

**LONDON ASHFORD AIRPORT (LYDD):
RESPONSE TO CONSULTATION, SUPPLEMENTARY
ENVIRONMENTAL INFORMATION AND STATEMENTS
TO INFORM (October 2007)**

COMMENTS ON AVIATION OPERATIONAL ASPECTS

November 2007

Report No. 07/118/LAAG/3

© Spaven Consulting 2007

1. Introduction

1.1 This document provides comments on the London Ashford Airport (Lydd) *Response to Consultation, Supplementary Environmental Information and Statements to Inform* (Indigo Planning Ltd, October 2007). Spaven Consulting was commissioned to produce this document by the Lydd Airport Action Group (LAAG) on 18 October 2007.

2. Response to Consultation Vol.1 Chapter 2 – Policy Context and Update

Air Transport White Paper Progress Report

2.1 At paragraph 2.5 London Ashford Airport (LAA) refers to the December 2006 Future of Air Transport Progress Report. However Lydd is not mentioned in that report, except on the map at Figure A1 which confirms its status as a "Minor Airport", defined by the government as those where the White Paper did not support specific major developments or which are forecast to handle less than 20,000 air transport movements (ATMs) annually by 2030. Lydd's aspirations for two million passengers per annum would involve more than 20,000 ATMs a year, but its continued classification as a Minor Airport demonstrates that the government does not concur with its growth projections.

Comparison with Bournemouth

2.2 At paragraphs 2.26 to 2.42 LAA compares projected growth at Lydd with the situation at Bournemouth Airport. This comparison is misleading for a variety of reasons, but one over-riding one: Bournemouth was identified in the Aviation White Paper as a Major Airport where specific government support was given to an expansion of terminal capacity. Lydd remains a Minor Airport according to government policy.

- 2.3 Other significant differences between Bournemouth and Lydd are:
- ▶ Bournemouth already has a 2271 metre runway – 26% longer than the proposed extended Lydd runway. This is long enough to accommodate all short and medium range aircraft types
 - ▶ it has a significantly larger catchment area population (Bournemouth alone recorded a population of 163,444 in the 2001 census)
 - ▶ it has two dual carriageway roads within 5km
 - ▶ it has unrestricted approaches to both runways, and ILS and NDB instrument approaches available to both runways
 - ▶ it already has radar, controlled airspace, and standard instrument arrival/departure routes
 - ▶ it does not have a permanently active danger area blocking all instrument approaches to one end of its main runway and forcing departures to carry out non-standard and operationally challenging turns on takeoff

- ▶ it does not have a permanently active danger area immediately abutting the ILS approach at the other end, requiring the ILS to be offset by the maximum amount allowed by the CAA
- ▶ it does not have a nuclear power station restricted area which precludes airliner departures turning left on takeoff.

3. Response to Consultation Vol.1 Chapter 3 – Statutory and Non-Statutory Key Consultees

3.1 LAA responses to Lydd Airport Action Group (LAAG) comments on the original Environmental Statements are set out at paragraph 3.6 of the LAA Response to Consultation, Volume 1, Chapter 3.

Definition of "current conditions"

3.2 At point 3, in response to the LAAG comment that "the airport should base all comparisons on the existing conditions scenario", LAA states "the Environmental Statements have used the existing conditions scenario as the baseline."

3.3 The runway extension and terminal ESs and the two Community Noise Impact documents submitted as part of the SEI claim that the "current conditions" include regular use of the airport for commercial services by four jet and turboprop airliner types. Appendix 4 of the Community Noise Impacts states that "existing" conditions include 400 Air Transport Movements (ATMs) per annum, consisting of the following types:

BAe146	80
Dash 8	40
ATR42-500	120
Saab 340	160

3.4 These figures bear no relation to the actual current conditions at Lydd Airport. An analysis of the official figures for Lydd Airport published by the CAA show that:

- ▶ in the period 1st January 2001 to 31st August 2007, total ATMs at Lydd (excluding air taxi movements¹) have never exceeded 618 per annum and have averaged 380 per annum
- ▶ 99.7% of the ATMs at Lydd in that period were by LyddAir Trislanders, a type which is not even listed under 'existing conditions' in the ES or SEI
- ▶ there have been only nine ATMs at Lydd in the period since 2001 which have not been by LyddAir Trislanders. Six of those were accounted for by weather diversions from London City Airport on 22 December 2006.

¹ An air taxi movement is a non-scheduled commercial air transport movement by an aircraft with a maximum total weight authorised (MTWA) of less than 15 tonnes. This would include charter flights by LyddAir's Trislander aircraft but would exclude most aircraft types normally considered as airliners.

3.5 The serious flaws in the figures for 'existing conditions' are further exposed when one compares the claimed 400 ATMs per annum, representing a passenger capacity of approximately 22,000, with the acknowledged passenger levels of approximately 3,000 passengers a year. This would imply that airlines are operating out of Lydd with aircraft averaging less than 14% full. No airline would provide services at load factors as low as that.

3.6 Clearly, if actual traffic levels are significantly less than those claimed in the ES and SEI documents, then any environmental assessment will considerably understate the impact of the proposed runway and terminal developments. From the point of view of actual people, wildlife and other receptors around the airport, the environmental impact they experience will consist of the difference between what they currently experience in practice, and what they will experience after the developments have been completed. To define the baseline as anything other than what is currently experienced undermines the validity of the environmental assessment process.

Flight path information

3.7 At point 6 LAA states that supplementary flight path mapping is contained with the community noise impact reports at Appendices 15.1 and 15.2. However the additional 'Flight Tracks' maps at Appendix 7 of Appendices 15.1 and 15.2 are based on the same incorrect assumptions and mapping errors as in the original ES. Further details on this are set out below in section 4.

Accuracy of proposals

3.8 At point 7, LAA states that "the descriptions of the proposals are accurate." Examples of inaccuracies in the ES which have not been corrected are at Appendix A.

Wind conditions and 'modal split'

3.9 At point 10, in response to the LAAG comment that an analysis of wind characteristics and how they would affect the operational efficiency of the airport should be provided, LAA states that "the probability of diversion from LAA due to weather conditions is very low. Since the introduction of the ILS not a single aircraft has been diverted." This is highly misleading. Lydd Airport has no regular commercial air transport services other than the LyddAir service to Le Touquet, which was operating on a regular basis for several years before the ILS was installed – this service therefore clearly does not require the ILS. The reason there have been no diversions is that very few aircraft use the ILS at Lydd. The combination of danger area and restricted area airspace around Lydd presents an extremely challenging operational environment for arriving and departing IFR traffic, particularly commercial air transport. Lydd's ILS installation is offset by the maximum allowed by international standards; the decision height on the Lydd runway 21 ILS for airliner types is higher than any other UK airport with passenger

services except London City;² and there are no instrument approaches to runway 03 at Lydd. All of these factors are bound to have an impact on the regularity of operations to the airport. LAA should provide details of their assumptions about the rates of diversion and cancellation, comparing them to airports with similarly challenging approach and departure procedures such as London City.

3.10 The LAA response to point 10 then goes on to state that the prevailing wind favours runway 21 70% of the time. However the split between use of runway 03 and use of runway 21 at Lydd is not determined solely by the wind direction. This is because (a) there is no instrument approach to runway 03, so no IFR traffic can land when the wind requires use of runway 03 and the Lydd Range is active, and (b) airliner departures off runway 21 require an extremely challenging immediate right turn on takeoff, which some aircraft will not be capable of executing in certain weight/wind/temperature conditions; they may take off on runway 03 instead. The 'modal split' is fundamental to the determination of the distribution of noise and other environmental impacts from the developments. LAA should therefore provide an explanation of how the figures of 70/30 have been calculated, and whether any considerations other than wind direction have been used to calculate the runway usage.

En route airspace

3.11 At point 11 LAA states that "an analysis of how increased operations will fit into en route airspace is not necessary for the assessment of the Planning Applications." This is not correct. The routes which commercial services from Lydd must follow in order to be integrated into the established en route airspace structure will dictate the flight paths which the aircraft must follow on departure from Lydd. These in turn will determine the distribution of noise and other impacts. It is therefore fundamental to the council's ability to determine these applications that the airport provides accurate information showing either (a) how proposed routes out of Lydd will be integrated into the existing en route airways structure, or (b) in the event that LAA continues to propose outbound flight paths which are in conflict with the existing en route airways structure, an explanation of the airspace change process which LAA would have to complete in order to reverse the direction of current UK-France airways, an estimate of the probability of success in achieving such a change, and an estimate of the time required to complete the change. At present, the airport's proposals for departure routes – as shown at Appendix 7 of the SEI Appendices 15.1 and 15.2 – appear to show all Boeing 737/Airbus A319 departures from runway 21 turning right, passing over New Romney/Greatstone and departing to the southeast towards France. This route is currently impossible because the airways into which these aircraft would be climbing are one way only, to the north west. The en route air traffic control centre simply would not accept traffic flying in the opposite direction to the airway. LAA's own principal advisors, Atlantic Bridge Aviation Ltd, note the importance of these issues on their own website: "Understanding traffic

² London City only has higher decision heights for turboprop types on one of its two instrument runways.

flows, airspace classification and airway integration makes it possible to determine the airport's acceptability within the wider air traffic picture."³

ILS aerial location

3.12 At point 13 LAA states that "the ILS aerals will remain in its current location". If this is accurate, then LAA must provide an explanation of the impact this will have on IFR operations using runway 21. If the ILS localiser aerial is retained in its present position, presumably maintaining the current 5° offset angle from the extended runway centreline, the localiser beam will cross the extended runway centreline less than 600 metres from the end of the new extended runway (compared to 900 metres from the existing threshold). This is less than the minimum distance required for an offset ILS by the International Civil Aviation Organisation and the Civil Aviation Authority. If LAA intends to address this by displacing the runway 21 threshold so that less than the full runway length will be available for landing, the airport should provide details of their analysis of how this will affect commercial operations at the airport, particularly by the larger Boeing 737/A319 jets. If on the other hand the airport does intend to move the ILS localiser aerial in order to maintain the current 900 metre distance – or at least the ICAO minimum distance - from the runway threshold to the localiser/centreline intercept point, then the environmental impact of the removal and re-installation should be detailed.

Flight paths and noise contours

3.13 At point 25, LAA rejects LAAG's comment that "the flight paths of the aircraft making up the fleet mix assumed are incorrect", and asserts that the flight paths are "considered to be realistic". This is the most fundamental continuing flaw in the airport's proposals and is dealt with separately in section 4 below.

NDB approach noise contours

3.14 At point 27 LAA states that noise contours for aircraft following the NDB approach path to runway 21 have "already been provided". However none of the noise contour maps in the original ES or in the SEI show any indication that the NDB approach path has been taken into account. If LAA is assuming that the NDB approach is never used, or is only used by aircraft which do not contribute materially to the noise contours, then this should be explained.

4. Flight paths and noise contours

4.1 The noise contour maps in the Community Noise Impact appendices are all apparently based on the predicted flight path data as presented in Appendix 7 of the two Community Noise Impact documents. The flight path data are incorrect in a number of respects, and raise several additional

³ <http://www.atlanticbridgeaviation.com/development.htm>

questions which will require answers from LAA in order to provide a sound basis on which to assess the impact of the airport's proposals.

4.2 Table 1 below sets out our comments on the Flight Tracks map from Appendix 7 of the SEI Appendices 15.1 and 15.2, which is reproduced at Appendix B of this report, annotated with the reference numbers from Table 1 below. Further details on some of these points are raised in the subsequent paragraphs.

<i>Ref</i>	<i>Aspect</i>	<i>Remarks</i>
1.1	Approach from/departure to SW	No blue 'dispersion tracks' shown for this direction – why not?
1.2		Depiction of arrivals from/departures to south west assumes flights are possible through the Lydd Range airspace, but no figures given in text for assumed availability of range airspace
1.3		All arrivals from/departures to south west are shown continuing in a straight line – why no turns to/from the west?
1.4		No illustration of circling approaches to runway 03 – the only possible inbound IFR flight path when the wind favours runway 03.
2.1	Left turns on departure runway 21	All depicted flight tracks would infringe the Dungeness power station restricted airspace (1.5nm radius special dispensation for Lydd traffic). Is this simply a mapping error, or is it assumed that all aircraft following these flight paths will have climbed above 2000 feet before reaching the boundary of the airspace?
2.2		Depicted flight tracks cease shortly after crossing the coast. Where do these aircraft go subsequently? Do any cross back over the coast over Lydd-on-Sea/Greatstone/Littlestone? If they continue out to sea how are they integrated into en route airspace?
2.3		SEI continues to claim that airliners up to BAe146 size will all turn left on departure from runway 21. LAA should provide analysis of feasibility of this manoeuvre for all assumed aircraft types.
3	Departures runway 21 (general)	Departures are shown commencing a turn immediately from the departure end of the runway. LAA should provide analysis of feasibility of this manoeuvre for all assumed aircraft types.
4.1	Departures runway 21 (right turn)	Left hand 'dispersion track' is depicted infringing the northern corner of the Lydd

		Range danger area. How many infringements of the range are assumed?
4.2		Only route shown is for departures to the south east. What flight path do departures in other directions follow?
4.3		Flight path takes a sharper turn when north west of the airport. What is the purpose of this and what assumptions were made about the aircraft's ability to fly as sharp a turn as this?
5.1	Arrivals from/departures to north east	Depicted flight path appears to follow the inbound ILS track; however outbound flights from runway 03 will not follow the ILS path, but will generally climb straight ahead initially – 5° to the east of the inbound ILS track.
5.2		Inbound NDB flight path for runway 21 is not shown
5.3		All departures from runway 03 are depicted climbing straight ahead to at least Dymchurch. What about aircraft routing to destinations other than to the north east?

Use of Army Lydd weapons range airspace

4.3 It is clear from the Flight Tracks map that LAA assumes that some proportion of arrivals on runway 03 and/or departures on runway 21 are able to follow a straight flight path through the Lydd range danger area. However the agreement between Lydd Airport and the MoD makes no provision for access through the danger area airspace, except when the Army has ceased firing for the day and is closing the range until the next morning. LAA should state how many flights they assume will be able to fly through the firing range, and at what times of the day and week.

4.4 Figure 3.3 of the Runway Extension ES, which portrays the boundaries of the Lydd Range Danger Area and the Dungeness Power Station restricted airspace incorrectly, has not been corrected in the SEI (see annotated copy of Figure 3.3 at Appendix C). This continued error means that all of the assumed left turn departures from runway 21, and some of the right turn departures, are shown infringing the danger area or restricted airspace.

Runway availability

4.5 The SEI now accepts that larger Boeing 737/Airbus A319 airliners will always have to land on runway 21, using the ILS. However there is no explanation of how airlines will maintain services to Lydd using these aircraft when, by LAA's own figures, runway 21 is only usable 70% of the time.

"Existing" airliner operations

4.6 The SEI appears to still assume, as does the ES, that the alleged "existing" airliner types – BAe146, Dash 8, ATR42-500 and Saab 340 – do not land using the ILS, but somehow arrive at Lydd under the Visual Flight Rules (VFR). There has never been any explanation of how this could be possible. Nor is there any indication that the flight paths of these aircraft, if they do arrive at Lydd by some means other than via the ILS, are accounted for in the noise assessments.

4.7 The assumption is still made that the "current conditions" fleet mix – including Saab 340, ATR42, Dash 8 and BAe146 – somehow manage to land on runway 03 when the wind requires it. There has been no analysis of whether these aircraft are capable of making even a visual approach to that runway without having to infringe the Lydd danger area. The danger area boundary is only 1.2 nautical miles from the runway 03 threshold. It is highly unlikely that airliners full of passengers could make approaches on a regular basis to runway 03 within those constraints due to limitations on angle of bank and requirements to be stabilised on the final approach track.

4.8 The flight track and noise assessments continue to assume that commercial airliners up to BAe146 size turn left on departure from runway 21. Given that these aircraft may be departing in instrument conditions, must remain at all times at least 1.5nm away from Dungeness power station, and must climb to at least 500 feet or pass the departure end of the runway before commencing the turn, the required bank angle to complete the required turn would be unlikely to be acceptable to any airline's operations policy and would also be unlikely to obtain CAA approval. In practice all airliners will be required to turn right on takeoff from runway 21, over the town of Lydd.⁴

'Single use' runway scenarios

4.9 The SEI presents two additional 'single use' runway scenarios – all operations to/from the north (all arrivals on 21, all departures on 03), and all operations to/from the south (all arrivals on 03, all departures on 21). However, given that it has been acknowledged that Boeing 737/A319 size aircraft must always land on runway 21, using the ILS, the 'All South' scenario is clearly impossible. This is compounded by the fact that arrivals on 03 by any type of airliner are impossible unless the Lydd Range is closed. The 'All North' scenario, while it is not constrained in the same way by airspace, is also impossible in practice because LAA has stated that the wind favours use of runway 21 for 70% of the time. This means that takeoffs on runway 03 will only be possible for 30% of the time.

Missed approaches

4.10 No provision is made in the Flight Tracks map, and therefore in all the noise contour maps, for aircraft carrying out a missed approach from the ILS or NDB procedures for runway 21. This involves a climbing right turn by

⁴ This requirement would not apply to current operations by LyddAir Trislanders, which are capable of turning left on departure from runway 21 and remaining clear of the power station restricted area. However Trislanders are not mentioned in the descriptions of current operations.

aircraft, typically commencing in the Littlestone/New Romney area. This manoeuvre would be performed not only by aircraft failing to see the runway on an instrument approach, but also by aircraft using Lydd for ILS/NDB approach training, an area of business which Lydd Airport is specifically seeking to attract.⁵ Since these manoeuvres require application of full power at low altitude they are likely to have an impact on the noise contours in the area.

4.11 Because of the inaccuracies and omissions in the assumed flight tracks, every one of the noise contour maps presented in the two Community Noise Impact reports is flawed – Figures 1 to 15 of Appendix 15.1, and Figures 1 to 12 of Appendix 15.2. To provide an accurate depiction of the impact of the proposed runway extension and airport terminal developments, sufficient to serve as a basis for informed consideration of the planning applications, it would be necessary to re-draw the flight tracks map from scratch, then recalculate all the noise contours.

5. Vol.3A Appendix 9: Boeing 737 Flight Trial

5.1 *"Lydd Cemetery – Chosen to be representative of Lydd village which is directly under the outbound flight path."* Lydd Cemetery cannot be directly under the outbound flight path for commercial airliners since they could not turn sharply enough to overfly that location. Southern parts of Lydd will experience higher noise levels than the cemetery.

5.2 In Table 1, the assumption of 2000ft altitude over Lydd town is unrealistically high. Jet aircraft with commercial payloads are more likely to be at around 1000 feet as they pass over Lydd. This is already acknowledged in the original ES at 16.7.12 which states "an aircraft passing over Lydd village will reach an approximate height of 1000 feet."

5.3 The assumption of 600ft altitude at Dunes Road is also too high. The ILS procedure for runway 21 requires aircraft to be at 340 feet above Dunes Road. The ES itself assumes a height of 225ft over Dunes Road.

5.4 These incorrect location and altitude assumptions will invalidate the SEL calculations.

6. Statements to inform

6.1 At paragraph 2.2.4 and Table 2.2.4 of the *Statement to Inform on the Predicted Impacts from a Proposed New Terminal Building at London Ashford Airport, Lydd, on the Dungeness to Pett Level Special Protection Area*, figures are provided on the breakdown of aircraft movements at Lydd Airport in 2005, in order to specify the Current Baseline Conditions. The figures contain a number of inaccuracies, as follows:

⁵ <http://www.lydd-airport.co.uk/airlines.html>

- ▶ Multi piston aircraft are said to have engaged in "training/private/commercial (non-passenger)" activities. However one of the main activities of multi piston aircraft at Lydd is commercial passenger air transport carried out by LyddAir Trislanders. This should be reflected in these figures.
- ▶ Small executive jets are said to have engaged in "commercial/business" activity, at a rate of some 365 movements in 2005. In paragraph 2.2.5 these movements are all classified as "commercial air transport movements". This is not borne out by the CAA figures for aircraft movements in 2005. The total of 408 air transport movements at Lydd in 2005 comprised 378 scheduled movements by LyddAir plus 30 air taxi movements. The air taxi movements are not broken down by aircraft type but clearly even if all of them were by small executive jets (unlikely), the total falls a long way short of 365.
- ▶ Paragraph 2.2.5 refers to "private and training ATMs". This is a misuse of the terminology. An aircraft movement for private or training purposes cannot, by definition, be an air transport movement.

6.2 Paragraph 2.2.5 concludes that "the key difference between the current fleet mix scenario and the predicted fleet mix under the proposed development is an increase in commercial daily ATMs from 1 to 18". However, while the number of daily ATMs is broadly correct for the year 2005, these were all, or virtually all, flown by Trislander aircraft, not by small executive jets as claimed. It should also be noted that none of the 2005 ATMs were flown by any of the aircraft types listed for the predicted fleet mix in Table 2.2.5.

6.3 The assessments of bird strike risk, air pollution and the appropriate assessments under the Habitats Directive are clearly all based on the flight paths depicted at Appendix 7 of the SEI Volume 3B, Appendices 15.1 (Community Noise Impacts – Runway Extension) and 15.2 (Community Noise Impacts – Terminal Building). As shown in section 4 above, this flight path data is clearly inaccurate. Therefore, it cannot serve as a reliable basis for the assessments carried out elsewhere in the SEI documents.

7. Summary and Conclusions

7.1 The "current conditions" scenario presented in the runway extension and terminal building ES and SEI documents is invalid since it claims regular commercial service use of the airport by aircraft types which have in fact rarely, if ever, used the airport.

7.2 The assumed flight paths used as the basis for all of the noise assessments in support of the two planning applications are incorrect in almost every respect. This invalidates all the noise contour maps presented in the SEI.

7.3 Assumptions about the proportionate use of each runway are not backed by wind frequency data and do not appear to take account of airspace and operational constraints in runway usage.

7.4 Assumed flight paths for Lydd departures are based on an incorrect account of the orientation of en route airways.

7.5 No account is given of how retaining the ILS aerials in their current location will impact on the feasibility and regularity of commercial air operations into Lydd.

7.6 The NDB approach flight path is not included in the noise assessments.

7.7 LAA assumes that some proportion of inbound and outbound flight paths will fly through the Lydd Range airspace, but no figures are provided on how many flights will be permitted to do this.

7.8 No explanation is given of how Boeing 737/A319 services will be maintained when they are incapable of landing on runway 03.

7.9 The SEI and ES wrongly assume that airliners up to BAe146 size will approach visually, not using the ILS; will be capable of landing on runway 03; and will be capable of turning left on departure from runway 21 without infringing the Dungeness nuclear power station restricted area.

7.10 The two 'single use' scenarios presented in the SEI would not be achievable in practice.

7.11 No provision for missed approach manoeuvres in the flight path assumptions or noise assessments.

7.12 Height assumptions used in the Boeing 737 flight trial noise assessment are invalid.

UNCORRECTED INACCURACIES IN THE LYDD AIRPORT RUNWAY EXTENSION ENVIRONMENTAL STATEMENT

<i>ES para</i>	<i>Comments</i>
1.1.3	Runway extension will not affect types of aircraft but will allow them "to service a greater range of (more distant) destinations than at present". But only present destination is Le Touquet and only present aircraft is Trislander, yet it is not listed as a current aircraft type in Section 4.
3.1.5	ATC/ILS etc leading to "a significant increase in general aviation activity". Not borne out by CAA statistics
3.2.2	"Dungeness power stations restricted flying area is located approximately 3.5km to the south of the airport". Not correct. The boundary of the standard 2nm restricted area is only 1.1km from the Aerodrome Reference Point (ARP - centre of the runway) and immediately adjacent to the airfield boundary. The boundary of the 1.5nm restricted area is 2.1km from the ARP. "prohibits all aerial activities for a 1.5 nautical mile radius around the facility to a height of 2,000 feet." Not correct. Aircraft are banned within 2nm but Lydd has a special dispensation for traffic which "has taken off from or intends to land at" Lydd to fly no closer than 1.5nm. This paragraph refers to Figure 3.3, which shows the restricted zone incorrectly. It appears to have the correct radius, but the centre point is clearly in the sea approximately 1km south of the correct location. The effect of this is to depict the power station restricted airspace as being further away from, and therefore having less effect on, the airport. See Appendix C.
3.2.3	States that power station, military and airport can all "operate without any significant restrictions." May be true of light aircraft, but this is a misrepresentation of the situation for commercial or business traffic. No IFR approaches can be made to runway 03 and IFR departures from 21 are severely constrained.
3.3.11	"During busy periods aircraft will be directed to the hold". In fact every IFR arrival must fly initially to ROMTI (the fix for the hold) because Lydd has no radar to direct pilots. It is therefore not correct to say "use of the hold area will be minimal". Use of the hold area is in fact mandatory for every IFR arrival.
3.3.12	Implication that the airport uses the Lydd VOR: incorrect. The Lydd VOR is not owned or operated by Lydd Airport and they

have no control over it. It forms no part of any of the instrument arrival procedures for Lydd.

3.5.2 "22,400 fixed wing and 1200 helicopter movements in 2005". CAA records the numbers as total 22,044, not 23,600

4.3.1 Runway extension may not affect the "flightpaths available", but it will affect the flightpaths *used* since commercial aircraft will be unable to turn left on departure from runway 21.

Suggestion that B737s and A319s can currently operate from Lydd, but only to short-range destinations, is untenable. There is no airport in the UK with B737 or A319 operations with a runway as short as 1505m.

4.3.3 Claim that large aircraft will preferentially use 21 for take-off: not credible – runway 03 take-off distance available still likely to be longer than that for 21, it has no challenging turn-out requirements, and it requires a far shorter taxi from the terminal area. So if the wind is calm or even slight tailwind on 03, airliners are likely to take that runway. Also, no mention in this paragraph of the fact that no arrivals on 03 are possible with any commercial aircraft, and runway 21 landing distance will be only 1799m. "Runway 03 likely to become used primarily by smaller aircraft for takeoff" – the requirement to use 03 will actually be greater for larger aircraft.

4.3.4 Larger aircraft and jets must turn right on departure r/w 21 while "smaller aircraft (General Aviation) using the runway could turn left on condition that they maintain clearance from the Dungeness restricted airspace." But the noise assessment assumes that all aircraft types currently able to use the runway – i.e. up to 112-passenger BAE146 jet airliners, not just General Aviation types – turn left on takeoff.

4.4.7 "clear skies between the runway and cruise levels". This is not true. There is no evidence that LAA have conducted any analysis of the en route airspace structure within which increased operations at Lydd would have to fit. Lydd departures to the continent would have to be accommodated within a complex structure of Gatwick/Heathrow climbing and descending traffic over the Channel, and in particular would not be able to route south east towards France from overhead Lydd because all the airways in that sector are northbound-only.

4.4.13 Advantages of LAA over other airports:
"as the runway lies across the peninsula, noise nuisance is relatively low" – this is not true, the runway orientation guarantees noise disturbance in all the coastal towns to the north and also in Lydd because of the need for right turn on departure 21

"the airport is positioned under the core of the major UK air traffic flow, (which goes to the southeast)". This is the opposite of the true situation. Virtually all the air routes over/close to Lydd are one-way routes northwest-wards.

4.4.14 "aircraft are able to reach optimum fuel burn cruising altitude more quickly at LAA". No evidence is provided for this assertion, no analysis of the existing air routes and how Lydd traffic would avoid/integrate with them.

4.5.2 Suggests that existing runway can accommodate B737s and A319s. But noise assessment doesn't include these types in baseline assessment.

16.5.3 "All the proposed aircraft in the fleetmix for this scenario are of the type already using the airport on a regular basis." But the "future assessment conditions" scenario, according to Table 3.3, comprises Saab 340, ATR42, Dash 8 and BAE146. None of these types are current regular users of the airport, in fact some of these have probably never visited Lydd.

"the ILS approach system and associated flight path is not in use for this scenario". This is incorrect. All IFR flights no matter what type of aircraft, will use the ILS (or the NDB approach) to land at Lydd.

16.5.9 "smaller aircraft...unlikely to be using the ILS approach system...more able to undertake tighter turns and manoeuvres...These modelled contours therefore represent the full spread of likely noise contours." This is incorrect for the reasons set out above.

16.5.10 "As there will not be any new aircraft introduced to the fleetmix, the subjective character of the noise produced will not change significantly." However the *actual* current noise environment contains none of the listed aircraft types, therefore the "subjective character" is purely theoretical, it is not experienced by anyone currently living around Lydd.

16.7.3 In assessing the noise impact after the runway extension is built they continue to assume that all aircraft types up to BAE 146 size continue to fly VFR in and out of Lydd, while B737/A319 use the runway 21 ILS for landing and turn sharp right on takeoff from runway 21. This is incorrect. All commercial aircraft will use the same flight paths.

16.7.12 No analysis to back up the claim that aircraft will be at 1000 feet over Lydd. There will have to be an abandonment of the current noise abatement procedure which states "Climb straight ahead to

at least 500 ft or until passing upwind end of the runway, whichever is later, before turning left or right as instructed by ATC."

Table 16.10: Dunes Road is less than 1250 metres from the touchdown point of the extended runway so noise figures not valid.

- 16.7.20 Suggests combinations of acceptable departures/arrivals which includes an A319 arrival from the south. But an A319 will never be able to arrive from the south unless the range is closed.
- 16.7.26 The "large aircraft" they use for their figures is an HS125. This is a small business jet, completely unrepresentative of airliners.
- 16.11.4 "the existing runway will allow aircraft such as the Boeing 737 with limited take of [sic] weight to use the airport". So why is this aircraft not included in the baseline noise environment?

Fig 3.3 shows the restricted zone incorrectly. It appears to have the correct radius, but the centre point is clearly in the sea approximately 1km south of the correct location. Consequently the depicted "current flightpath" is incorrect since in its depicted location aircraft would be routinely flying closer than 1.5nm to the power station.

Circuit pattern is not aligned with the runway. Right-angle corners are not representative of aircraft turning flightpaths.

Boundary of D044 is shown incorrectly, further south west (away from the airport and the town of Lydd) than it actually is, by some 500 metres.

The effect of all these errors is to portray the airport as being less restricted than it is.

- Fig 16.3 [300k pax, no runway extension]
- This shows that they have taken the (assumed?) existing light aircraft flight paths as the basis for the noise environment with 300,000 passengers, flying in aircraft up to BAE146 size. This is not possible:
- assumes all aircraft turn left on departure from runway 21, but this is impossible for any commercial aircraft without infringing R063 and flying contrary to JAR-OPS and Lydd's current noise abatement procedures
 - noise contours actually show that most aircraft will be infringing the reduced 1.5nm radius R063 by approximately 0.3nm
 - noise model assumes no right turns after departure 21, but in fact all commercial aircraft would be compelled to do this because there isn't room to turn left without infringing R063

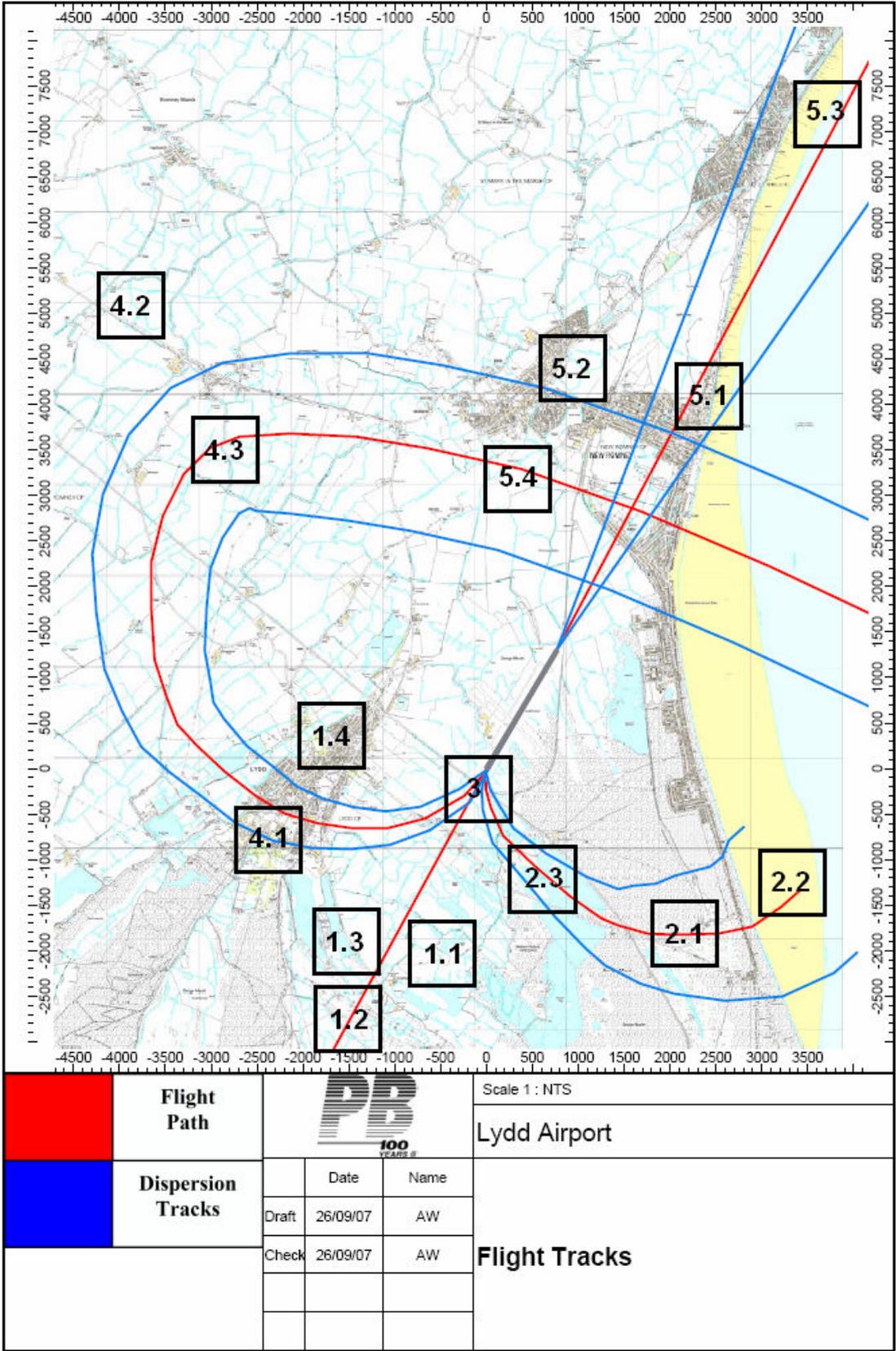
- despite saying it assumes no aircraft uses the ILS, it's clear the model assumes aircraft making straight-in approaches from at least 3nm

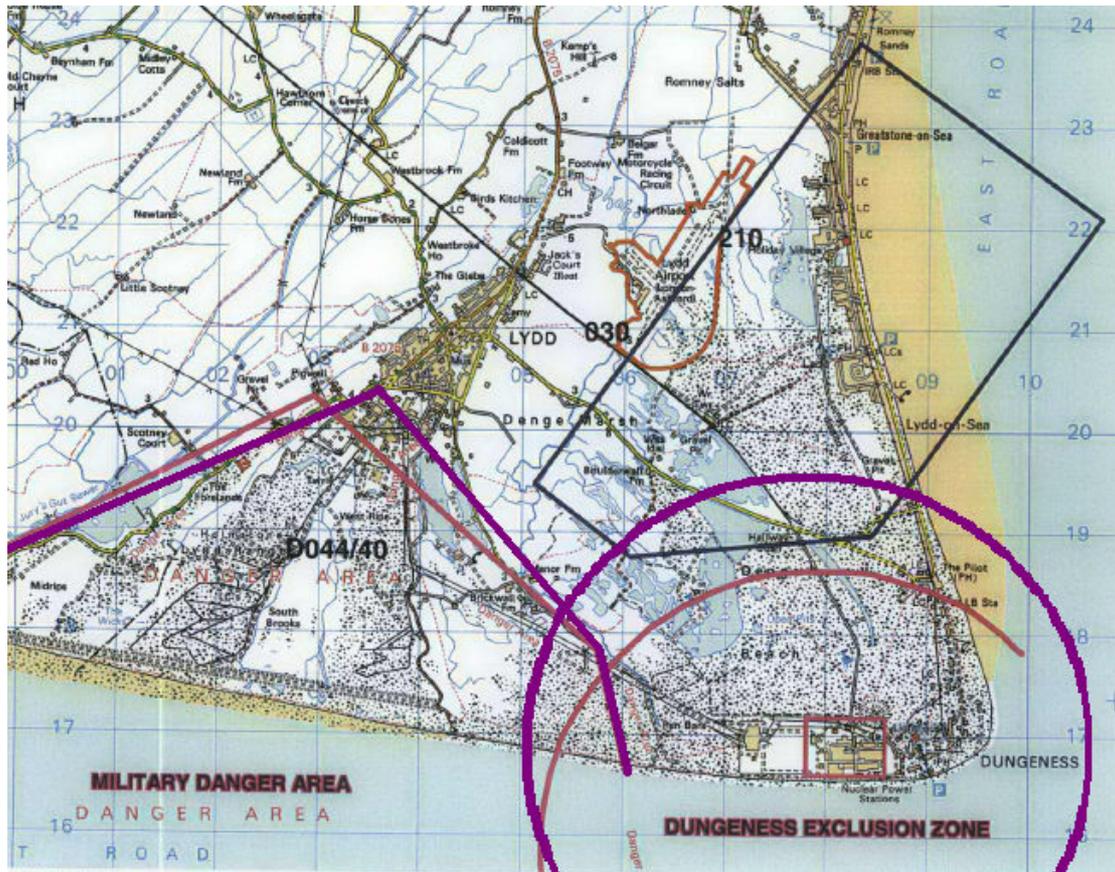
Fig 16.4 [300k pax with runway extension]
Shows some departures turning right off runway 21 but majority still go left, infringing the power station restricted zone.

Some departures shown going straight ahead towards the Lydd Range danger area. No analysis explaining how they will do this.

Fig 18.1 Little Cheyne Court wind farm placed 3km north of its actual position (and depicted as covering a much smaller area)

Appendix 7 of SEI Volume 3B, Appendices 15.1 (Community Noise Impacts – Runway Extension) and 15.2 (Community Noise Impacts – Terminal Building) [annotated with references to Table 1 above]





Annotated excerpt from Runway Extension ES, Figure 3.3, showing nuclear power station restricted airspace and Lydd Range danger area, as depicted in the ES (in red) and in their correct locations* (in purple).

* The corrected nuclear power station restricted airspace shown is the reduced 1.5nm radius zone which applies to aircraft taking off from or landing at Lydd Airport.