freight business from 320,000 tonnes to 700,000 tonnes by 2040 and that it has the capacity to handle 1.2 million tonnes of freight. This is nearly another 900,000 tonnes, estimated at current load factors to equate to another 53,000 dedicated cargo ATMs.

30. East Midlands Airport is the UK's largest dedicated freight airport. The ExA should question Dr Dixon in depth as to how this established and successful airport's significant spare capacity and growth plans have been "taken into account" in Dr Dixon's qualitative assessment of RSP's future customer base and achievable level of business.

ExA ND 1.16, ND 1.18 and ND 1.28

31. Dr Dixon says that integrators use night flights and that one of the reasons for this is that daytime capacity is taken up with passenger flights. She also says at ND 1.28 that she "*believes"* that if Manston accommodates air freight operators during the day, her cargo ATM forecasts are "*entirely realistic*".

32. East Midlands Airport is the UK's biggest airport for integrators. It has excess capacity for tens of thousands of additional cargo ATMs. Its daytime capacity is nowhere near exhausted and yet about half of its ATMs take place at night. Dr Dixon has provided absolutely no evidence that cargo operators, including integrators, would swap to day flights if they could. Indeed, it is a requirement that many cargo operators make of airports that they can have night flights. This is set out clearly in the document written by No Night Flights a couple of years ago "No Room for Late Arrivals". Please can the ExA ask RSP to produce its evidence that significant cargo operators would prefer day flights to night flights? RSP says that this is core to its case – i.e. that operators will move to Manston because they prefer day flights. This assertion is also central to RSP's opaque forecasts of future demand for cargo ATMs at Manston.

33. Dr Dixon says at ND1.18 that freight operators will use daytime slots when they are available. She quotes Stansted as an example. The DfT disagrees.

34. In its consultation document: "Night flight restrictions at Heathrow, Gatwick and Stansted." (Jan 2017 p18) the DfT says: "*Stansted is also a hub for several large freight and express companies, which require the flexibility to fly throughout the night in order to ensure timely next day deliveries to key markets. Freight services make up approximately 35% of Stansted's night movements*." Night flights are critical to cargo operators using dedicated freighters. This is also explained clearly in NNF06 pages 48 to 50.

ExA ND 1.18 and ND 1.31

35. Dr Dixon says that Stansted Airport has indicated a clear choice of passenger business over freight business. She directs the ExA to her report Azimuth I at 5.1. In fact, there is no evidence to support her assertion in that report. By contrast, in November 2018, Stansted Airport's local council approved MAG's planning application to allow Stansted to handle up to 43 million passengers. In that application, MAG talked about freight, spelling out its importance to the airport and to local businesses. MAG described how Stansted, together with DHL, FedEx, UPS and Royal Mail, provide London with an express cargo hub for time critical, often overnight, deliveries.

36. There is no hint in any of MAG's plans for Stansted that it intends to sacrifice its cargo business in the interests of freeing up space for more passenger flights. Indeed, the airport recognises the symbiosis for long haul flights between its cargo and its passenger business. Stansted's 2015 Sustainable Development Plan makes it clear that the airport could handle 400,000 tonnes of cargo without adding another runway. The new ATM cap for Stansted is 274,000 ATMs p.a. In 2017, Stansted had 162,027 passenger ATMs, leaving it room to add a substantial number of additional passenger ATMs before considering whether the airport would like to cannibalise its cargo business in favour of its passenger business.

37. In her answer to ND 1.31 Dr Dixon returns to her theme saying that Stansted "only" increased freight from 168,000 tonnes in 2000 to 237,000 tonnes in 2017. This is an increase of over 40%. The total UK market for air freight in 2000 was 2,311,279 tonnes. Stansted's share was 7.2%. In 2017 the total market was 2,622,496. Stansted's share was over 9%. So, in the period, Stansted increased its market share and also increased its tonnage by 40%. This in no way can be taken as "*a clear indication of the airport's strategic choice of passengers over freight.*" Dr Dixon's assertion makes no sense – in an almost flat freight market, Stansted gained ground. The ExA should reject these assertions by Dr Dixon.

ExA ND 1.20

38. Dr Dixon says that the "*scale and timing of the forecast increase in freight capacity at Heathrow as a result of Runway 3, is neither so large, so certain or so timely, as to accommodate all of the substantial unserved demand the Applicant forecasts from London and the South East and other parts of the UK, over the next 30 years*." She then goes on to underline the fact that she is relying on at least a compound annual growth rate for UK air freight of 2% (built on the global forecasts by Boeing and Airbus, rather than on forecasts that relate to the UK market). She claims that this means 400,000 tonnes of additional freight capacity "*will be needed in the South East*" by 2050. Dr Dixon shares no evidence and no quantitative analysis to explain how she arrives at a demand figure for air freight purely in the South East of England from these global forecasts.

39. In 2017 the London airports handled a little over 2m tonnes of freight. The implication of Dr Dixon's arbitrary CAGR of 2% is a cargo tonnage of almost 4m tonnes in 2050.

40. Since 2000 total UK air freight has stabilised at around 2.3m tonnes p.a. There is no evidence that, in the South East alone, that figure is set to double. This is set out clearly in No Room for Late Arrivals. Indeed, as the 2018 report by Steer points out: "The share of total volumes carried by freighter aircraft has fallen from over 35% in 2002 to under 30% in 2017 and has fallen away significantly at some airports. The market for dedicated freighter services has struggled globally since the financial crisis due to falling sea freight rates and the continued rise of air passenger demand (and associated bellyhold capacity), which have driven down freighter yields."[10] Even if tonnage did double, Dr Dixon fails to make the case that this would naturally translate into more dedicated cargo ATMs.

41. In 2017, the CAA figures reveal that each passenger ATM at Heathrow carried on average just 3.4 tonnes of cargo. This is significantly below the maximum capacity of the type of passenger planes using Heathrow. If Heathrow took just one more tonne on average on its 473,000 passenger planes, it would mop up far more than the 400,000 tonnes of unmet cargo demand that Dr Dixon claims (without evidence) will exist in the South East in 2050.

42. Dr Dixon says that the Applicant "*believes*" that more freight handling capacity will be needed in the South East. This is nowhere near good enough. Please can the ExA instruct Dr Dixon to reveal her data, her evidence and the basis for her calculation of runaway future demand in UK air freight following seventeen years of stability in the size of the UK air freight market?

ExA ND 1.21

43. RSP says the Applicant's team has extensive experience in the operation of freighter cargo. RSP cites the principal of Viscount Aviation, Tom Wilson. Tom Wilson presided over the periods of failure of both Prestwick and Manston that caused Infratil to sell both airports in 2013. Each was sold for £1, a clear indication of how the market saw their value. Each took 22 months to sell, despite a global marketing process led by PwC. That neither airport was bought by an existing airport operator or an airline is a demonstration of the lack of viability that the global aviation sector saw in each of them. It is hard to see Mr Wilson's time here as a success.

[10] Assessment of the value of air freight services to the Uk economy – Steer – October 2018

44. Giving evidence to the Competition Commission in 2007, Infratil said that it had bought Lubeck Airport to develop it as a passenger airport for the LCC market. Infratil held Lubeck for less than three years before realising that it could not make money out of it and returning it to the public sector. It is hard to see how this can have added at all to any experience that Mr Wilson might have of developing and/or operating successful freight airports.

45. Mr Cain of Northpoint Aviation wrote a report supporting RSP's DCO bid which was published as part of RSP's statutory consultation process. No Night Flights made trenchant criticism of his work. It is notable that his work does not appear as part of the RSP suite of submissions in its DCO application.

ExA ND 1.27

46. In her answer Dr Dixon says that the 18 years between 2000 and 2017 were "*a very selective snapshot"*. This sort of statement really harms her credibility. She says that there were increasing constraints on capacity for dedicated freighters at the London airports in the same period. This ignores the fact that Manston was open from 1999 until 2014. The airport operator said that Manston was capable of handling 400,000 tonnes of cargo then. York Aviation says today that the airport could handle 21,000 cargo ATMs in its current configuration. And yet it only handled an average of 550 a year while it was open. The capacity was there at Manston in what Dr Dixon says was a period of constrained capacity, but it was neither wanted nor needed by the market.

47. Dr Dixon says that a "reliever airport" like Manston would address the capacity constraint that she believes exists. The Airports Commission rejected this idea when it was put to them by Infratil, saying that Infratil's "*acceptance that viability is dependent on finding the right fiscal signals or regulatory mechanisms to persuade airlines and air cargo carriers to loosen their attachment to the principal London airports and enable Manston to be "switched-on" as a "relief valve" for the regions [sic] most congested airports, implies that private sector funding may be difficult to attract"*.

48. Dr Dixon then relies on Boeing's global forecasts to say that freight (not dedicated freight ATMs) will grow by 4.2%. No Night Flights deals with the inapplicability of the Boeing global forecasts to the UK in both NNF06 and NNF08. She says that there is no reason to suppose that Boeing's forecasts will not apply to the UK. In fact there is every reason as Boeing has also described trends in a past global air freight market that bear no relation to what happened in the UK over the same period. As an example, in Boeing's global view, more than 50% of air freight travels in dedicated freighters. In the UK, the % is less than 30%. Boeing also talks about growth in the market when in the UK there has been none.

49. This examination process must press RSP for evidence – not assertions - as to why we need a new cargo airport when the market for dedicated freight ATMs is half the size that it was in 2000. Given that Manston Airport when open could have handled 21,000 cargo ATMs and 400,000 tonnes of cargo, why did operators not flock to it in what Dr Dixon claims was a constrained market during that period? At the peak of the market Manston could not attract business. In what Dr Dixon claims was a constrained market Manston could not attract business. It was never fully used. Where is the evidence that cargo operators would change their behaviour today?

ExA ND 1.35

50. Dr Dixon says that perishables will form just 2.3% of the freight at a redeveloped Manston, i.e. around 394 cargo ATMs p.a. Of course, perishables formed the larger part of Manston's business over the airport's 15 years of commercial operation. The airport's total business was an average of 547 cargo ATMs a year and KIACC minutes make it clear that much of this was beans and fruit from Africa. Where is the evidence that RSP, as the fourth operator of a cargo airport on that site, would be able to attract another 16,700 cargo ATMs that are not going to be transporting perishables? We cannot find anywhere in the voluminous submissions made by the Applicant anything that would suggest that cargo operators are ready to transfer a third of the UK's dedicated air freight business to an airport that could not attract that many ATMs in its entire fifteen years of operation.

ExA ND 1.38

51. Dr Dixon asserts that it is "likely" that capacity constraints rather than a trend towards belly hold freight are the reason for the UK's air freight market being dominated by belly hold freight. She fails to investigate further, choosing instead to make assertions. She does not explore the role that cost plays in the choice between belly hold and dedicated freight. She does not explore the role that the geography of the UK – with what the Airports Commission said was arguably an oversupply of airports – might play. She does not analyse how the UK compares to other countries in terms of the range of destinations and the frequency of flights provided by the UK air passenger industry. York Aviation says:

52. *"Throughout the analysis, Azimuth appear to assume complete interchangeability between bellyhold freight, pure freighter operations and express/integrator operations without any analysis of the economic drivers for the use of each type of freight transport and the economics of trucking of air freight between the UK and Europe. This is a fundamentally unrealistic assumption and leads to a misrepresentation of the market opportunity for pure freighters."*

53. We agree.

ExA ND 1.39, 1.41 and 1.45

54. Dr Dixon again relies on global growth numbers to support a proposal that relies on UK dedicated freight ATMs. She ignores the fact that UK dedicated freight ATMs are not increasing. She then repeats a series of assertions about the future air freight market that she made in her Azimuth I report. NNF has already responded to these unevidenced assertions in NNF06, our critique of Dr Dixon's report. Dr Dixon produces no new evidence in this response to the ExA's question.

55. In her answer to ND 1.41 Dr Dixon makes a further series of assertions with no evidence to support them about the willingness of air freight operators to operate entirely by day if they are offered daytime capacity at an airport at the very edge of the country. She also fails to understand the point made by York Aviation about domestic dedicated freight ATMs (para 3.22 of the February 2019 update of York Aviation's submission). Dr Dixon then claims in her answer to ND 1.45 that discussions with potential customers for a dedicated freight airport at Manston are confidential. This means that there is zero evidence before the ExA that the market will indeed behave in the way in which she "believes" that it will if offered daytime capacity at a peripheral airport. This is not a credible basis on which to build the punchy cargo

ATM forecasts that Dr Dixon has produced. She is asking the ExA to take the entire forecast on trust.

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56. In short, RSP's proposal can only succeed if the new airport at Manston can attract cargo operators can use it. The three potential sources of dedicated air freight business are:

- New demand for dedicated cargo ATMs to/from the UK
- Diverting existing demand from existing UK airports
- Diverting demand from current road haulage of air freight.

57. There is compelling evidence that the UK market for dedicated air cargo has shrunk since 2000 and that it is not expanding. There is no new demand for Manston to try to attract.

58. There is compelling evidence that air cargo operators like to be at airports which have an established cargo ecosystem around them (which Manston does not); which allow a significant percentage of night flights; and which are within easy transporting distance of the rest of the UK (which Manston is not). The larger air cargo operators invest heavily in being near their chosen airport. The UK's two biggest dedicated freight airports have a track record of success, spare capacity, and plans for expansion. Dr Dixon has produced no evidence that a third of the UK market (17,000 cargo ATMs of a UK total of 52,000 cargo ATMs) is ready to transfer allegiance to Manston Airport's next attempt to develop a cargo business. In addition, in RSP's answers to the ExA's questions, it makes emphatically clear that RSP does not expect that the proposed airport at Manston would take cargo ATMs from existing UK airports.

59. Similarly Dr Dixon has produced no evidence that a significant number of cargo operators are keen to trade cheap road transport for expensive dedicated air transport to and from a peripheral airport for their goods.

60. Given the realities of the UK air cargo market, and given the absence of persuasive evidence of substantial and sustainable demand for a new dedicated freight airport at the very edge of the country, there simply is no case to support acceptance of the assertions made by Dr Dixon in her suite of reports.

Application by RiverOak Strategic Partners Limited for an Order granting Development Consent for the reopening and development of Manston Airport in Kent

REQUEST FOR COMMENTS AND FURTHER INFORMATION

Response by No Night Flights to the Department for Transport letter dated 17th January 2020 – NNF26

"23. The Secretary of State invites the Applicant and other Interested Parties to submit any comments they have on two late representations from Five10Twelve Limited dated 17 October 2019 and 27 October 2019, which it states are an evidenced Rebuttal to the Applicant's Overall Need Case [REP11-013]."

Comments on Five10 Twelve's representation dated 27th October 2019

1. Five10Twelve is correct to say at paragraphs 1.1 – 1.2 that RSP's Environmental Statement (ES) did not assess the likely significant effect of its proposals. Moreover, RSP did not base its DCO application on a credible "worst case" scenario . Instead the Applicant presented an Environmental Statement that substantially fails to describe and assess the likely "worst case" scenario. This means that the RSP ES has not put forward adequate mitigation measures. It also means that the environmental disbenefits associated with this DCO application have been substantially underestimated by RSP, making it impossible for the Secretary of State (SoS) accurately to weigh the environmental disbenefits against any possible benefit that might be delivered.

2. The so-called "Rochdale envelope" judgment calls for:

3. > *"sufficient information to enable 'the main,' or the 'likely significant' effects on the environment to be assessed [...] and the mitigation measures to be described" [...] such an approach will then feed through into the mitigation measures envisaged [...] It is important that* ***these should be adequate to deal with the worst case****, in order to optimise the effects of the development on the environment".*[1] [Our emphasis]

4. In our submission to the Examination NNF01[2] we pointed out that, in the first case, RSP had limited its assessment of likely environmental impacts by tying them to its predictions about likely commercial demand. In addition, RSP did not assess impacts according to the physical capacity of its proposed development, which RSP stated is merely "*theoretical*".[3] Whilst RSP may be correct in supposing it improbable that the freight market could ever demand the full physical capacity of RSP's proposals for the old airfield, it is also implausible that the "worst case" will never be more than RSP's business prediction for year 20 in 2039.

5. More importantly, in its ES RSP consistently underestimated the likely environmental impact of its proposals:

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1 Quoted in PINS Advice Note No 9 'Using the Rochdale Envelope' July 2018, Version 3)
2 NNF01 is TR020002-003492-NNF
3 APP-080, para 1.35

- By basing its environmental calculations on a fleet mix which it then confirmed to the Examination Authority (ExA) did not represent its actual proposal. In the Issue Specific Hearing on 21st March 2019, Dr Dixon, RSP's aviation consultant, said that the "indicative" airlines that were used to assess likely environmental impact in the ES were there simply to provide a "reasonable assumption". RSP then confirmed to the ExA that its latest thinking on its business plan meant that the smaller, less noisy, turbo prop planes that were in the "indicative fleet" that it used for its ES calculation, would be replaced by much larger and noisier aircraft. RSP confirmed that the smaller turbo prop planes accounted for 25% of the fleet on which it had based its environmental calculations. RSP did not update its environmental calculations to take account of the significant change in the noise environment that would be created as a result of this substantial exchange of less noisy planes for nosier ones
- RSP increased the number of general aviation ATMs to 38,000 p.a. from the 5,840 ATMs p.a. included in its ES. RSP did not update its environmental calculations to take account of this
- RSP has now admitted that there will be periods of the day when there will be "bunching" of ATMs. In its most recent Noise Mitigation Plan (dated 9th July 2019) RSP said that there will be no passenger flight departures between 0900 and 1130. RSP has not reduced the total number of passenger ATMs that it plans to operate. Inevitably, its passenger ATMs will be therefore concentrated into fewer hours, with all that that means in terms of the concentration of noise nuisance. Indeed, the likelihood is that some of these passenger ATMs are now planned to take place at night – between 0600 and 0700. RSP did not update its environmental calculations to take account of this change in the timings of passenger ATMs
- In the letter of 17th January 2020, the SoS seeks comments on a new proposed requirement that there will be just one passenger ATM arrival between 1600 and 1700; only two passenger ATM departures between 1800 and 1900; only one passenger ATM departure between 1900 and 2000; and no passenger ATM departures between 2000-2100. This, we assume, is in addition to the restriction written into the most recent NMP that there will be no passenger ATM departures between 0900 and 1130. On average RSP is planning for up to 26 passenger ATMs per 24 hour period. The restrictions above mean that that it is inevitable that there will be greater "bunching" of passenger ATMs into the unconstrained hours. On the balance of probabilities, more of these ATMs will be pushed into the night period. RSP has taken no account of "bunching" in its calculation of noise in its ES, nor has it considered the possibility that there will be a greater number of passenger night flights
- In its ES RSP modelled a handful of ATMs in its night contours, without ever clarifying exactly what was included in that calculation. Since the ES was produced, RSP has proposed a steadily worsening night flight regime, with fewer constraints and controls on the number of night flights and consequently fewer constraints and controls on the noise impact that its proposals would generate. RSP did not update its environmental calculations to take account of this significant worsening of its night flight proposals
- RSP did not include in its ES any need for Public Safety Zones (PSZ) to be established and so failed to calculate the impact of PSZs on the surrounding area. At the Issue Specific Hearing on 21st March 2019 it was made clear that RSP had ignored the relevant

guidelines set by the DfT as to the trigger point at which PSZs would need to be established. RSP continued to resist calls for it to update its environmental calculations to take account of this. RSP then produced some example PSZs from other airports and concluded that, were they to be overlaid on and around Manston, there would be no discernible impact. At no time has RSP calculated what the actual PSZs would be for the proposals that it is putting forward to the SoS as part of this DCO application. As we said in our submission NNF17:

"RSP now seeks to tell the ExA that, apart from an unknown effect on Manston Green, the implementation of the required PSZs will have little or no effect. It is hard to see how RSP arrives at such a conclusion as it has not calculated what the Manston PSZs would look like. It simply overlays other airport PSZs on a map of the area. Of the example PSZs provided, the two most potentially relevant ones are those for EMA and Stansted as these airports are probably the closest airports in terms of operating model to the airport that RSP says it wishes to develop. Even using RSP's rather home-drawn picture here of other airports' PSZs, it can be seen that the PSZs for EMA and Stansted both extend over a considerable amount of Ramsgate."[4]

- RSP built into its calculations an assumption that cargo aircraft will become much quieter in the future, saying: "*The reduction from Year 2 is due to the forecast phase out of the Boeing 767-300 and Boeing 767-400 aircraft in the fleet.*"[5] This is clearly an optimistic environmental impact assessment rather than one that captures the likely worst case

- RSP failed to produce an assessment of the cumulative noise produced by its proposals. The expert report produced by Ricardo for Thanet District Council in response to Deadline 6 of the Examination says:

  "The IEMA Guidelines for Environmental Noise Impact Assessment recommend that the change in noise levels as well as the absolute noise levels are considered. At present the noise assessments do not consider the total noise level or the total change in noise levels and so the 'with development' and the 'without development' scenarios are difficult to fully consider. It is noted that without the consideration of the cumulative sources noise of air noise, ground noise, traffic noise and plant noise ***the predicted significance of the effect may be understated****. It is understood the noise assessments of the for the Heathrow expansion DCO are using combined noise impact contours."* [Our emphasis]

- RSP produced noise contours that are not fit for purpose. Five10Twelve at paragraphs 1.3 – 1.8 of its 27th October 2019 representation deals with some of the key issues with RSP's noise contours. Like Five10Twelve, NNF could see that RSP's noise contours were so adrift of the likely reality (we have, after all, experienced a previous, smaller, airport on this site and have recorded measurements of the noise levels actually created by that operation) that we felt that the ExA should have access to accurate noise contours produced by an experienced professional. We commissioned the Civil Aviation Authority to produce noise contours that reflected what RSP is now saying is the likely fleet mix for its proposals. Those independently and professionally produced noise contours show that **RSP's noise contours in its ES significantly and consistently understate the likely**

4 NNF17 is TR020002-004116-NNF
5 (see ES 12.7.55)

noise nuisance that will be created by RSP's proposals. We attach our report NNF18 for convenience.[6]

- RSP's noise contours do not reflect likely operational reality, neither do they represent current thinking about the reality of noise nuisance. RSP's contours reflect:
    - Annual ATMs averaged almost evenly over 365 days
    - ATMs averaged evenly throughout a 16 hour or 8 hour period, for day or night, despite the fact that there will be "bunching" at some periods and despite RSP asking for unlimited night flights (we say more about this later)
    - That average is then split with 70% of the ATMs operating to the West of the runway and 30% to the East, and then 30% East and 70% West, as if for every day and every night there is an operational modal split of ATMs between the east and west of the airport. In reality, as years of past records show, the prevailing wind means that this is not the case. The wind will blow in one direction for days at a time
    - Lastly, RSP then adds the 70:30 hypothetical to the 30:70 hypothetical, divides by two, and says that this reflects the noise nuisance created on an average winter's day. It does not – this is an entirely artificial construct of RSP's devising
    - By contrast, Heathrow's operator is consulting as part of its DCO application on the basis of noise insulation grants being required for residential properties within the **full single mode easterly or westerly** 57dB LAeq 16hr contours or the 55dBLden noise contours, whichever is the bigger. The noise contours produced for NNF by the CAA demonstrate that **4,200 households (9,100 people)** would be within the westerly 57dB LAeq 16hr contours, and **8,300 households (17,700 people)** would be within the easterly 57dB LAeq 16hr contours. These numbers far exceed anything suggested by RSP's inexpert calculation of noise contours. In answer to ExA 4WQ Ns 4.7 RSP admitted that there was no assessment of single runway mode operation in its ES. We know from past experience that single runway mode operation persists for days at a time. RSP's ES therefore clearly does not assess the likely significant effects of its proposals.

6. RSP's proposals for night flights were opaque and inconsistent during the statutory consultation period and became more and more potentially damaging for local residents, our health, our economy and the local environment as different iterations were presented during the course of the Examination period. RSP said that it assessed "*up to 8*" night flights in its summer 2018 ES. The proposal on the table currently would allow for many more night flights than eight per night. The night flight proposals now captured in the most recent Noise Mitigation Plan (NMP) were not assessed in RSP's ES. **There has been no assessment whatsoever of the likely environmental impact of the latest night flight proposal.**

7. In February 2019, NNF submitted to the ExA its representation NNF09,[7] which covered representations from us on noise, night flights and the impact of both. Following that, RSP issued a new Noise Mitigation Plan.

6 NNF18 is TR020002-004224-AS-NNF
7 NNF09 is TR020002-003500-NNF

8. In May 2019, NNF submitted to the ExA its representation NNF15,[8] which commented on this new NMP. The NMP asked for a Quota Count of 3,028 to apply between 2300 and 0700. We noted RSP's comment that:

9. *"The night time period quota figure has been arrived at based on a typical mix of aircraft operating within the noise levels that have been assessed in the environmental statement, rather than taking the noisiest possible aircraft".*

10. As we have said above, that *"typical mix of aircraft"* that was assessed in the ES has changed significantly since the environmental assessment was completed. RSP did not update its environmental calculations to take account of this.

11. The quota count requested in RSP's May 2019 NMP was to be used for unscheduled landings between 2300 and 0600, and take-offs, scheduled landings and unscheduled landings between 0600 and 0700. RSP resisted calls for it to clarify how many ATMs it was now proposing during the night period. As we pointed out in NNF16,[9] in our answer to the ExA's 2WQ for Deadline 6, the Quota Count requested far exceeded one already rejected by Thanet District Council in 2012 as being too damaging to the local environment and to local residents. We then pointed out in NNF17,[10] in our answer to the ExA's 3WQ, that:

12. *"There is no confidence that the Applicant's night noise contours accurately reflect the current operational "plan" for the reopened airport. That plan has changed a number of times over the last few months in response to challenges from other parties. We request the ExA to instruct the Applicant to produce new noise contours that reflect the new fleet mix and the clustering of flights in the evening and night period."*

13. However, RSP did not update its environmental calculations to take account of the substantial changes it had made to its operational plan.

14. In late June, at the very end of the Examination period, RSP then made further changes to its proposed night flight regime and to its NMP. It suggested that it would reduce the annual Quota Count budget to 2,000 QC points, but that any "late arriving" ATMs would then be excluded from counting towards this limit. As we pointed out in NNF19,[11] in our answer to the ExA's 4WQ, just a few days before the end of the Examination period:

15. *"This proposal would allow RSP to operate an unlimited number of "late" arriving night flights. Within that, it would also allow RSP to operate an* ***unlimited number*** *of planes as noisy as QC4 all arriving "late" at night."*

16. Nothing even close to this has been modelled in RSP's ES, neither did anything like this proposal appear as part of the statutory consultation. RSP has moved from "up to 8" flights a night in its ES to the latest proposals of unlimited night time arrivals with no environmental controls at all between 2300 and 0600 and then an intense period of arrivals and departures between 0600 and 0700. There is a huge difference between these two propositions and RSP has produced no environmental assessment to tell the SoS what the current proposal would

8 NNF15 is TR020002-003989-NNF
9 NNF16 is TR020002-004001-NNF
10 NNF17 is TR020002-004116-NNF
11 NNF19 is TR020002-004532-NNF

mean for human health, quality of life, the local tourist economy, local sensitive sites, and the wider local environment.

17. In our submission NNF19[12] we set out evidence drawn from past operations that showed that 22.5% of Manston's cargo ATMs in the three years 2008-2010 inclusive arrived "late", during the night time period. We pointed out that, using the numbers gleaned from Heathrow, Luton and Gatwick of between 1.04 and 2.8 ATMs for every QC point, RSP's new regime would allow it to operate between **5.7 and 15.3 ATMs between 0600 and 0700 every night, as well as to have an unlimited number of "late" arrivals between 2300 and 0600 of any QC level it liked.**

18. **Absolutely nothing** on this scale of night noise and disturbance has ever been assessed by RSP as part of its ES. Nothing like this has ever been put to local residents as part of RSP's statutory consultation. RSP's ES falls very, very short of capturing the likely worst case in terms of the noise disturbance that its proposal will create. Indeed, at the upper end of over 15 ATMs per night between 0600 and 0700 alone, RSP could operate over half of its proposed passenger ATMs in this one hour of the night. This is clearly absurd.

19. In May 2019 RSP introduced a "noise contour area cap" to its NMP without any attendant explanation. Needless to say, this cap was not included in RSP's ES, which was completed in 2018. Shortly before the Examination period ended, in response to questions from the ExA, RSP offered an explanation as to what this "cap" would mean. On 6th July 2019, a couple of days before the end of the Examination period, NNF submitted NNF23[13] in response to RSP's latest iteration of its NMP. We commented that RSP's new "noise area contour map" complied with neither the spirit nor the letter of the CAA's CAP 1129 guidance note on such caps. We then set out what the latest version of RSP's NMP – still a moving target and bearing no resemblance to what was in RSP's ES – would allow in terms of night flights:

- Unlimited "late arrival" ATMs rated up to and including QC16 allowed between 2300 and 0600. Nightly ATM limit constrained only by the overall annual ATM limit for the entire airport. No cost to the QC budget for any of these night flights and their unlimited amount of noise created
- An unlimited number of ATMs, departures and arrivals, between 0600 and 0700, subject only to a QC budget of 2000 QC points for that single hour. ATMs rated up to and including QC2 permitted. For illustration, a 747-400 is rated QC2 on arrival. As many ATMs rated QC0 and QC0.125 as RSP could handle as they would not be subject to any ATM cap nor included in the QC budget

20. Absolutely nothing on this scale of noise nuisance has ever been assessed by RSP as part of its ES.

21. At paragraph 57 of RSP's 5th July 2019 Overall Summary of Case, RSP says:

22. *"The Applicant recognises that the project has engendered passionate responses from local people, both for and against the project, with substantial levels of representations and other submissions from all points of view. A number of the local people making representations both for and against have participated throughout the examination and*

12 TR020002-004532-NNF
13 NNF23 is TR020002-004697-NNF

have dedicated considerable time and effort in making their submissions. The Applicant thanks its supporters for their dedication and notes that ***those objecting to the project have caused significant concessions to be made to address their concerns. One group is called No Night Flights – there are now (nearly) going to be no night flights following the examination****."* [Our emphasis]

23. **This is a breathtakingly inaccurate description of where we actually are.** As the summary above sets out, RSP has moved from "up to 8" flights a night on average in its ES to the current proposal – never assessed for its environmental impact – of:

- unlimited "late" arrivals between 2300-0600 including the very noisiest aircraft in operation
- unlimited arrivals and departures between 0600-0700 of up to QC2, constrained only by an extraordinarily generous annual QC budget of 2000 QC points.

24. For RSP to present this to the ExA and to the SoS as *"(nearly) going to be no night flights*" and as having addressed our concerns is extraordinary. RSP completely ignores the very detailed written objections that we have made to the various iterations of RSP's night flight regime, up to and including the most recent iteration. It ignores our detailed setting out of residents' concerns about the steady worsening of the night flight regime requested by RSP. This assertion by RSP that there will be nearly no night flights and that it has made significant concessions to address the concerns of local people is so far from the truth that we can only describe it as **dishonest**.

Noise contours commissioned from the Civil Aviation Authority by No Night Flights

14th June 2019

NNF18

1. The PINS advice note[14] on using the "Rochdale envelope" says that the Applicant is required to provide *"sufficient information to enable 'the main,' or the 'likely significant' effects on the environment to be assessed"*.

2. The note says that: *"In assessing the likely effects, it is entirely consistent with the objectives of the Directive to adopt a cautious 'worst case' approach."*

3. The note says that: *"such an approach will then feed through into the mitigation measures envisaged ... It is important that these should be adequate to deal with the worst case, in order to optimise the effects of the development on the environment"*.

4. The Applicant has failed to do this. The contours we commissioned from the CAA demonstrate that tens of thousands of people will suffer a level of aircraft noise that is above the levels set out in the World Health Organisation's guidance, and that is above the level at which the UK Government accepts that *"significant community annoyance"* begins. The Applicant has not provided the information to enable the ExA to examine the likely significant effects of its proposal on the environment. Moreover, the Applicant is suggesting mitigation measures for just a few hundred people.

5. It is for the ExA to decide whether it is satisfied, given the nature of the project in question, that it has *"full knowledge"* of the project's likely significant effects on the environment. We say that the Applicant has failed to produce this. Moreover, now that No Night Flights has provided this information, it is clear that the likely significant negative effects of this proposal will far outweigh the small advantages that the Applicant suggests it will deliver.

NO NIGHT FLIGHTS

[14] PINS Advice Note No 9 'Using the Rochdale Envelope' July 2018, Version 3

Why No Night Flights commissioned this work

6. No Night Flights (NNF) was established in 2009 as a response to the problem of aircraft noise from aviation operations at Manston. NNF replaced the Manston Airport Group (MAG). MAG had been in existence since 1999.

7. Most of NNF's members live under the flight path. They include residents from the western edge of Herne Bay in Hampton, to the eastern edge of Ramsgate near the harbour. We also represent residents from the villages under and near the flight paths.

8. NNF came into existence purely because of the noise nuisance created by airport operations at Manston. We know how much noise can be generated by aviation operations on the Manston site. Very early on in the DCO consultation process, it became clear to us that RSP was not presenting the public with an accurate picture of the future noise impact that we would suffer as a result of its planned operation.

9. We have set out in all our consultation submissions, as well as in numerous submissions to the DCO process, the fact that RSP's noise predictions fall far short of our experience of the actual levels of noise produced when the airport was operational. We have submitted evidence about the levels of noise captured by the noise monitors that were in place during that period. We have submitted our "noise nuisance map", that clearly shows the home location of residents who complained about noise levels when the airport was operational. However, the DCO process is designed in such a way that the Applicant can simply ignore our evidence and our challenges. This is what RSP has done.

10. We have also made the point that RSP intends to operate far more ATMs than any of the previous airport operators have handled, and that, logically, it is likely that the noise nuisance generated by RSP's plans would be far greater than the previous noise level that we experienced. To put this into context, we produce below a brief summary of the passenger and cargo Air Transport Movements (ATMs) at Manston during its life as a commercial airport. We have excluded 2014 as the airport was not open for a complete year. We have also excluded General Aviation (GA) ATMs.

Manston/Kent International Airport 1999-2013 **ATMs**

	Lowest annual total	**Highest** annual total	**Average** annual total
Cargo ATMs	**322** in 2006	**1,081** in 2003	**587**
Passenger ATMs	**5** in 2002	**4,454** in 2005	**656**

11. RSP says that it will cap the total number of ATMs for its proposal at 26,468 excluding GA ATMs. RSP's Environmental Statement (ES) suggests a Year 20 total of 17,170 cargo ATMs and 9,298 passenger ATMs. Looking at the table above, it is immediately clear that RSP's operation would be many, many times bigger than that of any previous airport operator on that site. RSP's cargo operation would be more than 29 times the size of the average annual cargo

operation previously at Manston, and almost 16 times the size of Manston's best year ever (2003) for cargo ATMs. RSP's passenger operation would be more than 14 times the size of the average annual passenger operation previously at Manston, and more than twice the size of Manston's best year (2005) ever for passenger ATMs. In both cases, the "best year ever" for the total number of ATMs was many years ago. The table below shows just how much bigger RSP's aviation operation would be than any previous commercial aviation operation that local people have experienced on that site. The full table showing commercial ATMs at Manston from 1999 to 2014 is on page 38.

	ATMs	Multiple of previous operators' **average** year	Multiple of previous operators' **best** year
RSP's suggested **cargo** ATM cap	**17,170**	**29.3**	**15.9**
RSP's suggested **passenger** ATM cap	**9,298**	**14.2**	**2.1**

12. It is not just the comparison with Year 20 that should be noted. RSP "forecasts" a steep growth in ATMs right from the day that its new airport would open. This means that a population that would not have experienced aviation noise at all for about a decade[15] will be exposed to levels of noise outstripping those of previous operations on the site very early on in RSP's growth plans.

13. It is clear that RSP plans an operation that would be many multiples of the size of the previous operations on that site. Despite this, RSP's ES suggests that the noise impact of its operations would be far less than the noise impact we previously experienced. **This has no credibility**.

14. RSP has ignored all our submissions about recorded reality and has refused to deal with the evidence we have produced about past noise impact.

15. The ExA has been entirely reliant on RSP's modelling of noise contours. Those contours were produced by someone with no previous experience of doing this. The ExA said in January that it did not intend to commission independent expert evidence about noise.

16. ICCAN made it clear that it is too young an organisation to bring any expertise to the table to assist the ExA.

17. Given the distinct gap between our actual experience of the noise created by airport operations and RSP's predictions about the future noise impact that it says its much, much bigger airport operation would generate, we felt we had no option but to commission independent expert input ourselves.

18. We commissioned the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority to do this work. The ERCD's role is to provide technical advice to the Department for Transport (DfT) and other Government departments. The ERCD also provides

[15] Assuming that a DCO is awarded and that RSP takes possession at the earliest in 2021-2022, and then taking into account time required for redevelopment and the CAA licence and airspace change process

technical advice, including the provision of noise exposure contours, to airport operators, local authorities and others on a commercial basis. We chose the CAA because:

- It is independent.
- It is a recognised centre of excellence in this field
- It is using the latest version of the ANCON noise model, v.2.4
- It could do the work by using the same methodology and the same technology that it will use to assess any airspace change proposal that RSP might later submit should a DCO be awarded

19. As part of the Stansted Airport planning application UTT/18/0460/FUL, which Uttlesford District Council resolved to grant in November 2018, noise contours were commissioned. The Uttlesford DC planning committee report dated 30 November 2018 notes in paragraph 9.175 that the ERCD was asked to do this work:

20. *"For the purposes of the ES aircraft noise modelling has been produced by the CAA's Environmental Research and Consultancy Department (ERCD), using their Aircraft Noise Contour (ANCON) model (current version 2.3). The ERCD is a specialist body within the CAA with national and international expertise on the assessment of aircraft noise. They produce noise contours for the designated London airports, and they generated the noise contours used by the Airports Commission.* ***Their work is robust, authoritative and also impartial****."* [our emphasis]

21. We set out below what we asked the CAA to produce; why we asked the CAA to produce it; and what the results of the CAA's work demonstrate. These are the noise contours that RSP should have produced for the public as part of the consultation process and then updated for the ExA.

The Brief we gave the CAA

Contours

22. Firstly, we asked the CAA to produce Lmax footprints for the Boeing 747-400.[16] The 747-400 is the workhorse of the global freighter fleet. We asked the CAA to produce its footprint for each arrival and departure route.

23. Secondly, we asked the CAA to model contours for:

- Day LAeq,16hr (0700-2300 local time), plotted from 51 to 72 dB(A) in 3 dB steps; and
- Night LAeq,8hr (2300-0700 local time), plotted from 45 to 72 dB(A) in 3 dB steps.

24. We also asked for four runway modal splits:

- 100% west
- 100% east
- 70% west/30% east
- 30% west/70% east.

Fleet mix

25. We gave the CAA a fleet mix to use. That fleet mix is set out in the CAA's report (Appendix Two, pages 42-43). It draws to a very significant extent on the fleet mix set out by RSP in its ES last year. However, despite identifying a number of changes to the fleet mix and to operations since producing the ES last year, RSP has not updated its original fleet mix. This is unacceptable.

26. In the ISHs in March and in June, Nick Hilton of Wood repeatedly asserted that RSP's fleet mix is not a 100% prophecy and that it is not a guarantee. He repeatedly said that it was, however, a robust enough estimate of future operations to absorb any variation of parameters in the future. These two assertions are contradictory. The ExA cannot assess the likely significant impact of operations if the fleet mix that underpins these operations is not updated in line with changes in the Applicant's "forecasts".

27. In the ISHs in March, RSP said that its plan now includes "new" integrators. RSP said that the implication of this for the fleet mix in the ES is that the ATR-72 craft should be deleted. RSP said that these craft would be replaced by B737s and B767s. We asked the CAA to make this adjustment. We chose the B737-800 and the B767-300 to replace the ATR-72s having looked at the fleet mix of Amazon and Alibaba. Had RSP updated its fleet mix we would have been able to use that.

28. We asked the CAA to include in the fleet mix the 38,000 General Aviation ATMs for which RSP has asked permission. Again, there is little information available as to what craft would be flown. RSP has mentioned "two kinds of Piper" but has said no more. We knew that TG Aviation (the training school that was based at Manston when the airport was operational) uses C152 and Piper Warriors. We also knew that, in the past, Manston had welcomed executive jets to the airport. We asked the CAA to divide the 38,000 ATMs evenly across the four categories set out by the CAA:

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16 Boeing 747-400, GE CF6 engines (ANCON type B744G)

- SP = single propeller e.g. C152
- STP = small twin-piston e.g. C310
- STT = small twin-turboprop e.g. F406
- EXE3 = executive jet (Chapter 3) e.g. C510.

An "average" day

29. Beyond the statement that RSP has modelled an average winter's day rather than an average summer's day, RSP has not set out clearly how its ATMs might be allocated across a year or across a day. As we had no further information to go on, we asked the CAA simply to take the RSP fleet mix, substitute the ATR-72s as explained above, and then divide the annual ATM total by 365. This means that our contours do not capture the worst case, as we were not able to model what the worst day might look like.

30. RSP has never produced an outline timetable for its operations, so we were unable to produce any noise contours using Lden. (Lden is the average sound level over a 24 hour period, with a penalty of 5 dB added for the evening hours of 19:00 to 22:00, and a penalty of 10 dB added for the night time hours of 22:00 to 07:00.) RSP accepts that there will be a clustering of ATMs in the evening. Our contours do not capture the recognised increased annoyance caused by aircraft noise in the evening and so, again, do not represent the likely worst case.

Night operations

31. We asked the CAA to produce night noise contours. RSP has never produced a fleet mix for its night flight operations, whether during the consultations or during the examination itself. All RSP has said is that it envisages around seven or eight night time flights on average a night, and that it wishes to allow dedicated cargo planes that had been scheduled for the day period to arrive late, during the night period. RSP also wants the freedom to allow passenger planes to depart from 0600.

32. RSP has asked for a Quota Count budget for the hours 2300 to 0700 of 3,028 QC points. It was perfectly clear in the ISH on Environmental Issues on 5th June 2019 that RSP had no idea what its 3,028 QC points would translate into in terms of a number of ATMs and the type of aircraft. Indeed, RSP seemed doubtful under questioning as to whether it would be possible to "retrofit" ATMs to its QC budget. We find this astonishing.

33. As an aside, if RSP does not know what its night operations would look like, it is evident that RSP cannot make a business case to support the need for those night flights.

34. Given this limited information, we developed an average night fleet mix that would use a budget of less than 8.3 QC points per night (3,028 ÷ 365); that would number fewer than seven or eight ATMs per night; and that would include dedicated cargo planes arriving and passenger planes departing. We used aircraft already in RSP's fleet mix for these ATMs. Our night fleet mix is set out in the CAA's report on page 43.

Flight paths

35. RSP has produced indicative flight paths only. We therefore asked the CAA to use the flight paths that it had approved when the airport first became a commercial airport – the "Wiggins routes", see pages 50-51. These routes capture the operator's various methods of minimising

overflying of centres of population. The routes were crystallised with the CAA's approval in the airport's AIP in September 2007 and updated in 2010. The AIPs reflect the Wiggins routes.

36. In 2009 NNF had a number of conversations with the CAA about the approved routes as, at that time, we were experiencing some off-route flying. The CAA confirmed that the routes that we had from the Wiggins days and the AIP routes were the approved routes. Pilots coming in to land, particularly in a fully laden 747-400, want to establish themselves on the centreline about 10 miles away from the airport. There is limited room for manoeuvre in a fully loaded 747 on a 3 degree Continuous Descent Approach. This means that the arrivals path is over Herne Bay and Ramsgate for the bigger, noisier planes. The departure routes were created to minimise the overflying of Herne Bay and Ramsgate.

37. We asked the CAA to use the routes that it had previously approved and that we knew had previously been flown. In practical terms, whatever routes the CAA finally approves, should the DCO be awarded, will be driven by safety and by avoiding population centres where possible. Given the geography, the flightpaths will always be pretty much the same as they were in the past.

The Rationale for our Brief to the CAA

Lmax footprints for the Boeing 747-400

38. We asked the CAA to model these footprints because they are the best reflection of the noise that we actually hear. The contour maps on pages 53-57 are maps of the noise harm that will be caused by a single 747-400G as it follows each of the flight paths.

39. People do not hear the average of a series of separate noise events. Noise harm is experienced "in the moment" for the period that it takes a plane to fly over a location. If 100 aircraft, each creating noise levels of 90dB Lmax, fly over someone's house during a day, that person will hear 100 individual 90dB noise events. He/she will not hear an average of those 100 flights spread evenly over a sixteen hour period. LAeq is *least misleading* when used for airports where the noise is almost constant because planes are flying overhead all the time. This is not the case at Manston where RSP says that it will cap cargo and passenger ATMs at 26,468 per annum, which is around 72 to 73 ATMs per twenty four hour period.[17]

40. As far as we can make out from RSP, a maximum of seven of eight of those 72 to 73 ATMs would operate during the night period (RSP steadfastly avoids having an ATM cap for its night period, so, in reality, none of us knows how many night ATMs there will be). That leaves around 65 cargo and passenger ATMs on average per sixteen hour period – an average of four ATMs an hour. If the noise of 65 90dB flights is averaged out, **the resulting noise footprint will be artificially small**. It will suggest that the noise created is almost imperceptible above the existing ambient noise level. However, the noise of four 90dB aircraft an hour going overhead all day, every day, can be very intrusive. A 90dB overflight, we know from experience, is enough to prevent conversation and mask the sound from a television. At night it will wake people.

41. The suggested cargo and passenger ATM cap for RSP's new airport is a few percent of the total ATMs for an airport like Heathrow. For an operation like the one RSP plans for Manston, with an average of four ATMs an hour, an average measure of noise across a sixteen hour period will do a superb job of masking the true noise impact, and must be rejected. The single noise footprints for an aircraft are the closest-to-experience representations of the noise impact that we can currently produce. They are to be preferred.

Day and Night LAeq in 3dB steps

42. We asked the CAA to model these contours because LAeq is the most widely-used metric when airports are monitoring the noise created by current operations or when they are seeking permission to expand, and also because RSP has chosen to focus on these contours. As we explain above, we know that **they are not an accurate reflection of the noise nuisance that individuals under the flight path or near the airport will suffer**. Additionally, in our assessment, the LAeq contours are unhelpful as a metric to use to inform local residents as to the level of noise that they might experience when a new airport is opened. However, we wanted to be able to compare the LAeq contours produced by RSP using its original fleet mix in the ES with LAeq contours generated by the CAA using a fleet mix that is a better match for the mix that RSP now says is most likely to be using the airport.

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17 We are ignoring the additional 38,000 General Aviation ATMs for these purposes

43. We asked the CAA to show the contours in increments of 3dB. It is beyond us why RSP has chosen not to show this level of detail in its ES.

44. In recognition of the WHO's guidance that people should not be subjected to aircraft noise above 45dB Lden, we wanted to ask the CAA to produce contours for Lden. RSP has said in the ISHs in March that there will be busy periods in an average day and that there will probably be a clustering of ATMs in the evening. RSP also said in answer to ExA 2WQ Ns 2.16: *"… as night ATMs will not be permitted, this will cause a higher than average demand during the hours immediately after opening in the morning and again in the hours approaching closure in the evening."* This would have a marked effect on the Lden contours. However, RSP has provided no useful information as to how ATMs might be spread across the day and evening so we were unable to model contours using this slightly more nuanced metric. Again, this means that our contours do not model the likely worst case.

The runway modal splits

45. What RSP has set before the ExA is a suite of noise contours, the vast majority of which show the noise generated by its annual ATMs, spread out almost entirely evenly across the year, then spread out evenly over an average day, and then averaged out between easterly and westerly operations. This is a long way from being a fair representation of reality.

46. To a great extent, it is the wind that determines whether operations are easterly or westerly, with the airport operator articulating a preference for westerly operations as and when it is safe to do so. In reality, on an average day, the wind does not blow 70% of the time in one direction and 30% in the other. Operations are never simultaneously east and west for an eight or sixteen hour period as RSP's contours suggest. The 70/30 split is only apparent as a rough average when viewed across an entire year, but local people do not experience 365 days a year with the wind being 70% from the east and 30% from the west every day.

47. In reality, the wind tends to blow in a certain direction for days at a time. In reality, therefore, residents will most often experience a full day's operations being 100% to the west or 100% to the east, rather than being split neatly 70/30 for each of the 365 days of the year. TDC's consultants, Ricardo, identified this flaw in RSP's modelling in Ricardo's submission to D6.

48. Given our past experience of entire days' operations being to the west or the east, we thought it imperative that we capture the noise impact of 100% westerly and 100% easterly operations.

The Results

Lmax footprints for the Boeing 747-400

MAP 1 – FULL IMAGE ON P53

One B747-400G arriving from the West.

80dB: 750 people live inside this contour

75dB: 5,400 people live inside this contour

70dB: 26,950 people live inside this contour [18]

49. The 70dB contour extends right over the town of Herne Bay, and over Hampton and Studd Hill in the west. The 80dB contour extends into St Nicholas at Wade. 80dB is typically described as a noise equivalent to an alarm clock going off close to a sleeping person.

50. If this DCO is awarded, the numbers of people who will experience the noise levels shown in Map 1 will increase substantially. The Canterbury Local Plan provides for over 4,000 new homes in Herne Bay. Four new housing estates, totalling towards 3,000 homes, will be at the eastern end of town, the part of the town most affected by aviation noise from Manston. Some of those estates are already at the planning permission stage. At a conservative estimate, an additional 6,000 to 9,000 people will be in the 75dB contour when these new homes are built.

MAP 2 – FULL IMAGE ON P54

One B747-400G departing to the East.

80dB: 22,050 people live inside this contour

75dB: 33,100 people live inside this contour

70dB: 42,600 people live inside this contour [19]

51. The 80dB contour extends right over Ramsgate and beyond the harbour arm.

18 CAA table 18, see page 40
19 CAA table 16, see page 39

MAP 3 – FULL IMAGE ON P55

One B747-400 arriving from the East.

80dB: 15,100 people live inside this contour

75dB: 20,550 people live inside this contour

70dB: 26,800 people live inside this contour [20]

52. The 80dB contour extends from the runway, right over the town and over the harbour. The 70dB contour covers almost the entire town.

MAP 4 – FULL IMAGE ON P56

One B747-400 departing East then turning North.

80dB: 650 people live inside this contour

75dB: 2,100 people live inside this contour

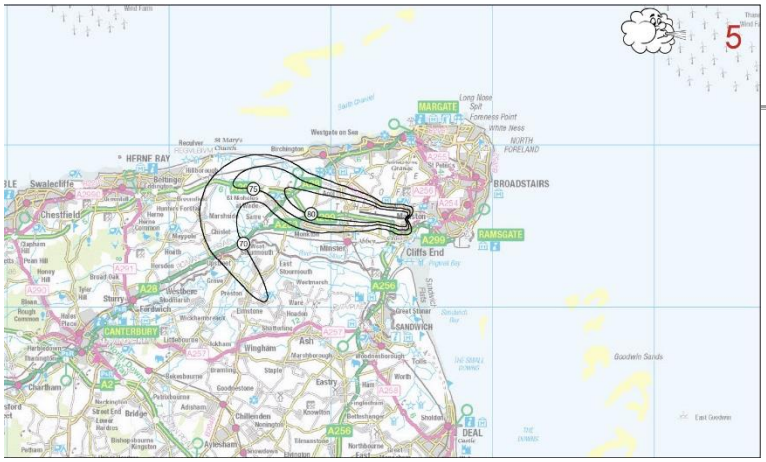
70dB: 6,100 people live inside this contour [21]

53. There are two departure paths available when a plane departs to the west over Herne Bay. Route 1 means a turn to the north over the Wantsum Channel.

20 CAA table 17, see page 40

21 CAA table 14, see page 39

MAP 5 – FULL IMAGE ON P57



One B747-400 departing East then turning South.

80dB: 650 people live inside this contour

75dB: 2,250 people live inside this contour

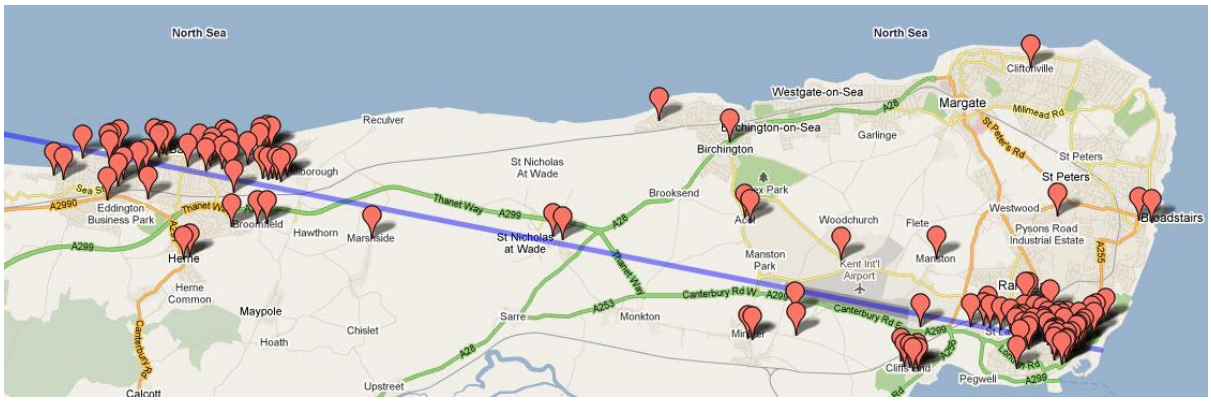
70dB: 5,650 people live inside this contour [22]

54. The second departure path for a plane departing to the west over Herne Bay is Route 2. This means a turn to the south over St Nicholas at Wade.

Comparisons

55. It is hard to compare the CAA's noise contours with those provided by RSP. As far as we can tell (it is needlessly difficult to navigate RSP's thousands of pages of unhelpfully referenced submissions, so we may have missed something), RSP has failed to model the noise impact generated by a single 747-400 flight on each of the five available routes. The nearest comparators that we can find are RSP's LASmax night contours for Year 20.[23]

56. A comparison of RSP's Figure 12.9 (page 72) with NNF's Maps 1 and 2 reveals a significant noise impact that RSP has simply not shown. The 70dB contours extend over the entire town of Herne Bay in the NNF contours. RSP has only modelled 80dB LASmax and so Herne Bay does not even appear on its maps. This suggests that Herne Bay will be entirely unaffected by aircraft noise – an assertion often made by the RSP team at various consultation events. However, Herne Bay residents know from experience that a single 747-400 creates a significant noise footprint. A 747-400 overflying Herne Bay in the daytime is loud enough to make people look up as it goes over. At night, the impact is greater. The real impact on Herne Bay residents is entirely missing from RSP's assessment of noise impact.



57. We have submitted many times before NNF's map of noise complaints to illustrate the homes of people who felt so strongly about the aircraft noise generated by Manston that they

22 CAA table 15, see page 39
23 ES Figure 12.9

complained. We submitted it in our response to the July 2017 and the February 2018 statutory consultations. We submitted it in our critiques of Dr Dixon's "Azimuth – volume I" report in February 2018, December 2018 and February 2019. We submitted it in NNF06 and NNF09 in February 2019 in response to D3. It has been ignored by RSP on every occasion. We submit it again above. It can immediately be seen how our noise map, identifying real people who made actual complaints about real aircraft noise, matches the CAA noise contours for a 747-400.

58. Clearly, footprints like the ones we've shown are the best representation of the actual noise (and therefore the actual harm) experienced by the people who live, work and study within earshot of the flight paths.

59. Averaging the noise contours gives the appearance of averaging the harm, and the technique that RSP is using to present the effect of its proposals downplays the actual harm to the extent that it appears not to exist. **Averaging noise destroys evidence of harm, and must not be relied on by the ExA when assessing the potential harmful effects of the proposal**.

Contours for operations 100% to the east or west – a real "average" day

MAP 6 – FULL IMAGE ON P58

Runway operations during **Easterlies**

63dB: 700 people live inside this contour

54dB: 29,100 people live inside this contour

51dB: 37,950 people live inside this contour [24]

60. These contours are average contours, and a number of things are immediately apparent. There is **no 75dB or 80dB contour** – the averaging of all the noise events means that they simply cease to exist. Those **actual** noise events of 75dB, 80dB and over (and 100dB was frequently recorded by the noise monitor at Clarendon School) have been "averaged" out of existence. The average contours are clearly much smaller. None of them extend into Herne Bay, although we know that **every** 747-400 arrival over Herne Bay is heard the length of the town, as are smaller passenger planes like the Fokker 70 and Fokker 100 previously flown by KLM and EUJet.

61. We set out in NNF16, in answer to ExA 2WQ Ns 2.13, the fact that the Government recognises that the onset of significant community annoyance now begins at 54 dB LAeq, 16hr. That's 29,100 people when operations are to the east. This population is one that would be newly subjected to aviation noise. This means that this population will be more likely to experience this change in its ambient noise environment as a significant negative change in the quality of

[24] CAA table 7, see page 35

life. It is uncontroversial that the onset of significant community annoyance for this population will therefore begin at a level below 54 dB LAeq, 16hr.

62. As we set out in NNF09, the socio-economic facts are that Thanet has a population that is likely to be **more** vulnerable to the damaging effects of aviation noise than the average population as a result of the local age and health profile.

63. In NNF14 at paras 11-13, NNF quoted from the WHO's 2018 report:

64. *"For average noise exposure, the GDG [Guideline Development Group] strongly recommends reducing noise levels produced by aircraft below 45 dB Lden, as aircraft noise above this level is associated with adverse health effects."* [25]

65. The best comparator that we can find for our Map 6 is RSP's Figure 12.6 (see page 70) – daytime LAeq 16 hour, Year 20. Of course, RSP has averaged operations to the east with operations to the west. This means that the noise impact is considerably understated in RSP's contours. RSP's 50dB contour over Ramsgate falls slightly outside the CAA's 57dB LAeq contour and between that contour and the CAA's 54dB LAeq contour. The CAA's contour map shows that between 29,100 and 37,950 people[26] will experience average noise levels over 54 dB LAeq. That is the level of the onset of significant community annoyance. RSP is seeking to downplay this. RSP is not proposing to offer any mitigation.

66. In TR020002-004180, the ExA's list of Action Points arising from the June hearings, the ExA asks at point 7 about the proximity of the 57dB contour to Albion Place Gardens.

67. The additional KML files that the CAA provided allow us more flexibility in viewing the contours, for example being able to "zoom in". Below is the CAA Map 6, viewed through Google Earth. The 57dB LAeq contour is highlighted in pink for clarity. Below that, at paragraph 69, is a closer look at the eastern end of the 57dB contour.

68. 

25 "Environmental Noise Guidelines for the European Region" - previously submitted by NNF for D3

26 CAA table 7, see page 35

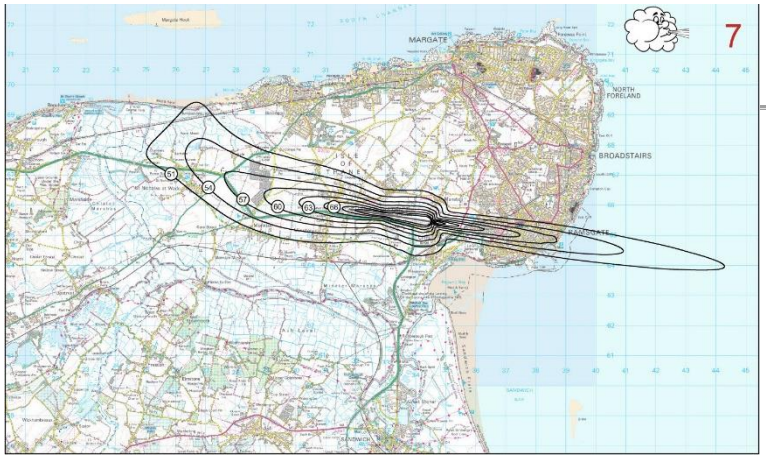
69. 

70. The Google Earth images overlaid with the CAA contours show that Albion Place Gardens are entirely within the 57dB Leq contour for 100% operations to the East, as is much of central Ramsgate's harbour frontage, from the Old Sailors' Church by Nelson Crescent to the Bandstand at Wellington Crescent.

71. The other thing that is immediately clear when looking at the difference between RSP's contours and the CAA's contours is the stark difference that a marginal tweak to the fleet mix produces. The NNF fleet mix used by the CAA is a closer representation of the fleet mix that RSP now says will be using its proposed airport. However, if another 10% or 20% of the aircraft in the mix were replaced with noisier aircraft, the average noise contours would expand. There is no confidence that the fleet mix that NNF gave to the CAA represents the likely worst case. The lack of detail from RSP, the lack of credible forecasting, the rejigging of forecasts, and the lack of an operational plan from the Applicant mean that residents and the ExA are prevented from analysing the likely worst case scenario with regard to noise.

72. RSP also produced a 50dB LAeq contour at p383 of the appendices to its response to the ExA's 3WQ – see page 73. That 50dB LAeq contour is similar to the CAA 51dB LAeq contour to the west and markedly understates the noise impact to the east. What it fails to set out is the fact that some of the schools that RSP has marked in Ramsgate are within the 57dB LAeq contour.

MAP 7 – FULL IMAGE ON P59



Runway operations during **Westerlies**

63dB: 300 people live inside this contour

54dB: 14,700 people live inside this contour

51dB: 21,800 people live inside this contour [27]

73. 14,700 people will suffer noise levels at or above the level of significant community annoyance when operations are towards the west. Again, we cannot find this clearly set out anywhere in RSP's documentation.

74. RSP produced a 50dB LAeq 100% west contour at page 382 of the appendices to its response to the ExA's 3WQ. It shows the primary school at St Nicholas at Wade as being outside the 50dB LAeq contour. The CAA shows this school as being between the 51dB LAeq and the 54dB LAeq contours.

Contours for operations 70% west and 30% east

MAP 8 – FULL IMAGE ON P60

Runway operations during **70W:30E**

54dB: 19,400 people live inside this contour [28]

75. We also asked the CAA to produce contours for runway operations averaged out so that 70% are west and 30% are east.

76. Again, even with the caveat that these contours are artificial, and that this *average of an average* understates the impact, the noise impact is still significant. 19,400 people will suffer a noise level of 54dB LAeq and above. That's 19,400 people who, even on RSP's average of an average, will suffer significant community annoyance.

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27 CAA table 6, see page 35

28 CAA table 8, see page 35

77. Again, the contours in Map 8 are larger than the contours in RSP's Figure 12.6 from its ES (see page 70). In Ramsgate, RSP's 50dB LAeq contour falls partly inside the CAA's 51dB LAeq contour and then runs with the CAA's 54dB LAeq contour to the north.

Contours for operations 30% west and 70% east

MAP 9 – FULL IMAGE ON P61

Runway operations during **30W:70E**

54dB: 25,250 people live inside this contour [29]

78. We asked the CAA to produce contours for runway operations averaged out so that 30% are west and 70% are east. As we say above, we produced these contours simply so that we would have a comparator for the contours produced by RSP. It must be remembered that **these contours do not in any way reflect the reality of operations**. Operations are never simultaneously east and west for a sixteen hour period as RSP's contours suggest. The contours are generated by taking the "forecast" fleet mix and ATM total for Year 20, then dividing those ATMs by 365 to arrive at an "average" ATM total for one day. That day's average ATMs is then split between easterly and westerly operations 30/70 or 70/30 on the assumption that traffic might be split in this way over the course of a full year. This 30/70 split does not happen in practice. The wind does not blow neatly 30% in one direction then 70% in another to allow this split for every 16 hour period. This 30/70 split does not show an "average" day.

79. Even with the caveat that these contours are artificial, and that this average of an average understates the impact of the aircraft noise, the noise impact is still significant. 25,250 people[30] will suffer a noise level of 54dB LAeq and above. That's 25,250 people who, even using RSP's approach of taking an average of an average, will suffer significant community annoyance.

80. It is instructive to look at the noise footprints produced by the CAA for a single 747-400 (Maps 1 to 5) and then compare those footprints with the CAA's average contours for operations 100% to the east or west (Maps 6 and 7). The contours shrink as quieter aircraft are added into the calculation and the noise impact of four aircraft an hour is averaged out over a full 16 hour period. If we then compare the 100% east or west contours with the 70/30 splits, we see that the contours shrink again. Finally, if we look at RSP's LAeq contours (on pages 70-71), we can see the diminishing effect of taking a 70/30 modal split and averaging it with a 30/70 modal split. The full extent of the noise harm presented by every 747-400 appears to have vanished. Even the extent of the noise harm caused by a 100% east or west operation has

29 CAA table 9, see page 36
30 CAA table 9, see page 36

shrunk significantly. We conclude that this is why RSP chooses to present so few contours and to present contours that represent average noise that is then averaged again.

81. RSP's Noise Mitigation costs will be driven by the number of people who fall within whichever noise contour that the ExA decides is appropriate. As an example to illustrate what this could mean, we note that the planning approval given to Stansted by Uttlesford DC includes a requirement to extend the sound insulation grant scheme to include households in the 57 dB LAeq,16h noise contour. This is set out in the relevant draft s106 agreement (see schedule 3: Part 1).[31] The CAA contours for RSP's proposals for operations 100% to the east show that 8,300 households fall within the 57 dB Leq contour and would be entitled to a sound insulation grant under the Stansted scheme. That's £41.5m to add to the insulation scheme costs for homes within the higher contours of 60dB LAeq and 63dB LAeq. The smaller the relevant contour, the smaller RSP knows its noise mitigation bill will be.

Night contours

82. We asked the CAA to produce four sets of night contours:

- 100% to the east
- 100% to the west
- 30% to the west and 70% to the east
- 70% to the west and 30% to the east.

83. NNF set out in detail the WHO's 2018 guidance on aviation noise in NNF09. In its 2018 report,[32] the WHO said that:

84. *"11% of participants were highly sleep-disturbed at a noise level of 40 dB Lnight."*

85. At 55dB Lnight, that figure rose to 25.5%.[33] The WHO went on:

86. *"There is additional uncertainty when characterizing exposure using the acoustical description of aircraft noise by means of Lden or Lnight.* ***Use of these average noise indicators may limit the ability to observe associations between exposure to aircraft noise and some health outcomes (such as awakening reactions); as such, noise indicators based on the number of events (such as the frequency distribution of LAmax) may be better suited.*** *However, such indicators are not widely used.* ***The GDG acknowledged that the guideline recommendation for Lnight may not be fully protective of health****, as it implies that around 11% (95% CI: 4.72–17.81) of the population may be characterized as highly sleep-disturbed at the recommended Lnight level. This is higher than the 3% absolute risk considered for setting the guideline level."* [34] *[our emphasis]*

87. RSP has chosen to ignore the latest WHO guidance. The ExA should not.

88. As we have said above, we were unable to provide the CAA with the data that it would need to calculate Lden as RSP has not produced any information about the likely timing of flights. In our assessment, given the relatively small number of night ATMs that would be spread across an average night, the LAmax contours would be the most accurate reflection of the

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31 Document submitted separately with this submission.
32 World Health Organisation - Environmental Noise Guidelines for the European Region 2018
33 ibid – table 32
34 ibid – section 3.3.2.3

level of noise that each night ATM will cause. Averaging the noise generated by seven or eight flights across an eight hour period is meaningless.[35]

89. Nevertheless, in order to be able to compare the CAA's work with RSP's, we asked the CAA to provide night contours based on LAeq 8 hr.

MAP 10 – FULL IMAGE ON P62

Runway operations during **Easterlies** at night

45dB: 28,750 people live inside this contour [36]

3,163 people highly sleep-disturbed

90. Map 10 shows the average noise nuisance created by six night ATMs averaged across an eight hour period when operations are to the east. 28,750 people currently live within the 45dB LAeq contour, so that's 28,750 people who would experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people are predicted to be highly sleep-disturbed. That's at least 3,163 people. This will have negative implications for their health. As we have explained above, the likely number of people adversely affected will soon be much higher given the plan for four new housing estates in eastern Herne Bay. A conservative estimate of an additional 6,000 to 9,000 people will be in the 45dB contour.

MAP 11 – FULL IMAGE ON P63

Runway operations during **Westerlies** at night

45dB: 22,450 people live inside this contour [37]

2,470 people highly sleep-disturbed

35 We are ignoring here the freedom that RSP seeks to carve out via its Noise Mitigation Plan to have a countless number of night flights using aircraft rated QC0.125 and QC0. The Government recognises that these aircraft create enough noise to cause disturbance to people. RSP has ignored this

36 CAA table 11, see page 37

37 CAA table 10, see page 37

91. Map 11 shows the average noise nuisance created by six night ATMs averaged across an eight hour period when operations are to the west. 22,450 people live within the 45dB LAeq contour, so that's 22,450 people who would experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed. That's at least 2,470 people.

92. RSP's night LAeq contours are in the ES at Figure 12.7 (see page 71). It is hard to know how RSP calculated these contours given the confusion amongst the RSP team when asked at the ISH on Environmental Issues in June what underpinned its night operation assumptions and what fleet mix and number of ATMs led to RSP's desire for a 3,028 annual QC budget. It can be seen from RSP's Figure 12.7 that RSP has significantly understated the potential noise impact of the night flights that it could operate whilst staying within its desired QC budget and whilst following its statements about welcoming late arriving cargo planes at night and allowing passenger planes to take off from 0600.

93. RSP has shown only the 40dB and the 55dB night contours. Looking at Map 10 above, RSP's 40dB contour is smaller than the CAA's 45dB contour in the west and is closer to the CAA's 48dB contour. Looking at Map 11 above, RSP's 40dB contour is similar to the CAA's 45dB contour in the east. RSP's Figure 12.7 disguises the fact that the 57dB Lnight contour stretches well into Ramsgate and that much of the town would experience average night noise of 51dB.

94. As we have said above, we are modelling average noise here. That's the average noise of six flights, each taking, say, a minute in terms of the sound that any one person hears. Those six minutes of sound are then averaged over an eight hour period, suggesting that the actual noise experienced is at a very low level. This is highly misleading. A better indicator of the noise suffered when there are relatively few ATMs in a period is LAmax – the actual sound generated by each overflight. Our Maps 1 to 5 are the most useful when considering the impact of night noise on the local population created by one kind of aircraft.

MAP 12 – FULL IMAGE ON P64

Runway operations during **70E:30W** at night

45dB Lnight: 23,300 people live inside this contour [38]

[38] CAA table 12, see page 38

MAP 13 – FULL IMAGE ON P65

Runway operations during **30W:70E** at night

45dB Lnight: 23,600 people live inside this contour [39]

95. For completeness, we have included LAeq contours for night noise for the "average of an average" calculation of 30% west and 70% east (Map 13), and vice versa (Map 12). The same caveats apply to these as we set out above. Even with this repeated coarsening of the data by averaging, it can be seen that the CAA's contours here stretch further than the contours shown in RSP's Figure 12.7 (see page 71). 23,600 people[40] will experience noise levels of 45dB Lnight and above for the imaginary 30% west and 70% east runway split, and 23,300 people[41] will experience noise levels of 45dB Lnight and above for the imaginary 70% west and 30% east runway split. This means that tens of thousands of people will suffer aircraft noise at night well above the maximum level recommended by the WHO.

39 CAA table 13, see page 38
40 CAA table 13, see page 38
41 CAA table 12, see page 38

Additional Comments

The impact of changes to the fleet mix – RSP is not showing the likely worst case

96. The CAA's work depends entirely on the brief that NNF gave the CAA. NNF's brief depends on the fleet mix that RSP published in its ES and on the oral updates to that fleet mix given by Mr Cain and his RSP colleagues at the ISHs in March and June. The fleet mix in RSP's ES depends on the "forecasts" produced by Dr Dixon. Dr Dixon admitted in March that she has no experience of forecasting air freight in the south east of the UK. It is hard to understand why Mr Freudmann introduced Dr Dixon to his RSP colleagues as the consultant to undertake this work given her lack of experience.

97. NNF recognises that the fleet mix produced by RSP is of questionable quality in terms of its predictive power. However, it is the only fleet mix that RSP has produced and so we felt that we were obliged to use it. Our removal of the ATR-72 craft reflects RSP's many statements that this is a sensible thing to do, in recognition of the fact that RSP has changed its expected fleet mix since publishing its ES.

98. RSP compounded the unreliability of the "forecasts" that generated its fleet mix by then asking a consultant who had not previously used the relevant software to take that fleet mix and model the noise contours that it would generate. This is another odd decision. It is also surprising that RSP chose not to use the software used by the CAA, or indeed, the CAA itself.

99. The difference between the CAA 70/30 contours and the RSP 70/30 contours demonstrates the impact on the noise environment that occurs when relatively small changes are made to the fleet mix. The fact that this difference is visible for an annual ATM average that has then been split 70/30 and 30/70, and then averaged across those two modal splits, shows what impact a small change in the fleet mix can make even when the data is degraded through several iterations of averaging. It is all the more important then, that the ExA should have available to it a fleet mix that truly represents the likely worst case. The fleet mix in RSP's ES is clearly not that fleet mix.

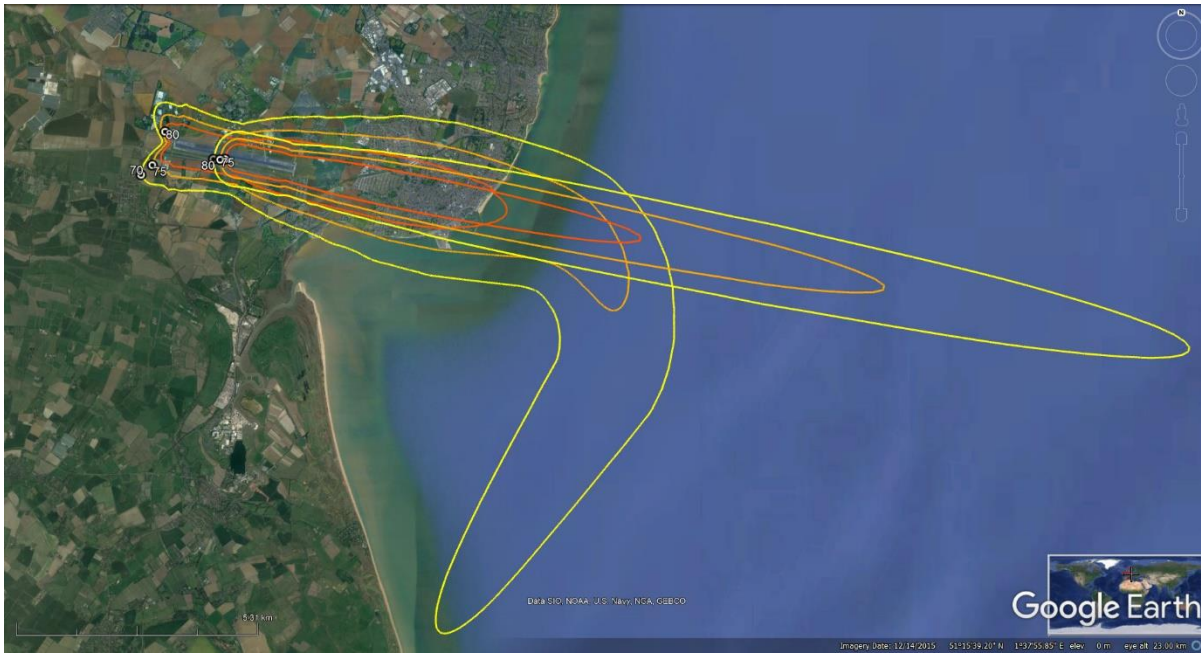
RSP does not show the likely worst case impact on Ramsgate

100. The town of Ramsgate will be particularly disadvantaged by RSP's proposal. The prevailing winds mean that around 70% of arrivals will come in over Ramsgate. Around 30% of departures will also be over Ramsgate. Most of Ramsgate lies within the 80dB LAmax footprint for the 747-400 arrival and for its departure. RSP's contours mask this. NNF and a number of individual residents have been trying to get across to RSP for years the fact that most people in Ramsgate will experience 80dB LAmax for every 747-400 arrival and every 747-400 departure to the East, whether day or night.

101. This can be clearly shown using the KML files from the CAA, as in the images below. For clarity, the 70dB, 75dB, and 80dB contours have been coloured yellow, orange and red respectively. The arrival and departure flight paths (CAA Maps 3 & 2) are shown separately and together, and the fourth image is a close-up of the area of Ramsgate enclosed by the two 80dB contours (which are shown in splendid isolation).

Departure to the East

Arrival from the East



The two footprints overlaid

Zoomed on central Ramsgate, showing only the 80dB contour

Night flights

102. RSP has yet to set out the forecast fleet mix and ATM numbers for its proposed night operations. Despite this, RSP has asked for a QC budget of 3,028. NNF set out in NNF09[42] for D3 the fact that a lower QC budget (1,995 QC points) was determined in 2012 to represent more harm than good to the community. We also highlighted in our response to ExA 2WQ Ns. 2.4 the fact that RSP is seeking a disproportionately higher QC budget than Heathrow, if the Quota Count for each airport is compared to its annual ATM cap. RSP has not set out what, if any, benefit might accrue to the community as a result of night operations and this oversized QC budget. Given this, there is nothing to set against the obvious downsides of night operations as set out by NNF and as shown clearly in the CAA contours. There should therefore be a complete ban on night operations, scheduled, timetabled, late, unplanned or otherwise.

103. NNF set out in NNF17 in our answer to ExA 3WQ Ns 3.1 the fact in 2011 24.8% to 50% of Manston's annual 1,472 ATMs that year were "late" arrivals. The ExA has asked whether the QC budget should apply only to the hour from 0600 to 0700. The answer is an emphatic "**no**". A QC budget is for the entire night period. If RSP is to be allowed to operate night flights (and we can see nothing that approaches a case that, on balance, says that it is in the public interest for RSP to be allowed to do so) then <u>every</u> night ATM must be accounted for within whatever QC budget is allowed. To do otherwise will give RSP the freedom to land a sizable percentage of its ATMs at night, unscheduled, with no penalty and no limit. As cargo ATMs are typically not scheduled flights anyway, past experience says that this would have alarmingly negative noise impacts for tens of thousands of people.

104. RSP has set no ATM limit for its night operations. RSP also intends not to count aircraft rated QC0 and QC0.125 in its QC budget for night movements. The Government recognises that

42 Paragraphs 144-149

aircraft rated QC0 and QC 0.125 expose communities to noise levels that the WHO identifies as being capable of creating sleep disturbance. If the QC budget and Noise Mitigation Plan as currently proposed are approved, RSP will have free rein to have as many night flights rated QC0 and QC 0.125 as it can attract. **This is clearly not acceptable, and is not in line with the Government's expressed position**.

105. RSP persists in asking to operate flights rated QC4 at night. It has produced no case for doing so. A B747-400 is rated QC4 on departure. The impact on the local population of allowing this can be seen in our Maps 2, 4 and 5.

Summary

- RSP's proposal is for an airport many times the size of the commercial airport that used to be on the Manston site
- RSP's proposed **cargo** operation would be more than 29 times the size of the average annual cargo operation previously at Manston, and almost 16 times the size of Manston's best year ever (2003) for cargo ATMs
- RSP's proposed **passenger** operation would be more than 14 times the size of the average annual passenger operation previously at Manston, and more than twice the size of Manston's best year ever (2005) for passenger ATMs
- It is clear that RSP's proposal will generate a far greater level of aircraft noise than has been generated by any other commercial aviation operation on that site
- Residents who lived through the airport's previous commercial operations complained about the noise impact on them and on their life of both day and night operations
- When a 747-400 – the workhorse of the air cargo world – arrives from the west, 26,950 people are in the 70dB contour[43], 5,400 people are within the 75dB contour and 750 in the 80dB contour. The 80dB contour extends into St Nicholas at Wade
- When a 747-400 arrives over Ramsgate from the east, 15,100 people are in the 80dB contour[44], 20,550 people are within the 75dB contour and 26,800 in the 70dB contour. The 70dB contour covers almost the entire town
- When a 747-400 departs to the east over Ramsgate, 42,600 people are in the 70dB contour[45], 33,100 people are within the 75dB contour and 22,050 in the 80dB contour. The 80dB contour extends right over Ramsgate and beyond the harbour arm. We have previously submitted noise monitor records of noise levels of 90dB and over 100dB LAmax over Ramsgate
- When a 747-400 departs to the west, turning North, 6,100 people are in the 70dB contour[46], 2,100 people are within the 75dB contour and 650 in the 80dB contour
- When a 747-400 departs to the west, turning South, 5,650 people are in the 70dB contour[47]. 2,250 people are within the 75dB contour and 650 in the 80dB contour
- A comparison of RSP's Figure 12.9 with NNF's Maps 1 and 2 reveals a significant noise impact that RSP has simply not shown
- For operations 100% to the east, the 63dB contour includes 700 people[48]. The 51dB contour includes 37,950 people and the 54dB contour includes 29,100 people
- For operations 100% to the west, the 63dB contour includes 300 people[49]. The 51dB contour includes 21,800 people and the 54dB contour includes 14,700 people

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43 CAA table 18, see page 40
44 CAA table 17, see page 40
45 CAA table 16, see page 39
46 CAA table 14, see page 39
47 CAA table 15, see page 39
48 CAA table 7, see page 35
49 CAA table 6, see page 35

- The Government recognises that the onset of significant community annoyance begins at 54 dB LAeq, 16hr. The WHO says that aircraft noise levels above 45dB Lden are "*associated with adverse health effects".*
- For the hypothetical operations 30% to the west and 70% to the east, even with the shrinking of the contours generated by showing an average of an average, the noise impact is still significant. 25,250 people[50] will suffer a noise level of 54dB LAeq and above. That's 25,250 people who, even on RSP's average of an average, will suffer significant community annoyance
- For the hypothetical operations 70% to the west and 30% to the east, even with the shrinking of the contours generated by showing an average of an average, the noise impact is still significant. 19,400 people[51] will suffer a noise level of 54dB LAeq and above. That's 19,400 people who, even on RSP's average of an average, will suffer significant community annoyance
- RSP's 30/70 and 70/30 contours are smaller than the CAA's
- When night operations are to the east, 28,750[52] people are within the 45dB LAeq contour. They will experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed – 3,163 people
- When night operations are to the west, 22,450[53] people are within the 45dB LAeq contour. They will experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed – 2,470 people
- For the more realistic operations 100% to the East 29,100 people will suffer noise levels that generate significant community annoyance
- For the more realistic operations 100% to the West 14,700 people will suffer noise levels that generate significant community annoyance
- RSP has significantly understated the potential noise impact of night operations. RSP's 40dB LAeq contour to the west is smaller than the CAA's 45dB LAeq contour and is closer to the CAA's 48dB LAeq contour. RSP's 40dB LAeq contour to the east is similar to the CAA's 45dB LAeq contour. RSP's Figure 12.7 disguises the fact that the 57dB Lnight contour stretches well into Ramsgate and that much of the town would experience average night noise of 51dB Lnight – well above the WHO guidance level.

50 CAA table 9, see page 36
51 CAA table 8, see page 35
52 CAA table 11, see page 37
53 CAA table 10, see page 37

Conclusions

106. RSP's contours mask the reality that its proposals for a new airport at Manston represent material harm for tens of thousands of people. RSP significantly underestimates the population numbers affected and ignores the fact that this is a vulnerable population in UK health terms, and one that is not currently exposed to noise from aviation operations.

107. RSP's measurements of the current ambient noise levels are suspect. RSP placed noise monitors in the gardens of airport supporters and chose locations for other measurements that are not representative of the ambient noise in that location. This means that the proposed change in the level of noise that people will experience as a result of RSP's proposal has been understated at both ends – RSP's measurements of the current noise level are tainted by uncertainty and its measurements of the possible future noise level and the number of people affected is demonstrably understated.

108. The inconvenient truths of past noise levels recorded by official noise monitors; of past planning decisions taken about aviation noise; and of past complaints from residents have all been steadfastly ignored by RSP.

109. The move from actual noise footprints for one type of aircraft (our Maps 1 to 5) to our two 100% LAeq contour maps show how the actual noise level heard is immediately diminished by averaging out individual noise events over time. Even so, our Maps 6 and 7 are a more accurate reflection of the noise environment under an easterly or westerly wind. This is the actual "lived experience".

110. When our two 100% maps are adulterated to make the 70/30 LAeq contour maps, the noise contours shrink again. This is RSP's preferred reporting format. As Ricardo observed in its response to D6:

111. > *"It is further noted that the eligibility [for noise insulation compensation] shown is for contours averaged for both easterly and westerly operations, rather than an actual day of westerly or easterly operation. Using the average mode has the effect of reducing the contours as the noise is spread across the routes in a way that would not necessarily happen in a day of operation at the airport. The eligibility contours should be provided separately for both easterly and westerly operations to derive noise insulation eligibility."*

112. We know that the noise maps we have provided do not show the likely worst case. It is clear that RSP's fleet mix is based on guesses and that the fleet mix has already worsened (in noise terms) since it was created last year. We have no idea what further changes might occur which could easily produce a worse noise environment. Our night noise contours do not include any QC0 and QC0.125 ATMs, yet RSP could operate as many as it pleases under the terms of its Noise Mitigation Plan. We do not have the information that we need to be able to calculate Lden. And, of course, our noise contours do not include noise from other sources of airport noise such as road noise.

113. RSP has not set out the *"likely significant effects"* of its proposal in terms of aviation noise.

114. RSP's proposed Noise Mitigation Plan is nowhere near *"adequate to deal with the worst case"*. The CAA contours reveal a worse case than the one that RSP is suggesting. Moreover, given the limitations in the NNF brief to the CAA, the CAA contours are not the likely worst case, and the mitigation plan does not even deal with this.

115. The CAA contours reveal the number of people who will experience a serious degradation in their quality of life as a result of RSP's proposed operation. These people will also be at risk of adverse impacts on their health.

116. RSP has yet to identify a level of benefits that its proposal will deliver such that the serious and permanent harm to local people would be outweighed by these benefits. Given this, there is no compelling case in the public interest to allow a compulsory purchase by RSP of SHP's land.

Appendix 1: Commercial operations at Manston, annual ATMs

Year	Total Passenger ATMs (peak)	Total Cargo ATMs (peak)	Total ATMs
1999	46	700	746
2000	20	915	935
2001	26	911	937
2002	5	800	805
2003	25	1,081	1,108
2004	2,603	730	3,333
2005	4,454	177	4,631
2006	139	322	461
2007	164	444	608
2008	128	412	540
2009	98	485	583
2010	660	491	1,151
2011	1,083	389	1,472
2012	255	432	687
2013	1,129	511	1,640
2014 (part year)	392	229	621

Averages (excl. 2014)	**656**	**587**	**1,309**
RSP Year 20 (for comparison)	**9,298**	**17,170**	**26,468**

Appendix 2: CAA Report

CAA Report page 1

TECHNICAL NOTE:
Manston Airport – 'NNF' fleet mix noise modelling results (v.2)

Introduction

This technical note summarises the air noise modelling work for Manston Airport carried out by ERCD on behalf of No Night Flights ('NNF'). The following forecast contours were generated using the 'NNF' fleet mix scenario:

- Day $L_{Aeq,16hr}$ (0700-2300 local time), plotted from 51 to 72 dB(A) in 3 dB steps; and
- Night $L_{Aeq,8hr}$ (2300-0700 local time), plotted from 45 to 72 dB(A) in 3 dB steps.

The contours have been produced for the following 4 runway modal split cases:

- 100% west;
- 100% east;
- 70% west / 30% east; and
- 30% west / 70% east.

Lmax noise footprints have also been generated for the Boeing 747-400 with GE CF6 engines (ANCON type 'B744G') on each departure and arrival route. The Lmax footprints are plotted at levels 70, 75 and 80 dB(A).

Modelling assumptions

The contours have been generated using the latest version of the ANCON noise model (v2.4) and based on the 'NNF' fleet mix scenario. The daytime annual ATM figures for 100% W and 100% E modes supplied by No Night Flights were divided by 365 to produce average daily totals (see **Tables 1 & 2**). Average night movement data were also provided (**Tables 3 & 4**). General aviation movements were split equally amongst the ANCON types SP (single propeller), STP (small twin-piston), STT (small twin-turboprop) and EXE3 ('Chapter 3' executive jet), as advised by No Night Flights. Aircraft types with more than one engine variant in the ANCON database were split according to assumptions provided by No Night Flights (see **Table 5**).

The proposed departure flight tracks were digitised from the attached 'Wiggins' route map. RNAV lateral spread was modelled on all the departure tracks for the Leq contours. All arrivals have been modelled as 'straight-in' tracks along the extended runway centreline.

In view of the expected high proportions of freight traffic, proxy average flight profiles of height, speed and thrust were employed from the latest ANCON Stansted database for both departures and arrivals. Aircraft types that were not present in the Stansted database were substituted by Heathrow profiles where possible, and if not available in the Heathrow database, by Gatwick profiles. The flight profiles assume average weights.

The effects of the surrounding topography have been modelled using Meridian 2 Gridded Heights terrain data from Ordnance Survey.

CAA Report page 2

Results

Contour diagrams are provided for the following cases:

- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 100% W;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 100% E;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 70% W / 30% E;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 30% W / 70% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 100% W;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 100% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 70% W / 30% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 30% W / 70% E;
- B744G L_{Amax} footprints for Runway 28 departure route 1;
- B744G L_{Amax} footprints for Runway 28 departure route 2;
- B744G L_{Amax} footprints for Runway 10 departure route 3;
- B744G L_{Amax} footprints for Runway 28 arrival; and
- B744G L_{Amax} footprints for Runway 10 arrival.

(Note: For night Leq, the 69 and 72 dBA contours have been omitted from the diagrams for clarity).

Areas, populations and households within all the contours have been estimated using an updated 2018 population database based on the 2011 Census (supplied by CACI Ltd) and are summarised in **Tables 6-9** for daytime Leq, **Tables 10-13** for night-time Leq, and **Tables 14-18** for the Lmax footprints.

ERCD
03/06/2019

CAA Report page 3

Table 1 Manston 'NNF' fleet mix average day 100% W traffic

Type	Code	Departure route 1	Departure route 2	RWY 28 arrivals
Airbus A320	A320	0.1	0.1	0.3
Airbus 330-200	A332	1.4	1.4	2.7
Boeing 747-400	B744	0.8	0.8	1.7
Boeing 747-800	B748	0.5	0.5	1.1
Boeing 757-200	B752	1.4	1.4	2.7
Boeing 757-300	B753	0.1	0.1	0.2
Boeing 737-800	B738	5.7	5.7	11.3
Boeing 737-300	B733	1.6	1.6	3.2
Boeing 777-200	B772	2.5	2.5	5.1
Boeing C17 Globemaster III	C17	< 0.1	< 0.1	< 0.1
Fokker 70	F70	1.0	1.0	2.0
Lockheed L-100 Hercules	C130	< 0.1	< 0.1	< 0.1
Boeing 737-800	B738	0.7	0.7	1.5
Boeing 767-300	B763	2.2	2.2	4.4
General Aviation	SP/STP/STT/EXE3	26.0	26.0	52.1
	Total	**44.2**	**44.2**	**88.3**

Table 2 Manston 'NNF' fleet mix average day 100% E traffic

Type	Code	Departure route 3	RWY 10 arrivals
Airbus A320	A320	0.3	0.3
Airbus 330-200	A332	2.7	2.7
Boeing 747-400	B744	1.7	1.7
Boeing 747-800	B748	1.1	1.1
Boeing 757-200	B752	2.7	2.7
Boeing 757-300	B753	0.2	0.2
Boeing 737-800	B738	11.3	11.3
Boeing 737-300	B733	3.2	3.2
Boeing 777-200	B772	5.1	5.1
Boeing C17 Globemaster III	C17	< 0.1	< 0.1
Fokker 70	F70	2.0	2.0
Lockheed L-100 Hercules	C130	< 0.1	< 0.1
Boeing 737-800	B738	1.5	1.5
Boeing 767-300	B763	4.4	4.4
General Aviation	SP/STP/STT/EXE3	52.1	52.1
	Total	**88.3**	**88.3**

CAA Report page 4

Table 3 Manston 'NNF' fleet mix average night 100% W traffic

Type	Code	Departure route 1	Departure route 2	RWY 28 arrivals
Boeing 737-800	B738	1	1	0
Airbus A320	A320	0.5	0.5	0
Boeing 747-400	B744	0	0	3
	Total	**1.5**	**1.5**	**3**

Table 4 Manston 'NNF' fleet mix average night 100% E traffic

Type	Code	Departure route 3	RWY 10 arrivals
Boeing 737-800	B738	2	0
Airbus A320	A320	1	0
Boeing 747-400	B744	0	3
	Total	**3**	**3**

Table 5 Manston 'NNF' fleet mix engine split assumptions

Type	Code	Engine splits
Airbus A320	A320	75% CFM / 25% IAE
Boeing 747-400	B744	30% GE / 60% PW / 10% RR
Boeing 757-200	B752	50% RR / 50% PW
Boeing 777-200	B772	40% GE / 20% PW / 40% RR
Boeing 767-300	B763	40% GE / 40% PW / 20% RR

Table 6 Manston 'NNF' fleet mix average day 100% W Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km²)	Population	Households
> 51	31.5	21,800	10,400
> 54	17.9	14,700	6,950
> 57	9.9	9,100	4,200
> 60	5.5	2,650	1,250
> 63	2.9	300	200
> 66	1.5	0	0
> 69	0.8	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 7 Manston 'NNF' fleet mix average day 100% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km²)	Population	Households
> 51	34.1	37,950	17,200
> 54	18.1	29,100	13,600
> 57	9.8	17,800	8,300
> 60	5.4	4,900	2,200
> 63	2.8	700	300
> 66	1.5	0	0
> 69	0.8	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 8 Manston 'NNF' fleet mix average day 70% W / 30% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km²)	Population	Households
> 51	31.4	28,600	13,400
> 54	17.9	19,400	9,350
> 57	9.8	10,350	4,750
> 60	5.3	3,100	1,450
> 63	2.8	300	200
> 66	1.5	0	0
> 69	0.9	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

CAA Report page 6

Table 9 Manston 'NNF' fleet mix average day 30% W / 70% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km^2)	Population	Households
> 51	32.2	35,350	16,150
> 54	17.9	25,250	11,950
> 57	9.8	14,400	6,650
> 60	5.3	4,050	1,850
> 63	2.7	450	250
> 66	1.5	0	0
> 69	0.9	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 10 Manston 'NNF' fleet mix average night 100% W Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.5	22,450	10,700
> 48	14.2	17,150	8,300
> 51	7.4	12,200	5,750
> 54	4.0	7,450	3,350
> 57	2.3	1,850	900
> 60	1.3	250	150
> 63	0.8	0	0
> 66	0.5	0	0
> 69	0.3	0	0
> 72	0.2	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 11 Manston 'NNF' fleet mix average night 100% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.7	28,750	13,300
> 48	14.2	8,050	3,550
> 51	7.6	1,450	700
> 54	4.1	100	50
> 57	2.3	< 50	< 50
> 60	1.3	0	0
> 63	0.8	0	0
> 66	0.5	0	0
> 69	0.3	0	0
> 72	0.2	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 12 Manston 'NNF' fleet mix average night 70% W / 30% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	26.2	23,300	11,050
> 48	14.2	16,650	7,950
> 51	7.8	10,850	5,050
> 54	4.4	4,950	2,250
> 57	2.5	800	400
> 60	1.6	0	0
> 63	1.0	0	0
> 66	0.6	0	0
> 69	0.4	0	0
> 72	0.3	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 13 Manston 'NNF' fleet mix average night 30% W / 70% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.0	23,600	11,150
> 48	14.2	15,150	7,050
> 51	7.9	6,600	2,950
> 54	4.4	1,100	600
> 57	2.5	< 50	< 50
> 60	1.6	0	0
> 63	1.0	0	0
> 66	0.6	0	0
> 69	0.4	0	0
> 72	0.3	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 14 Manston B744G Lmax footprints for RWY28 departure (route 1) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.3	6,100	2,800
> 75	19.1	2,100	950
> 80	8.8	650	300

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 15 Manston B744G Lmax footprints for RWY28 departure (route 2) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.5	5,650	2,500
> 75	19.2	2,250	1,000
> 80	8.8	650	300

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 16 Manston B744G Lmax footprints for RWY10 departure (route 3) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.1	42,600	19,150
> 75	19.0	33,100	15,150
> 80	8.7	22,050	10,450

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 17 Manston B744G Lmax footprints for RWY28 arrival (route 4) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km^2)	Population	Households
> 70	32.7	26,800	12,550
> 75	14.8	20,550	9,900
> 80	6.2	15,100	7,200

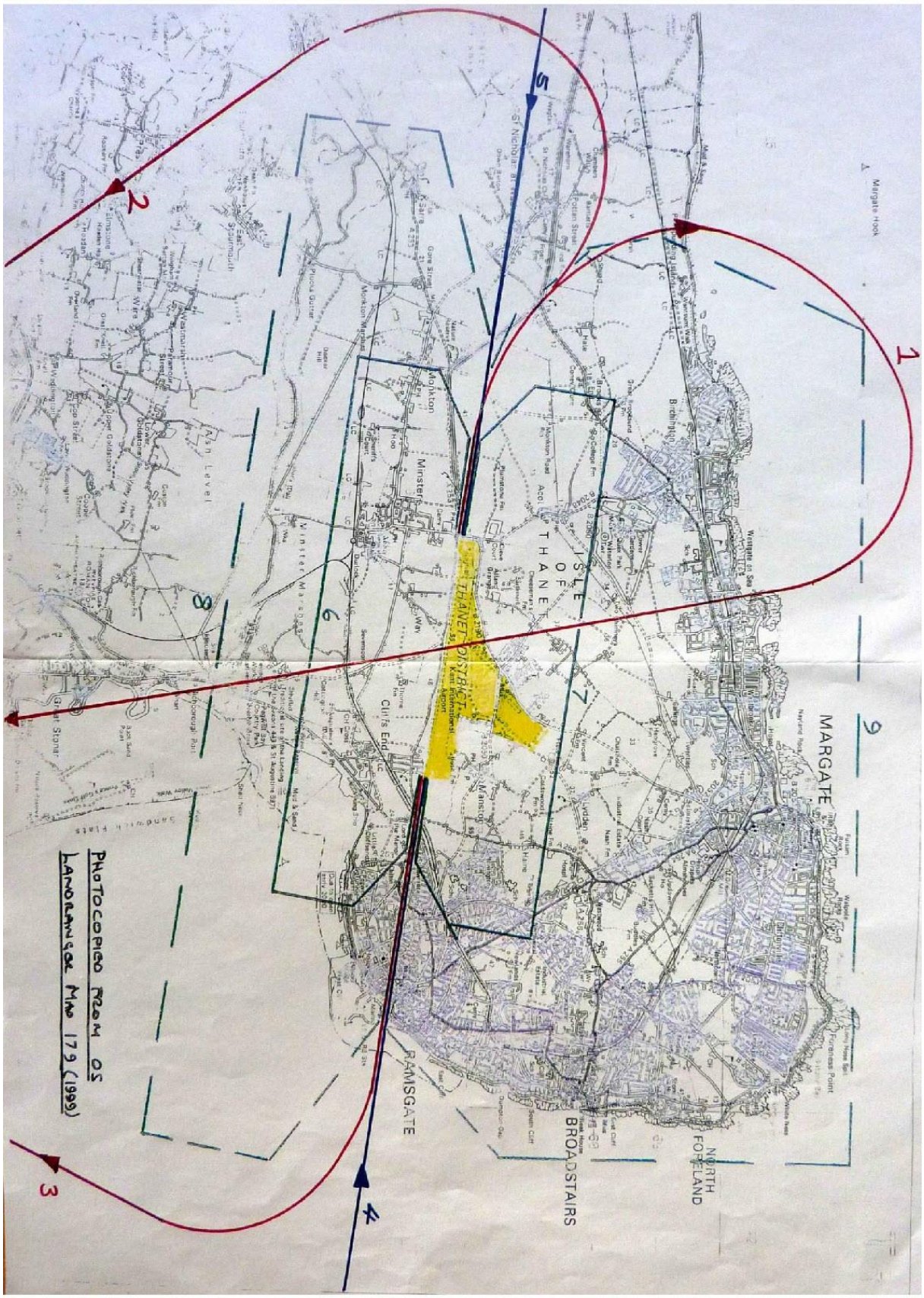
Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 18 Manston B744G Lmax footprints for RWY10 arrival (route 5) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km^2)	Population	Households
> 70	32.9	26,950	12,050
> 75	15.5	5,400	2,400
> 80	6.3	750	350

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Wiggins Routes 1



Wiggins Routes 2

WIGGINS

LONDON - MANSTON AIRPORT

Kent International Airport plc
Trading As
LONDON MANSTON AIRPORT
PO Box 500, Manston, Kent CT12 5BP

Tel: 01843 823198 Fax: 01843 823570

ROUTE MAP

Key

1. Standard instrument departure from runway 28.
2. Alternative instrument departure from runway 28.
3. Standard instrument departure from runway 10.
4. Standard arrival route for runway 28.
5. Standard arrival route for runway 10.
6. Standard visual circuit for both runways flown by light aircraft at 1000 ft above ground level.
7. Alternative visual circuit for both runways flown by light aircraft at 1000 ft above ground level.
8. Standard visual circuit for both runways 10 and 28 flown by large aircraft at 1500 ft above ground level.
9. Alternative visual circuit for both runways 10 and 28 flown by large aircraft at 1500 ft.

Notes

i) This information is provided as a courtesy only.

ii) These routes are indicative not definitive and the information is provided on this understanding.

iii) These routes may vary depending upon a number of factors including weather, and air traffic control requirements.

iv) These routes may be changed or developed as the Airport develops.

v) Noise travels. Aircraft noise may be audible several miles away from these indicative routes.

Appendix 3: CAA Maps 1 – 13

1 B744G LAmax footprints for Runway 10 arrival Easterlies

2 B744G LAmax footprints for Runway 10 departure route 3 Easterlies

3 B744G LAmax footprints for Runway 28 arrival Westerlies

4 B744G LAmax footprints for Runway 28 departure route 1 Westerlies

5 B744G LAmax footprints for Runway 28 departure route 2 Westerlies

6 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

7 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Westerlies

8 Day LAeq,16hr (0700-2300 local time), runway modal split 70% W / 30% E

9 Day LAeq,16hr (0700-2300 local time), runway modal split 30% W / 70% E

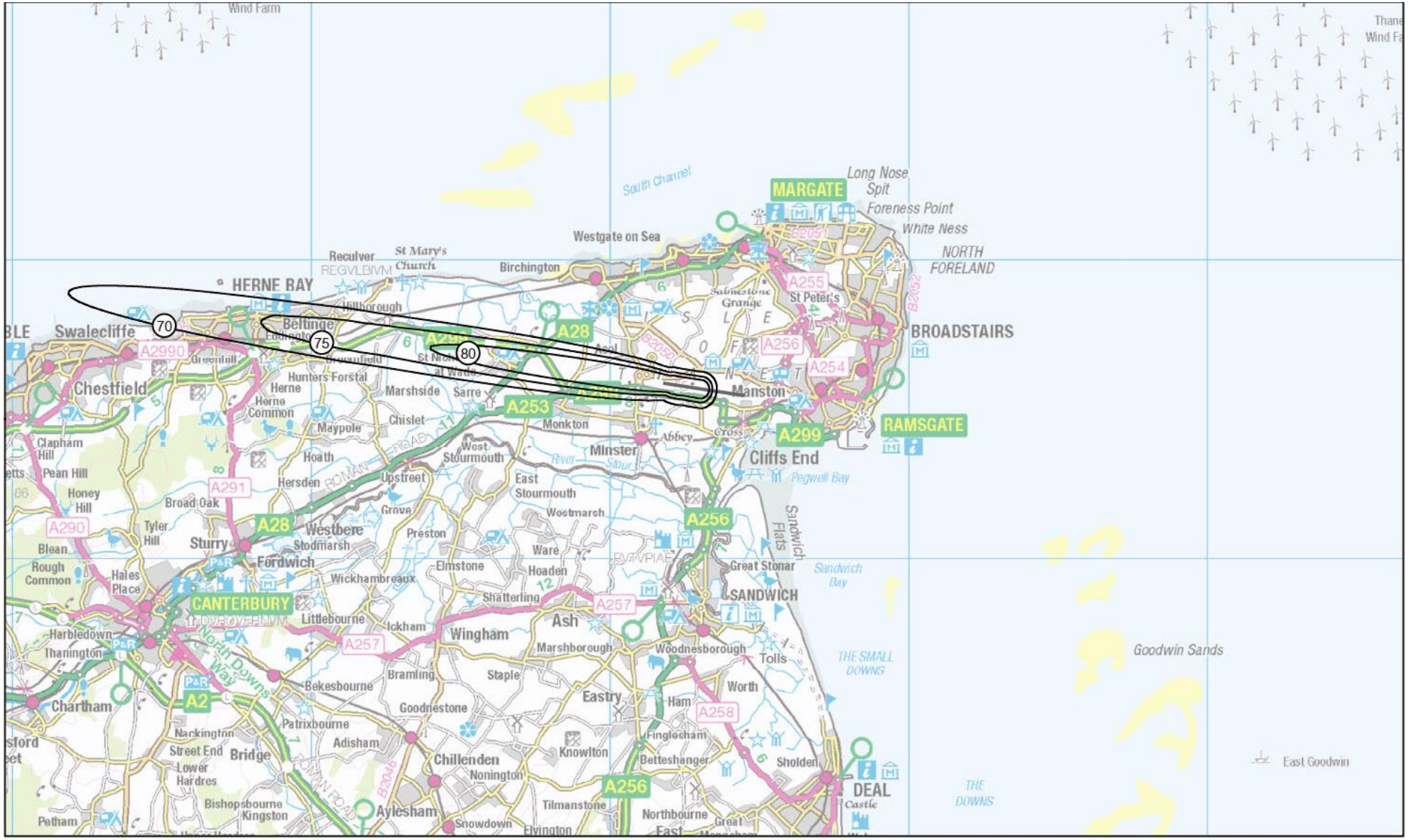
10 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Easterlies

11 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Westerlies

12 Night LAeq,8hr (2300-0700 local time), runway modal split 70% W / 30% E

13 Night LAeq,8hr (2300-0700 local time), runway modal split 30% W / 70% E

1 B744G LAmax footprints for Runway 10 arrival Easterlies

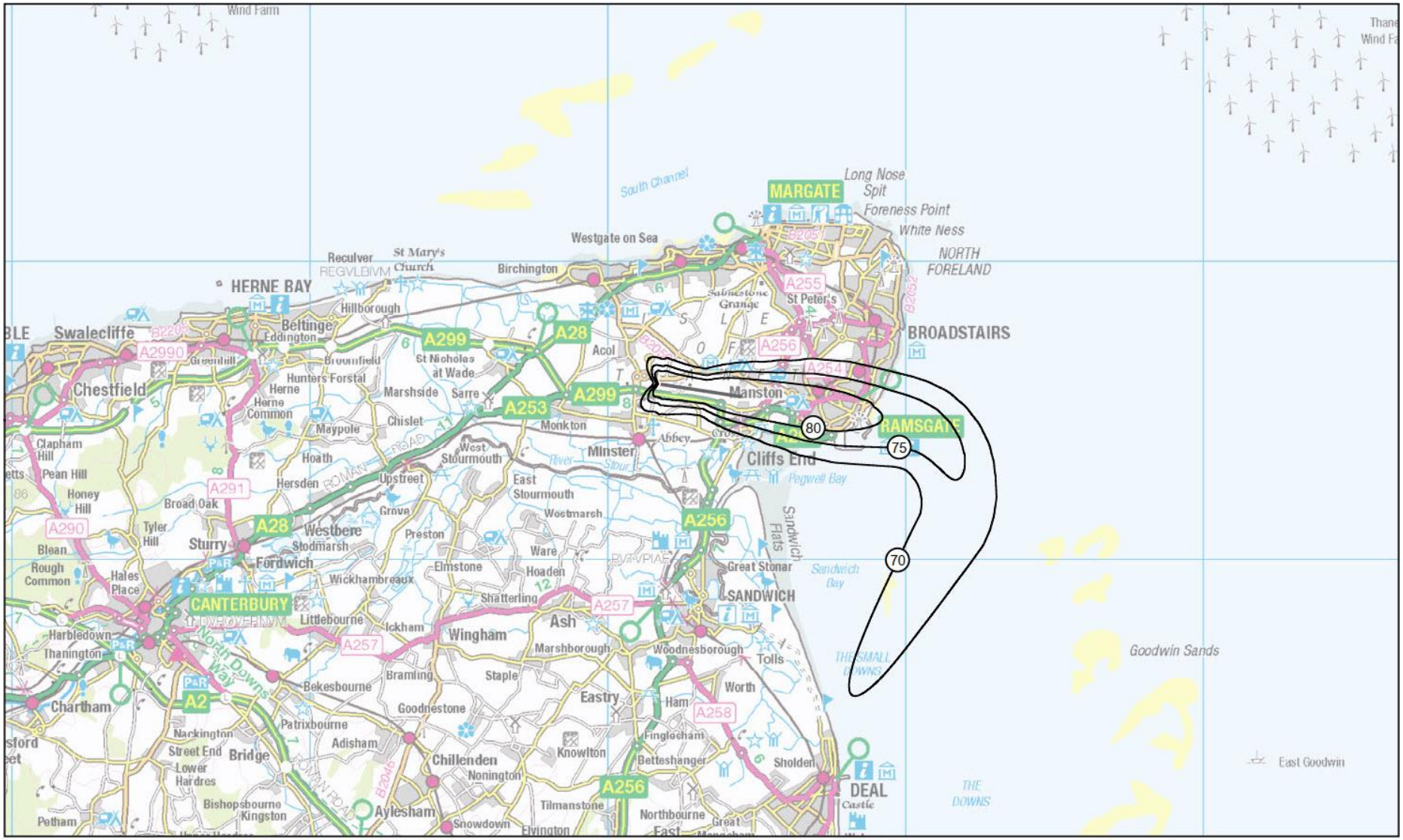


MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY10 Arrival

Civil Aviation Authority

2 B744G LAmax footprints for Runway 10 departure route 3 Easterlies

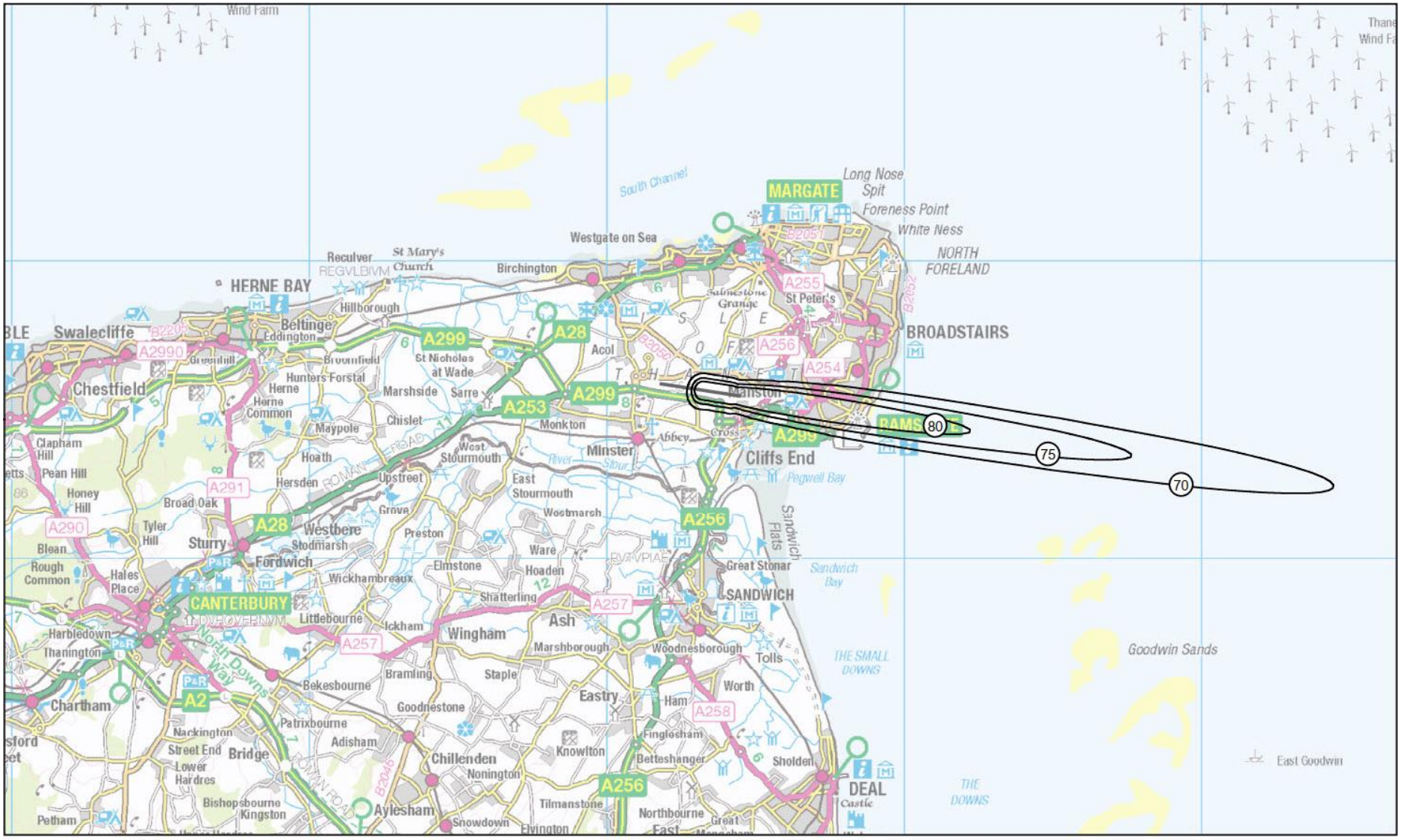


MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY10 Departure Route 3

Civil Aviation Authority

3 B744G LAmax footprints for Runway 28 arrival Westerlies

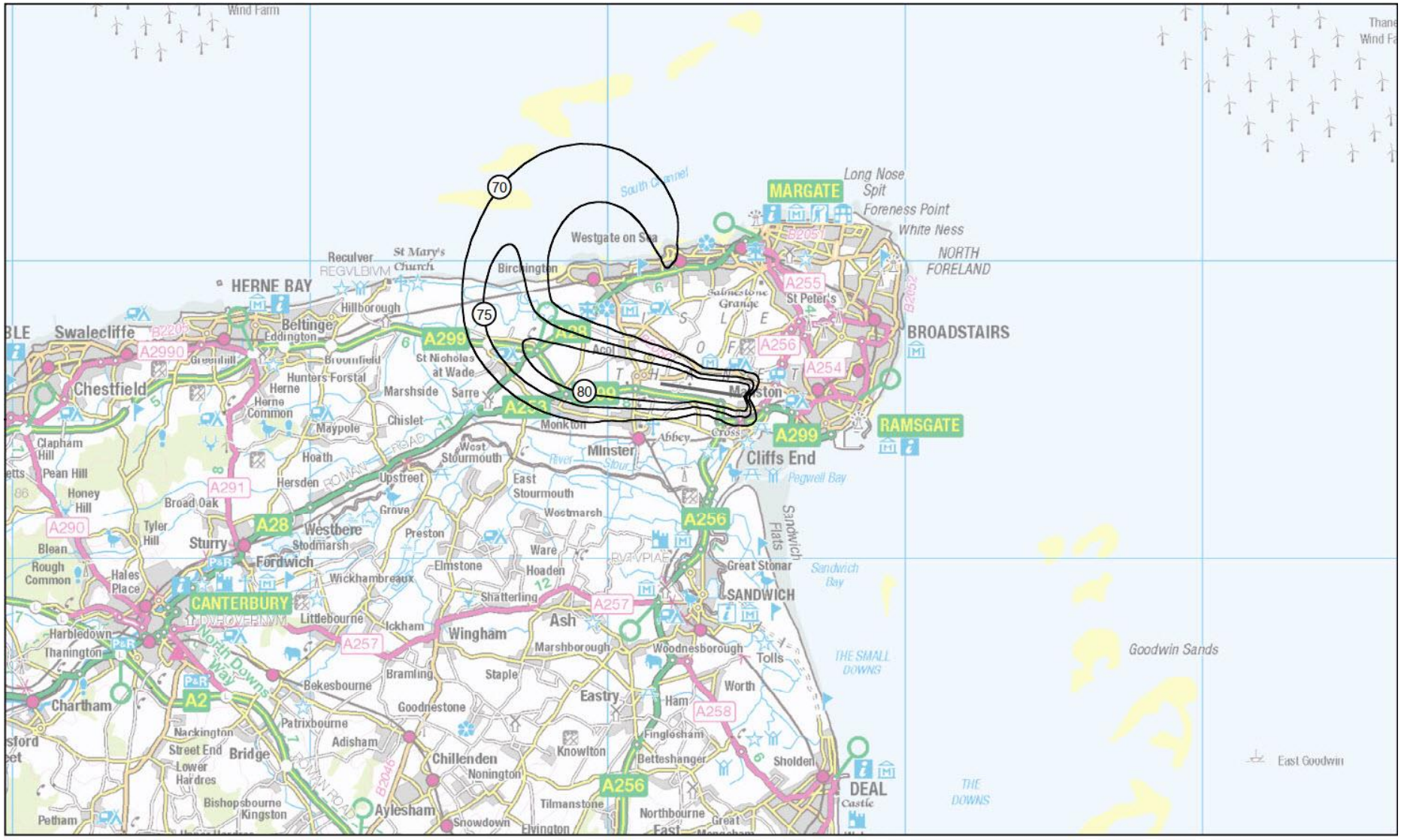


MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Arrival

Civil Aviation Authority

4 B744G LAmax footprints for Runway 28 departure route 1 Westerlies

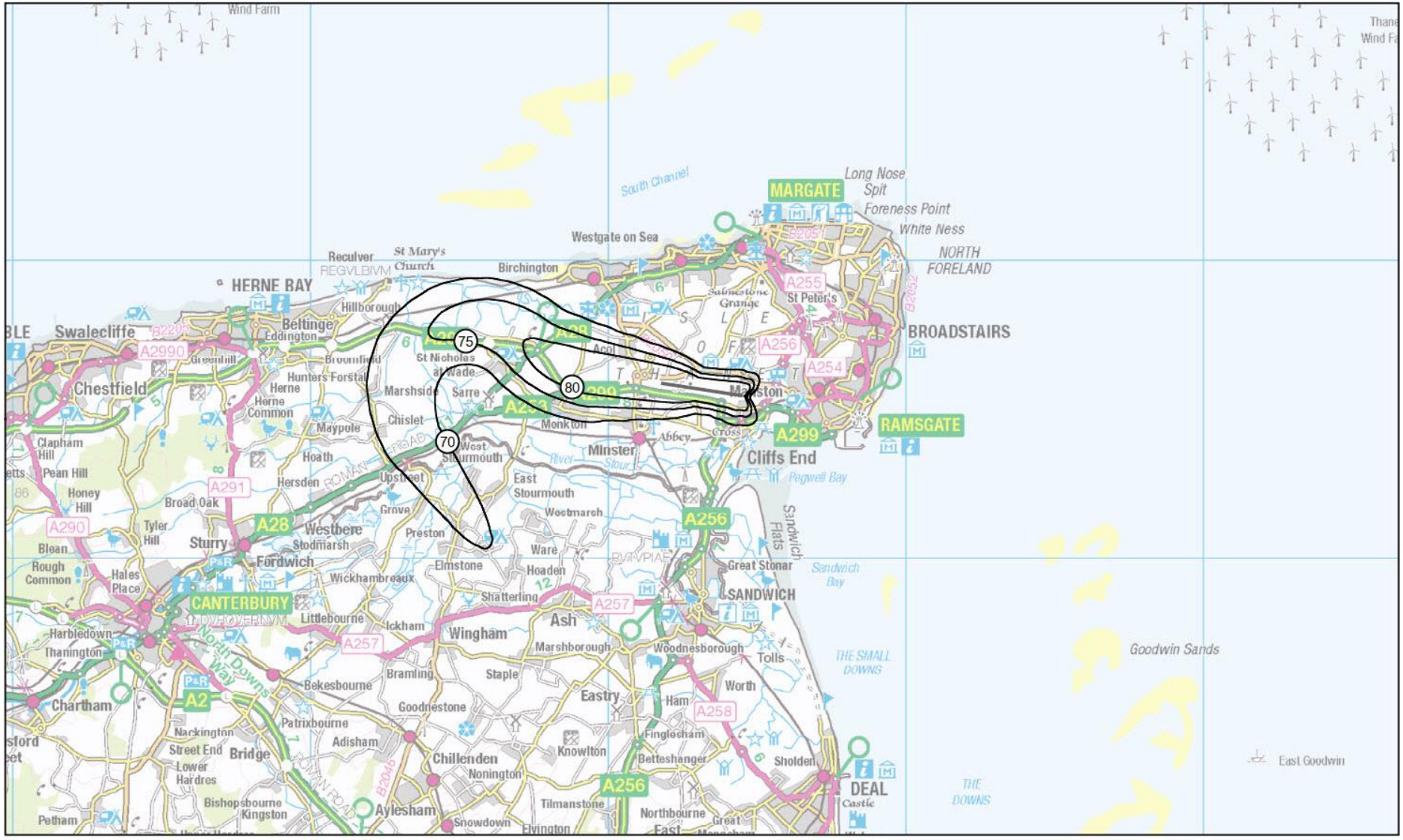


MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Departure Route 1

Civil Aviation Authority

5 B744G LAmax footprints for Runway 28 departure route 2 Westerlies



MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Departure Route 2

Civil Aviation Authority

6 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

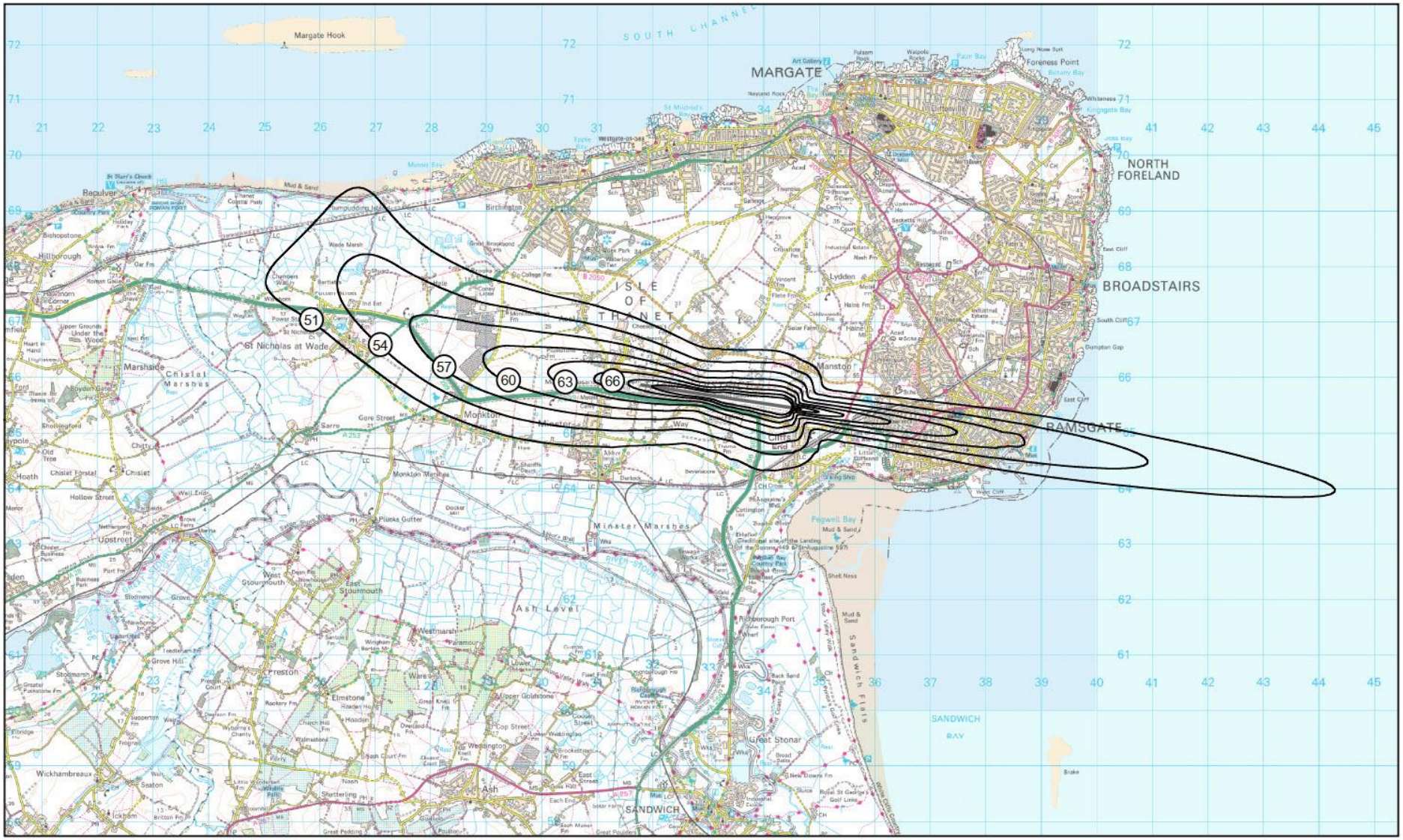
MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 100% E

Civil Aviation Authority

7 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Westerlies



MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 100% W

Civil Aviation Authority

8 Day LAeq,16hr (0700-2300 local time), runway modal split 70% W / 30% E

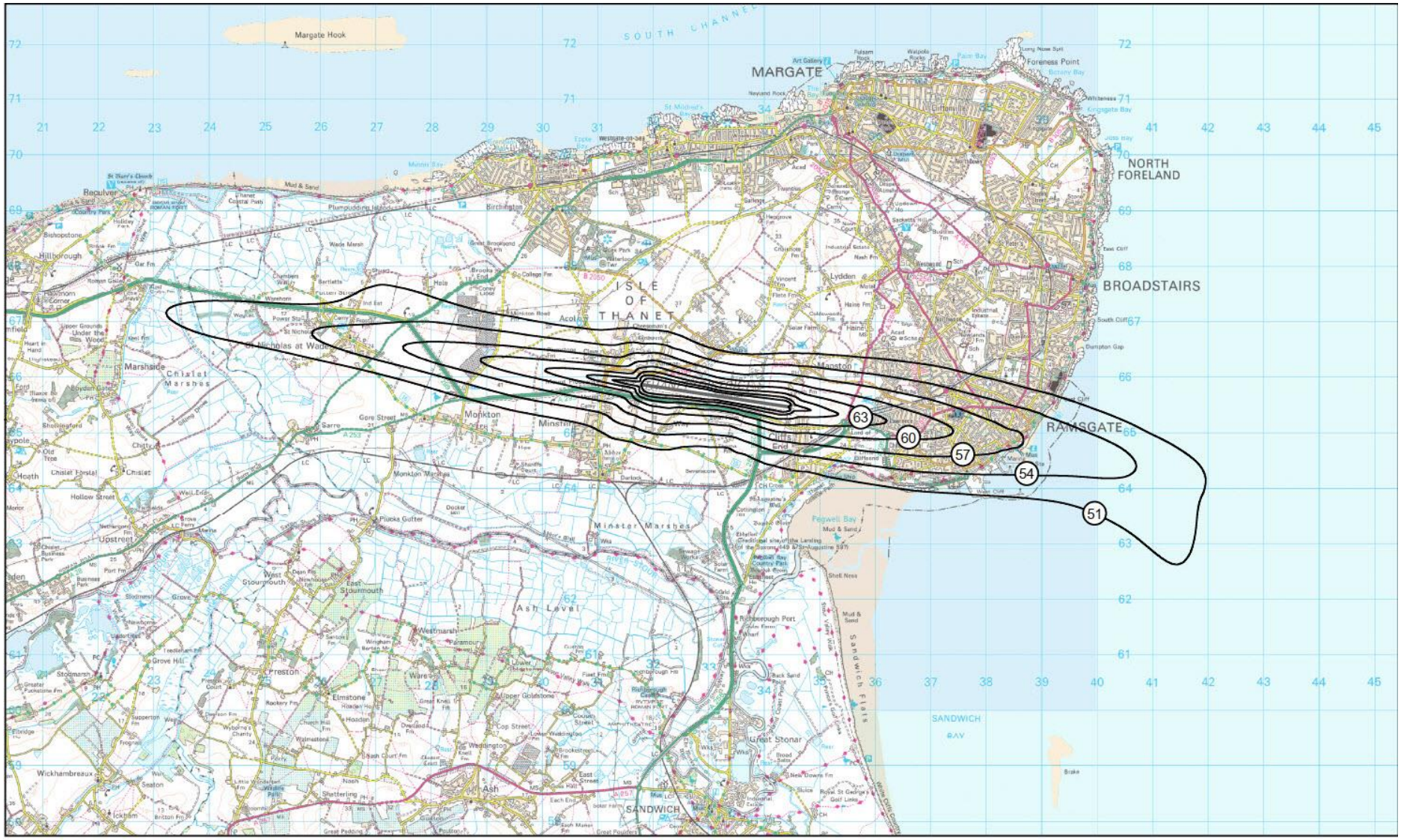
MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 70% W / 30% E

Civil Aviation Authority

9 Day LAeq,16hr (0700-2300 local time), runway modal split 30% W / 70% E



0 1 2 3 4 5 km

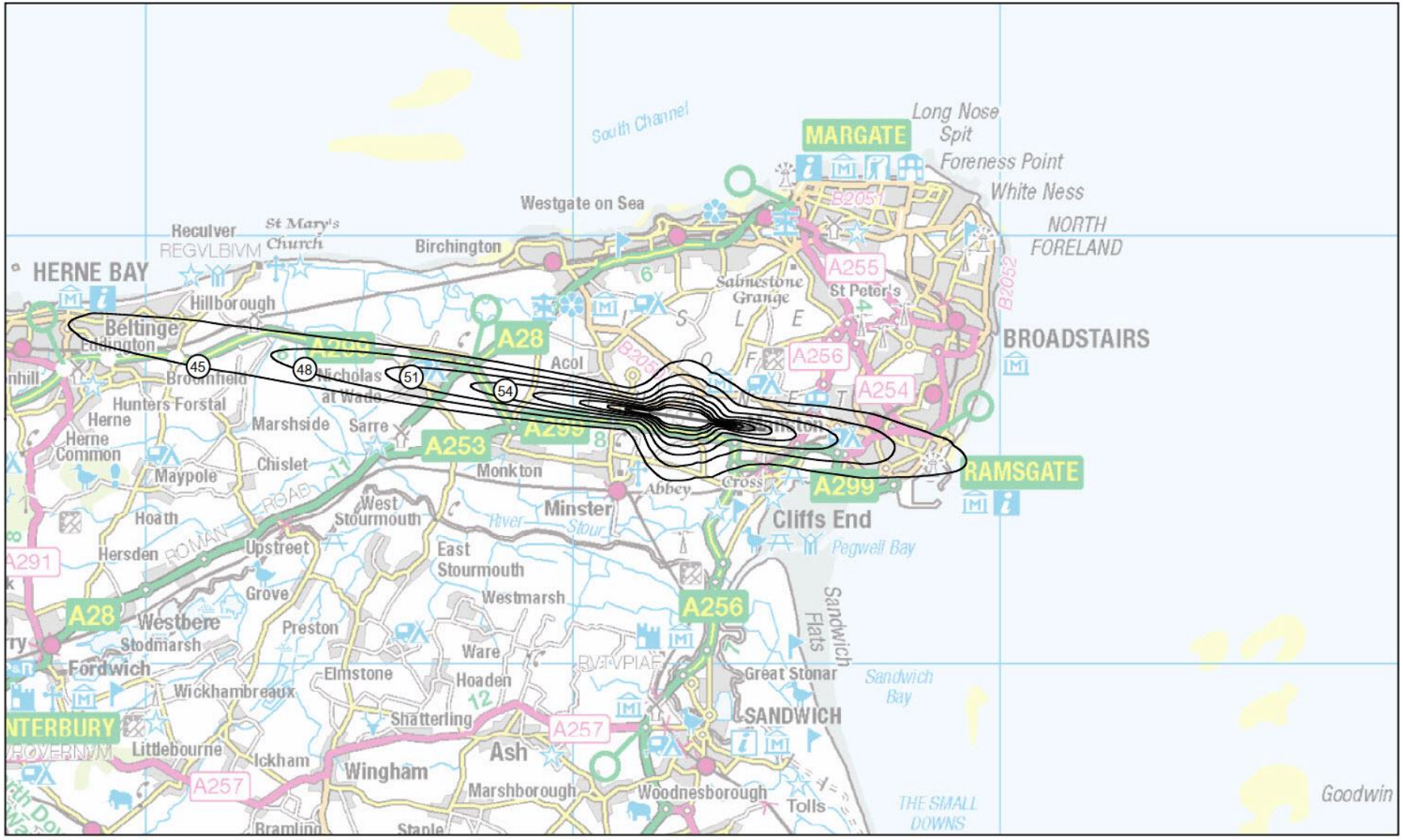
MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 30% W / 70% E

Civil Aviation Authority

10 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Easterlies



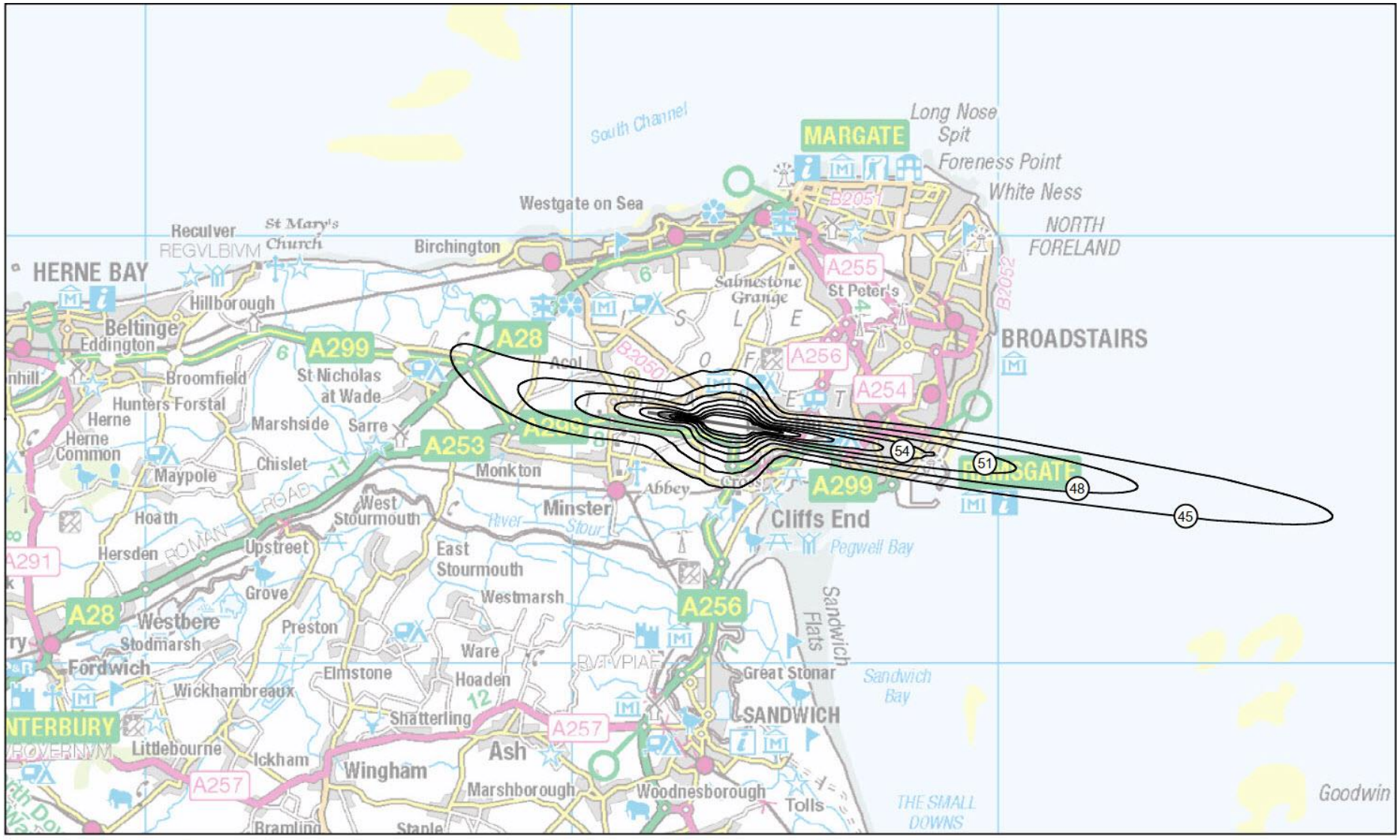
MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 100% E

Civil Aviation Authority

11 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Westerlies



MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 100% W

Civil Aviation Authority

12 Night LAeq,8hr (2300-0700 local time), runway modal split 70% W / 30% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 70% W / 30% E

Civil Aviation Authority

13 Night LAeq,8hr (2300-0700 local time), runway modal split 30% W / 70% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 30% W / 70% E

Civil Aviation Authority

Appendix 4: KML files of the CAA Maps displayed on Google Earth

A: CAA Map 6, 57dB highlighted

B: CAA Map 6, 57dB highlighted, zoomed on Ramsgate to show Albion Place Gardens

A: CAA Map 6, 57dB highlighted

CAA Map 6:Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

B: CAA Map 6, 57dB highlighted, zoomed on Ramsgate to show Albion Place Gardens

CAA Map 6: Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

Appendix 5: RSP’s Maps

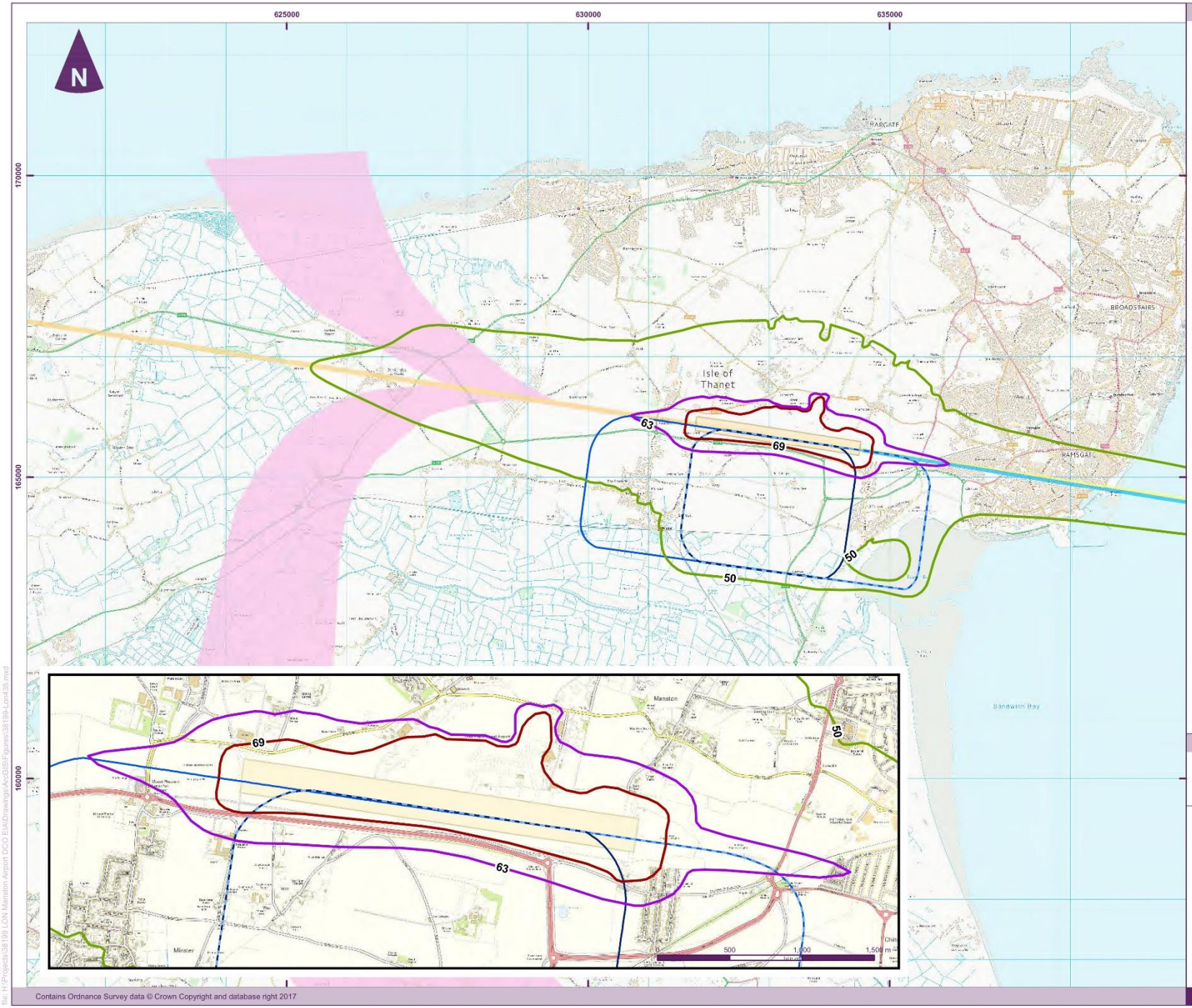
RSP Map 12.6 – Aircraft Noise Day-time LAeq 16hr contours, year of forecast maximum capacity

RSP Map 12.7 – Aircraft Noise Night-time LAeq 8hr contours, year of forecast maximum capacity

RSP Map 12.9 – Aircraft Noise Night-time LASmax contours, year of forecast maximum capacity

Figure 12.30: Aircraft noise – day-time 50dB LAeq,16hr noise contour - year of forecast maximum capacity, easterly operations (TR020002-004071-Appendices to Answers to TWQ)

RSP Map 12.6 – Aircraft Noise Day-time LAeq 16hr contours, year of forecast maximum capacity



Key

- Runway
- Approaches from the East
- Approaches from the West
- Departures to the East
- Departures to the West

Visual Circuits

- Runway 28
- Runway 10 Outside Pegwell and Minster
- Runway 10 - inside Pegwell and Minster

Daytime $L_{Aeq,16hr}$

- 50 dB LOAEL
- 63 dB SOAEL
- 69 dB UAEL

0 1 2 3 km

Scale at A3: 1:60,000

Client

RSP

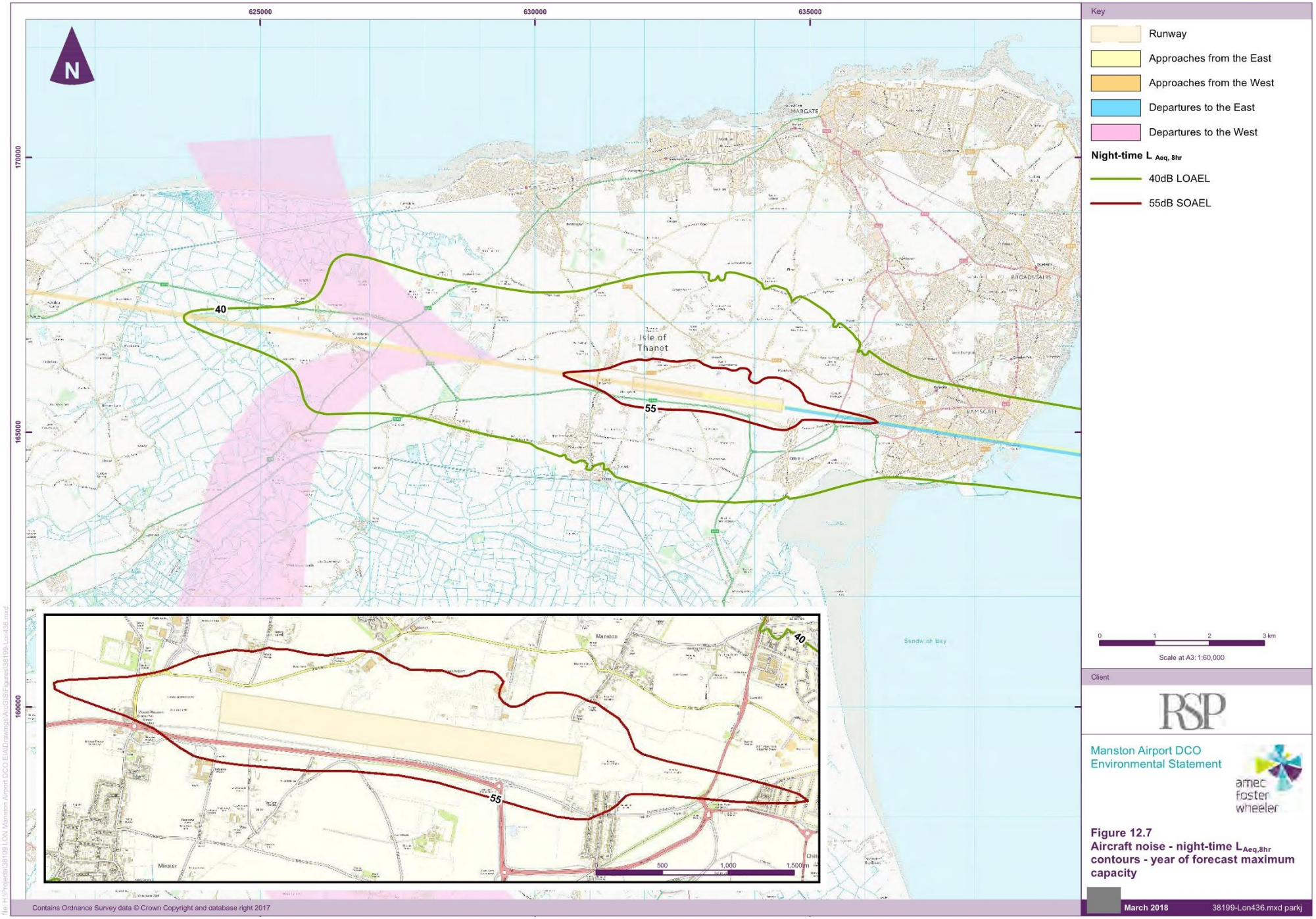
Manston Airport DCO
Environmental Statement

amec foster wheeler

Figure 12.6
Aircraft noise - daytime $L_{Aeq,16hr}$ contours - year of forecast maximum capacity

March 2018 38199-Lon435.mxd parkj

RSP Map 12.7 – Aircraft Noise Night-time LAeq 8hr contours, year of forecast maximum capacity



RSP Map 12.9 – Aircraft Noise Night-time LASmax contours, year of forecast maximum capacity

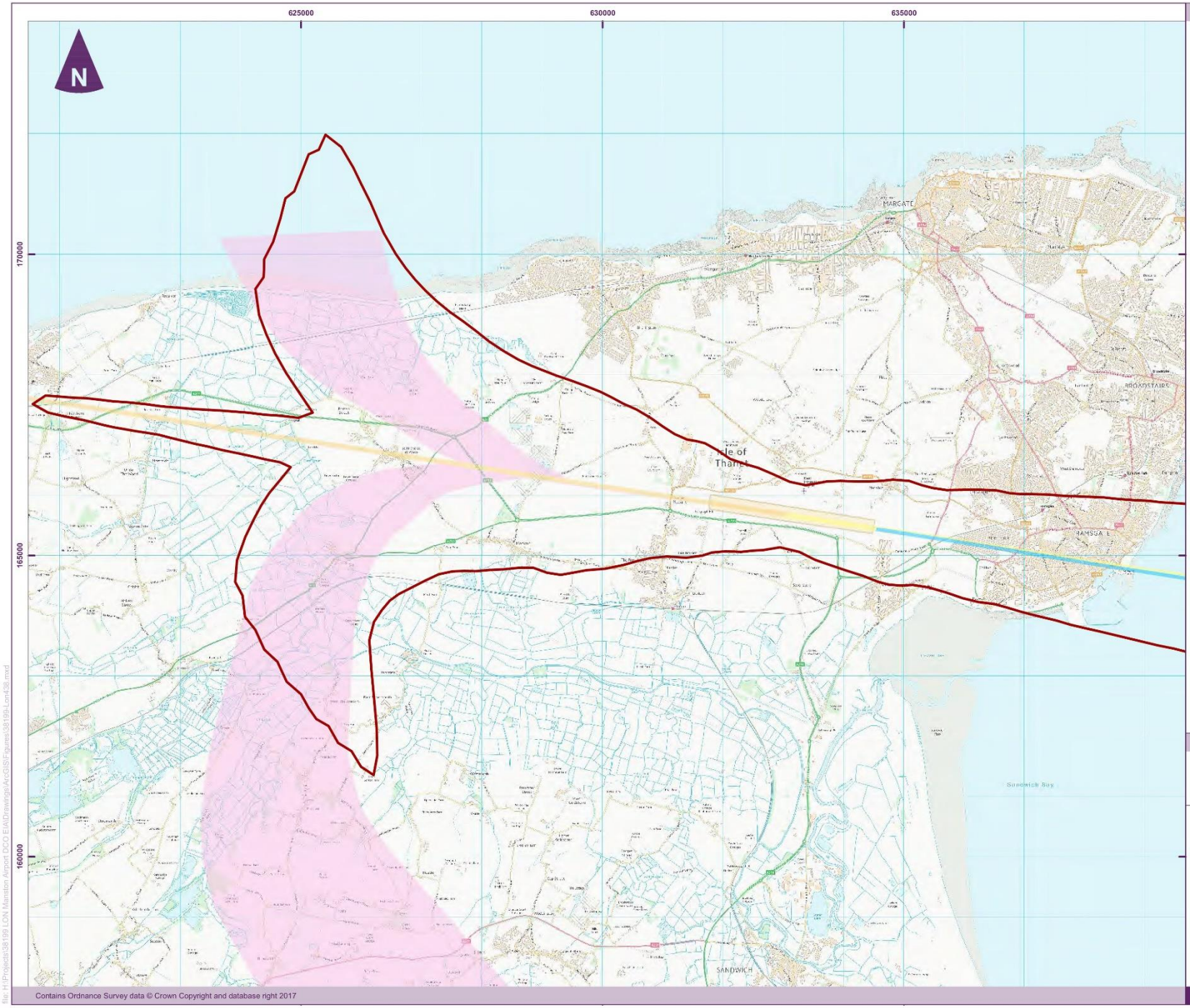
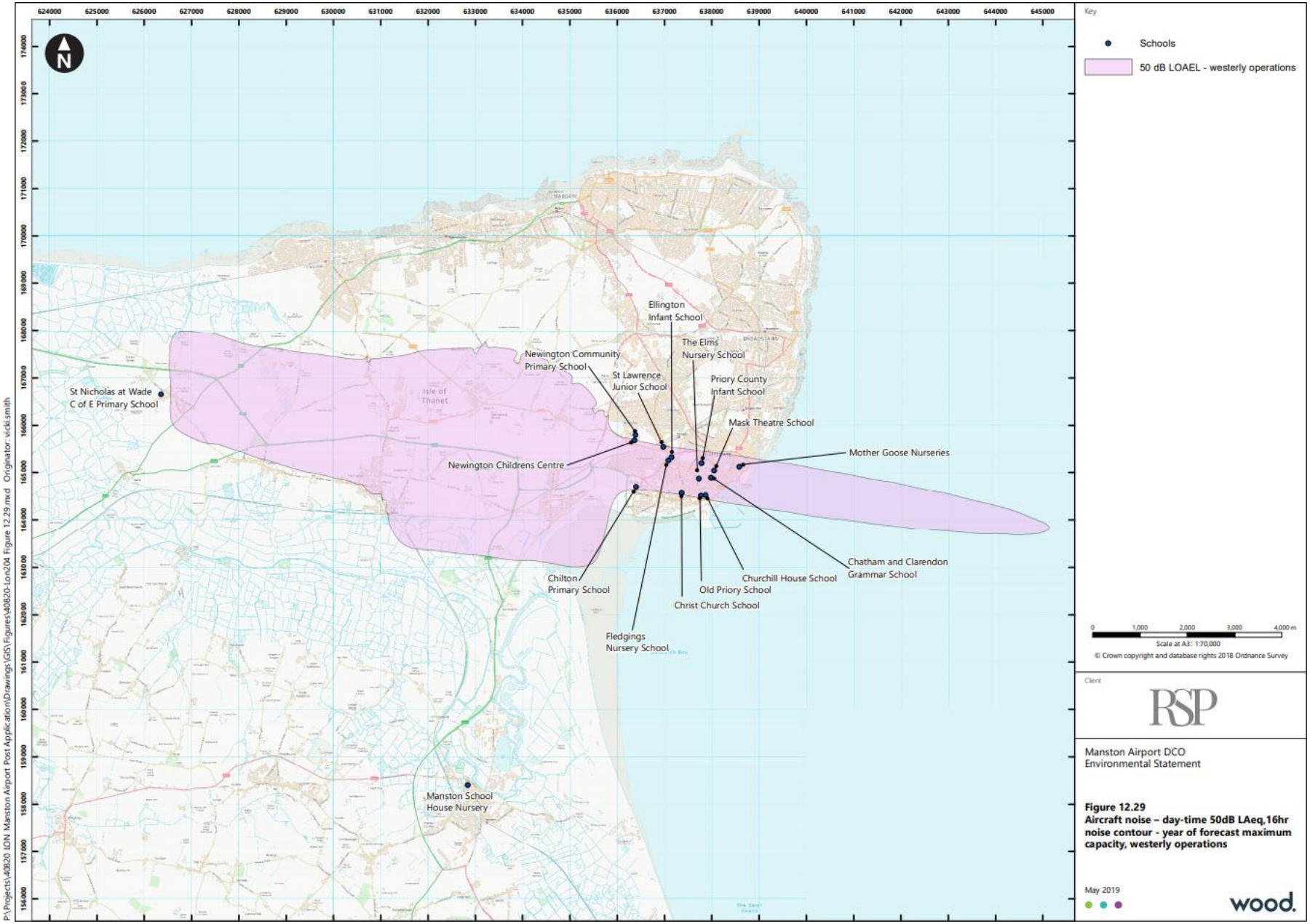


Figure 12.30: Aircraft noise – day-time 50dB LAeq,16hr noise contour - year of forecast maximum capacity, easterly operations (TR020002-004071-Appendices to Answers to TWQ)



Application by RiverOak Strategic Partners Limited for an Order granting Development Consent for the reopening and development of Manston Airport in Kent

REQUEST FOR COMMENTS AND FURTHER INFORMATION

Response by No Night Flights to the Department for Transport letter dated 17th January 2020 – NNF27

"25. The Secretary of State invites the Applicant, York Aviation and the Civil Aviation Authority ("CAA") to submit any comments they have on the late representation from Five10Twelve Limited dated 19 December 2019 relating to correspondence it has received from the CAA. The Secretary of State also invites their comments on the late representation from Five10Twelve Limited dated 20 December 2019 relating to inconsistencies in the application, The representations are published alongside this letter."

---

1. The Secretary of State (SoS) has not invited Interested Parties to comment on these representations. This is surprising given the notionally open and transparent nature of the DCO process and given the fact that these two representations have been accepted after the deadline of 9th July as relevant to the application.

2. It is also surprising given that the 20th December 2019 representation from Five10Twelve sets out the fact that, given the obvious inadequacies in the noise contours produced by the Applicant as part of its Environmental Statement and Impact Assessment, Five10Twelve commissioned the CAA to produce noise contours that more accurately reflected the likely noise impact of RSP's aviation operations proposals (so far as these proposals had been articulated). Like Five10Twelve, NNF also commissioned noise contours from the CAA. We say more about this below.

3. NNF strongly supports the 20th December 2019 submission by Five10Twelve. In particular, we would like to draw the SoS's attention to the facts that:

- Despite having launched in early 2014 a plan to acquire the failing airport, the principals associated with this DCO application have consistently failed to identify any airline operator that has credible plans to move its operations to a new cargo airport at Manston should the application be approved. The appearance of Magma Aviation at a recent RSP focus group is the first hint that any potential air freight customer exists. We note Five10Twelve's evidence that Magma has just two cargo planes that could use a reopened Manston. We also note that Magma's fleet is on average 25.8 years old and that its craft would therefore be classed as the older, noisier planes that RSP undertook in its DCO application to ban. A reliance on older, noisier planes was not built into the assumptions that shaped the Applicant's calculation of the environmental noise and air pollution that would be created should this airport application be successful. Therefore, **the SoS cannot rely** on RSP's environmental impact assessment as an accurate assessment of the likely worst case

- We note, too, Five10Twelve's **significant** discovery that RSP is now saying that there will be up to 8 planes an hour and that there will be "bunching" of ATMs at some times of the

day. This "bunching" was not built into the assumptions that shaped the Applicant's calculation of the environmental noise and air pollution that would be created should this airport application be successful. Again, **the SoS cannot rely** on RSP's environmental impact assessment as an accurate assessment of the likely worst case

- We strongly endorse Five10Twelve's submission at paragraph 42 that the noise contours presented by RSP as part of the environmental impact assessment associated with this DCO application are inaccurate and that they do not represent the likely noise outcome, and certainly not the worst case. RSP's noise contours are fundamentally flawed because:

    - The consultant who produced the contours for RSP, Oliver Bewes, is a specialist in railway noise. He admitted to the Inspectors in the DCO hearing that he had never calculated aviation noise before. He used an outdated (2005) version of modelling software despite this having been updated in 2016. He also used modelling software that the CAA does not use for this purpose. The CAA's model uses actual radar data and noise recordings from UK airports and is to be preferred when predicting the noise that aviation operations at a UK airport will make

    - RSP is planning for a much busier airport than it has ever been – a cargo operation 29 times the size of the previous one (17,100 *vs* 587 ATMs, on average p.a.) and a passenger operation 16 times size of the previous one (9,298 *vs* 656 ATMs, on average p.a.). Despite this, and defying all logic, RSP's noise contours suggest a smaller noise footprint for this much, much bigger and busier airport than the noise levels that were actually experienced previously

    - RSP's noise contours are based on assumptions about types of aircraft and numbers made by Dr Dixon who admitted to the Inspectors in open forum that she had no experience of forecasting air freight. Her assumptions were then changed by RSP during the Inquiry. 25% of the quieter craft that she had predicted would use the airport were removed and replaced with noisier aircraft. Inexplicably, RSP did not update its noise contour maps as a result

    - RSP did not include enough General Aviation ATMs in its calculation of the future noise impact

    - RSP only provided noise contours showing average[1] noise – this takes the number of flights in a period and averages the noise out over 16 or 8 hours. RSP then averaged the noise out between the two modes of operation (east and west), although this is an event that never happens in reality. Operations are never simultaneously east and west for a sixteen hour period as RSP's contours suggest. RSP did not produce contours showing the actual noise of, say, one 747-400 cargo plane operating with an easterly wind and also with a westerly wind

1 RSP calculated its annual ATMs and spread them evenly across 365 days. It then spread a day's flights across a 16 hour day although RSP now says that there will be bunching of ATMs at certain times of day. RSP then averaged that average day's flights as if, for every 16 hour period, 30% of ATMs were in one direction and 70% the other. This never happens in a day – a clean 30/70 split either end of the runway. RSP then added together a 70:30 west/east split and a 30:70 west/east split and divided the total by 2. RSP's contours are a long way from reflecting likely operational reality in which the wind is in one direction for days at a time.

- RSP's contours ignored the fact that there are many years of noise monitor readings of actual aviation noise available for Manston. RSP's "predicted" noise levels did not reflect the past experience of local people (captured in our complaints to the previous airport operator about noise) and actual noise monitor readings.

4. Like Five10Twelve, NNF commissioned the Civil Aviation Authority to produce noise contours. Like Five10Twelve's contours, the contours produced for NNF by the CAA[2] demonstrate the extent to which the Applicant's own noise contours vastly understate the likely noise pollution that will be generated as a result of its aviation proposals. We comment on this in more detail below. In brief, however, the SoS should be aware that no reliance can be placed on RSP's noise contours as being an accurate assessment of the "worst case" noise nuisance that will result from RSP's proposals.

5. As part of our suite of submissions to the DCO Examination process, NNF set out in NNF16,[3] in answer to the Examining Authority's (ExA's) second set of written questions, the fact that the UK Government recognises that the onset of significant community annoyance now begins at 54 dB LAeq, 16hr. The CAA noise contours produced for NNF calculated that this would mean that a population of 29,100 would be exposed to this level of noise and above when aircraft operations are to the east. **This is significantly in excess of the number shown by RSP**. 14,700 people will suffer noise levels at or above the level of significant community annoyance when operations are towards the west. Again, we cannot find this clearly set out anywhere in RSP's documentation.

6. The population that will be affected is also a population that would be *newly* subjected to aviation noise – the old airport closed nearly six years ago, and we are, conservatively, three years away from a new airport opening on that site, complete with a licence from the CAA. This means that this population will be more likely to experience this change in its ambient noise environment as a significant negative change in the quality of life. It is uncontroversial that the onset of significant community annoyance for this population will therefore begin at a level below 54 dB LAeq, 16hr. RSP has not taken this into account in its assessment of the noise impact of its proposals. We also attach our rebuttal of RSP's comments on the CAA's noise contours – NNF22.[4]

7. We attach the noise contours produced by the CAA for NNF, together with our commentary. One thing that is immediately clear when looking at the difference between RSP's contours and the CAA's contours is the stark difference that a marginal tweak to the fleet mix produces. The NNF fleet mix used by the CAA is a closer representation of the fleet mix that RSP now says will be using at its proposed airport. However, if another 10% or 20% of the aircraft in the mix were replaced with noisier aircraft, the average noise contours would expand. We make no claim that the fleet mix that NNF gave to the CAA represents the likely worst case. The lack of detail from RSP, the lack of credible forecasting, the rejigging of forecasts, and the lack of an operational plan from the Applicant mean that NNF, other residents and the ExA were prevented from analysing the likely worst case scenario with regard to noise. This means that there is no calculation of what the worst case noise outcome might be before either the ExA of the SoS.

2 NNF18 is TR020002-004224-AS-NNF
3 NNF16 is TR020002-004001-NNF
4 NNF22 is TR020002-004696-NNF

8. RSP has not set out the *"likely significant effects"* of its proposal in terms of aviation noise. RSP's proposed Noise Mitigation Plan is nowhere near *"adequate to deal with the worst case"*. The CAA contours produced for NNF reveal a worse case than the one that RSP is suggesting. Moreover, given the limitations in the NNF brief to the CAA (we set these out in detail in the attached document), the CAA contours do not show the likely worst case. The worst case is unknown, so – by definition – there is also no adequate mitigation plan that attempts to deal with the likely worst case.

Noise contours commissioned from the Civil Aviation Authority by No Night Flights

14th June 2019

NNF18

9. The PINS advice note[5] on using the "Rochdale envelope" says that the Applicant is required to provide *"sufficient information to enable 'the main,' or the 'likely significant' effects on the environment to be assessed"*.

10. The note says that: *"In assessing the likely effects, it is entirely consistent with the objectives of the Directive to adopt a cautious 'worst case' approach."*

11. The note says that: *"such an approach will then feed through into the mitigation measures envisaged ... It is important that these should be adequate to deal with the worst case, in order to optimise the effects of the development on the environment"*.

12. The Applicant has failed to do this. The contours we commissioned from the CAA demonstrate that tens of thousands of people will suffer a level of aircraft noise that is above the levels set out in the World Health Organisation's guidance, and that is above the level at which the UK Government accepts that *"significant community annoyance"* begins. The Applicant has not provided the information to enable the ExA to examine the likely significant effects of its proposal on the environment. Moreover, the Applicant is suggesting mitigation measures for just a few hundred people.

13. It is for the ExA to decide whether it is satisfied, given the nature of the project in question, that it has *"full knowledge"* of the project's likely significant effects on the environment. We say that the Applicant has failed to produce this. Moreover, now that No Night Flights has provided this information, it is clear that the likely significant negative effects of this proposal will far outweigh the small advantages that the Applicant suggests it will deliver.

NO NIGHT FLIGHTS

5 PINS Advice Note No 9 'Using the Rochdale Envelope' July 2018, Version 3

Why No Night Flights commissioned this work

14. No Night Flights (NNF) was established in 2009 as a response to the problem of aircraft noise from aviation operations at Manston. NNF replaced the Manston Airport Group (MAG). MAG had been in existence since 1999.

15. Most of NNF's members live under the flight path. They include residents from the western edge of Herne Bay in Hampton, to the eastern edge of Ramsgate near the harbour. We also represent residents from the villages under and near the flight paths.

16. NNF came into existence purely because of the noise nuisance created by airport operations at Manston. We know how much noise can be generated by aviation operations on the Manston site. Very early on in the DCO consultation process, it became clear to us that RSP was not presenting the public with an accurate picture of the future noise impact that we would suffer as a result of its planned operation.

17. We have set out in all our consultation submissions, as well as in numerous submissions to the DCO process, the fact that RSP's noise predictions fall far short of our experience of the actual levels of noise produced when the airport was operational. We have submitted evidence about the levels of noise captured by the noise monitors that were in place during that period. We have submitted our "noise nuisance map", that clearly shows the home location of residents who complained about noise levels when the airport was operational. However, the DCO process is designed in such a way that the Applicant can simply ignore our evidence and our challenges. This is what RSP has done.

18. We have also made the point that RSP intends to operate far more ATMs than any of the previous airport operators have handled, and that, logically, it is likely that the noise nuisance generated by RSP's plans would be far greater than the previous noise level that we experienced. To put this into context, we produce below a brief summary of the passenger and cargo Air Transport Movements (ATMs) at Manston during its life as a commercial airport. We have excluded 2014 as the airport was not open for a complete year. We have also excluded General Aviation (GA) ATMs.

Manston/Kent International Airport 1999-2013 **ATMs**

	Lowest annual total	**Highest** annual total	**Average** annual total
Cargo ATMs	**322** in 2006	**1,081** in 2003	**587**
Passenger ATMs	**5** in 2002	**4,454** in 2005	**656**

19. RSP says that it will cap the total number of ATMs for its proposal at 26,468 excluding GA ATMs. RSP's Environmental Statement (ES) suggests a Year 20 total of 17,170 cargo ATMs and 9,298 passenger ATMs. Looking at the table above, it is immediately clear that RSP's operation would be many, many times bigger than that of any previous airport operator on that site. RSP's cargo operation would be more than 29 times the size of the average annual cargo operation previously at Manston, and almost 16 times the size of Manston's best year ever (2003) for cargo ATMs. RSP's passenger operation would be more than 14 times the size of the average annual passenger operation previously at Manston, and more than twice the size of Manston's best year (2005) ever for passenger ATMs. In both cases, the "best year ever"

for the total number of ATMs was many years ago. The table below shows just how much bigger RSP's aviation operation would be than any previous commercial aviation operation that local people have experienced on that site. The full table showing commercial ATMs at Manston from 1999 to 2014 is on page 35.

	ATMs	Multiple of previous operators' **average** year	Multiple of previous operators' **best** year
RSP's suggested **cargo** ATM cap	**17,170**	**29.3**	**15.9**
RSP's suggested **passenger** ATM cap	**9,298**	**14.2**	**2.1**

20. It is not just the comparison with Year 20 that should be noted. RSP "forecasts" a steep growth in ATMs right from the day that its new airport would open. This means that a population that would not have experienced aviation noise at all for about a decade[6] will be exposed to levels of noise outstripping those of previous operations on the site very early on in RSP's growth plans.

21. It is clear that RSP plans an operation that would be many multiples of the size of the previous operations on that site. Despite this, RSP's ES suggests that the noise impact of its operations would be far less than the noise impact we previously experienced. **This has no credibility**.

22. RSP has ignored all our submissions about recorded reality and has refused to deal with the evidence we have produced about past noise impact.

23. The ExA has been entirely reliant on RSP's modelling of noise contours. Those contours were produced by someone with no previous experience of doing this. The ExA said in January that it did not intend to commission independent expert evidence about noise.

24. ICCAN made it clear that it is too young an organisation to bring any expertise to the table to assist the ExA.

25. Given the distinct gap between our actual experience of the noise created by airport operations and RSP's predictions about the future noise impact that it says its much, much bigger airport operation would generate, we felt we had no option but to commission independent expert input ourselves.

26. We commissioned the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority to do this work. The ERCD's role is to provide technical advice to the Department for Transport (DfT) and other Government departments. The ERCD also provides technical advice, including the provision of noise exposure contours, to airport operators, local authorities and others on a commercial basis. We chose the CAA because:

- It is independent.
- It is a recognised centre of excellence in this field
- It is using the latest version of the ANCON noise model, v.2.4

6 Assuming that a DCO is awarded and that RSP takes possession at the earliest in 2021-2022, and then taking into account time required for redevelopment and the CAA licence and airspace change process

- It could do the work by using the same methodology and the same technology that it will use to assess any airspace change proposal that RSP might later submit should a DCO be awarded

27. As part of the Stansted Airport planning application UTT/18/0460/FUL, which Uttlesford District Council resolved to grant in November 2018, noise contours were commissioned. The Uttlesford DC planning committee report dated 30 November 2018 notes in paragraph 9.175 that the ERCD was asked to do this work:

28. *"For the purposes of the ES aircraft noise modelling has been produced by the CAA's Environmental Research and Consultancy Department (ERCD), using their Aircraft Noise Contour (ANCON) model (current version 2.3). The ERCD is a specialist body within the CAA with national and international expertise on the assessment of aircraft noise. They produce noise contours for the designated London airports, and they generated the noise contours used by the Airports Commission.* ***Their work is robust, authoritative and also impartial****."* [our emphasis]

29. We set out below what we asked the CAA to produce; why we asked the CAA to produce it; and what the results of the CAA's work demonstrate. These are the noise contours that RSP should have produced for the public as part of the consultation process and then updated for the ExA.

The Brief we gave the CAA

Contours

30. Firstly, we asked the CAA to produce Lmax footprints for the Boeing 747-400.[7] The 747-400 is the workhorse of the global freighter fleet. We asked the CAA to produce its footprint for each arrival and departure route.

31. Secondly, we asked the CAA to model contours for:

- Day LAeq,16hr (0700-2300 local time), plotted from 51 to 72 dB(A) in 3 dB steps; and
- Night LAeq,8hr (2300-0700 local time), plotted from 45 to 72 dB(A) in 3 dB steps.

32. We also asked for four runway modal splits:

- 100% west
- 100% east
- 70% west/30% east
- 30% west/70% east.

Fleet mix

33. We gave the CAA a fleet mix to use. That fleet mix is set out in the CAA's report (Appendix Two, pages 38-39). It draws to a very significant extent on the fleet mix set out by RSP in its ES last year. However, despite identifying a number of changes to the fleet mix and to operations since producing the ES last year, RSP has not updated its original fleet mix. This is unacceptable.

34. In the ISHs in March and in June, Nick Hilton of Wood repeatedly asserted that RSP's fleet mix is not a 100% prophecy and that it is not a guarantee. He repeatedly said that it was, however, a robust enough estimate of future operations to absorb any variation of parameters in the future. These two assertions are contradictory. The ExA cannot assess the likely significant impact of operations if the fleet mix that underpins these operations is not updated in line with changes in the Applicant's "forecasts".

35. In the ISHs in March, RSP said that its plan now includes "new" integrators. RSP said that the implication of this for the fleet mix in the ES is that the ATR-72 craft should be deleted. RSP said that these craft would be replaced by B737s and B767s. We asked the CAA to make this adjustment. We chose the B737-800 and the B767-300 to replace the ATR-72s having looked at the fleet mix of Amazon and Alibaba. Had RSP updated its fleet mix we would have been able to use that.

36. We asked the CAA to include in the fleet mix the 38,000 General Aviation ATMs for which RSP has asked permission. Again, there is little information available as to what craft would be flown. RSP has mentioned "two kinds of Piper" but has said no more. We knew that TG Aviation (the training school that was based at Manston when the airport was operational) uses C152 and Piper Warriors. We also knew that, in the past, Manston had welcomed executive jets to the airport. We asked the CAA to divide the 38,000 ATMs evenly across the four categories set out by the CAA:

7 Boeing 747-400, GE CF6 engines (ANCON type B744G)

- SP = single propeller e.g. C152
- STP = small twin-piston e.g. C310
- STT = small twin-turboprop e.g. F406
- EXE3 = executive jet (Chapter 3) e.g. C510.

An "average" day

37. Beyond the statement that RSP has modelled an average winter's day rather than an average summer's day, RSP has not set out clearly how its ATMs might be allocated across a year or across a day. As we had no further information to go on, we asked the CAA simply to take the RSP fleet mix, substitute the ATR-72s as explained above, and then divide the annual ATM total by 365. This means that our contours do not capture the worst case, as we were not able to model what the worst day might look like.

38. RSP has never produced an outline timetable for its operations, so we were unable to produce any noise contours using Lden. (Lden is the average sound level over a 24 hour period, with a penalty of 5 dB added for the evening hours of 19:00 to 22:00, and a penalty of 10 dB added for the night time hours of 22:00 to 07:00.) RSP accepts that there will be a clustering of ATMs in the evening. Our contours do not capture the recognised increased annoyance caused by aircraft noise in the evening and so, again, do not represent the likely worst case.

Night operations

39. We asked the CAA to produce night noise contours. RSP has never produced a fleet mix for its night flight operations, whether during the consultations or during the examination itself. All RSP has said is that it envisages around seven or eight night time flights on average a night, and that it wishes to allow dedicated cargo planes that had been scheduled for the day period to arrive late, during the night period. RSP also wants the freedom to allow passenger planes to depart from 0600.

40. RSP has asked for a Quota Count budget for the hours 2300 to 0700 of 3,028 QC points. It was perfectly clear in the ISH on Environmental Issues on 5th June 2019 that RSP had no idea what its 3,028 QC points would translate into in terms of a number of ATMs and the type of aircraft. Indeed, RSP seemed doubtful under questioning as to whether it would be possible to "retrofit" ATMs to its QC budget. We find this astonishing.

41. As an aside, if RSP does not know what its night operations would look like, it is evident that RSP cannot make a business case to support the need for those night flights.

42. Given this limited information, we developed an average night fleet mix that would use a budget of less than 8.3 QC points per night (3,028 ÷ 365); that would number fewer than seven or eight ATMs per night; and that would include dedicated cargo planes arriving and passenger planes departing. We used aircraft already in RSP's fleet mix for these ATMs. Our night fleet mix is set out in the CAA's report on page 39.

Flight paths

43. RSP has produced indicative flight paths only. We therefore asked the CAA to use the flight paths that it had approved when the airport first became a commercial airport – the "Wiggins routes", see pages 46-47. These routes capture the operator's various methods of minimising

overflying of centres of population. The routes were crystallised with the CAA's approval in the airport's AIP in September 2007 and updated in 2010. The AIPs reflect the Wiggins routes.

44. In 2009 NNF had a number of conversations with the CAA about the approved routes as, at that time, we were experiencing some off-route flying. The CAA confirmed that the routes that we had from the Wiggins days and the AIP routes were the approved routes. Pilots coming in to land, particularly in a fully laden 747-400, want to establish themselves on the centreline about 10 miles away from the airport. There is limited room for manoeuvre in a fully loaded 747 on a 3 degree Continuous Descent Approach. This means that the arrivals path is over Herne Bay and Ramsgate for the bigger, noisier planes. The departure routes were created to minimise the overflying of Herne Bay and Ramsgate.

45. We asked the CAA to use the routes that it had previously approved and that we knew had previously been flown. In practical terms, whatever routes the CAA finally approves, should the DCO be awarded, will be driven by safety and by avoiding population centres where possible. Given the geography, the flightpaths will always be pretty much the same as they were in the past.

The Rationale for our Brief to the CAA

Lmax footprints for the Boeing 747-400

46. We asked the CAA to model these footprints because they are the best reflection of the noise that we actually hear. The contour maps on pages 49-53 are maps of the noise harm that will be caused by a single 747-400G as it follows each of the flight paths.

47. People do not hear the average of a series of separate noise events. Noise harm is experienced "in the moment" for the period that it takes a plane to fly over a location. If 100 aircraft, each creating noise levels of 90dB Lmax, fly over someone's house during a day, that person will hear 100 individual 90dB noise events. He/she will not hear an average of those 100 flights spread evenly over a sixteen hour period. LAeq is *least misleading* when used for airports where the noise is almost constant because planes are flying overhead all the time. This is not the case at Manston where RSP says that it will cap cargo and passenger ATMs at 26,468 per annum, which is around 72 to 73 ATMs per twenty four hour period.[8]

48. As far as we can make out from RSP, a maximum of seven of eight of those 72 to 73 ATMs would operate during the night period (RSP steadfastly avoids having an ATM cap for its night period, so, in reality, none of us knows how many night ATMs there will be). That leaves around 65 cargo and passenger ATMs on average per sixteen hour period – an average of four ATMs an hour. If the noise of 65 90dB flights is averaged out, **the resulting noise footprint will be artificially small**. It will suggest that the noise created is almost imperceptible above the existing ambient noise level. However, the noise of four 90dB aircraft an hour going overhead all day, every day, can be very intrusive. A 90dB overflight, we know from experience, is enough to prevent conversation and mask the sound from a television. At night it will wake people.

49. The suggested cargo and passenger ATM cap for RSP's new airport is a few percent of the total ATMs for an airport like Heathrow. For an operation like the one RSP plans for Manston, with an average of four ATMs an hour, an average measure of noise across a sixteen hour period will do a superb job of masking the true noise impact, and must be rejected. The single noise footprints for an aircraft are the closest-to-experience representations of the noise impact that we can currently produce. They are to be preferred.

Day and Night LAeq in 3dB steps

50. We asked the CAA to model these contours because LAeq is the most widely-used metric when airports are monitoring the noise created by current operations or when they are seeking permission to expand, and also because RSP has chosen to focus on these contours. As we explain above, we know that **they are not an accurate reflection of the noise nuisance that individuals under the flight path or near the airport will suffer**. Additionally, in our assessment, the LAeq contours are unhelpful as a metric to use to inform local residents as to the level of noise that they might experience when a new airport is opened. However, we wanted to be able to compare the LAeq contours produced by RSP using its original fleet mix in the ES with LAeq contours generated by the CAA using a fleet mix that is a better match for the mix that RSP now says is most likely to be using the airport.

8 We are ignoring the additional 38,000 General Aviation ATMs for these purposes

51. We asked the CAA to show the contours in increments of 3dB. It is beyond us why RSP has chosen not to show this level of detail in its ES.

52. In recognition of the WHO's guidance that people should not be subjected to aircraft noise above 45dB Lden, we wanted to ask the CAA to produce contours for Lden. RSP has said in the ISHs in March that there will be busy periods in an average day and that there will probably be a clustering of ATMs in the evening. RSP also said in answer to ExA 2WQ Ns 2.16: *"… as night ATMs will not be permitted, this will cause a higher than average demand during the hours immediately after opening in the morning and again in the hours approaching closure in the evening."* This would have a marked effect on the Lden contours. However, RSP has provided no useful information as to how ATMs might be spread across the day and evening so we were unable to model contours using this slightly more nuanced metric. Again, this means that our contours do not model the likely worst case.

The runway modal splits

53. What RSP has set before the ExA is a suite of noise contours, the vast majority of which show the noise generated by its annual ATMs, spread out almost entirely evenly across the year, then spread out evenly over an average day, and then averaged out between easterly and westerly operations. This is a long way from being a fair representation of reality.

54. To a great extent, it is the wind that determines whether operations are easterly or westerly, with the airport operator articulating a preference for westerly operations as and when it is safe to do so. In reality, on an average day, the wind does not blow 70% of the time in one direction and 30% in the other. Operations are never simultaneously east and west for an eight or sixteen hour period as RSP's contours suggest. The 70/30 split is only apparent as a rough average when viewed across an entire year, but local people do not experience 365 days a year with the wind being 70% from the east and 30% from the west every day.

55. In reality, the wind tends to blow in a certain direction for days at a time. In reality, therefore, residents will most often experience a full day's operations being 100% to the west or 100% to the east, rather than being split neatly 70/30 for each of the 365 days of the year. TDC's consultants, Ricardo, identified this flaw in RSP's modelling in Ricardo's submission to D6.

56. Given our past experience of entire days' operations being to the west or the east, we thought it imperative that we capture the noise impact of 100% westerly and 100% easterly operations.

The Results

Lmax footprints for the Boeing 747-400

MAP 1 – FULL IMAGE ON P49

One B747-400G arriving from the West.

80dB: 750 people live inside this contour

75dB: 5,400 people live inside this contour

70dB: 26,950 people live inside this contour [9]

57. The 70dB contour extends right over the town of Herne Bay, and over Hampton and Studd Hill in the west. The 80dB contour extends into St Nicholas at Wade. 80dB is typically described as a noise equivalent to an alarm clock going off close to a sleeping person.

58. If this DCO is awarded, the numbers of people who will experience the noise levels shown in Map 1 will increase substantially. The Canterbury Local Plan provides for over 4,000 new homes in Herne Bay. Four new housing estates, totalling towards 3,000 homes, will be at the eastern end of town, the part of the town most affected by aviation noise from Manston. Some of those estates are already at the planning permission stage. At a conservative estimate, an additional 6,000 to 9,000 people will be in the 75dB contour when these new homes are built.

MAP 2 – FULL IMAGE ON P50

One B747-400G departing to the East.

80dB: 22,050 people live inside this contour

75dB: 33,100 people live inside this contour

70dB: 42,600 people live inside this contour [10]

59. The 80dB contour extends right over Ramsgate and beyond the harbour arm.

9 CAA table 18, see page 40
10 CAA table 16, see page 39

MAP 3 – FULL IMAGE ON P51

One B747-400 arriving from the East.

80dB: 15,100 people live inside this contour

75dB: 20,550 people live inside this contour

70dB: 26,800 people live inside this contour [11]

60. The 80dB contour extends from the runway, right over the town and over the harbour. The 70dB contour covers almost the entire town.

MAP 4 – FULL IMAGE ON P52

One B747-400 departing East then turning North.

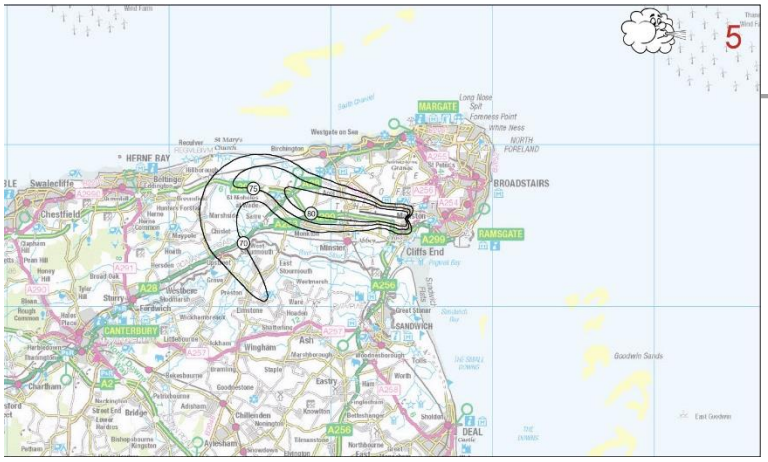
80dB: 650 people live inside this contour

75dB: 2,100 people live inside this contour

70dB: 6,100 people live inside this contour [12]

61. There are two departure paths available when a plane departs to the west over Herne Bay. Route 1 means a turn to the north over the Wantsum Channel.

MAP 5 – FULL IMAGE ON P53



One B747-400 departing East then turning South.

80dB: 650 people live inside this contour

75dB: 2,250 people live inside this contour

70dB: 5,650 people live inside this contour [13]

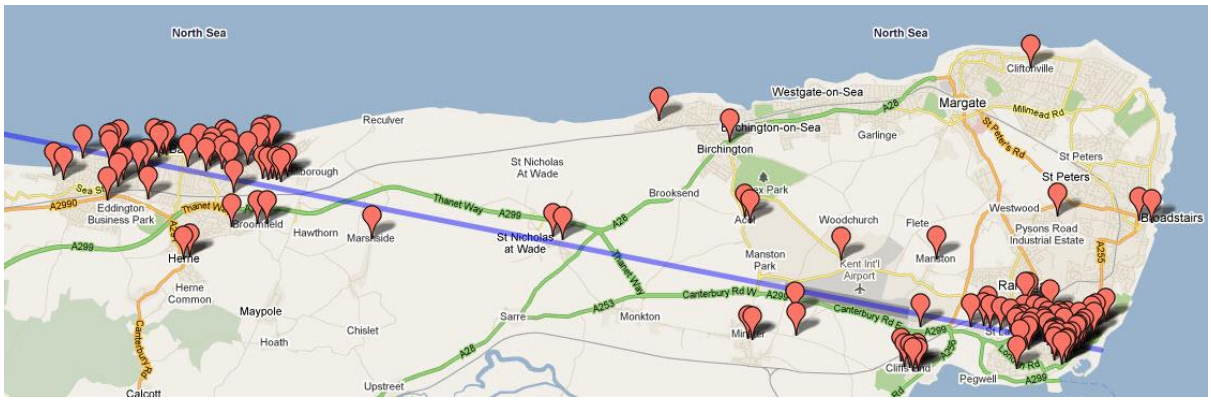
11 CAA table 17, see page 40
12 CAA table 14, see page 39
13 CAA table 15, see page 39

62. The second departure path for a plane departing to the west over Herne Bay is Route 2. This means a turn to the south over St Nicholas at Wade.

Comparisons

63. It is hard to compare the CAA's noise contours with those provided by RSP. As far as we can tell (it is needlessly difficult to navigate RSP's thousands of pages of unhelpfully referenced submissions, so we may have missed something), RSP has failed to model the noise impact generated by a single 747-400 flight on each of the five available routes. The nearest comparators that we can find are RSP's LASmax night contours for Year 20.[14]

64. A comparison of RSP's Figure 12.9 (page 68) with NNF's Maps 1 and 2 reveals a significant noise impact that RSP has simply not shown. The 70dB contours extend over the entire town of Herne Bay in the NNF contours. RSP has only modelled 80dB LASmax and so Herne Bay does not even appear on its maps. This suggests that Herne Bay will be entirely unaffected by aircraft noise – an assertion often made by the RSP team at various consultation events. However, Herne Bay residents know from experience that a single 747-400 creates a significant noise footprint. A 747-400 overflying Herne Bay in the daytime is loud enough to make people look up as it goes over. At night, the impact is greater. The real impact on Herne Bay residents is entirely missing from RSP's assessment of noise impact.



65. We have submitted many times before NNF's map of noise complaints to illustrate the homes of people who felt so strongly about the aircraft noise generated by Manston that they complained. We submitted it in our response to the July 2017 and the February 2018 statutory consultations. We submitted it in our critiques of Dr Dixon's "Azimuth – volume I" report in February 2018, December 2018 and February 2019. We submitted it in NNF06 and NNF09 in February 2019 in response to D3. It has been ignored by RSP on every occasion. We submit it again above. It can immediately be seen how our noise map, identifying real people who made actual complaints about real aircraft noise, matches the CAA noise contours for a 747-400.

66. Clearly, footprints like the ones we've shown are the best representation of the actual noise (and therefore the actual harm) experienced by the people who live, work and study within earshot of the flight paths.

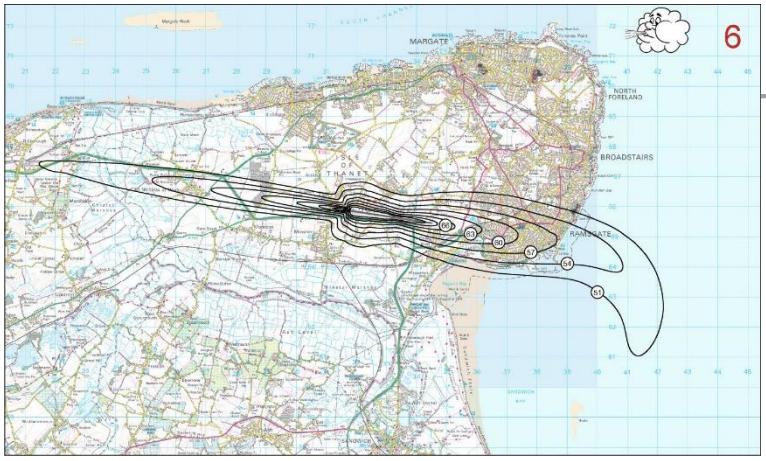
67. Averaging the noise contours gives the appearance of averaging the harm, and the technique that RSP is using to present the effect of its proposals downplays the actual harm to the extent

14 ES Figure 12.9

that it appears not to exist. **Averaging noise destroys evidence of harm, and must not be relied on by the ExA when assessing the potential harmful effects of the proposal**.

Contours for operations 100% to the east or west – a real "average" day

MAP 6 – FULL IMAGE ON P54



Runway operations during **Easterlies**

63dB: 700 people live inside this contour

54dB: 29,100 people live inside this contour

51dB: 37,950 people live inside this contour [15]

68. These contours are average contours, and a number of things are immediately apparent. There is **no 75dB or 80dB contour** – the averaging of all the noise events means that they simply cease to exist. Those **actual** noise events of 75dB, 80dB and over (and 100dB was frequently recorded by the noise monitor at Clarendon School) have been "averaged" out of existence. The average contours are clearly much smaller. None of them extend into Herne Bay, although we know that **every** 747-400 arrival over Herne Bay is heard the length of the town, as are smaller passenger planes like the Fokker 70 and Fokker 100 previously flown by KLM and EUJet.

69. We set out in NNF16, in answer to ExA 2WQ Ns 2.13, the fact that the Government recognises that the onset of significant community annoyance now begins at 54 dB LAeq, 16hr. That's 29,100 people when operations are to the east. This population is one that would be newly subjected to aviation noise. This means that this population will be more likely to experience this change in its ambient noise environment as a significant negative change in the quality of life. It is uncontroversial that the onset of significant community annoyance for this population will therefore begin at a level below 54 dB LAeq, 16hr.

70. As we set out in NNF09, the socio-economic facts are that Thanet has a population that is likely to be **more** vulnerable to the damaging effects of aviation noise than the average population as a result of the local age and health profile.

71. In NNF14 at paras 11-13, NNF quoted from the WHO's 2018 report:

72. *"For average noise exposure, the GDG [Guideline Development Group] strongly recommends reducing noise levels produced by aircraft below 45 dB Lden, as aircraft noise above this level is associated with adverse health effects."* [16]

73. The best comparator that we can find for our Map 6 is RSP's Figure 12.6 (see page 66) – daytime LAeq 16 hour, Year 20. Of course, RSP has averaged operations to the east with operations to the west. This means that the noise impact is considerably understated in RSP's

15 CAA table 7, see page 35
16 "Environmental Noise Guidelines for the European Region" - previously submitted by NNF for D3

contours. RSP's 50dB contour over Ramsgate falls slightly outside the CAA's 57dB LAeq contour and between that contour and the CAA's 54dB LAeq contour. The CAA's contour map shows that between 29,100 and 37,950 people[17] will experience average noise levels over 54 dB LAeq. That is the level of the onset of significant community annoyance. RSP is seeking to downplay this. RSP is not proposing to offer any mitigation.

74. In TR020002-004180, the ExA's list of Action Points arising from the June hearings, the ExA asks at point 7 about the proximity of the 57dB contour to Albion Place Gardens.

75. The additional KML files that the CAA provided allow us more flexibility in viewing the contours, for example being able to "zoom in". Below is the CAA Map 6, viewed through Google Earth. The 57dB LAeq contour is highlighted in pink for clarity. Below that, at paragraph 77, is a closer look at the eastern end of the 57dB contour.

76. 

17 CAA table 7, see page 35

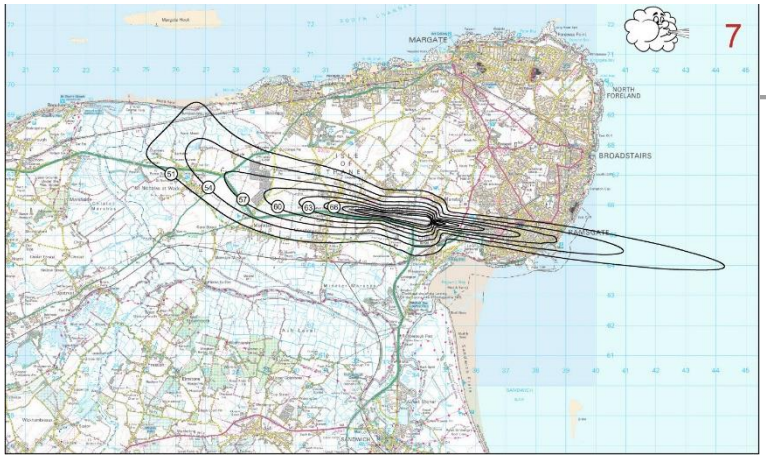
77. 

78. The Google Earth images overlaid with the CAA contours show that Albion Place Gardens are entirely within the 57dB Leq contour for 100% operations to the East, as is much of central Ramsgate's harbour frontage, from the Old Sailors' Church by Nelson Crescent to the Bandstand at Wellington Crescent.

79. The other thing that is immediately clear when looking at the difference between RSP's contours and the CAA's contours is the stark difference that a marginal tweak to the fleet mix produces. The NNF fleet mix used by the CAA is a closer representation of the fleet mix that RSP now says will be using its proposed airport. However, if another 10% or 20% of the aircraft in the mix were replaced with noisier aircraft, the average noise contours would expand. There is no confidence that the fleet mix that NNF gave to the CAA represents the likely worst case. The lack of detail from RSP, the lack of credible forecasting, the rejigging of forecasts, and the lack of an operational plan from the Applicant mean that residents and the ExA are prevented from analysing the likely worst case scenario with regard to noise.

80. RSP also produced a 50dB LAeq contour at p383 of the appendices to its response to the ExA's 3WQ – see page 69. That 50dB LAeq contour is similar to the CAA 51dB LAeq contour to the west and markedly understates the noise impact to the east. What it fails to set out is the fact that some of the schools that RSP has marked in Ramsgate are within the 57dB LAeq contour.

MAP 7 – FULL IMAGE ON P55



Runway operations during **Westerlies**

63dB: 300 people live inside this contour

54dB: 14,700 people live inside this contour

51dB: 21,800 people live inside this contour [18]

81. 14,700 people will suffer noise levels at or above the level of significant community annoyance when operations are towards the west. Again, we cannot find this clearly set out anywhere in RSP's documentation.

82. RSP produced a 50dB LAeq 100% west contour at page 382 of the appendices to its response to the ExA's 3WQ. It shows the primary school at St Nicholas at Wade as being outside the 50dB LAeq contour. The CAA shows this school as being between the 51dB LAeq and the 54dB LAeq contours.

Contours for operations 70% west and 30% east

MAP 8 – FULL IMAGE ON P56

Runway operations during **70W:30E**

54dB: 19,400 people live inside this contour [19]

83. We also asked the CAA to produce contours for runway operations averaged out so that 70% are west and 30% are east.

84. Again, even with the caveat that these contours are artificial, and that this *average of an average* understates the impact, the noise impact is still significant. 19,400 people will suffer a noise level of 54dB LAeq and above. That's 19,400 people who, even on RSP's average of an average, will suffer significant community annoyance.

18 CAA table 6, see page 35
19 CAA table 8, see page 35

85. Again, the contours in Map 8 are larger than the contours in RSP's Figure 12.6 from its ES (see page 66). In Ramsgate, RSP's 50dB LAeq contour falls partly inside the CAA's 51dB LAeq contour and then runs with the CAA's 54dB LAeq contour to the north.

Contours for operations 30% west and 70% east

MAP 9 – FULL IMAGE ON P57

Runway operations during **30W:70E**

54dB: 25,250 people live inside this contour [20]

86. We asked the CAA to produce contours for runway operations averaged out so that 30% are west and 70% are east. As we say above, we produced these contours simply so that we would have a comparator for the contours produced by RSP. It must be remembered that **these contours do <u>not</u> in any way reflect the reality of operations**. Operations are never simultaneously east and west for a sixteen hour period as RSP's contours suggest. The contours are generated by taking the "forecast" fleet mix and ATM total for Year 20, then dividing those ATMs by 365 to arrive at an "average" ATM total for one day. That day's average ATMs is then split between easterly and westerly operations 30/70 or 70/30 on the assumption that traffic might be split in this way over the course of a full year. This 30/70 split does not happen in practice. The wind does not blow neatly 30% in one direction then 70% in another to allow this split for every 16 hour period. This 30/70 split does not show an "average" day.

87. Even with the caveat that these contours are artificial, and that this average of an average understates the impact of the aircraft noise, the noise impact is still significant. 25,250 people[21] will suffer a noise level of 54dB LAeq and above. That's 25,250 people who, even using RSP's approach of taking an average of an average, will suffer significant community annoyance.

88. It is instructive to look at the noise footprints produced by the CAA for a single 747-400 (Maps 1 to 5) and then compare those footprints with the CAA's average contours for operations 100% to the east or west (Maps 6 and 7). The contours shrink as quieter aircraft are added into the calculation and the noise impact of four aircraft an hour is averaged out over a full 16 hour period. If we then compare the 100% east or west contours with the 70/30 splits, we see that the contours shrink again. Finally, if we look at RSP's LAeq contours (on pages 66-67), we can see the diminishing effect of taking a 70/30 modal split and averaging it with a 30/70 modal split. The full extent of the noise harm presented by every 747-400 appears to have vanished. Even the extent of the noise harm caused by a 100% east or west operation has shrunk significantly. We conclude that this is why RSP chooses to present so few contours and to present contours that represent average noise that is then averaged again.

20 CAA table 9, see page 36
21 CAA table 9, see page 36

89. RSP's Noise Mitigation costs will be driven by the number of people who fall within whichever noise contour that the ExA decides is appropriate. As an example to illustrate what this could mean, we note that the planning approval given to Stansted by Uttlesford DC includes a requirement to extend the sound insulation grant scheme to include households in the 57 dB LAeq,16h noise contour. This is set out in the relevant draft s106 agreement (see schedule 3: Part 1).[22] The CAA contours for RSP's proposals for operations 100% to the east show that 8,300 households fall within the 57 dB Leq contour and would be entitled to a sound insulation grant under the Stansted scheme. That's £41.5m to add to the insulation scheme costs for homes within the higher contours of 60dB LAeq and 63dB LAeq. The smaller the relevant contour, the smaller RSP knows its noise mitigation bill will be.

Night contours

90. We asked the CAA to produce four sets of night contours:

- 100% to the east
- 100% to the west
- 30% to the west and 70% to the east
- 70% to the west and 30% to the east.

91. NNF set out in detail the WHO's 2018 guidance on aviation noise in NNF09. In its 2018 report,[23] the WHO said that:

92. *"11% of participants were highly sleep-disturbed at a noise level of 40 dB Lnight."*

93. At 55dB Lnight, that figure rose to 25.5%.[24] The WHO went on:

94. *"There is additional uncertainty when characterizing exposure using the acoustical description of aircraft noise by means of Lden or Lnight.* ***Use of these average noise indicators may limit the ability to observe associations between exposure to aircraft noise and some health outcomes (such as awakening reactions); as such, noise indicators based on the number of events (such as the frequency distribution of LAmax) may be better suited.*** *However, such indicators are not widely used.* ***The GDG acknowledged that the guideline recommendation for Lnight may not be fully protective of health****, as it implies that around 11% (95% CI: 4.72–17.81) of the population may be characterized as highly sleep-disturbed at the recommended Lnight level. This is higher than the 3% absolute risk considered for setting the guideline level."*[25] *[our emphasis]*

95. RSP has chosen to ignore the latest WHO guidance. The ExA should not.

96. As we have said above, we were unable to provide the CAA with the data that it would need to calculate Lden as RSP has not produced any information about the likely timing of flights. In our assessment, given the relatively small number of night ATMs that would be spread across an average night, the LAmax contours would be the most accurate reflection of the

22 Document submitted separately with this submission.
23 World Health Organisation - Environmental Noise Guidelines for the European Region 2018
24 ibid – table 32
25 ibid – section 3.3.2.3

level of noise that each night ATM will cause. Averaging the noise generated by seven or eight flights across an eight hour period is meaningless.[26]

97. Nevertheless, in order to be able to compare the CAA's work with RSP's, we asked the CAA to provide night contours based on LAeq 8 hr.

MAP 10 – FULL IMAGE ON P58

Runway operations during **Easterlies** at night

45dB: 28,750 people live inside this contour [27]

3,163 people highly sleep-disturbed

98. Map 10 shows the average noise nuisance created by six night ATMs averaged across an eight hour period when operations are to the east. 28,750 people currently live within the 45dB LAeq contour, so that's 28,750 people who would experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people are predicted to be highly sleep-disturbed. That's at least 3,163 people. This will have negative implications for their health. As we have explained above, the likely number of people adversely affected will soon be much higher given the plan for four new housing estates in eastern Herne Bay. A conservative estimate of an additional 6,000 to 9,000 people will be in the 45dB contour.

MAP 11 – FULL IMAGE ON P59

Runway operations during **Westerlies** at night

45dB: 22,450 people live inside this contour [28]

2,470 people highly sleep-disturbed

99. Map 11 shows the average noise nuisance created by six night ATMs averaged across an eight hour period when operations are to the west. 22,450 people live within the 45dB LAeq contour, so that's 22,450 people who would experience a level of aircraft noise at night at least

26 We are ignoring here the freedom that RSP seeks to carve out via its Noise Mitigation Plan to have a countless number of night flights using aircraft rated QC0.125 and QC0. The Government recognises that these aircraft create enough noise to cause disturbance to people. RSP has ignored this

27 CAA table 11, see page 37

28 CAA table 10, see page 37

5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed. That's at least 2,470 people.

100. RSP's night LAeq contours are in the ES at Figure 12.7 (see page 67). It is hard to know how RSP calculated these contours given the confusion amongst the RSP team when asked at the ISH on Environmental Issues in June what underpinned its night operation assumptions and what fleet mix and number of ATMs led to RSP's desire for a 3,028 annual QC budget. It can be seen from RSP's Figure 12.7 that RSP has significantly understated the potential noise impact of the night flights that it could operate whilst staying within its desired QC budget and whilst following its statements about welcoming late arriving cargo planes at night and allowing passenger planes to take off from 0600.

101. RSP has shown only the 40dB and the 55dB night contours. Looking at Map 10 above, RSP's 40dB contour is smaller than the CAA's 45dB contour in the west and is closer to the CAA's 48dB contour. Looking at Map 11 above, RSP's 40dB contour is similar to the CAA's 45dB contour in the east. RSP's Figure 12.7 disguises the fact that the 57dB Lnight contour stretches well into Ramsgate and that much of the town would experience average night noise of 51dB.

102. As we have said above, we are modelling average noise here. That's the average noise of six flights, each taking, say, a minute in terms of the sound that any one person hears. Those six minutes of sound are then averaged over an eight hour period, suggesting that the actual noise experienced is at a very low level. This is highly misleading. A better indicator of the noise suffered when there are relatively few ATMs in a period is LAmax – the actual sound generated by each overflight. Our Maps 1 to 5 are the most useful when considering the impact of night noise on the local population created by one kind of aircraft.

MAP 12 – FULL IMAGE ON P60

Runway operations during **70E:30W** at night

45dB Lnight: 23,300 people live inside this contour [29]

29 CAA table 12, see page 38

MAP 13 – FULL IMAGE ON P61

Runway operations during **30W:70E** at night

45dB Lnight: 23,600 people live inside this contour [30]

103. For completeness, we have included LAeq contours for night noise for the "average of an average" calculation of 30% west and 70% east (Map 13), and vice versa (Map 12). The same caveats apply to these as we set out above. Even with this repeated coarsening of the data by averaging, it can be seen that the CAA's contours here stretch further than the contours shown in RSP's Figure 12.7 (see page 67). 23,600 people[31] will experience noise levels of 45dB Lnight and above for the imaginary 30% west and 70% east runway split, and 23,300 people[32] will experience noise levels of 45dB Lnight and above for the imaginary 70% west and 30% east runway split. This means that tens of thousands of people will suffer aircraft noise at night well above the maximum level recommended by the WHO.

30 CAA table 13, see page 38
31 CAA table 13, see page 38
32 CAA table 12, see page 38

Additional Comments

The impact of changes to the fleet mix – RSP is not showing the likely worst case

104. The CAA's work depends entirely on the brief that NNF gave the CAA. NNF's brief depends on the fleet mix that RSP published in its ES and on the oral updates to that fleet mix given by Mr Cain and his RSP colleagues at the ISHs in March and June. The fleet mix in RSP's ES depends on the "forecasts" produced by Dr Dixon. Dr Dixon admitted in March that she has no experience of forecasting air freight in the south east of the UK. It is hard to understand why Mr Freudmann introduced Dr Dixon to his RSP colleagues as the consultant to undertake this work given her lack of experience.

105. NNF recognises that the fleet mix produced by RSP is of questionable quality in terms of its predictive power. However, it is the only fleet mix that RSP has produced and so we felt that we were obliged to use it. Our removal of the ATR-72 craft reflects RSP's many statements that this is a sensible thing to do, in recognition of the fact that RSP has changed its expected fleet mix since publishing its ES.

106. RSP compounded the unreliability of the "forecasts" that generated its fleet mix by then asking a consultant who had not previously used the relevant software to take that fleet mix and model the noise contours that it would generate. This is another odd decision. It is also surprising that RSP chose not to use the software used by the CAA, or indeed, the CAA itself.

107. The difference between the CAA 70/30 contours and the RSP 70/30 contours demonstrates the impact on the noise environment that occurs when relatively small changes are made to the fleet mix. The fact that this difference is visible for an annual ATM average that has then been split 70/30 and 30/70, and then averaged across those two modal splits, shows what impact a small change in the fleet mix can make even when the data is degraded through several iterations of averaging. It is all the more important then, that the ExA should have available to it a fleet mix that truly represents the likely worst case. The fleet mix in RSP's ES is clearly not that fleet mix.

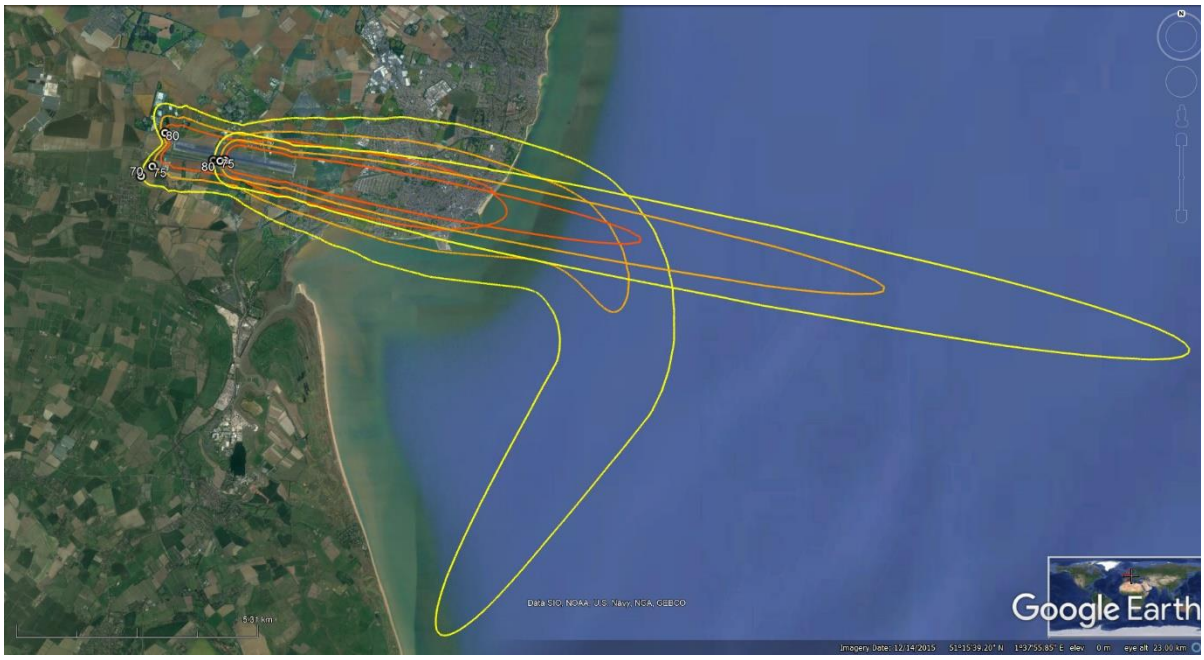
RSP does not show the likely worst case impact on Ramsgate

108. The town of Ramsgate will be particularly disadvantaged by RSP's proposal. The prevailing winds mean that around 70% of arrivals will come in over Ramsgate. Around 30% of departures will also be over Ramsgate. Most of Ramsgate lies within the 80dB LAmax footprint for the 747-400 arrival and for its departure. RSP's contours mask this. NNF and a number of individual residents have been trying to get across to RSP for years the fact that most people in Ramsgate will experience 80dB LAmax for every 747-400 arrival and every 747-400 departure to the East, whether day or night.

109. This can be clearly shown using the KML files from the CAA, as in the images below. For clarity, the 70dB, 75dB, and 80dB contours have been coloured yellow, orange and red respectively. The arrival and departure flight paths (CAA Maps 3 & 2) are shown separately and together, and the fourth image is a close-up of the area of Ramsgate enclosed by the two 80dB contours (which are shown in splendid isolation).

Departure to the East

Arrival from the East



The two footprints overlaid

Zoomed on central Ramsgate, showing only the 80dB contour

Night flights

110. RSP has yet to set out the forecast fleet mix and ATM numbers for its proposed night operations. Despite this, RSP has asked for a QC budget of 3,028. NNF set out in NNF09[33] for D3 the fact that a lower QC budget (1,995 QC points) was determined in 2012 to represent more harm than good to the community. We also highlighted in our response to ExA 2WQ Ns. 2.4 the fact that RSP is seeking a disproportionately higher QC budget than Heathrow, if the Quota Count for each airport is compared to its annual ATM cap. RSP has not set out what, if any, benefit might accrue to the community as a result of night operations and this oversized QC budget. Given this, there is nothing to set against the obvious downsides of night operations as set out by NNF and as shown clearly in the CAA contours. There should therefore be a complete ban on night operations, scheduled, timetabled, late, unplanned or otherwise.

111. NNF set out in NNF17 in our answer to ExA 3WQ Ns 3.1 the fact in 2011 24.8% to 50% of Manston's annual 1,472 ATMs that year were "late" arrivals. The ExA has asked whether the QC budget should apply only to the hour from 0600 to 0700. The answer is an emphatic "**no**". A QC budget is for the entire night period. If RSP is to be allowed to operate night flights (and we can see nothing that approaches a case that, on balance, says that it is in the public interest for RSP to be allowed to do so) then every night ATM must be accounted for within whatever QC budget is allowed. To do otherwise will give RSP the freedom to land a sizable percentage of its ATMs at night, unscheduled, with no penalty and no limit. As cargo ATMs are typically not scheduled flights anyway, past experience says that this would have alarmingly negative noise impacts for tens of thousands of people.

112. RSP has set no ATM limit for its night operations. RSP also intends not to count aircraft rated QC0 and QC0.125 in its QC budget for night movements. The Government recognises that aircraft rated QC0 and QC 0.125 expose communities to noise levels that the WHO identifies as being capable of creating sleep disturbance. If the QC budget and Noise Mitigation Plan as currently proposed are approved, RSP will have free rein to have as many night flights rated QC0 and QC 0.125 as it can attract. **This is clearly not acceptable, and is not in line with the Government's expressed position**.

113. RSP persists in asking to operate flights rated QC4 at night. It has produced no case for doing so. A B747-400 is rated QC4 on departure. The impact on the local population of allowing this can be seen in our Maps 2, 4 and 5.

33 Paragraphs 144-149

Summary

- RSP's proposal is for an airport many times the size of the commercial airport that used to be on the Manston site
- RSP's proposed **cargo** operation would be more than 29 times the size of the average annual cargo operation previously at Manston, and almost 16 times the size of Manston's best year ever (2003) for cargo ATMs
- RSP's proposed **passenger** operation would be more than 14 times the size of the average annual passenger operation previously at Manston, and more than twice the size of Manston's best year ever (2005) for passenger ATMs
- It is clear that RSP's proposal will generate a far greater level of aircraft noise than has been generated by any other commercial aviation operation on that site
- Residents who lived through the airport's previous commercial operations complained about the noise impact on them and on their life of both day and night operations
- When a 747-400 – the workhorse of the air cargo world – arrives from the west, 26,950 people are in the 70dB contour[34], 5,400 people are within the 75dB contour and 750 in the 80dB contour. The 80dB contour extends into St Nicholas at Wade
- When a 747-400 arrives over Ramsgate from the east, 15,100 people are in the 80dB contour[35], 20,550 people are within the 75dB contour and 26,800 in the 70dB contour. The 70dB contour covers almost the entire town
- When a 747-400 departs to the east over Ramsgate, 42,600 people are in the 70dB contour[36], 33,100 people are within the 75dB contour and 22,050 in the 80dB contour. The 80dB contour extends right over Ramsgate and beyond the harbour arm. We have previously submitted noise monitor records of noise levels of 90dB and over 100dB LAmax over Ramsgate
- When a 747-400 departs to the west, turning North, 6,100 people are in the 70dB contour[37], 2,100 people are within the 75dB contour and 650 in the 80dB contour
- When a 747-400 departs to the west, turning South, 5,650 people are in the 70dB contour[38]. 2,250 people are within the 75dB contour and 650 in the 80dB contour
- A comparison of RSP's Figure 12.9 with NNF's Maps 1 and 2 reveals a significant noise impact that RSP has simply not shown
- For operations 100% to the east, the 63dB contour includes 700 people[39]. The 51dB contour includes 37,950 people and the 54dB contour includes 29,100 people
- For operations 100% to the west, the 63dB contour includes 300 people[40]. The 51dB contour includes 21,800 people and the 54dB contour includes 14,700 people

34 CAA table 18, see page 40
35 CAA table 17, see page 40
36 CAA table 16, see page 39
37 CAA table 14, see page 39
38 CAA table 15, see page 39
39 CAA table 7, see page 35
40 CAA table 6, see page 35

- The Government recognises that the onset of significant community annoyance begins at 54 dB LAeq, 16hr. The WHO says that aircraft noise levels above 45dB Lden are "*associated with adverse health effects".*
- For the hypothetical operations 30% to the west and 70% to the east, even with the shrinking of the contours generated by showing an average of an average, the noise impact is still significant. 25,250 people[41] will suffer a noise level of 54dB LAeq and above. That's 25,250 people who, even on RSP's average of an average, will suffer significant community annoyance
- For the hypothetical operations 70% to the west and 30% to the east, even with the shrinking of the contours generated by showing an average of an average, the noise impact is still significant. 19,400 people[42] will suffer a noise level of 54dB LAeq and above. That's 19,400 people who, even on RSP's average of an average, will suffer significant community annoyance
- RSP's 30/70 and 70/30 contours are smaller than the CAA's
- When night operations are to the east, 28,750[43] people are within the 45dB LAeq contour. They will experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed – 3,163 people
- When night operations are to the west, 22,450[44] people are within the 45dB LAeq contour. They will experience a level of aircraft noise at night at least 5dB above the level recommended by the WHO. More than 11% of these people will be highly sleep-disturbed – 2,470 people
- For the more realistic operations 100% to the East 29,100 people will suffer noise levels that generate significant community annoyance
- For the more realistic operations 100% to the West 14,700 people will suffer noise levels that generate significant community annoyance
- RSP has significantly understated the potential noise impact of night operations. RSP's 40dB LAeq contour to the west is smaller than the CAA's 45dB LAeq contour and is closer to the CAA's 48dB LAeq contour. RSP's 40dB LAeq contour to the east is similar to the CAA's 45dB LAeq contour. RSP's Figure 12.7 disguises the fact that the 57dB Lnight contour stretches well into Ramsgate and that much of the town would experience average night noise of 51dB Lnight – well above the WHO guidance level.

41 CAA table 9, see page 36
42 CAA table 8, see page 35
43 CAA table 11, see page 37
44 CAA table 10, see page 37

Conclusions

114. RSP's contours mask the reality that its proposals for a new airport at Manston represent material harm for tens of thousands of people. RSP significantly underestimates the population numbers affected and ignores the fact that this is a vulnerable population in UK health terms, and one that is not currently exposed to noise from aviation operations.

115. RSP's measurements of the current ambient noise levels are suspect. RSP placed noise monitors in the gardens of airport supporters and chose locations for other measurements that are not representative of the ambient noise in that location. This means that the proposed change in the level of noise that people will experience as a result of RSP's proposal has been understated at both ends – RSP's measurements of the current noise level are tainted by uncertainty and its measurements of the possible future noise level and the number of people affected is demonstrably understated.

116. The inconvenient truths of past noise levels recorded by official noise monitors; of past planning decisions taken about aviation noise; and of past complaints from residents have all been steadfastly ignored by RSP.

117. The move from actual noise footprints for one type of aircraft (our Maps 1 to 5) to our two 100% LAeq contour maps show how the actual noise level heard is immediately diminished by averaging out individual noise events over time. Even so, our Maps 6 and 7 are a more accurate reflection of the noise environment under an easterly or westerly wind. This is the actual "lived experience".

118. When our two 100% maps are adulterated to make the 70/30 LAeq contour maps, the noise contours shrink again. This is RSP's preferred reporting format. As Ricardo observed in its response to D6:

119. > *"It is further noted that the eligibility [for noise insulation compensation] shown is for contours averaged for both easterly and westerly operations, rather than an actual day of westerly or easterly operation. Using the average mode has the effect of reducing the contours as the noise is spread across the routes in a way that would not necessarily happen in a day of operation at the airport. The eligibility contours should be provided separately for both easterly and westerly operations to derive noise insulation eligibility."*

120. We know that the noise maps we have provided do not show the likely worst case. It is clear that RSP's fleet mix is based on guesses and that the fleet mix has already worsened (in noise terms) since it was created last year. We have no idea what further changes might occur which could easily produce a worse noise environment. Our night noise contours do not include any QC0 and QC0.125 ATMs, yet RSP could operate as many as it pleases under the terms of its Noise Mitigation Plan. We do not have the information that we need to be able to calculate Lden. And, of course, our noise contours do not include noise from other sources of airport noise such as road noise.

121. RSP has not set out the *"likely significant effects"* of its proposal in terms of aviation noise.

122. RSP's proposed Noise Mitigation Plan is nowhere near *"adequate to deal with the worst case"*. The CAA contours reveal a worse case than the one that RSP is suggesting. Moreover, given the limitations in the NNF brief to the CAA, the CAA contours are not the likely worst case, and the mitigation plan does not even deal with this.

123. The CAA contours reveal the number of people who will experience a serious degradation in their quality of life as a result of RSP's proposed operation. These people will also be at risk of adverse impacts on their health.

124. RSP has yet to identify a level of benefits that its proposal will deliver such that the serious and permanent harm to local people would be outweighed by these benefits. Given this, there is no compelling case in the public interest to allow a compulsory purchase by RSP of SHP's land.

Appendix 1: Commercial operations at Manston, annual ATMs

Year	Total Passenger ATMs (peak)	Total Cargo ATMs (peak)	Total ATMs
1999	46	700	746
2000	20	915	935
2001	26	911	937
2002	5	800	805
2003	25	1,081	1,108
2004	2,603	730	3,333
2005	4,454	177	4,631
2006	139	322	461
2007	164	444	608
2008	128	412	540
2009	98	485	583
2010	660	491	1,151
2011	1,083	389	1,472
2012	255	432	687
2013	1,129	511	1,640
2014 (part year)	392	229	621
Averages (excl. 2014)	**656**	**587**	**1,309**
RSP Year 20 (for comparison)	**9,298**	**17,170**	**26,468**

Appendix 2: CAA Report

CAA Report page 1

TECHNICAL NOTE:
Manston Airport – 'NNF' fleet mix noise modelling results (v.2)

Introduction

This technical note summarises the air noise modelling work for Manston Airport carried out by ERCD on behalf of No Night Flights ('NNF'). The following forecast contours were generated using the 'NNF' fleet mix scenario:

- Day $L_{Aeq,16hr}$ (0700-2300 local time), plotted from 51 to 72 dB(A) in 3 dB steps; and
- Night $L_{Aeq,8hr}$ (2300-0700 local time), plotted from 45 to 72 dB(A) in 3 dB steps.

The contours have been produced for the following 4 runway modal split cases:

- 100% west;
- 100% east;
- 70% west / 30% east; and
- 30% west / 70% east.

Lmax noise footprints have also been generated for the Boeing 747-400 with GE CF6 engines (ANCON type 'B744G') on each departure and arrival route. The Lmax footprints are plotted at levels 70, 75 and 80 dB(A).

Modelling assumptions

The contours have been generated using the latest version of the ANCON noise model (v2.4) and based on the 'NNF' fleet mix scenario. The daytime annual ATM figures for 100% W and 100% E modes supplied by No Night Flights were divided by 365 to produce average daily totals (see **Tables 1 & 2**). Average night movement data were also provided (**Tables 3 & 4**). General aviation movements were split equally amongst the ANCON types SP (single propeller), STP (small twin-piston), STT (small twin-turboprop) and EXE3 ('Chapter 3' executive jet), as advised by No Night Flights. Aircraft types with more than one engine variant in the ANCON database were split according to assumptions provided by No Night Flights (see **Table 5**).

The proposed departure flight tracks were digitised from the attached 'Wiggins' route map. RNAV lateral spread was modelled on all the departure tracks for the Leq contours. All arrivals have been modelled as 'straight-in' tracks along the extended runway centreline.

In view of the expected high proportions of freight traffic, proxy average flight profiles of height, speed and thrust were employed from the latest ANCON Stansted database for both departures and arrivals. Aircraft types that were not present in the Stansted database were substituted by Heathrow profiles where possible, and if not available in the Heathrow database, by Gatwick profiles. The flight profiles assume average weights.

The effects of the surrounding topography have been modelled using Meridian 2 Gridded Heights terrain data from Ordnance Survey.

Results

Contour diagrams are provided for the following cases:

- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 100% W;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 100% E;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 70% W / 30% E;
- Day $L_{Aeq,16hr}$ (0700-2300 local time), runway modal split 30% W / 70% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 100% W;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 100% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 70% W / 30% E;
- Night $L_{Aeq,8hr}$ (2300-0700 local time), runway modal split 30% W / 70% E;
- B744G L_{Amax} footprints for Runway 28 departure route 1;
- B744G L_{Amax} footprints for Runway 28 departure route 2;
- B744G L_{Amax} footprints for Runway 10 departure route 3;
- B744G L_{Amax} footprints for Runway 28 arrival; and
- B744G L_{Amax} footprints for Runway 10 arrival.

(Note: For night Leq, the 69 and 72 dBA contours have been omitted from the diagrams for clarity).

Areas, populations and households within all the contours have been estimated using an updated 2018 population database based on the 2011 Census (supplied by CACI Ltd) and are summarised in **Tables 6-9** for daytime Leq, **Tables 10-13** for night-time Leq, and **Tables 14-18** for the Lmax footprints.

ERCD
03/06/2019

Table 1 Manston 'NNF' fleet mix average day 100% W traffic

Type	Code	Departure route 1	Departure route 2	RWY 28 arrivals
Airbus A320	A320	0.1	0.1	0.3
Airbus 330-200	A332	1.4	1.4	2.7
Boeing 747-400	B744	0.8	0.8	1.7
Boeing 747-800	B748	0.5	0.5	1.1
Boeing 757-200	B752	1.4	1.4	2.7
Boeing 757-300	B753	0.1	0.1	0.2
Boeing 737-800	B738	5.7	5.7	11.3
Boeing 737-300	B733	1.6	1.6	3.2
Boeing 777-200	B772	2.5	2.5	5.1
Boeing C17 Globemaster III	C17	< 0.1	< 0.1	< 0.1
Fokker 70	F70	1.0	1.0	2.0
Lockheed L-100 Hercules	C130	< 0.1	< 0.1	< 0.1
Boeing 737-800	B738	0.7	0.7	1.5
Boeing 767-300	B763	2.2	2.2	4.4
General Aviation	SP/STP/STT/EXE3	26.0	26.0	52.1
	Total	**44.2**	**44.2**	**88.3**

Table 2 Manston 'NNF' fleet mix average day 100% E traffic

Type	Code	Departure route 3	RWY 10 arrivals
Airbus A320	A320	0.3	0.3
Airbus 330-200	A332	2.7	2.7
Boeing 747-400	B744	1.7	1.7
Boeing 747-800	B748	1.1	1.1
Boeing 757-200	B752	2.7	2.7
Boeing 757-300	B753	0.2	0.2
Boeing 737-800	B738	11.3	11.3
Boeing 737-300	B733	3.2	3.2
Boeing 777-200	B772	5.1	5.1
Boeing C17 Globemaster III	C17	< 0.1	< 0.1
Fokker 70	F70	2.0	2.0
Lockheed L-100 Hercules	C130	< 0.1	< 0.1
Boeing 737-800	B738	1.5	1.5
Boeing 767-300	B763	4.4	4.4
General Aviation	SP/STP/STT/EXE3	52.1	52.1
	Total	**88.3**	**88.3**

Table 3 Manston 'NNF' fleet mix average night 100% W traffic

Type	Code	Departure route 1	Departure route 2	RWY 28 arrivals
Boeing 737-800	B738	1	1	0
Airbus A320	A320	0.5	0.5	0
Boeing 747-400	B744	0	0	3
	Total	**1.5**	**1.5**	**3**

Table 4 Manston 'NNF' fleet mix average night 100% E traffic

Type	Code	Departure route 3	RWY 10 arrivals
Boeing 737-800	B738	2	0
Airbus A320	A320	1	0
Boeing 747-400	B744	0	3
	Total	**3**	**3**

Table 5 Manston 'NNF' fleet mix engine split assumptions

Type	Code	Engine splits
Airbus A320	A320	75% CFM / 25% IAE
Boeing 747-400	B744	30% GE / 60% PW / 10% RR
Boeing 757-200	B752	50% RR / 50% PW
Boeing 777-200	B772	40% GE / 20% PW / 40% RR
Boeing 767-300	B763	40% GE / 40% PW / 20% RR

Table 6 Manston 'NNF' fleet mix average day 100% W Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km^2)	Population	Households
> 51	31.5	21,800	10,400
> 54	17.9	14,700	6,950
> 57	9.9	9,100	4,200
> 60	5.5	2,650	1,250
> 63	2.9	300	200
> 66	1.5	0	0
> 69	0.8	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 7 Manston 'NNF' fleet mix average day 100% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km^2)	Population	Households
> 51	34.1	37,950	17,200
> 54	18.1	29,100	13,600
> 57	9.8	17,800	8,300
> 60	5.4	4,900	2,200
> 63	2.8	700	300
> 66	1.5	0	0
> 69	0.8	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 8 Manston 'NNF' fleet mix average day 70% W / 30% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km^2)	Population	Households
> 51	31.4	28,600	13,400
> 54	17.9	19,400	9,350
> 57	9.8	10,350	4,750
> 60	5.3	3,100	1,450
> 63	2.8	300	200
> 66	1.5	0	0
> 69	0.9	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 9 Manston 'NNF' fleet mix average day 30% W / 70% E Leq contours – estimated areas, populations and households

$L_{Aeq,16hr}$, dB(A)	Area (km^2)	Population	Households
> 51	32.2	35,350	16,150
> 54	17.9	25,250	11,950
> 57	9.8	14,400	6,650
> 60	5.3	4,050	1,850
> 63	2.7	450	250
> 66	1.5	0	0
> 69	0.9	0	0
> 72	0.5	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 10 Manston 'NNF' fleet mix average night 100% W Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.5	22,450	10,700
> 48	14.2	17,150	8,300
> 51	7.4	12,200	5,750
> 54	4.0	7,450	3,350
> 57	2.3	1,850	900
> 60	1.3	250	150
> 63	0.8	0	0
> 66	0.5	0	0
> 69	0.3	0	0
> 72	0.2	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 11 Manston 'NNF' fleet mix average night 100% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.7	28,750	13,300
> 48	14.2	8,050	3,550
> 51	7.6	1,450	700
> 54	4.1	100	50
> 57	2.3	< 50	< 50
> 60	1.3	0	0
> 63	0.8	0	0
> 66	0.5	0	0
> 69	0.3	0	0
> 72	0.2	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 12 Manston 'NNF' fleet mix average night 70% W / 30% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	26.2	23,300	11,050
> 48	14.2	16,650	7,950
> 51	7.8	10,850	5,050
> 54	4.4	4,950	2,250
> 57	2.5	800	400
> 60	1.6	0	0
> 63	1.0	0	0
> 66	0.6	0	0
> 69	0.4	0	0
> 72	0.3	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 13 Manston 'NNF' fleet mix average night 30% W / 70% E Leq contours – estimated areas, populations and households

$L_{Aeq,8hr}$, dB(A)	Area (km^2)	Population	Households
> 45	27.0	23,600	11,150
> 48	14.2	15,150	7,050
> 51	7.9	6,600	2,950
> 54	4.4	1,100	600
> 57	2.5	< 50	< 50
> 60	1.6	0	0
> 63	1.0	0	0
> 66	0.6	0	0
> 69	0.4	0	0
> 72	0.3	0	0

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 14 Manston B744G Lmax footprints for RWY28 departure (route 1) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.3	6,100	2,800
> 75	19.1	2,100	950
> 80	8.8	650	300

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 15 Manston B744G Lmax footprints for RWY28 departure (route 2) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.5	5,650	2,500
> 75	19.2	2,250	1,000
> 80	8.8	650	300

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 16 Manston B744G Lmax footprints for RWY10 departure (route 3) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km²)	Population	Households
> 70	46.1	42,600	19,150
> 75	19.0	33,100	15,150
> 80	8.7	22,050	10,450

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 17 Manston B744G Lmax footprints for RWY28 arrival (route 4) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km^2)	Population	Households
> 70	32.7	26,800	12,550
> 75	14.8	20,550	9,900
> 80	6.2	15,100	7,200

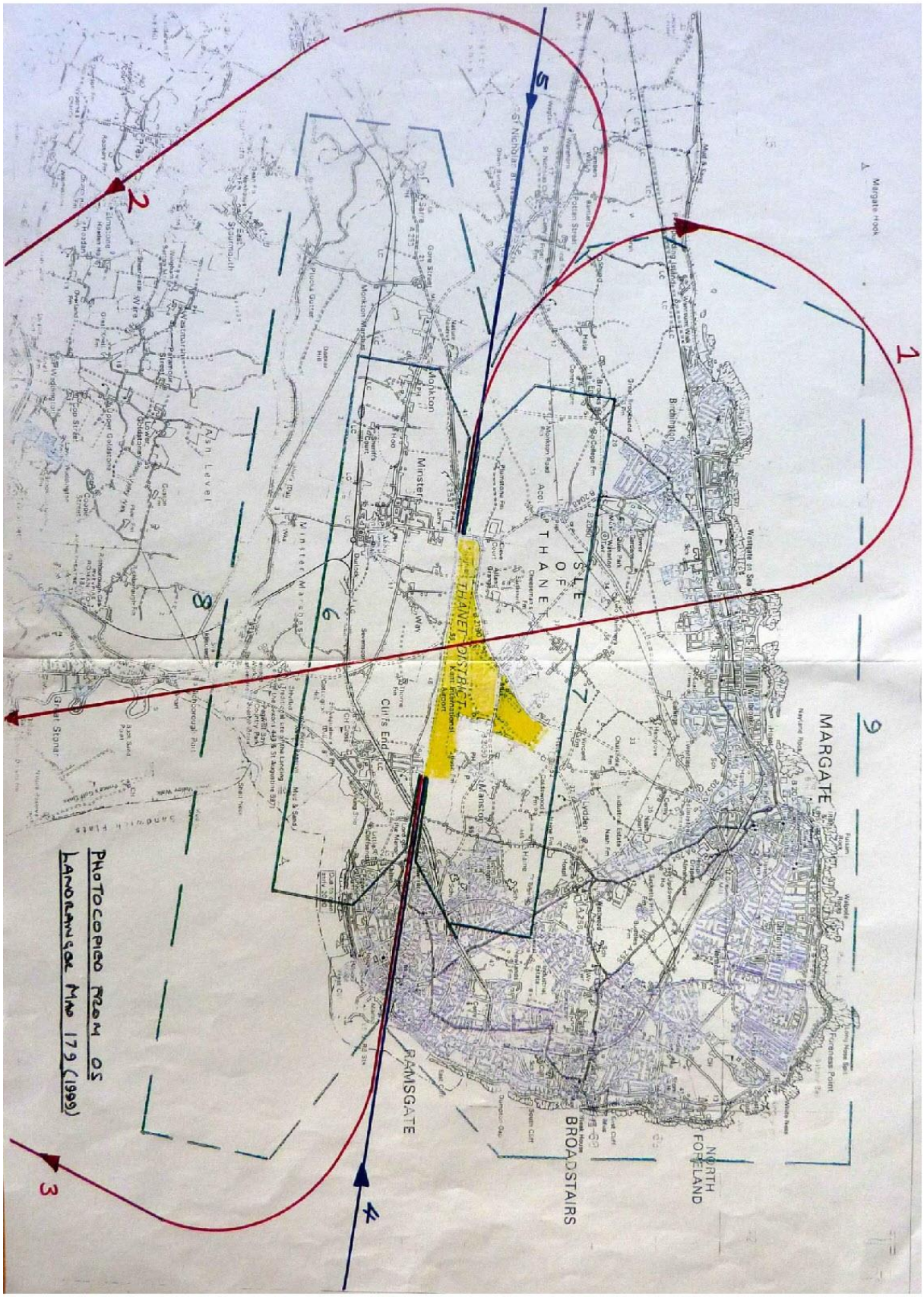
Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Table 18 Manston B744G Lmax footprints for RWY10 arrival (route 5) – estimated areas, populations and households

L_{Amax}, dB(A)	Area (km^2)	Population	Households
> 70	32.9	26,950	12,050
> 75	15.5	5,400	2,400
> 80	6.3	750	350

Note: Population and household estimates are given to the nearest 50, and based on 2011 Census data updated for 2018, supplied by CACI.

Wiggins Routes 1



WIGGINS

LONDON - MANSTON AIRPORT

Kent International Airport plc
Trading As
LONDON MANSTON AIRPORT
PO Box 500, Manston, Kent CT12 5BP

Tel: 01843 823198 Fax: 01843 823570

ROUTE MAP

Key

1. Standard instrument departure from runway 28.
2. Alternative instrument departure from runway 28.
3. Standard instrument departure from runway 10.
4. Standard arrival route for runway 28.
5. Standard arrival route for runway 10.
6. Standard visual circuit for both runways flown by light aircraft at 1000 ft above ground level.
7. Alternative visual circuit for both runways flown by light aircraft at 1000 ft above ground level.
8. Standard visual circuit for both runways 10 and 28 flown by large aircraft at 1500 ft above ground level.
9. Alternative visual circuit for both runways 10 and 28 flown by large aircraft at 1500 ft.

Notes

i) This information is provided as a courtesy only.

ii) These routes are indicative not definitive and the information is provided on this understanding.

iii) These routes may vary depending upon a number of factors including weather, and air traffic control requirements.

iv) These routes may be changed or developed as the Airport develops.

v) Noise travels. Aircraft noise may be audible several miles away from these indicative routes.

\\SERVER1\manston\Robertson A\ROUTE MAP.doc

Appendix 3: CAA Maps 1 – 13

1 B744G LAmax footprints for Runway 10 arrival Easterlies

2 B744G LAmax footprints for Runway 10 departure route 3 Easterlies

3 B744G LAmax footprints for Runway 28 arrival Westerlies

4 B744G LAmax footprints for Runway 28 departure route 1 Westerlies

5 B744G LAmax footprints for Runway 28 departure route 2 Westerlies

6 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

7 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Westerlies

8 Day LAeq,16hr (0700-2300 local time), runway modal split 70% W / 30% E

9 Day LAeq,16hr (0700-2300 local time), runway modal split 30% W / 70% E

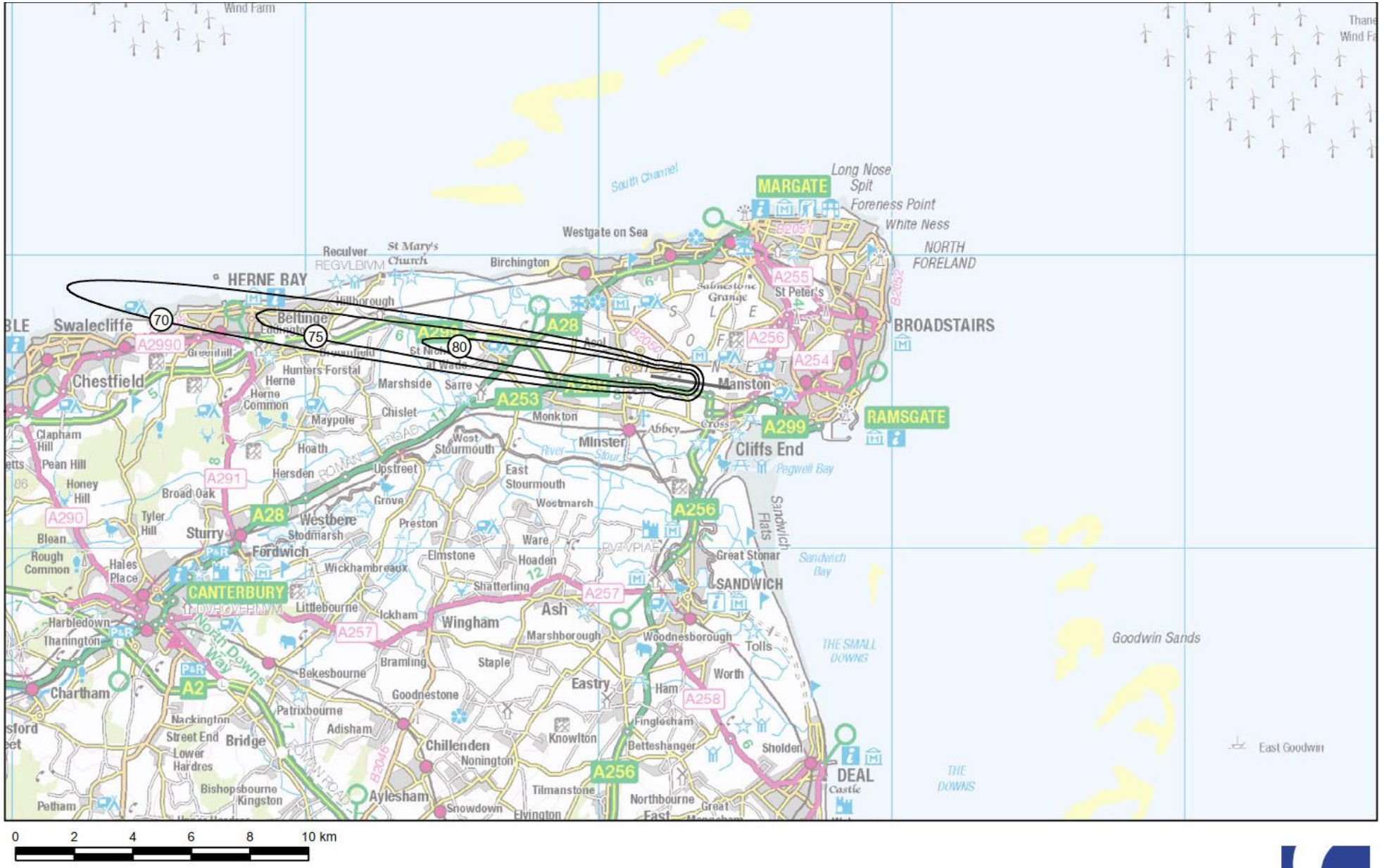
10 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Easterlies

11 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Westerlies

12 Night LAeq,8hr (2300-0700 local time), runway modal split 70% W / 30% E

13 Night LAeq,8hr (2300-0700 local time), runway modal split 30% W / 70% E

1 B744G LAmax footprints for Runway 10 arrival Easterlies

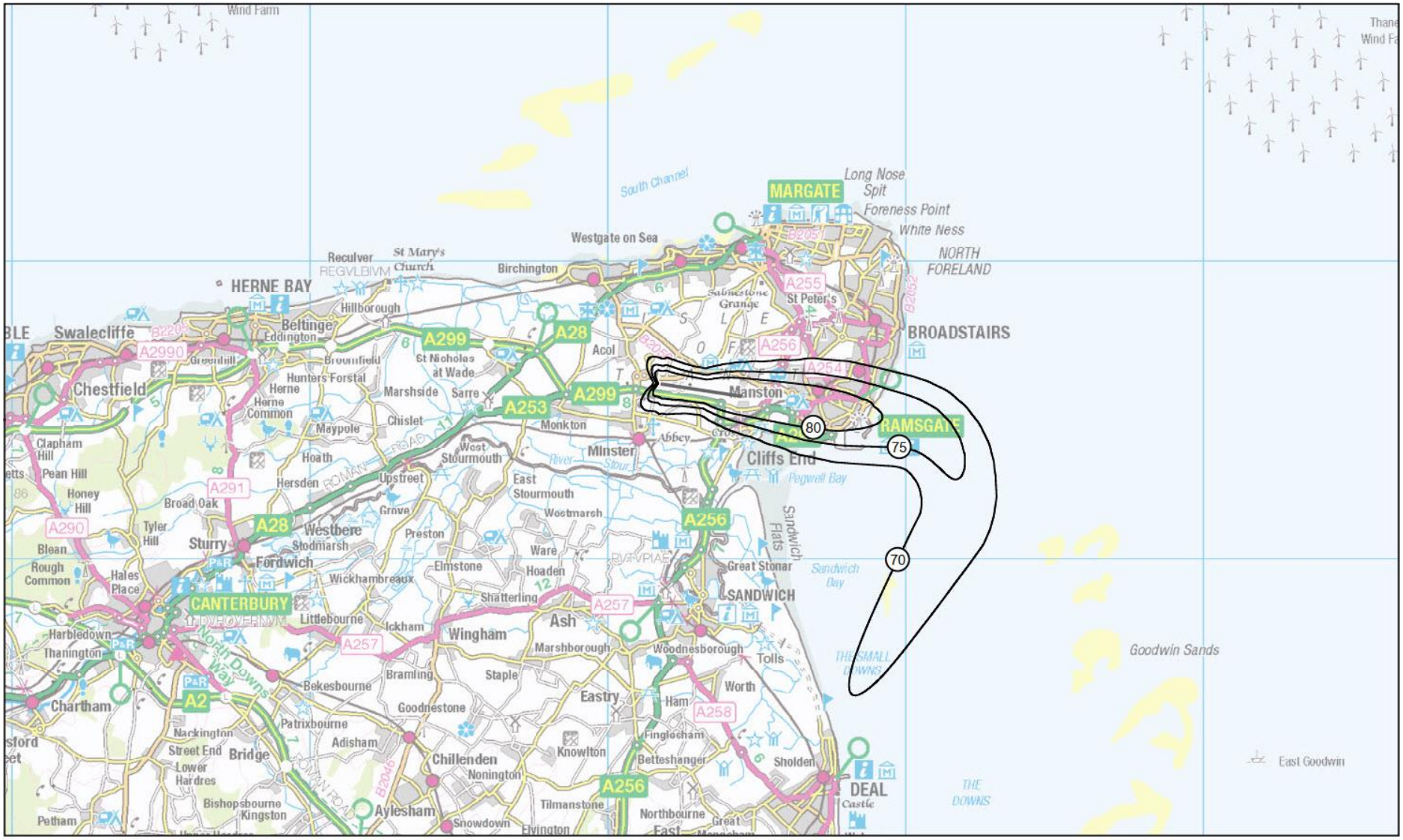


MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY10 Arrival

Civil Aviation Authority

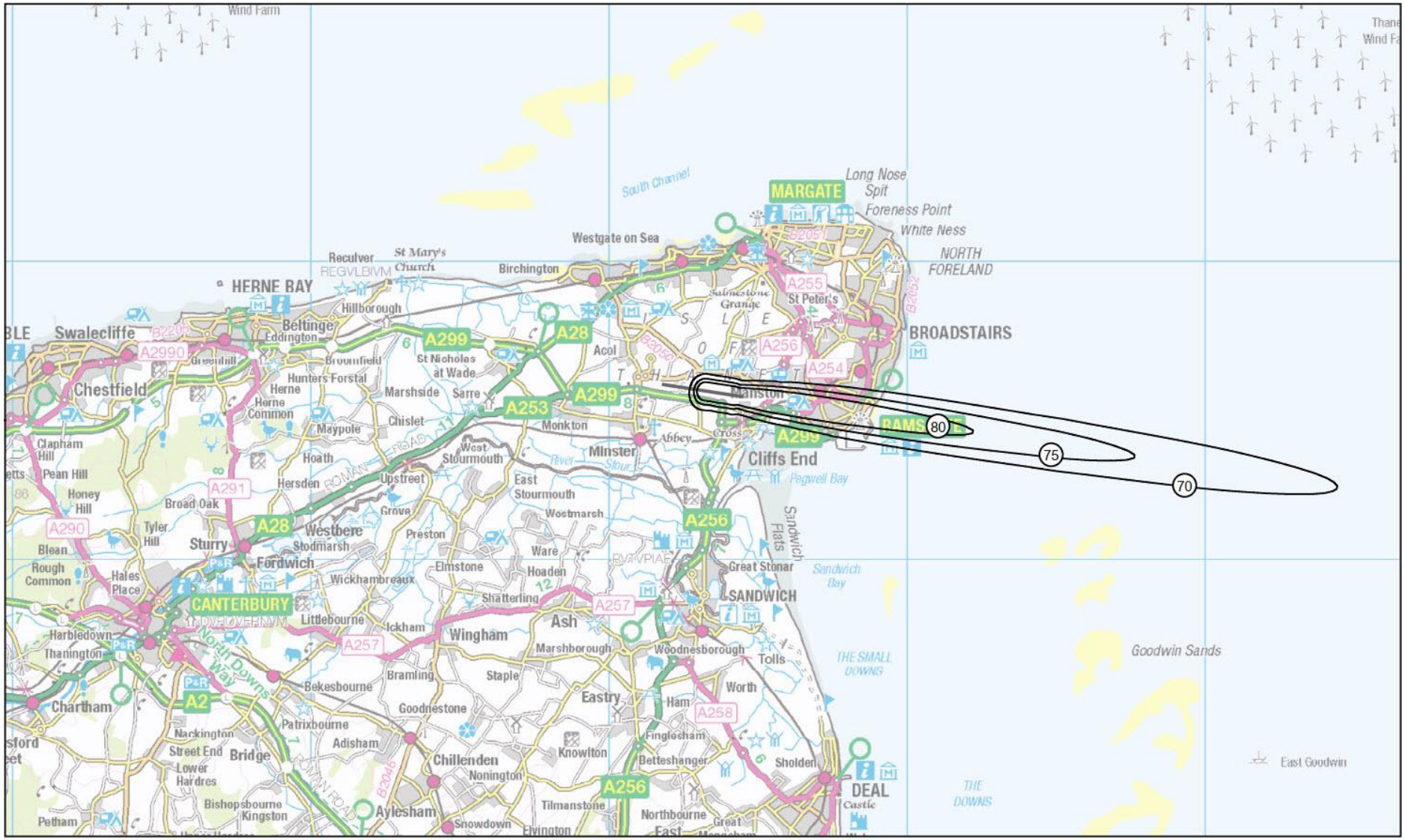
2 B744G LAmax footprints for Runway 10 departure route 3 Easterlies



MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY10 Departure Route 3

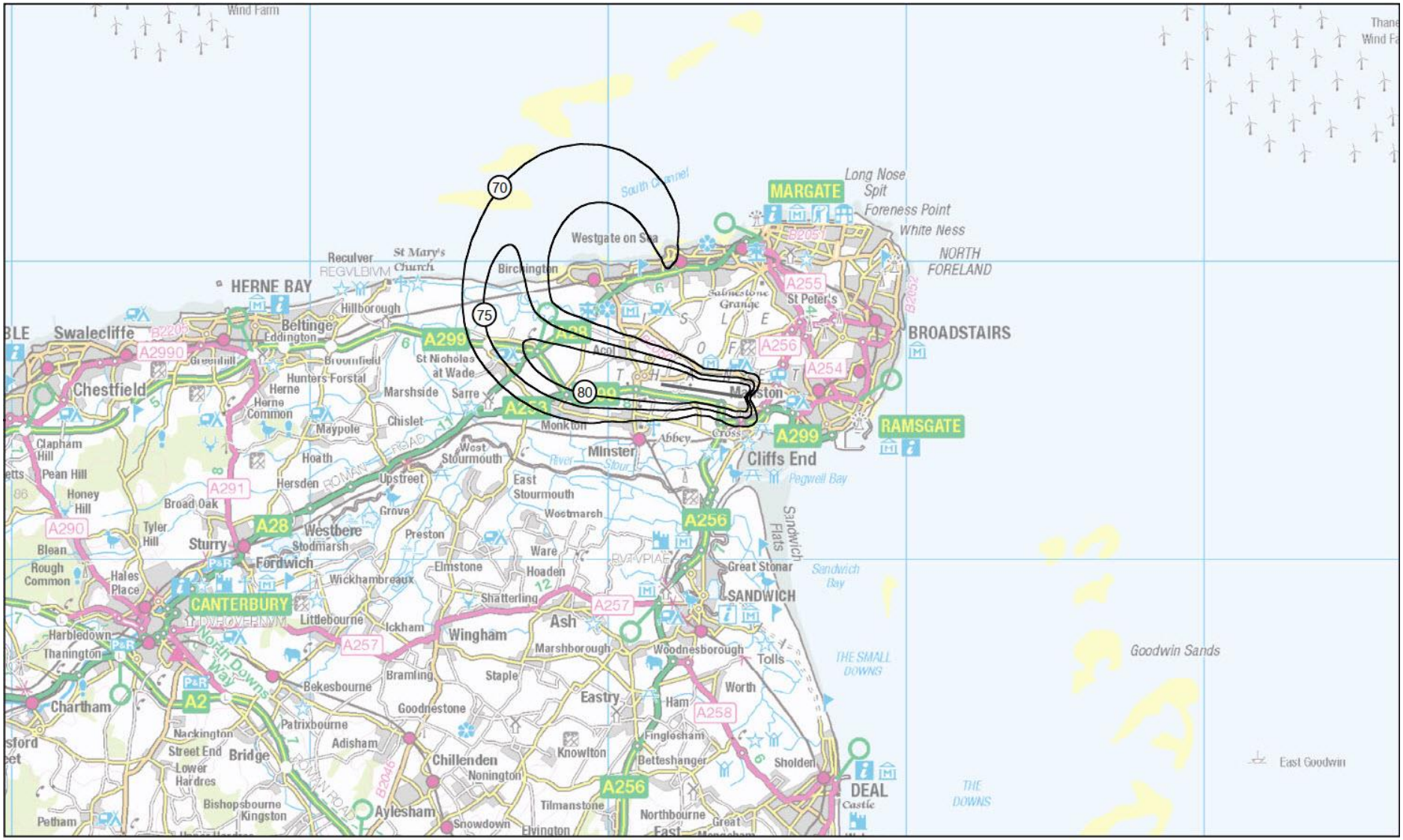
3 B744G LAmax footprints for Runway 28 arrival Westerlies



MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Arrival

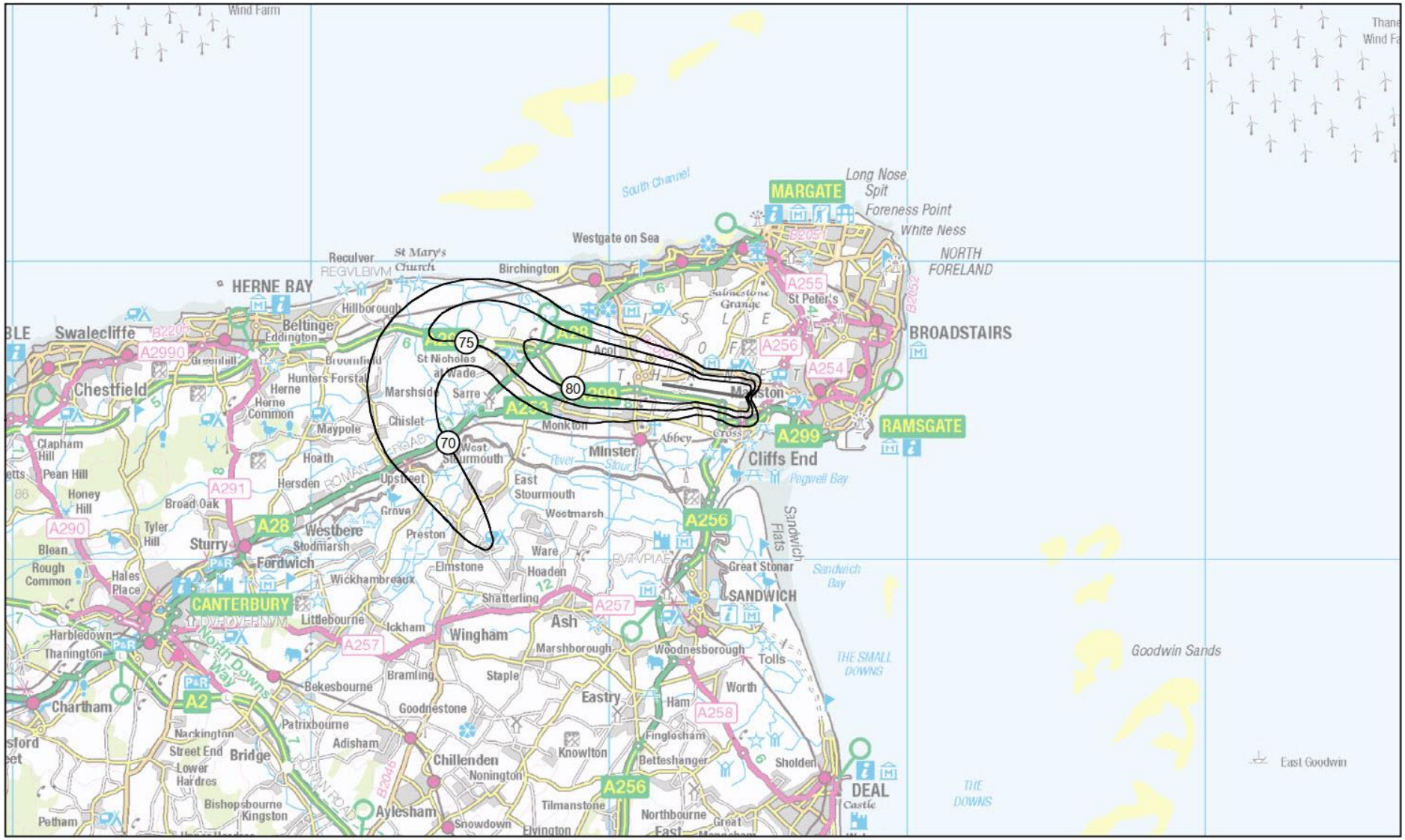
4 B744G LAmax footprints for Runway 28 departure route 1 Westerlies



MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Departure Route 1

5 B744G LAmax footprints for Runway 28 departure route 2 Westerlies



MANSTON AIRPORT

B744G (Boeing 747-400 with GE CF6 engines) L_{Amax} 70-80 dB(A) Footprints - RWY28 Departure Route 2

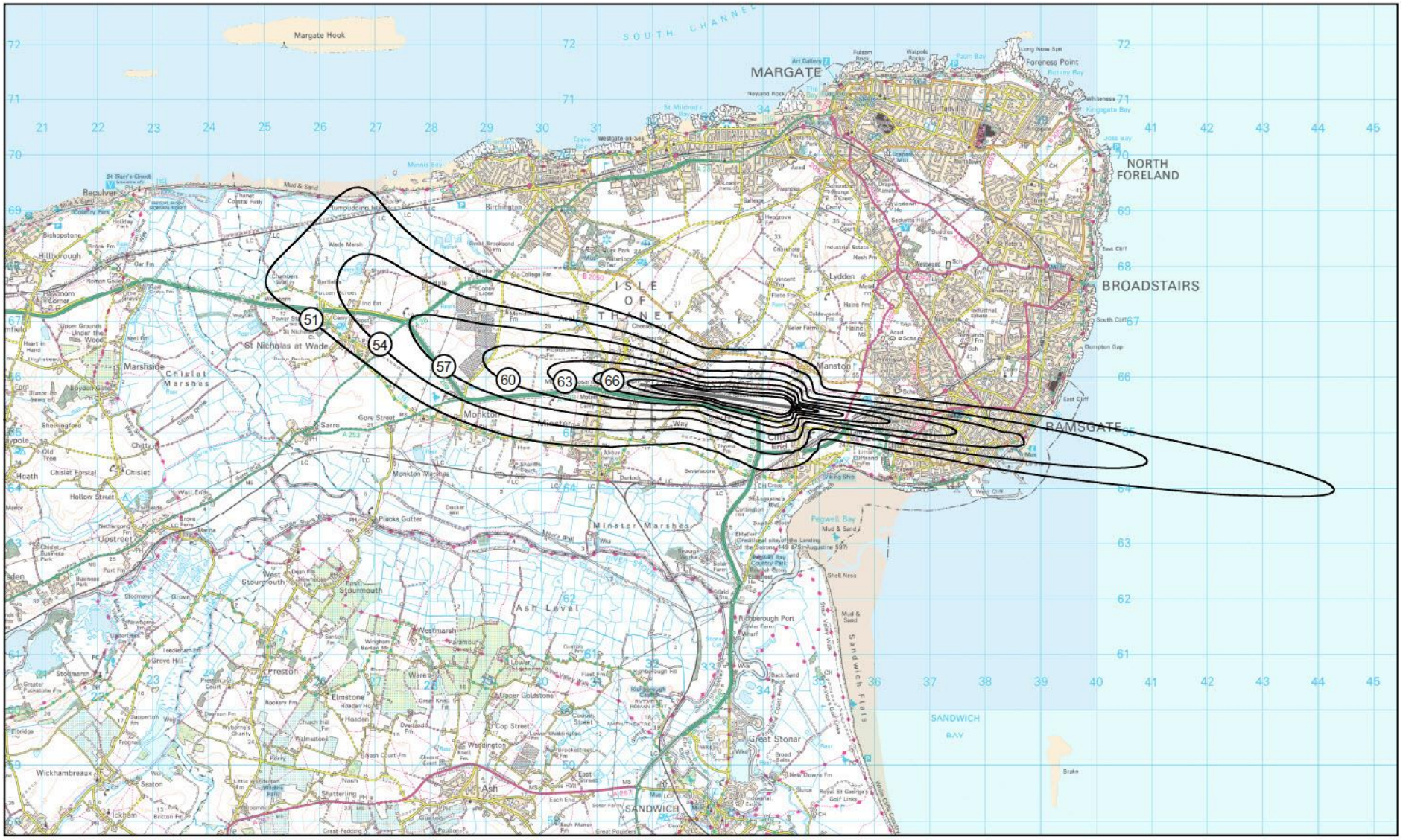
6 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 100% E

7 Day LAeq,16hr (0700-2300 local time), runway modal split 100% Westerlies



MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 100% W

8 Day LAeq,16hr (0700-2300 local time), runway modal split 70% W / 30% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 70% W / 30% E

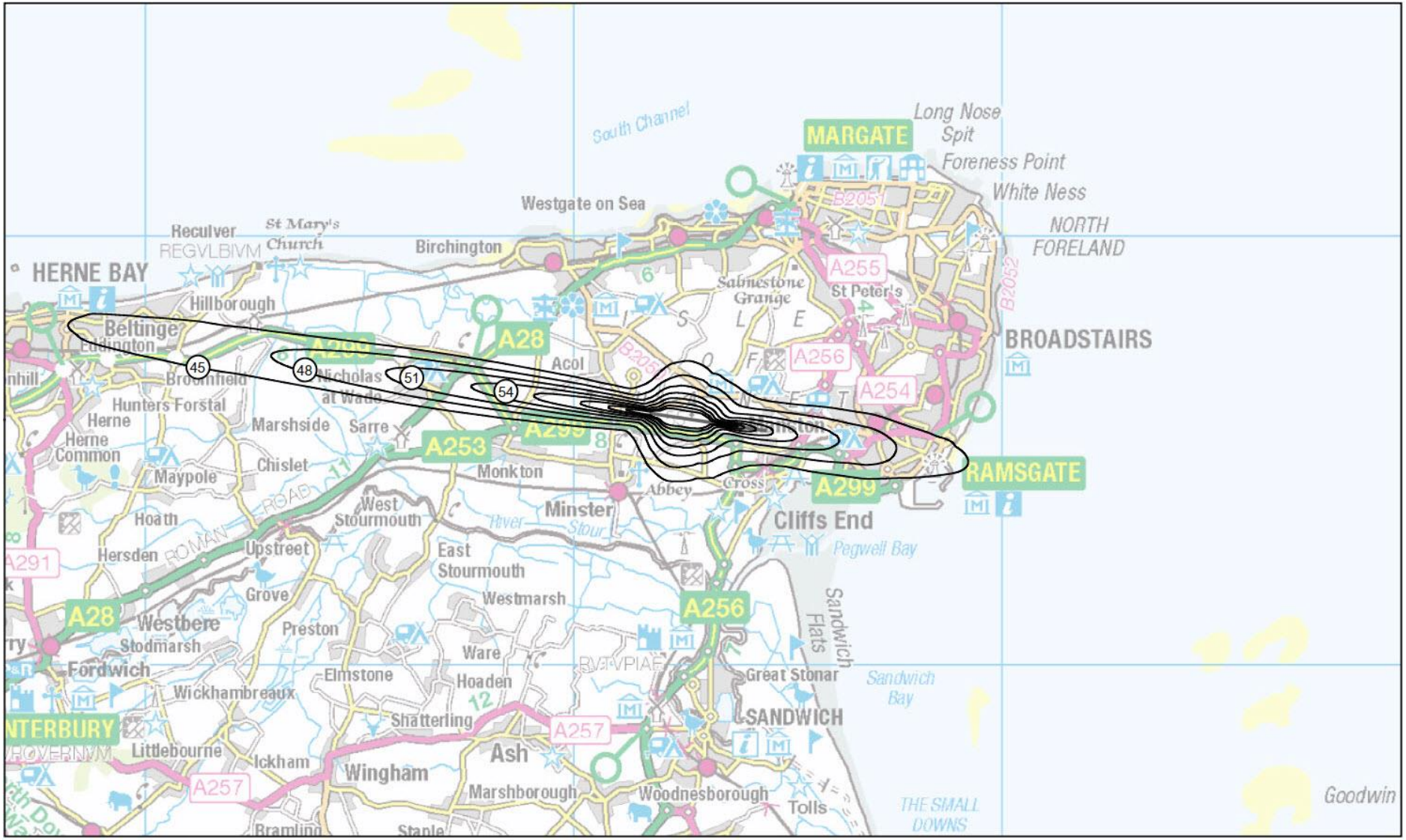
9 Day LAeq,16hr (0700-2300 local time), runway modal split 30% W / 70% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Day $L_{Aeq,16hr}$ 51-72 dB(A) Contours

Runway Modal Split 30% W / 70% E

10 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Easterlies

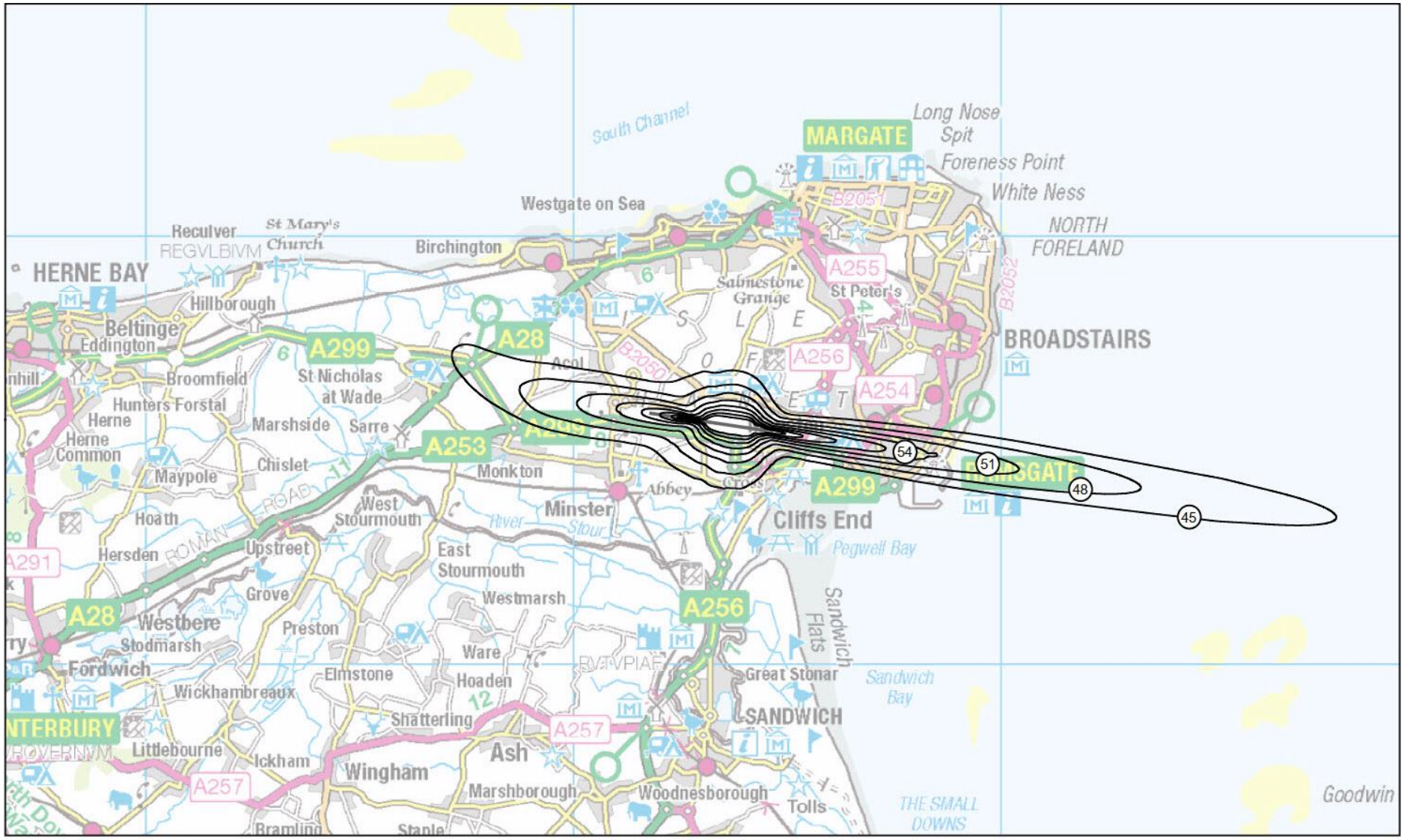


MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 100% E

11 Night LAeq,8hr (2300-0700 local time), runway modal split 100% Westerlies



MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 100% W

12 Night LAeq,8hr (2300-0700 local time), runway modal split 70% W / 30% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 70% W / 30% E

13 Night LAeq,8hr (2300-0700 local time), runway modal split 30% W / 70% E

MANSTON AIRPORT

'NNF' Fleet Mix - Forecast Average Night $L_{Aeq,8hr}$ 45-66 dB(A) Contours

Runway Modal Split 30% W / 70% E

Appendix 4: KML files of the CAA Maps displayed on Google Earth

A: CAA Map 6, 57dB highlighted

B: CAA Map 6, 57dB highlighted, zoomed on Ramsgate to show Albion Place Gardens

A: CAA Map 6, 57dB highlighted

CAA Map 6:Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

B: CAA Map 6, 57dB highlighted, zoomed on Ramsgate to show Albion Place Gardens

CAA Map 6: Day LAeq,16hr (0700-2300 local time), runway modal split 100% Easterlies

Appendix 5: RSP's Maps

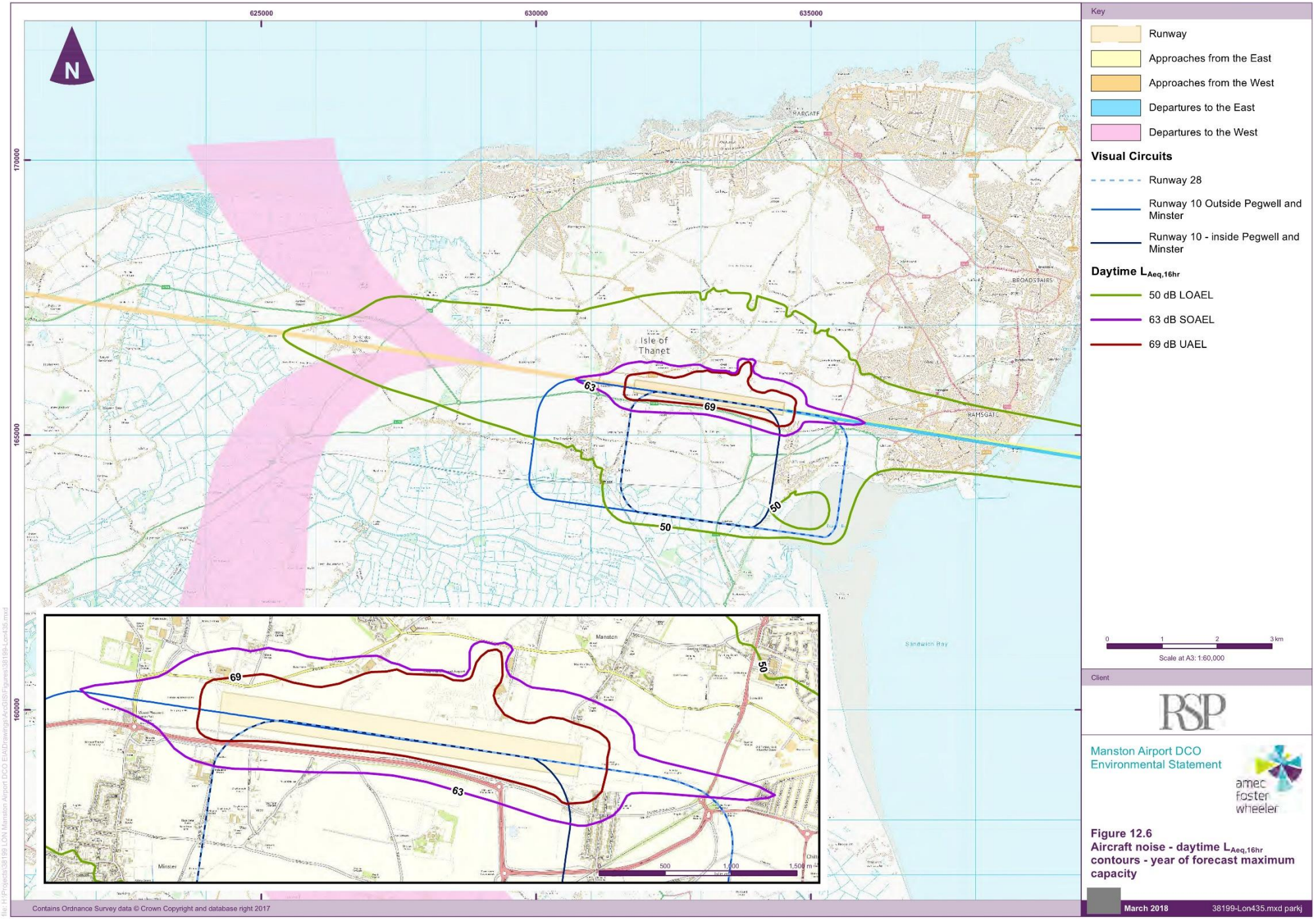
RSP Map 12.6 – Aircraft Noise Day-time LAeq 16hr contours, year of forecast maximum capacity

RSP Map 12.7 – Aircraft Noise Night-time LAeq 8hr contours, year of forecast maximum capacity

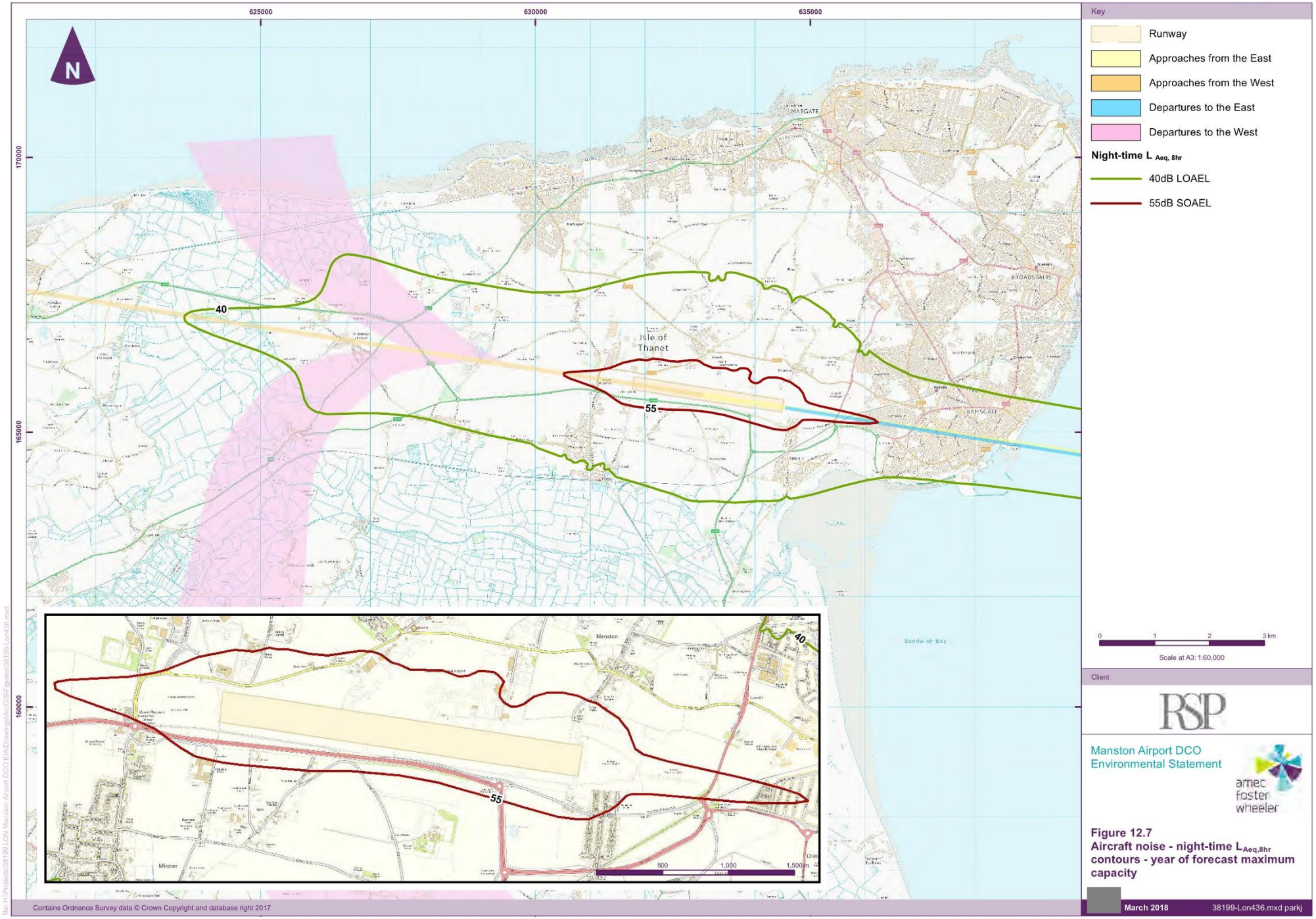
RSP Map 12.9 – Aircraft Noise Night-time LASmax contours, year of forecast maximum capacity

Figure 12.30: Aircraft noise – day-time 50dB LAeq,16hr noise contour - year of forecast maximum capacity, easterly operations (TR020002-004071-Appendices to Answers to TWQ)

RSP Map 12.6 – Aircraft Noise Day-time LAeq 16hr contours, year of forecast maximum capacity



RSP Map 12.7 – Aircraft Noise Night-time LAeq 8hr contours, year of forecast maximum capacity



RSP Map 12.9 – Aircraft Noise Night-time LASmax contours, year of forecast maximum capacity

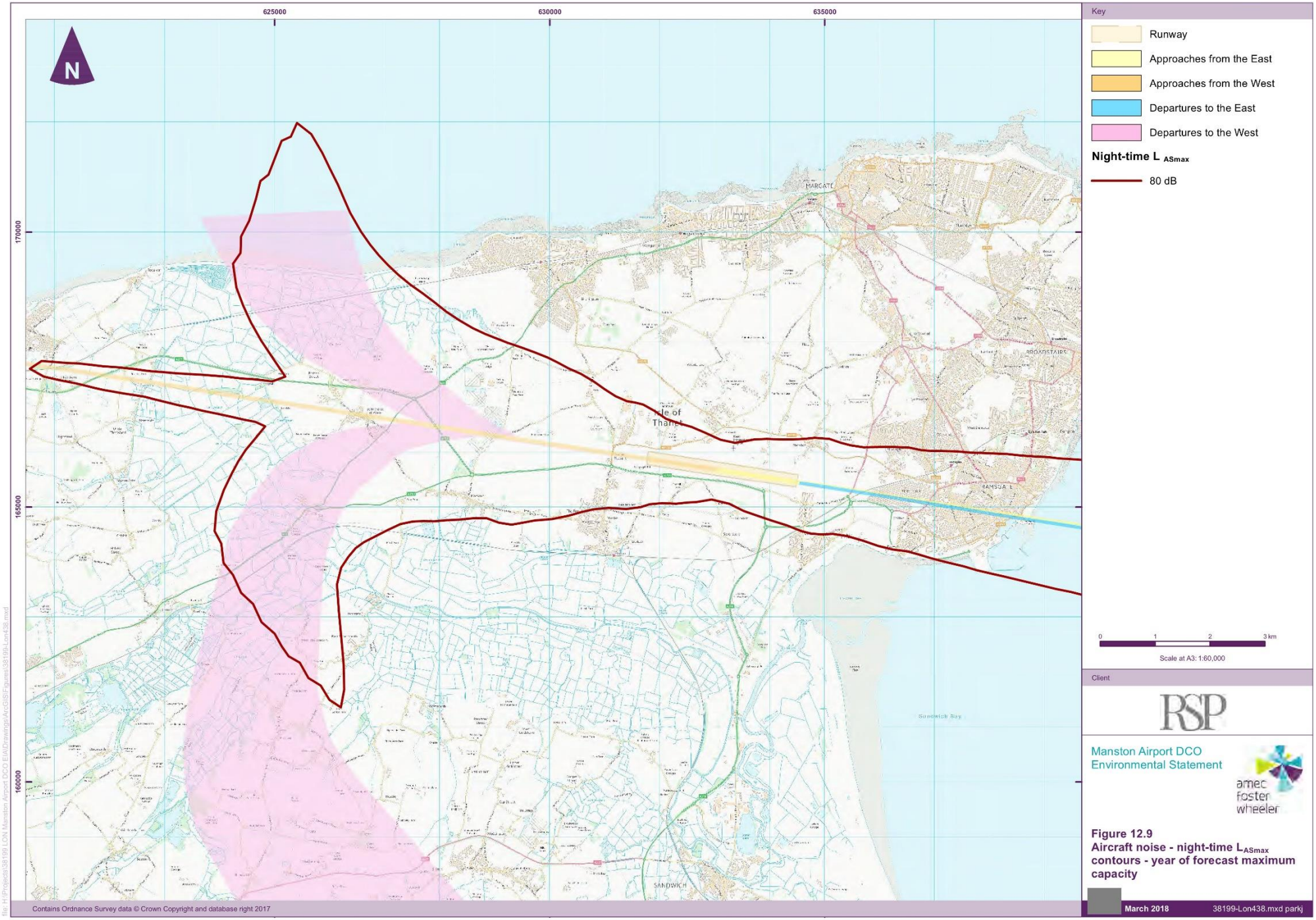
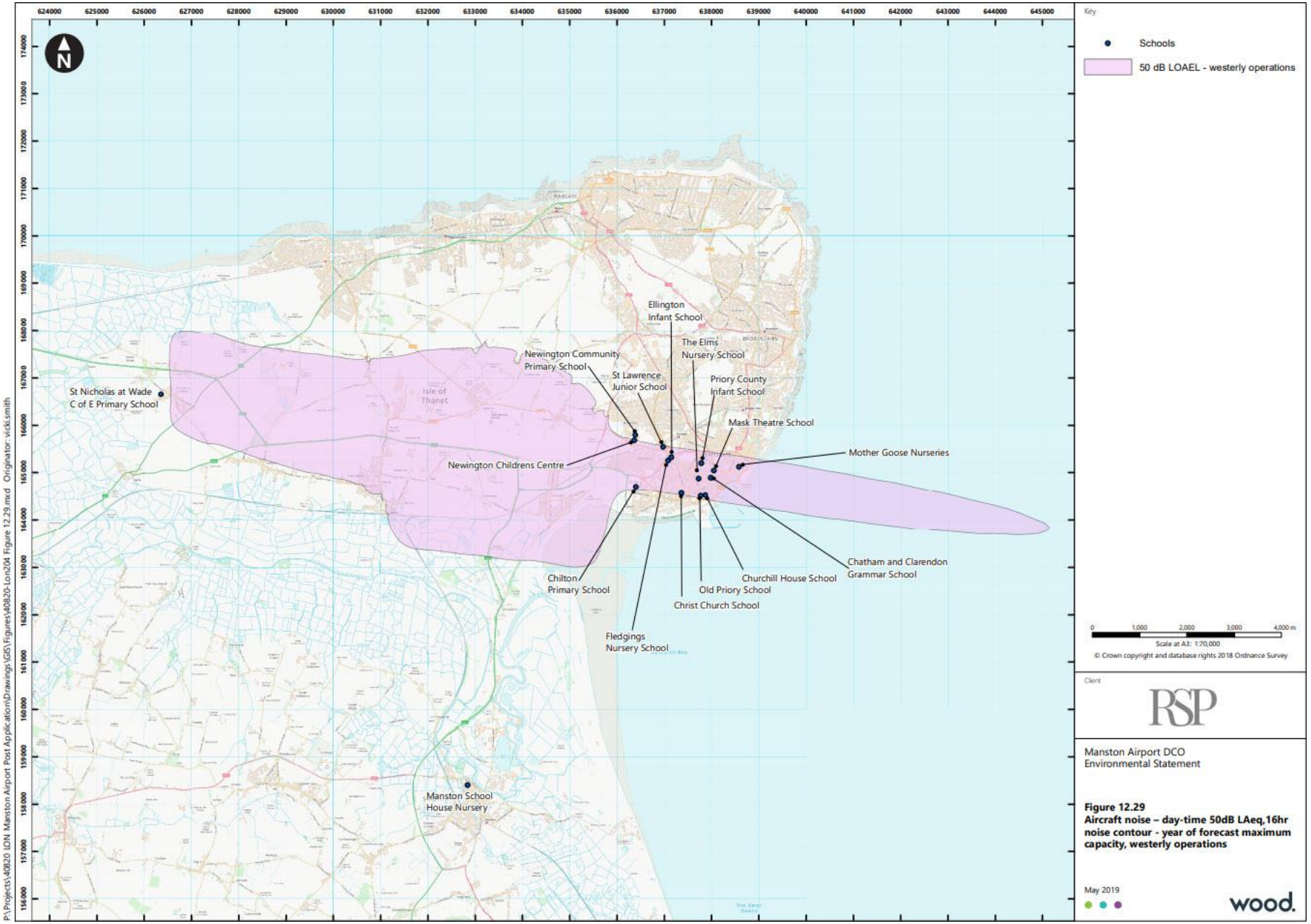


Figure 12.30: Aircraft noise – day-time 50dB LAeq,16hr noise contour - year of forecast maximum capacity, easterly operations (TR020002-004071-Appendices to Answers to TWQ)



NNF22

Response to RSP's response to ExA4WQ Ns.4.3

Noise contours produced by the Civil Aviation Authority for

No Night Flights

5th July 2019

Introduction

1. We write in extreme haste. RSP's Technical Note which comments on the noise contours submitted by No Night Flights was published by PINS on its website at close of business on Wednesday 3rd July 2019. The deadline for responding to RSP's document is midnight on 5th July 2019. We write without having had the opportunity to seek follow up validation directly from the CAA of the approach that it took to the production of noise contours for NNF.

2. We wish to place on record the quite extraordinary disadvantage which this inflicts on ordinary residents. None of us is employed to comment on this application. We are not in a position to use working days to do this. Two working days clearly gives inadequate time to comment on RSP's latest responses. This means that the voice of those whose life will be severely impacted should this DCO be awarded is going unheard. It also means that we have inadequate time in which to champion the objective and expert input of the CAA to this DCO process.

3. We have been told time and again by PINS, by the Applicant, and by the Applicant's cheerleader, Sir Roger Gale, that this DCO application process is front-loaded, meaning that the vast bulk of the work should have been completed before the application was submitted. RSP has manifestly failed to do this and was allowed by PINS to submit its application and begin the examination process despite the fact that there were substantial gaps in the evidence that it should have produced.

4. During the process itself, RSP has also manifestly failed to produce the information that the ExA and the public need to be able properly to understand the potential impact of RSP's proposals. As a result of the poor quality of RSP's application and its disorganised, partial and inadequate responses through the examination period, local residents are left hard up against the end of the examination period, still without a full set of professionally-produced noise contours from the Applicant. This is completely unacceptable.

5. It is NNF's position that, given the poor quality work carried out by the Applicant to identify to the noise impact from aviation operations associated with its proposal, the ExA should give weight to the independent, expert evidence produced by the CAA for NNF. It is the CAA who will assess the potential noise impact of RSP's proposals as part of RSP's future application for an Airspace Change. The CAA will use ANCON to do this – the modelling system that it used for our work. The CAA will use its in-house experienced noise modellers to do this – as it did when it produced the NNF contours.

6. The ExA has a simple pragmatic choice to make when it compares RSP's noise contours with NNF's. Does it prefer the work of the developer, carried out by someone who has never done this before, using a system that is not used in the UK by the CAA? Oliver Bewes, the acoustics consultant responsible for producing RSP's noise contours, is a specialist in railway noise. There is no trace in his CV of any experience in aviation noise. Similarly, does the ExA prefer RSP's noise contours, carried out for the specific purpose of demonstrating to the ExA that there is little noise nuisance associated with its proposal and little or no need for the developer to pay for expensive noise mitigation measures? It is telling that RSP has not produced input files that are properly time and date stamped for the ExA following the ExA's request for it to do so. The ExA can therefore have no confidence that the few noise contours that the Application has produced reflect the fleet mix described in the Applicant's ES.

7. Alternatively, does the ExA prefer the work of the CAA who has used its professional expertise to provide an objective set of noise contours based on inputs produced by NNF that have been clearly and transparently set out in the CAA's document? What weight is the ExA going to give to the substantial amount of evidence from local residents from the coastline in Ramsgate to the coastline west of Herne Bay that they experienced significant noise nuisance from the airport when it was operational (a much smaller airport than RSP wants) and that this had a significant and detrimental effect on their daily life? How will the ExA assess this evidence against the noise contours produced by RSP that suggest that many of these people could not possibly have heard any aircraft noise because the noise contours do not even reach them? Is the experience of these people to be dismissed as fantasy? What weight will the ExA give to the evidence submitted about previous noise monitor readings that demonstrate that noise levels far in excess of those suggested by RSP were experienced as a matter of course in central Ramsgate?

8. It is NNF's submission that the RSP aviation noise contours are insufficiently expert to be given weight in the determination of this DCO application. They are also incomplete. We genuinely cannot understand why RSP did not provide in its application a full set of noise contours, in 3dB steps, for single aircraft footprints, for Lden and for LAeq for day and night, for operations 100% to the east and 100% to the west (which is the day-to-day reality) as well as for its most optimistic annual average of 70:30. Its consistent failure to do this throughout the examination period tells us that RSP did not want this information to be available to the ExA.

9. In short, we submit that the CAA contours produced for NNF (and, for that matter, for Five10Twelve) are more expert and are objective assessments of the likely noise impact that would be produced by RSP's proposals. We submit that they are to be preferred and we urge the ExA to give them significant weight in its deliberations.

NNF's comments on the RSP Technical Note

10. RSP's Table 1 compares the assessments by RSP, Five10Twelve and NNF. For ease, in our response below we follow the order of RSP's document.

Prediction Model

11. RSP says that the difference in the model used is unlikely to result in a difference in results.

12. In the CAA's ECAC Doc.29, 4th Edition, December 2016,[45] the CAA says:

13. > *"Although many acoustical consultants have the understanding of aircraft noise characteristics and propagation that is necessary to use a noise contour model and interpret the results,* ***the noise modelling practitioner usually needs to have, or have access to, knowledge and expertise in airport and aircraft operations to achieve reliable results****. This is because aircraft noise levels heard on the ground depend on the flight path of the aircraft (position vs. time) as well as its flight configuration - its weight, engine and flap settings, speed and rate of climb or descent.*

[45] Already submitted by Five10Twelve for D9

These in turn are determined not only by individual airline operating procedures but also by air traffic control requirements." [our emphasis]

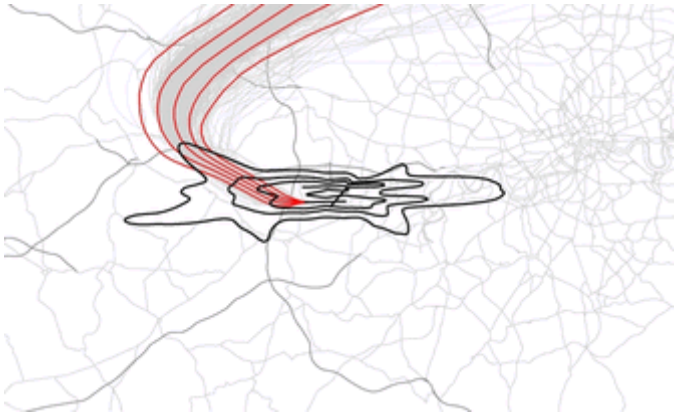
14. It is clear from the evidence that he gave to the ExA at the ISH in March that Oliver Bewes, RSP's consultant who was responsible for doing the noise modelling for the developer, did not have previous experience in using the modelling tool that RSP is relying on, nor does he appear to have had the required *"knowledge and expertise in airport and aircraft operations to achieve reliable results."* This gives the ExA considerable reason to doubt the accuracy of the RSP noise contours.

15. Like Five10Twelve (in its submission to D9) NNF does not understand why the Applicant used the third edition of the ECAC Doc.29 instead of the fourth edition. The third edition was published in 2005, and the fourth in 2016. This is a "signature" failure by the Applicant – as it has done with the WHO reports, the Applicant once again prefers to use out of date guidance. We respectfully refer the ExA to the submissions made by Five10Twelve on this issue in section 3 of its submission to D9 in response to RSP's comments on the Five10Twelve contours.

16. When the CAA comes to consider RSP's airspace change application, the CAA will be using ANCON to assess the noise impacts of that application, and to determine flight paths. ANCON is the default tool for the CAA – the relevant statutory body and UK subject experts. It is clear from this that ANCON is a more relevant model to use than the INM model used by RSP.

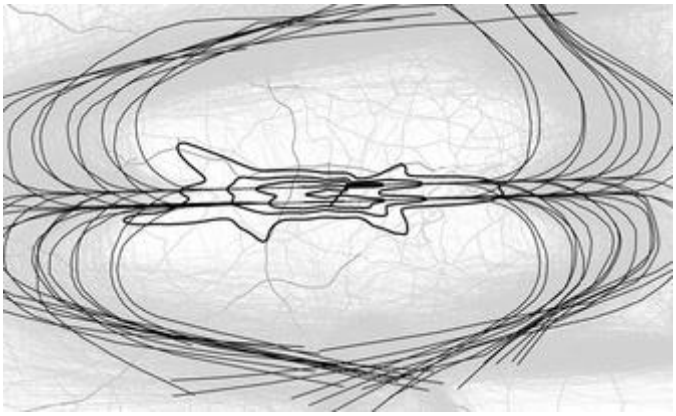
Aircraft Noise Data

17. On its website,[46] the CAA explains its aircraft noise profile data. The CAA says:

> *Analysis of flight tracks and profiles from radar data*
>
> *Where feasible, we analyse local airport radar data to ensure the highest degree of modelling accuracy. Extensive in-house radar analysis tools are used to generate mean flight tracks and the associated lateral dispersions for each route, and average flight profiles of height, speed and thrust for different aircraft types.*
>
> *The diagram below shows a typical representation of a departure route at Heathrow using mean and dispersed tracks, together with the underlying radar data.*
>
> 
>
> *Typical departure mean tracks © Crown copyright*

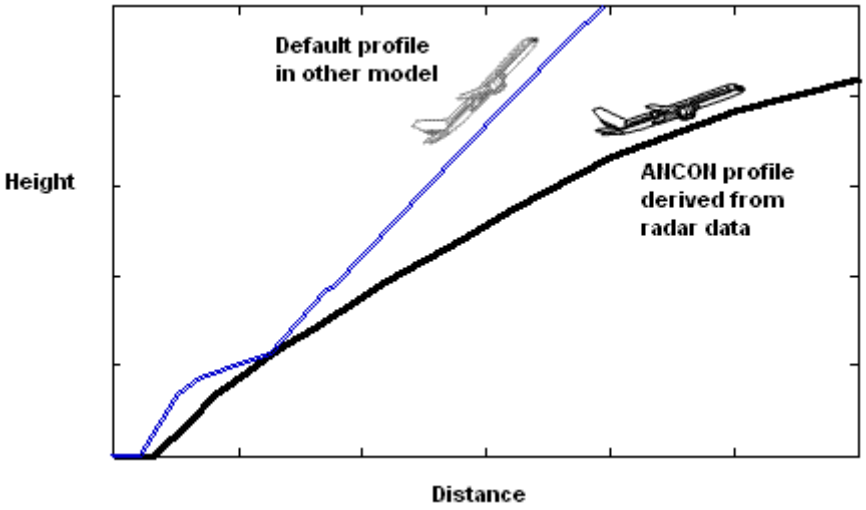
[46] https://www.caa.co.uk/Consumers/Environment/Noise/Features-of-the-ANCON-noise-modelling-process/.

A typical representation of arrivals at Heathrow using multiple 'spur' tracks is shown below:



Typical arrival mean tracks © Crown copyright

It is important to determine flight profiles for the noise dominant types at an airport using local radar data, since they may differ significantly from the 'default' profiles supplied in some noise models. For example, the following diagram shows the difference between the average departure height profile for the Boeing 767 as measured at the London airports, and a 'default' profile contained within another noise model.



Comparison between ANCON and another noise model's default profile for Boeing 767

Noise database verification

ANCON's noise database is checked and updated on an annual basis by taking several hundreds of thousands of noise measurements around Heathrow, Gatwick and Stansted airports each year. The noise database contains data for specific airframe/engine combinations in the form of 'noise-power-distance' (NPD) curves, thus ***it is applicable to any airport.*** *In particular,* ***the database contains extensive noise information for the majority of aircraft types that operate from UK airports, unlike other noise models****.* [our emphasis]

18. Key points to take from this explanation by the CAA is that the ANCON flight profiles may differ significantly from the default profiles in some noise models. The diagram above which compares the ANCON-derived profile for a B767 to another noise model's default profile for the same aircraft, would have a significant impact on the assessment of the actual noise nuisance that would be experienced on the ground. The default profile shows the departing plane reaching a greater height much sooner than the profile generated by the CAA. The CAA's profile captures the reality of a longer, lower, and therefore noisier, take off. It is the CAA's model that will be used to determine eventual flight paths should this DCO be awarded. The CAA's model is therefore to be preferred.

19. The second key point to take from the explanation on the CAA's website is that its system is updated annually using **actual** noise measurements. It is our understanding that the INM system is no longer being supported and updated. As RSP says in its ES [APP-057], section 12.3 Aircraft Noise Modelling:

20. > *"However, in 2015 INM was replaced by AEDT, also produced by FAA. Both AEDT and INM are produced by FAA, however due to the release of AEDT the FAA stopped supporting INM and therefore will not update the model or its associated database with new aircraft technology."*

21. The CAA specifically says that the ANCON model is **applicable to any airport**. This contradicts the Applicant's assertion in Table 1 that ANCON data is relevant only to extant airports.

22. The third key point is that *"In particular, **the database contains extensive noise information for the majority of aircraft types that operate from UK airports, unlike other noise models.**"* [our emphasis] Again, this suggests that the CAA's outputs using ANCON are more robust and are to be preferred.

Takeoff and Approach Flight Profiles

23. The Applicant says that there may be a difference between its profiles and NNF's because the ANCON database assumes average weights. In Appendix 12.3 to the Applicant's ES [APP-057], the Applicant says that the INM system that it used does not have a setting for aircraft weight. It relies instead on assumptions about the length of the stage that the aircraft has flown. It says that that stage length is only applicable to departing aircraft. For example, if an aircraft is going to the US, it will be heavier than if it were going to Norway (all other variables being equal) because it will be carrying more fuel. This suggests that in the Applicant's model no account is taken of the fact that the Applicant's own operating assumption is that a disproportionate amount of cargo that would be handled by its proposed airport would be imported, therefore would be relevant to arrivals. Our contention is therefore that RSP's contours underestimate the weight of arriving freight aircraft.

24. By contrast, the CAA contours specifically deal with *"the expected high proportions of freight traffic"*. The CAA has taken **real** noise data of freight arrivals and departures at Stansted using average weights. Where real data for a specific freighter was not available in the Stansted database the CAA used real data for those freighters from Heathrow, or Gatwick. This is set out in NNF18 [submitted 14 June 2019] on p30. The CAA contours are therefore a more accurate reflection of reality.

Flight Path

25. The Applicant asserts that it is highly unlikely that the CAA would adopt the same flight path as was previously used by the airport. The Applicant offers no evidence to support this view. The Applicant then says that the previous flight paths would not be supported *"because of the likely worsening of the noise impacts."* This *"likely worsening"* is exactly what NNF is trying to get across in its own submissions.

26. It is a fact that the CAA approved the previous flight paths as being the best balance between safety – the over-riding factor – and the noise impact.

27. It is a fact that the CAA re-approved the previous flight paths in every subsequent update of the airport's AIP.

28. It is more likely than not that the CAA would approve the previous flight paths for use again, should the DCO be awarded. Given that the CAA is still guided by the same considerations of safety and noise impact, any deviation from the previous flight paths can only be small. There simply is not that much that leeway, given the geography.

29. It is extremely difficult to identify from the indicative flight paths provided by the Applicant in what way it thinks its flight paths are fundamentally different to the previous flight paths as submitted by NNF. Both RSP and NNF have provided arrival flight paths that follow a straight-line approach from either the east or the west. Both RSP and NNF have provided departure flight paths to the west that turn either north or south to avoid overflying Herne Bay. Both RSP and NNF have provided a departure flight path to the east that turns south. RSP has added an additional departure flight path to the east that then turns north. That flight path does not turn north over the sea until the whole of Ramsgate has been overflown and so the noise that it would generate over Ramsgate is catered for in the NNF path that departs east and then turns south, after clearing Ramsgate.

30. In its ES, RSP says under the title Track Proportion:

31. > *"Typically, aircraft arrive and depart into wind and therefore to determine the future runway direction historical weather data was assessed. The historical weather data suggests that for an average year approximately 70% of arriving aircraft will arrive over Ramsgate and 30% will arrive over Herne Bay. For departing aircraft approximately 70% will depart to Herne Bay and 30% towards Ramsgate. For aircraft departing to the west there are two likely flight paths, one turning north and one turning south and it is assumed that there will be a 50/50 traffic distribution. Table A12.3.41 presents the traffic distribution along each flight path as a percentage of the total aircraft movements."*

32. The possible 70W:30E split that RSP describes in its ES is modelled in the NNF contours, as is a possible 50:50 split between north turn and south turn for those departures to the west. Again, it is difficult to see how NNF's use of previous operational flight paths differs from the indicative flight paths used by RSP in this regard. Yet RSP says in its response to the contours produced by the CAA for NNF that the difference in flight paths *"is considered to be the most likely cause of difference between outcomes."*

33. We note in RSP's Figure 4 of its comments on the CAA contours that the centre line for the more southerly of the two departure paths to the east assumes that the turn to the south begins almost as soon as the aircraft clears the runway. The path then overflies Cliffsend and Pegwell Bay. This is wholly inconsistent with what the Applicant says about this flight path in its ES [APP-057]. On p13 of the Aircraft Noise Modelling section the Applicant says that *"that early turn before Ramsgate was discounted after it became apparent the route was not operationally feasible given the location of the Pegwell Bay RAMSAR."* Given this, the logical conclusion is that RSP should not have modelled the noise impact of a flight path that it will not use and that it had already rejected. RSP's other departure path to the east would therefore match the departure path that was used previously, and therefore would match the departure path that NNF gave to the CAA.

34. Given this inconsistency between the statement in RSP's ES, and the visual representation of its indicative flight paths in its Figure 4 in its recent response to our contours, the ExA can have no confidence in the noise contours produced by RSP. If that flight path was rejected, why is it still shown? Was this flight path modelled in the noise contours or not? If it was, then the noise generated over Ramsgate has been underestimated by RSP as it is relying in its calculations on an (unusable) departure path over Ramsgate that tracks south east from the runway rather than overflying Ramsgate.

35. It is also hard to ascertain what weight RSP is putting on its sixth flight path – the departure path to the east that then turns north. It is hard to see in what way that flight path would diminish the noise impact of departures on Ramsgate. It is hard for NNF to make any further comment on this purely indicative flight path as we can find no record that it was used operationally previously.

36. In its ES, in the Aircraft Noise Modelling section, RSP says:

37. *"The aircraft flight paths define the ground tracks taken by aircraft in the INM model and hence locations of noise emissions from aircraft in flight. The exact airspace options and aircraft flight paths will be formalised through an Airspace Change Proposal (ACP), which is a separate consenting regime. The ACP will be submitted through the CAA's airspace change process and the potential noise effects will be assessed following the CAA guidance within the Civil Aviation Publications (CAP). The ACP will therefore provide opportunities for communities to engage on future flight paths through an extensive consultation process.* ***The assessment of aircraft air noise for ES has therefore considered six indicative airspace route options within a design swathe*** *as provided by the airspace consultant Osprey Consulting Services Limited. The design swathe has taken into account the 'knowns' of the local airspace, including airways and navigational aids. The route swathe and indicative flight paths are presented in Figure A12.3.1 and show the different routes within the design swathe for future departure and approach routes and Table A12.3.39 presents the six design principles considered."*

38. *"As described above, the route options will not be finalised until an ACP is completed. This will not occur until after the powers to build and operate the airport are obtained under the DCO process. The assessment of the noise impact of the airport in the ES is based on an indicative route.* ***The noise impact of the Airport may be different to that presented in the ES following the finalisation of the ACP****. The purpose of the*

options appraisal presented here is to provide an indication of the potential variability in the noise impact which remains until the routes are finalised in the ACP." [our emphasis]

39. This makes it clear that the *"indicative"* flight paths modelled by RSP in its noise contours are just that. In contrast, the NNF flight paths reflect 15 years of operational reality, as well as reflecting flight paths previously approved by the CAA. **The NNF flight paths are clearly to be preferred**.

Modal Splits

40. RSP says in Table 1 *"When comparing like with like, this should influence the difference."* We have no idea what this means.

41. As RSP has noted, the CAA produced noise contours for NNF for operations 100% east and 100% west, and 70W:30E and 30W:70E. What RSP did was to produce an average contour which assumes a 70W:30E split for each of the 365 days of the year. As we say in NNF18 [submitted on 14 June and accepted as an additional submission by the ExA], TDC's noise consultants, Ricardo, identified this average of an average as a flaw in RSP's modelling in their submission to D6.

42. NNF's noise conoutrs are to be preferred because they show the noise impact that is created for days at a time when operations are in one direction or the other. RSP's contours do not reflect operational reality. RSP's contours reflect:

- Annual ATMs averaged almost evenly over 365 days
- ATMs averaged evenly throughout a 16 or 8 hour period, for day or night
- That average is then split 70:30 and 30:70 as if every day and every night has this operational modal split
- Lastly, RSP then adds the 70:30 hypothetical to the 30:70 hypothetical, divides by two, and says that this reflects the noise nuisance created on an average winter's day. It does not.

Fleet Mix

43. RSP says that *"NNF used an alternative commercial fleet mix"*. This is true. The RSP fleet mix, as is well recorded, has not been updated since the ES was submitted in the summer of 2018. In Table 2 of RSP's response to NNF's contours, RSP shows that that fleet mix includes 4,310 ATR-72 ATMs. RSP has accepted, in evidence, that its current "plan" relies on "new" integrators, and that these airport customers would **not** be using ATR-72 aircraft. Despite this, RSP continues to assert that its ES is robust and that it will reflect a likely worst case scenario. This is not supportable. The NNF contours reflect the evidence that RSP gave to the ExA in the March and June ISHs. The NNF contours are to be preferred.

44. The fleet mix in RSP's ES is at the heart of its assessment of the noise, the pollution, and the traffic impacts of its aviation operations. This fleet mix is out of date and is not in line with RSP's latest operational "forecast".

45. We note with increasing disbelief and horror that far from introducing a ban on night flights, RSP is seeking an even greater level of flexibility for night flights in the latest iteration of its Noise Mitigation Plan. **The night noise contours produced for NNF by the CAA do not in any way begin to capture the night noise impact that would be generated by the operational freedom that RSP is now seeking to apply its suggested annual quota count to just one hour of an 8 hour night.** We will say more about this in our response to the latest Noise Mitigation Plan.

46. The NNF contours include 38,000 GA ATMs. RSP appears to have included 35,040 GA ATMs.[47] In the Aircraft Noise Modelling section of its ES in Appendix 12.3 at xxxiv, RSP says:

47. *"General Aviation (GA) traffic was added, comprising of a worst-case daily scenario of 40 arrivals and departures, eight circuits flight comprising six circuits per flight and eight touch and go operations. General Aviation flights will only occur during the daytime and therefore there is no change in-terms of night-time contours."*

48. In its ES, RSP says:

49. *"The modelling shows that when General Aviation flights are considered there is a negligible change in the LOAEL contour however because the circuits routes overfly new areas there is a noticeable change in the SOAEL contours."*

50. RSP has not set out the aircraft assumptions that underpin its modelling of GA ATMs in the ES. NNF produced a fleet mix that included some of the types of GA aircraft that were previously in use at the airport and that RSP has said it would like to attract to a new airport, including executive jets. RSP's comment about the potential impact of such flights on the SOAEL suggests that the RSP noise contours do not reflect the likely worst case noise impacts.

RSP's Commentary for Ns.4.3 NNF

51. RSP says at 3.2.3 that NNF has:

52. *"… presented contours which they state will more closely relate to the nuisance they believe will result from the airport, which the Applicant does not believe are required to enable consideration of the application with respect to policy."*

53. This is the most extraordinary statement. It appears that the Applicant has not grasped the need to assess the likely noise nuisance that would be generated as a result of its proposal so that the ExA can determine whether or not the claimed benefits of the application are outweighed by the likely dis-benefits. This balancing act will still need to be carried out despite the fact that there is now no need for a CPO of the land that was owned by Stone Hill Park (although other parts of the proposed site owned by others will still require a CPO if RSP is to carry out its plans). The ExA is obliged to consider as part of its determination the likely negative impact of RSP's proposals on the human rights of local residents. The ExA will also need to take a view as to what level of noise mitigation would be appropriate if the ExA decided to award a DCO to RSP. Of course the ExA will need to consider relevant policy. It is also the

[47] (8 circuits flights x 6 circuits each) + 40 + 8 multiplied by 365 days p.a.

duty of the ExA to consider relevant evidence put in front of it about the likely negative impacts of the proposal.

54. At 3.2.4 RSP says that its following five paragraphs address why it has used 16 hour and 8 hour contours, average day, and modal splits "*rather than taking NNF's approach.*" We are puzzled by this. We too have used 16 hour and 8 hour contours, average day and modal splits.

55. At 3.2.5 RSP says that "*the noise information that should be presented for a new airport is not mandated in England*." It says it has provided information about the areas and populations exposed to the LOAEL, the SOAEL, and also to LAmax. Of course, RSP's use of LAmax for an assessment of night awakenings is adulterated by its idiosyncratic use of the work of Dr Basner to suggest that there will be no additional awakenings as a result of 18 80dB noise events every night. NNF has commented exhaustively on the evidence from previous operations at the airport, as well as from up-to-date guidance from the WHO that demonstrates that RSP's approach is, at the politest, an outlier. The WHO talks about individual noise events causing harm at 45dB LAmax whereas RSP suggests that 18 individual noise events of 80dB will cause no harm and generate no awakenings. RSP has also produced a paucity of evidence about the substantial harm to health that can be caused by night noise without necessarily producing an awakening.

56. On its website, the CAA says:

57. > *"Occasional loud noise is measured in the UK by Sound Exposure Level (SEL).* ***Studies have found that SEL above 90dBA generally leads to sleep disturbance. SEL footprints can be used to work out the areas where take-off creates an SEL over 90dBA to inform decisions about whether or not a particular type of aircraft should be permitted to operate at night, or to influence airport construction or extension in populated areas.*** *An SEL footprint shows the geographical area in which a particular SEL is reached from a single noise incident (e.g. a plane taking off).* [our emphasis]

58. NNF has submitted evidence previously from the noise monitors in use while the airport was operational demonstrating that SEL above 90dBA was regularly captured by the noise monitor at the Clarendon School in Ramsgate.

59. Also in 3.2.5 RSP says that it is not relying on a "Rochdale envelope approach" for its application. This is a new development. It is hard to see how RSP can claim that it has accurately assessed the likely worst case if RSP has chosen to put itself beyond the reach of the "Rochdale envelope approach".

60. In answer to a query last year from NNF to PINS about the inadequacy of RSP's consultation, PINS replied:

61. > *"Applicants can assess the likely significant impacts of a proposed development using the 'Rochdale Envelope' (RE) approach; this is used to assess a likely or reasonable 'worst case scenario'. This approach is consistent with the objective of the EIA Directive, and the Planning Inspectorate acknowledges the Rochdale approach is a way of dealing with an application comprising EIA development where details of a project have not been resolved at the time when an application is submitted."*

62. PINS then referred to Advice Note 9 which says:

63. *"…Taken with those defined parameters of the project, the level of detail of the proposals must be such as to enable a proper assessment of the likely environmental effects, and necessary mitigation – if necessary considering a range of possibilities:*

64. *…The level of information required is: "sufficient information to enable 'the main', or the 'likely significant' effects on the environment to be assessed… and the mitigation measures to be described…" (Para.104 of the Judgement)*

65. *…The 'flexibility' referred to is not to be abused: "This does not give developers an excuse to provide inadequate descriptions of their projects."*

66. *Care will be needed by the developer to ensure that the project description is clear so that the developer can demonstrate that the statutory requirements regarding consultation have been met."*

67. We take RSP's comment here as tacit recognition that it has failed to meet the standards expected of it with regard to the Rochdale envelope. We are astonished by the assertion that the Rochdale envelope has no relevance to the assessment of the likely significant impacts of this application.

68. In 3.2.9 RSP says that its anticipated modal split is the norm for presentation of aviation noise contours. It cites noise contours produced for Heathrow in 2015. RSP appears not to have caught up with what the operator at Heathrow airport is now suggesting is relevant and appropriate in its current noise consultation. At 5.245 of the Airports NPS, there is the following commitment:

69. *"In addition to statutory requirements, Heathrow Airport has publicly committed to a community compensation package comprising a number of more generous offers:*

70. *• […]*

71. *• Following a third-party assessment, to provide full acoustic insulation for residential property within the **full single mode easterly and westerly 60dB LAeq,16hr noise contour** of an expanded airport;*

72. *• Following a third-party assessment, to provide a contribution of up to £3,000 for acoustic insulation for residential properties within **the full single mode easterly and westerly 57dB LAeq,**16hr **or the full 55dB Lden noise contours of an expanded airport, whichever is the bigger**; and*

73. *• To deliver a programme of noise insulation and ventilation for schools and community buildings within the 60dB LAeq,16hr contour."* [our emphasis]

74. In addition, the Aviation 2050 consultation published in December 2018 proposes the following noise insulation measure:

75. *"for airspace changes which lead to **significantly increased overflight**, to set a new minimum threshold of an increase of LAeqT 3dB, which leaves a **household in the LAeq,16hr 54dB contour or above as a new eligibility criterion** for assistance with noise insulation."* [our emphasis]

76. The implication of this is clear for RSP's proposal. The Government is suggesting that, for communities which would experience significant overflight – and this clearly includes everyone who lives under the flight paths for a new airport at Manston – the threshold for noise insulation grants should be 54dB LAeq where the increase over the previous noise environment is LAeqT 3dB. We urge the ExA to adopt this measure for the RSP proposal. It is entirely in line with current Government acceptance that the onset of significant community annoyance is now 54dB LAeq.

77. The Draft UK Airspace policy published by the Department for Transport (DfT) in February 2017 and the consultation response that the DfT published in October 2017 says:

78. *"Consistent with the Noise Policy Statement for England, our objectives in implementing this policy are to: … limit and, where possible, reduce the number of people in the UK significantly affected by the adverse impacts from aircraft noise." (Para 2.69 Oct 2017)*

79. *"The government acknowledges the evidence from recent research which shows that sensitivity to aircraft noise has increased, with the* ***same percentage of people reporting to be highly annoyed at a level of 54dB LAeq,16hr as occurred at 57dB LAeq,16hr in the past****." (Para 2.72 Oct 2017)* [our emphasis]

80. The Heathrow consultation document says at 2.9.5

81. *"We have also* ***made a commitment to use a combined contour based on both full, single mode contours, namely the easterly and westerly mode contours****. This will produce a noise contour area larger than the area for the actual averaged east-west operations and effectively will treat areas impacted by one mode as if it occurred for the entire year."*

82. This means that all properties within the single mode easterly and westerly 60dB LAeq, 16 hour noise contour will have the full cost of all noise insulation and ventilation costs covered by the airport operator. In addition, all properties within the single mode easterly and westerly 57dB LAeq, 16 hour noise contour will receive a grant of £3,000 towards noise insulation costs, as will all properties within the 55Lden contour. We have made submissions before on the approach to noise insulation being taken by the planning authority at Stansted. Uttlesford DC has set as a planning condition the requirement to extend a sound insulation grant scheme of £5,000 to households in the 57 dB LAeq,16h noise contour and to those in the 90dB SEL footprint for night noise.

83. We see no reason why Thanet and Canterbury residents should be treated less well than London residents in this regard. Indeed, we should be offered better noise mitigation given that we are a population that has not been habituated to aviation noise.

Conclusion

84. At 4.1.1 RSP says that noise from airport operations will be limited by the noise contour cap and *"as such, the adverse effects of the proposed development are limited to those reported in the ES"*. Firstly, of course, the ExA would need to accept that RSP's noise contour cap is a sensible and appropriate way of managing the noise nuisance that would be generated by airport operations.

85. Secondly, RSP is confusingly conflating two separate ideas here. The noise contour cap was invented by RSP in May 2019 [REP-021] post-dating the publication of the ES by almost a year. In addition, a noise contour cap of 50dB will not prevent a 747-400 from being heard the length of Ramsgate and into Herne Bay. It will do nothing to avoid or mitigate the noise impact of aviation operations.

86. Furthermore, it is clear that the adverse effects of the proposed development will not be limited to those in the ES. The ES does not reflect the likely fleet mix that will be in operation. The ES does not model the Applicant's latest request for QC4 aircraft to be operated 23 hours a day. The ES does not model the likely noise impact from unlimited other "late" arrivals between 2300 and 0600. The ES has not included the full number of GA ATMs. The ES offers an average of an average of an average in its noise contours. In short, the ES comes nowhere near reporting the potential adverse effects of the development when it comes to aviation noise.

87. The Airports NPS says at 5.68:

88. *"Development consent **should not be granted** unless the Secretary of State is satisfied that the proposals will meet the following aims for the effective management and control of noise, within the context of Government policy on sustainable development:*

89. *- Avoid significant adverse impacts on health and quality of life from noise;*

90. *- Mitigate and minimise adverse impacts on health and quality of life from noise; and*

91. *- Where possible, contribute to improvements to health and quality of life."* [our emphasis]

92. RSP's proposal does not do this. The NNF noise contours, together with other evidence submitted by us during the course of this examination, demonstrate conclusively that there will be significant adverse impacts on health and quality of life from the noise that would be generated by RSP's new airport. There will also be adverse impacts on health and quality of life that RSP's NMP does not even begin to mitigate. We strongly urge the ExA to reject RSP's application for a DCO for this proposal as it neither avoids significant adverse effects, nor mitigates and minimises adverse impacts, and certainly does not contribute to any improvement in health and/or quality of life.

93. We will deal with the Noise Contour Cap in our comments on the latest Noise Mitigation Plan.

Application by RiverOak Strategic Partners Limited for an Order granting Development Consent for the reopening and development of Manston Airport in Kent

REQUEST FOR COMMENTS AND FURTHER INFORMATION

Response by No Night Flights to the Department for Transport letter dated 17th January 2020 – NNF28

"26. The Secretary of State also invites comments from the Applicant and other Interested Parties on the late representation from Five10Twelve Limited dated 23 December 2019 relating to public cost and reputational risk, which is published alongside this letter."

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1. The Five10Twelve letter dated 23rd December 2019 makes a number of sound points.

2. RSP is a start-up company. No Night Flights adds that it is a recent start-up with no track record. The company has no track record in raising this level of finance; nor does it have a track record in major construction and redevelopment projects; nor does it have a track record as an airport operator. It cannot have been the intention of the Planning Act 2008 that a start-up company with no experience in the field, and no proof of funds, can use the DCO process to compulsory purchase the land of others for a Nationally Significant Infrastructure Project. It must be remembered that RSP's principals initially set out to buy the airfield from the previous operator to run it as an airport operating no more than a couple of dozen cargo flights a week.

3. Five10Twelve is correct to say that the only principal associated with RSP who has operational airport experience is Mr Freudmann. It is, of course, Mr Freudmann who was MD at Manston when the airport first became a commercial airport and who presided over the airport's complete failure as a commercial venture between 1999 and 2005. NNF has presented a substantial amount of evidence[1] about this to the DCO examination, including evidence that Mr Freudmann was MD at the time and that, under his guidance, the airport did not break even financially in any one year of operation. NNF has presented evidence that the airport failed because the operator was unable to attract enough business to it. Despite what Mr Freudmann asserts, the evidence shows that the airport did not fail because of the liquidation of the airline EUJet – the airport was already in the red many years before that liquidation occurred.

4. Five10Twelve is correct to say that the beneficial owners of RSP are hidden from public view in an offshore company and that RSP has not provided the evidence that it either has the money or that it can raise the money to fund its proposed development – a development that RSP estimated in its one page spreadsheet that it submitted to the Examination would cost more than £300m.

5. Five10Twelve is correct to say that RSP gave evidence to the DCO Examination process that its aviation consultant, Dr Sally Dixon, an independent consultant operating as Azimuth, made no assessment of viability in the forecasts that she produced for her client. None of RSP's principals provided any assessment of viability. In fact, no assessment as to whether RSP's proposal is financially viable was ever put before the Inspectors, and the ExA itself considered the question of viability to be beyond its remit, so the issue has **never** been examined or tested. The Secretary of State therefore cannot rely on the fact that RSP could

1 Primarily TR020002-003493-NNF, and TR020002-003494-NNF, TR020002-003495-NNF, TR020002-003496-NNF, TR020002-003497-NNF.

develop a financially sustainable airport at Manston. NNF has previously submitted past Airport Consultative Committee minutes and other written evidence that demonstrate that an airport on that site, using the same business plan as the one that is before the SoS now, has failed three times on that site. RSP has provided no evidence that a fourth attempt to develop a profitable airport on that site can succeed. Given that, there is a significant risk if this DCO is awarded that land will be CPOd, MoD assets moved, and housing shunted onto green field sites that could otherwise have been placed on the brownfield land at Manston… and that the airport will then fail for a fourth time, rendering these costs wasted.

6. Five10Twelve is correct to raise concerns about RSP's flat refusal to accept that Public Safety Zones (PSZ) will need to be established for Manston should the DCO be awarded. RSP has made no assessment of this impact of this necessity on its plans and on its costs. Similarly, the cost to the local area of restricting development in line with the Public Safety Zone guidelines has not been calculated. There is reputational risk here for a SoS who approves a DCO **without** having been given full information about the impact of that proposal and **without** knowing that the developer understands the risks and costs inherent in the developer's own proposal. As importantly as the development blight that PSZs will cast over part of Ramsgate, the establishment of PSZs will have a negative impact on Thanet District Council's ability to meet its Objectively Assessed housing provision in the relevant Local Plan period

7. Our research, already provided to the Examination process, supports that of Five10Twelve as regards the recent upsurge in inward investment to Ramsgate and the wider area, and the increase in individuals and businesses relocating to and investing in the area since the former airport was closed in 2014. It is uncontroversial that this is highly likely to be reversed in the event that the airport is re-opened, re-instituting flight paths directly over Ramsgate at a maximum height of 800 feet at the coast and descending from that point over the town to land at the airport. The recent beneficial increase in local creative industries and in local tourism will be reversed. This is a cost to the area and to the people who live here. Five10Twelve is right to say that TDC's Local Plan relies upon an increase in tourism and in the creative industries locally to fuel future economic development. Both these will be harmed for those areas under the flight path by the considerable noise nuisance created by a new cargo airport at the edge of Ramsgate

8. We wholeheartedly agree with Five10Twelve's conclusions that: *"there is in fact a very significant cost - both reputationally and financially - that may result from granting the DCO, irrespective of whether or not the development is delivered as planned or proves to be unviable, as expected."* NNF is on record as having set out at multiple stages during the Examination process the flaws in the statutory consultation by RSP; the gaps in its Environmental Statement and its Environmental Impact Assessment; the fact that RSP has not shared with the ExA and with the SoS **any** information about commercial viability; the fact that RSP's aviation consultant admitted that she has no experience of forecasting air cargo traffic in South-East England; and the fact that experienced and well-regarded aviation experts like York Aviation and Altitude Aviation brought forward evidence that undermined, again and again, the assertions made by the developer about the UK air cargo market and the role that a reopened Manston Airport could play in that market.

9. We have also set out the DfT's own assessment of the likely development of the UK air cargo market and have drawn to the ExA's attention the fact that the Department does not think that that market is growing. It is our considered view that the substantial amount of evidence that we and others have submitted shows that RSP's proposals will never deliver the additional 10,000 cargo ATMs p.a. required by the legislation, leaving the Department in a position where, if this DCO is awarded, the Department will have supported a CPO of land and a significant environmental and economic blight over a wide area only to see the airport fail, entirely predictably, for a fourth time.

30 January 2020

Application by RiverOak Strategic Partners Limited for an Order granting Development Consent for the reopening and development of Manston Airport in Kent

REQUEST FOR COMMENTS AND FURTHER INFORMATION

Response by No Night Flights to the Department for Transport letter dated 17th January 2020 – NNF29

"3. The Secretary of State invites views from Kent County Council on the acceptability and adequacy of the Applicant's contribution of £139,000 per year for affected schools for 20 years to mitigate and minimise the noise effects on schools."

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1. We appreciate that the Secretary of State (SoS) has directed this question purely at Kent County Council (KCC). However, as a campaign group representing local residents, some of whom have, or will have, children in the affected schools, this is a matter of significant importance to us and to the local residents who we represent.

2. NNF has submitted evidence previously from the noise monitors that were in use while the airport was operational that demonstrates that SEL noise levels above 90dBA were regularly captured by the noise monitor at Clarendon School in Ramsgate when a plane flew over the school. The noise contours that the Civil Aviation Authority (CAA) produced for NNF[1] demonstrate that some of the schools that RSP has identified in Ramsgate will also be within the 57dB LAeq contour. It is not just Ramsgate schools that will be negatively affected. The primary school at St Nicholas at Wade is shown by the CAA to sit between the forecast 51dB LAeq and 54dB LAeq contours. A number of interested parties have submitted clear, factual evidence to the Examination as to the number of schools that will suffer unacceptable levels of aviation noise as a result of this proposal. Indeed, a number of children and teachers attested to their own negative experience of the noise nuisance created by the previous, much smaller, airport operation at Manston.

3. None of this is controversial. Nor is it controversial that aviation noise has a damaging effect on the educational achievement of children. We, and others, have submitted scientific evidence to the Examination on this. Despite this, RSP seeks to spread across twenty years its obligation as the noise polluter to pay for adequate noise mitigation measures for schools. This is unacceptable as well as unworkable.

4. There is no evidence that the noise mitigation work required can be easily sliced into units of £139,000 per year. There is no mechanism offered for adjudicating between the mitigation needs of X school and Y school when the sum of money applied for in any one year by a number of schools is greater than the sum provided for in that particular year. There is no evidence that suggests that £139,000 p.a. will adequately mitigate for a number of schools the noise nuisance created by the airport on a straight line basis, with the nuisance increasing 1/20 every year and with the work that needs to be done totalling no more than £139,000 in any one year across all the schools that need that work.

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1 NNF18 is TR020002-004224-AS-NNF

5. RSP has lost sight of reality here. Lessons will be interrupted the first time that a cargo 747-400 overflies schools, creating for some of the schools below the flight path a noise event of 90-100dB for that flight. This level of noise is a recorded fact of past airport operations, and therefore a predictable outcome of RSP's proposals. The responsibility to fund mitigation for the harm caused by its business plan is entirely RSP's. The correct way to do this is for schools to be able to apply to RSP for whatever it may cost to implement appropriate noise mitigation measures before lessons are interrupted and before children start to suffer from a poorer education. This means that the entire fund must be in place before the airport is open and it must be available to all schools that need noise mitigation work to be carried out. After all, there is a wealth of documentary evidence as to the noise levels that some schools will experience as a result of aviation operations at a reopened Manston, because there is a wealth of documentary evidence available about the noise levels that some schools actually experienced as a result of *previous* aviation operations at reopened Manston.

6. RSP must not be allowed to shirk its responsibilities in this way and be allowed to leave some schools with inadequate noise mitigation for a period of up to twenty years.

7. As to the quantum of noise mitigation money suggested, we can make no comment on that as we do not have the expertise. We rely on KCC to comment as to whether the sum suggested will be adequate to fund the work that needs doing to protect our children and their education from the noise pollution that will be created by RSP's commercial aspirations.

30 January 2020