

LYDD AIRPORT PUBLIC INQUIRY

APPLICATIONS BY LONDON ASHFORD AIRPORT, LYDD
PINS REF: APP/L2250/V/10/2131934
& APP/L2250/V/10/2131936

CLOSING SUBMISSIONS ON BEHALF OF LYDD AIRPORT ACTION GROUP

- (1) This closing submission will broadly follow the format of Lydd Airport Action Group's (LAAG) Opening Statement and will analyse the evidence now called and tested. Due to the length of the inquiry, the submission is also shaped by evidence that has been submitted after evidence has been tested. Common ground between London Ashford Airport (LAA) and LAAG is before the inquiry.

Background

- (2) LAAG is an organisation set up to oppose the large-scale development of Lydd Airport. It is an unincorporated association, funded largely by its ~ 3000 members through voluntary donations which have been augmented by funds from environmental charities. LAAG benefits from considerable in-house professional expertise, drawn from a diverse range of disciplines which has been both complemented and strengthened throughout the planning process by the extensive use of leading consultants in the fields of aviation, nuclear safety, environmental law, ecology and transport.
- (3) Many of its ~ 3000 members will be directly affected by the development through increases in noise, air pollution and accident risk¹. In addition to dealing with planning matters, LAAG has provided a service to the community in the face of many of the inaccurate and misleading claims made by LAA over the course of this planning application².

¹Statutory Nuisance as defined by the Section 3 of the Environment Protection Act 1990.

² See LAAG/13/A for some examples

- (4) LAAG has the support of the local community. An independent referendum conducted by Shepway District Council (SDC)³ - the only independent poll of public opinion⁴ - determined that two thirds of the local electorate were opposed to the planning application.
- (5) LAAG is aware that objections that consist of a challenge to government policy or a regulatory body are not matters for the public inquiry, which is charged with applying policies and ensuring regulations are adhered to.
- (6) Nevertheless, LAAG has challenged the nuclear regulator's⁵ decision not to oppose LAA's planning application, and believes that weight should be given to our evidence. This shows that the Office for Nuclear Regulation⁶ (ONR) has been misinformed by its in-house adviser and that it has failed to discharge its duty as a regulator by choosing not to disclose relevant information to the inquiry and complete the assessment of the hazards at Dungeness.
- (7) We now turn to the matters identified by the Secretary of State (SOS) upon which he wishes to be informed.

Matter 1

The extent to which the proposed development is in accordance with the development plan for the area, having regard in particular to Shepway District Local Plan Review - (adopted 16 March 2006 (saved policies)).

Matter 2

The extent to which the proposed development is consistent with any emerging Development Plan Documents, including consideration of the weight to be attached to them.

Matter 3

The extent to which the proposed development would be consistent with Government policies in Planning Policy Statement 9: Nature Conservation - with particular regard to:

- *The extent to which the proposed development is likely to have an impact on the local flora and fauna and any designated sites;*
- *The importance that the government attaches to the SAC;SPA; proposed RAMSAR site and proposed extension and additions to the SPA;*

³ LAAG/6/B - Appendix 9

⁴ Incorrect claims have been made by individuals and groups supporting the planning application - see LAAG 125 - also appendices 1-6

⁵ Office for Nuclear Regulation - formerly the Nuclear Installations Inspectorate (NII)

⁶ Formerly the nuclear Installations inspectorate (NII)

- *Whether or not there is likely to be any impact on a European protected species listed in the Habitats Directive;*
- *Whether there is likely to be any impact on a species protected under the Wildlife and Countryside Act 1981 or any other legislation.*

Matter 4

Whether there are any other material planning considerations relevant to the Secretary of State's consideration.

- (8) To prevent duplication Matters 1, 2 and 3 have been dealt with by other Rule 6 parties opposing the development and LAAG supports and endorses their evidence before the inquiry. We do however challenge the application of the Habitats and EIA Regulations. The bulk of LAAG's case and this closing submission revolve around Matter 4.

Planning application should be based on 2mppa

- (9) LAAG has argued from the start of this planning process that Lydd Airport's planning application should be based on 2 million passengers per annum (2mppa). In this respect we are supported by two directives:
- The Environmental Impact Assessment Directive 85/337/EEC, as amended by 97/11/EC and 2003/35/EC (The EIA Directive) on the basis that it is not permissible to consider a planning application in isolation if it is regarded as an integral part of an inevitably more substantial development⁷.
 - Article 6 of Council Directive 92/43/EEC (The Habitats Directive) on the basis that the planning application should have been appropriately assessed in combination with the Airport's Master Plan⁸.

Environmental Impact Assessment Directive

- (10) Late evidence⁹ from Ms Congdon provides support for Mr Watts contention that: *When airports are successful they grow rapidly and the economic and social imperative for them to continue once they are established is extremely strong, despite any adverse environmental impacts they may produce*¹⁰. The EIA regulations are designed to ensure that the adverse impacts are understood from the outset.

⁷ R v Swale BC ex p RSPB (1991) Circular 2/99 para 46 - see also Appendix B, LAAG/11/B - para 40-44.

⁸ See legal opinion of Matthew Horton QC - Appendix C, LAAG/11/B and earlier opinion of Bond Pearce in a letter to Shepway District Council - CD 2.9 - pages 6-8

⁹ LAA/4/K submitted on August 26th, 2011

¹⁰ LAAG/11/D - paragraphs 35 -36 and table on page 8

- (11) This evidence clearly demonstrates this point, since it shows that **despite the constraining impact of the planning system**, the nineteen airports covered¹¹ have shown considerable growth beyond their original approvals because of the *economic and social imperative for them to continue*.
- (12) Lydd Airport's intention to grow to 2mppa has been widely marketed. Mr Village and Mr Strachan unsuccessfully tried to suggest in their written submission¹² that this intention was a pre-planning application aspiration. Mr Watts in his rebuttal¹³ provided examples of statements made at the time of the publication of the planning application in 2006 and examples that postdate its submission. Although one of the examples given was found under cross-examination (XX) to be incorrect, the list of examples given was not exhaustive.
- (13) LAA offered no plausible defence against Cranfield University's study¹⁴ which indicated that if Lydd Airport did manage to achieve a throughput of 500,000ppa it would remain loss-making. Since companies do not budget to lose money, this suggests that LAA's real agenda is to achieve a throughput of 2mppa.
- (14) The number of new jobs created by this development net of the existing workforce is only 140¹⁵ at a throughput of 500,000ppa¹⁶. This is a derisory number suggesting that Shepway District Council's (SDC's) enthusiasm for the development is due to the prospect of more jobs once phase 2 is underway.
- (15) By only submitting a planning application for a throughput of up to 500,000ppa, LAA hopes to weaken the environmental baseline and strengthen the countervailing economic case for the airport.
- (16) LAAG is not suggesting that LAA is splitting the development to avoid an EIA or an appropriate assessment in the future, but it is incorrect to assert, as Mr Village and Mr Strachans do, that the EIA requirements would be met by submitting a future planning application for phase 2 with an accompanying EIA.
- (17) Mr Strahan and Mr Village also make reference to LAA's proposition that phase 2 would only be feasible if phase 1 is a commercial success¹⁷. There is no provision in the EIA Directive for commercial considerations to determine the scope of the assessment. This makes sense as it would be equally possible for a development subject to this type of condition to

¹¹ LAA/4/K - Table 1. Note these are the 19 airports covered by Mr Watts in LAAG/11/D - table on page 8

¹² LAA/17/A

¹³ LAAG/11/D - para 15-27

¹⁴ LAAG/11/B - Appendix A

¹⁵ LAAG/4/A - Table 6.1 - page 59

¹⁶ High growth scenario

¹⁷ LAAG/17/A - paragraph 2.11

be commercially successful, therefore triggering the second phase at a later stage and negating the purpose of the Directive which is to ensure permissions are granted in the full knowledge from the outset of the likely significant effects which will occur as the development proceeds.

- (18) The EIA Directive has been one of the most problematic to implement as Mr Watts outlines in his evidence¹⁸ and this application exemplifies the shortfalls in its application.
- (19) LAA's misconceived view of the application of the EIA directive begins with the scoping opinion published by Shepway District Council (SDC). This clearly states the intention to develop the airport terminal in two phases - for 500,000ppa and 2mppa¹⁹. The scoping opinion also states that: *If the application that is submitted substantially differs from this, then the opinion of SDC and other consultees **may differ as to what issues should be addressed within the EIA (our emphasis)**. It is recommended that if the proposals to be applied for do substantially change then a new scoping report should be submitted and a new scoping opinion sought*²⁰.
- (20) No new scoping opinion was forwarded despite the planning application being truncated to cater for a throughput of 500,000ppa. Why, because the issues remain the same at a throughput of 500,000ppa as they are for 2mppa²¹.
- (21) Mr Village and Mr Strachan unsuccessfully attempted to demonstrate through case law that a cumulative assessment could not be carried out because of the uncertainty about the nature of phase 2 of Lydd Airport's terminal proposal. As Mr Watts outlined in his rebuttal²² phase 2 is quantifiable because the information required to undertake an environmental assessments is already available.
- (22) LAA has provided a schedule of movements and aircraft types for a throughput of 500,000ppa and 2mppa. The flight procedures are common to both scenarios and the terminal has been designed in a modular fashion to facilitate development. Indeed, LAA has already provided a potential list of cumulative environmental impacts at 2mppa in its planning application because it has this information²³.
- (23) The other factor which points to the necessity for LAA to assess to a throughput of 2mppa is the infrastructure defined by the planning

¹⁸ LAAG/11/B - Appendix B

¹⁹ CD 2.7 (SDC) - 2.1, page 5, 3.1 page 9

²⁰ Ibid, page 4, 1.0 - last 2 sentences

²¹ Had the issues changed SDC would have been in breach of the Aarhus Convention since the public consultation was based on a throughput up to 2mppa. Hence it follows that there is a need to assess to 2mppa in accord with the scoping opinion. The Aarhus Convention was ratified by the UK in February 2005. <http://www.parliament.uk/documents/post/postpn256.pdf>

²² LAAG/11/D - para 44 - 51

²³ CD 1.17, Chapter 18 - Cumulative Impacts - Table 18.5 - reproduced in LAAG/11/E - Appendix 2 and

application²⁴ which would support a higher throughput than the 500,000ppa for which the planning application is sought. Since there is adequate runway capacity to achieve a throughput of 2mppa and beyond, the focus must be on the throughput that is actually possible through phase 1 of the terminal.

- (24) If planning permission is granted, LAA intends to use the existing terminal until the throughput reaches 200,000-300,000ppa and then build the new terminal. New terminals produce step changes in overall throughput capacity and Ms Congdon has confirmed²⁵ in late evidence that the new terminal will sustain throughput in excess of 500,000ppa²⁶.
- (25) LAA has not contested that the throughput of any given terminal can also be increased by lengthening the hours of operation. The airport has a 24 hour licence and the proposed conditions limiting night flying could be withdrawn or modified over time, opening up the possibility that the 2mppa could be accommodated using the phase 1 terminal - helped by the overcapacity built into the design²⁷.
- (26) Solicitor to SDC, Teresa Grutchfield, clearly believes the proper assessment basis is 2mppa where the consequences are unknown and might range between 500,000ppa to 2mppa, *since it would be entirely possible that this would result if this application were granted permission*²⁸.
- (27) She assumes that if there were any concern that the current proposals might be physically capable of accommodating more than 500,000ppa this level of throughput could be capped by a condition.
However, such conditions are not an acceptable way in which to comply with the EIA Directive²⁹. The Directives makes it clear that relevant matters cannot be left to a later date or be dealt with by conditions. This is a well established area of Case Law³⁰.
- (28) It is worth highlighting that Mr Watts interpretation of the EIA Directive, as it relates to LAA's development, is supported by Andrew Newcombe QC and Jeremy Pike counsel for the applicant, Npower Renewables Ltd at the Little Cheyne Court Wind Farm public inquiry.

²⁴ LAAG/11/D - para 28-34

²⁵ LAA/4/K - paragraph 3 - third last sentence

²⁶ Mr Watts in evidence (LAAG/11/D para 29) made an admitted, simplistic passenger throughput calculation based on comparisons in floor space between the old (2500sq m) terminal and phase 1 of the new terminal (7380sq metres) **only** to demonstrate that the capacity will be in excess of 500,000ppa. This has now been confirmed by Ms Congdon in LAA/4/K.

²⁷ LAAG/11/D - paragraphs 31-34

²⁸ CD 2.9 - pages 36-56 para 19 - see also LAAG/11/D para 52-54

²⁹ The Directives makes it clear in footnote (1) *that the assessment should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project.*

³⁰ See CD 9.5 (NE) - paragraphs 63-80 (R v Cornwall County Council ex parte Jill Hardy (2001 JPL 786)).

- (29) The Lydd Airport aspect of that public inquiry took place in January 2005. At that stage, Lydd Airport was proposing a planning application for a runway extension and a new terminal to cater for a throughput of 300,000ppa which was clearly part of a wider scheme to expand to 2mppa as evidenced by the Master Plan and the request for the scoping opinion.
- (30) In their final submissions³¹ Messrs Newcombe and Pike stated:
The consequences of this approach are serious. Under the EIA regime it is not possible to separate an overall scheme into segments in order, as Mr Stewart reminded the inquiry, either to seek to avoid crossing the relevant thresholds for either Schedule 2 or Schedule 1 development, or alternatively to undertake EIA on individual phases of development of less magnitude than the overall development (our emphasis).
- (31) In accordance with the Regulations and the Directive, if the SOS refuses to require the applicant to undertake an assessment at 2 million ppa, and subsequently grants planning permission, LAAG and other objectors have the right to ask the UK Courts or the European Commission to quash any decision to grant permission.
- (32) Summary and Conclusion: By not assessing to 2mppa, LAA's planning application does not accord with the EIA Directive.

Evidence before the inquiry from LAA and SDC has confirmed the following information to support LAAG's case:

- i. LAA's planning application is part of a wider project to expand to 2mppa.
- ii. SDC's Scoping Opinion was not changed because the issues are the same for 500,000ppa as they are for 2mppa.
- iii. Phase 2 of the terminal to support 2mppa is quantifiable because the information required to undertake an environmental assessments is already available.
- iv. The infrastructure defined by LAA's planning application supports a higher throughput than the 500,000ppa for which the planning application is sought.
- v. The planning application has been submitted in this truncated manner to weaken the environmental baseline and strengthen the countervailing economic case for LAA.

³¹ LAAG/11/F - see attached copy of closing statement NRL 0/LAA - paragraphs - 7.1- 7.8

- vi. Airports expand despite the constraining influence of the planning system because of the economic and social imperative for them to continue

Mr Watts opinion that the application does not conform to the Directive is supported by:

- i. SDC's own solicitor
 - ii. Counsel for Npower at the Little Cheyne Court wind farm public inquiry
- (vii) The planning permission, if granted, could be quashed

Habitats Regulations

- (33) With regard to the Habitats Regulation and the belief that the planning application should have been appropriately assessed in combination with the Airport's Master Plan, LAAG has submitted the opinion of Matthew Horton QC³² and an earlier opinion given by Bond Pearce in a letter to Shepway District Council dated April 27th 2007³³.
- (34) The opinion of Bond Pearce has been strengthened by the South East Plan which was adopted in May 2009. Policy T9 (Airports) states that: *Relevant regional strategies, local development documents (LDDs) and local transport plans (LTPs) will include policies and proposals that: iv take account of airport operator masterplans {sic} produced in accordance with the Air Transport White Paper.*

No Weight should be given to the 1992 call-in decision

- (35) LAAG contends that the 1992 decision cannot be taken as a material factor in determining the current planning application due to the scale of change in circumstances relevant to LAA since the 1988 -1992 period.
- (36) These changes³⁴ have reduced the airport's ability to compete and therefore the economic benefits it purports to produce; increased the likelihood of an aircraft crashing into the Dungeness nuclear power stations and strengthened the legal framework to protect the environment which surrounds the airport. LAA's defence has been to ignore the facts.
- (37) In his evidence ³⁵Mr McGragh argues that due regard should be given to the SOS's decision to grant permission for a runway extension of essentially the same length as that under the current application. He omitted to add that the last application³⁶ did not include a new terminal

³² See LAAG/11/B - Appendix C

³³ CD 2.9 - Pages 6-8

³⁴ LAAG/6/A

³⁵ LAA/14/A page 22

³⁶ Submitted in 1988

and that the commercial background for airlines has changed irreversibly.

- (38) Although Mr McGraph acknowledges that the Special Protection Area (SPA) and the Special Area of Conservation (SAC) have been introduced since 1992, he argues that the SPA was proposed at the time and that the SOS gave the appropriate weight to the potential classification of the SPA and concluded that any detrimental effect upon the birds would not be significant.
- (39) However, since 1992 legal protection given to the SPA has toughened and the applicable tests differ. There is also a proposed extension to the SPA. This means no weight can be afforded to the SOS's previous conclusions on the SPA.
- (40) In addition, there have been further enhancements to the protection of the environment surrounding LAA³⁷ - in addition to the creation of a Special Area of Conservation (SAC) in 2005, the areas designated as Sites of Special Scientific Interest (SSSI) on Romney Marsh were amalgamated and expanded in 2006, while a National Nature Reserve was created in 1998.
- (41) With regard to other factors, Mr McGraph's evidence is notable for what it does not address.
- (42) Operational changes since 1992 have both reduced LAA's efficiency and/or raised the risk of an accident at Dungeness. These include the introduction of offset ILS and RNAV procedures as a result of the increase in height restrictions above the Hythe (D141) and Lydd (D044) military ranges which occurred in 2001; new restrictions around the nuclear power stations in 2002; changes in instructions to pilots over the use of the airspace above the military ranges and a new wind farm close by at Little Cheyne Court.
- (43) The Channel Tunnel was opened in 1994 and has provided formidable competition with the passage of 250m people³⁸ in the 16 year period since the start of commercial operations, helping to explain the poor performance of both LAA and Kent International (Manston) airports and reducing the need for additional airport capacity in Kent.
- (44) In 1992 the low cost airline business was still a fledgling industry. It has burgeoned subsequently, reducing the economic case for aviation by improving productivity and therefore reducing the number of jobs generated at airports per unit of output and contributing to the growing export of jobs overseas due to the ever-expanding visitor deficit³⁹.

³⁷ LAAG/6/A - 3.6

³⁸ LAAG/120

³⁹ LAAG/119

- (45) Other changes include the greater awareness of airborne terrorism engendered by the September 11, 2001 terrorist attacks in the United States and the increased awareness of danger from external hazards to nuclear power stations - be they natural or man made - as a result of the more recent Fukushima Daiichi nuclear incident.
- (46) Summary and Conclusion: No weight can be given to the SOS's previous decision because there has been too much change to the context of that decision.

No weight should be given to the Shepway District Council Decision on March 3rd, 2010

- (47) The decision should be afforded no weight. Not only was it reprehensible, it was illegal. It also signifies the worst side of localism. For LAAG it was a matter of great regret that SDC was not subject to greater scrutiny through XX at the public inquiry to ensure all aspects of this decision were publicly disclosed so that the SOS is left in no doubt that SDC's decision is immaterial. .
- (48) LAAG accepts that members have the legal right to override the recommendations of their planning officers but not when the decision entails members' blatant disregard for local people's views⁴⁰, the wasting of taxpayers money, the council's collusion with the applicant to devise a scheme to facilitate members voting in favour of the application, the deliberate withholding of information to members by a relevant statutory consultee to ensure they would not be deflected from a yes vote, and finally, an illegal decision.
- (49) This was not an ordinary planning application for SDC as the decision relied heavily on European environmental legislation which is more robust than the legal framework normally encountered by the Council and its members.
- (50) If the Appropriate Assessment (AA) required under the Habitats Regulations determined there were adverse impacts, or LAA was unable to prove there were would **not** be adverse impacts, on the designated sites that surround the airport, the planning officers were required to recommend refusal and the members had little choice but to vote against the planning application in line with the officers' recommendations.
- (51) When the Second Officers' Report maintained the refusal recommendation based on the status of the Special Protection Area (SPA)⁴¹, Freedom of Information Act (FOI) requests show how Chris Lewis, the head of planning at SDC, solicited LAA's advisers to come up with a scheme which would enable members to vote in favour of the planning application on March 3rd 2010⁴².

⁴⁰ LAAG/6/B - Appendix 9 - Also LAAG/125 for validity of an alternative poll

⁴¹ The first officers report had recommended refusal on the basis of the SAC and SPA

⁴² LAAG/12/B - Appendix 6A & 6B and Appendix 7

- (52) The scheme devised, called Option 1 involved eliminating text in the AA prepared by the professional and independent consultants⁴³ engaged by SDC which firmly concluded that LAA was unable to demonstrate that there would not be any adverse impacts on the SPA. This text was replaced with text provided by LAA's adviser's which said there would not be any damage as a consequence of LAA's development. With the inserted text of the revised AA now claiming there would not be damage, the councillors would be free to vote in favour of the application⁴⁴.
- (53) On the evening of March 3rd with the encouragement from the then member of parliament, Michael Howard,⁴⁵ a motion to change the AA was introduced in the manner outlined above, by a member who LAAG believes was briefed about Option 1⁴⁶.
- (54) To ensure members were not persuaded to vote against the planning application, the response to LAAG's FOI request also shows that SDC deliberately withheld a letter from Natural England (NE)⁴⁷ which it had expressly asked to be given to members on the evening of March 3rd because of the important material it contained.
- (55) The excuse given by the council for not disclosing NE's letter⁴⁸ was that it would not be "*circulating further papers on the night over and above the reports already circulated*". Yet, the Council was fully aware that Jonathan Gordon, the then CEO of LAA had circulated a letter of advice to all council members late on the evening of March 2nd. One of the five points made by NE's letter was that the advice given by Mr Gordon was incorrect - indeed, contradicted the advice of its own legal advisors.
- (56) To placate Natural England SDC offered to explain the contents of the letter at the meeting, but rather than give it the weight it deserved, it was briefly mentioned along with other correspondence⁴⁹; only two of the five points were scantily covered and a statement made about the third⁵⁰. One of the five omitted points was clarification of the issues surrounding the incorrect information given to members by Mr Gordon⁵¹.

⁴³ Bureau Veritas

⁴⁴ Ibid - Appendix 8

⁴⁵ CD2.5 - page 72 & 73

⁴⁶ :LAAG/12/A - 4.2.1- 4.2.6 plus CD 2.5 Page 91

⁴⁷ LAAG/12/B - Appendix 11

⁴⁸ Also disclosed as a result of the FOI request

⁴⁹ CD 2.5 - page 15

⁵⁰ The consultant tasked to cover the issue for SDC candidly finished his discourse with: *But otherwise that's [sic] summarises very, very briefly – and excuse the slightly incoherent nature, it was four o'clock when we received the response from Natural England today so... thank you.* - See page 43, CD2.5(LAAG).

⁵¹ LAAG/12/A - paragraph 4.1.3

- (57) At the meeting Mr Brown opined that it was legally possible to change the AA to produce a composite document⁵² provided members were satisfied beyond reasonable scientific doubt that there would not be an adverse effect on the habitats in question.
- (58) LAAG contends that it was not possible for members to make this assessment. The members are a group of people with varying educational background and no experience in the relevant subject. It takes expertise to appreciate that there could and should be scientific doubt. SDC's own planning officers employed the consultants Bureau Veritas for this reason.
- (59) Further, even had they been able to make this assessment, there was insufficient debate during the meeting on the respective merits of the cases backing the original and replacement text to allow members to make an informed opinion. Instead, the meeting was dominated by the mechanics of implementing Option 1 and discourse about the advantages of extra employment, both irrelevant to the issue of compliance with the Habitats Regulations.
- (60) Had there been a meaningful debate with the benefit of input from the experts of both sides, it would have revealed that the replacement text provided by LAA was based on evidence that had been rejected by Natural England, the RSPB, LAAG and SDC's own consultant, Bureau Veritas⁵³. Indeed, whereas in some areas the evidence is expressed in terms of expert's opinions, the material provided by LAAG in relation to noise and visual impacts on birds proved⁵⁴ that the evidence backing LAA's replacement text was blatantly incorrect⁵⁵.
- (61) Against this background it is difficult to envisage how members came to the conclusion that they were satisfied beyond reasonable scientific doubt that LAA's development would not have an adverse effect on the SPA, its extension and the proposed Ramsar site. These failings cast doubt on the legality of the decision making process.
- (62) Further, SDC directly broke the law as Natural England was not consulted on the composite AA created at the Council meeting on March 3rd before the decision was made by council members. This contravenes the requirements of the Habitat Regulations⁵⁶. Therefore, the composite AA cannot be used as a basis for supporting LAA's planning application.

Ensuing Matters

⁵² CD 2.5 (LAAG) page 138

⁵³ LAAG/12/A - 3.1.6, page 9

⁵⁴ See LAAG/12/B, Appendix 7A -Applicants Proposed Revisions to the February 2010 Revised Appropriate Assessment Report- 1.2.4 & 1.2.5. This information was included the Consolidated Appropriate Assessment June 2010 - CD 1.53 (LAA) - 4.3.5 & 4.3.6

⁵⁵ LAAG/10/A - 5.1-5.10 - See also

⁵⁶ Ibid, 6.1-6.3 page 20

- (63) During the planning session XX Mr Ellames disingenuously suggested that the opposition to the airport from Natural England had been whittled away since March 3rd 2010 which proved that the members had made the right decision in voting for the planning application. This is not the case.
- (64) In the second officer's report the SAC had already been eliminated as an issue - ie the airport had proved there would not be adverse impacts at a throughput of 500,000ppa. The issue in hand was LAA's inability to prove there would not be adverse impacts on the SPA, pSPA and PRamsar. This was the issue before members on the evening of March 3rd 2010 and remains the issue today for NE, the RSPB and other groups opposing LAA's development.
- (65) While it is true that Natural England was advocating at the time that the SAC was at risk to adverse impacts, it lost out to LAA on a technicality over nitrogen thresholds, and acceptance was only granted to LAA after it had agreed to implement a rigorous air quality management system through the Section 106 agreement.
- (66) Although it is now accepted that there would not be adverse impacts on some features of the SSSI, this was only after LAA had agreed to provide satisfactory replacement habitat. Further, the development's impact on the bird features of the SSSI remains an issue for Natural England, the RSPB and others.
- (67) In addition, evidence from LAAG's nuclear case has revealed that the Office for Nuclear Regulation (ONR) has changed the safety status of Dungeness A and failed to disclose the long term vulnerabilities of the Dungeness site to a major⁵⁷ nuclear accident⁵⁸. These matters will be expanded on later.
- (68) In addition, the ONR failed to inform SDC of the possible radiological consequences⁵⁹ of an accident should one occur. This means the SOS should not give weight to SDC's decision to support LAA's planning application since its members were not fully informed on any of these matters.
- (69) Indeed, it was disingenuous of the ONR to rule out an accident on the grounds that the probability of it occurring was determined, in its opinion, to be acceptably small, without at the same time providing an indication of the intolerable nature of the consequences should one occur. This hid the principal issue from the council members which means they were not aware of the scale of risk they were assessing. It is particularly anomalous given that the HSE's own regulations state that when there is great uncertainty about the likelihood of an accident, it should focus on the consequences⁶⁰.

⁵⁷ Ibid 99-137

⁵⁸ Ibid 138-148

⁵⁹ Ibid 138-148

⁶⁰ See LAAG/15 /F - Appendix 10 - paragraph 40 - also discussed in LAAG/3/J - page 2 & 4

(70)

(71) Summary and Conclusion

- i. The episode was reprehensible and unlawful and illustrates why less, rather than more power, should be given to local authorities
- ii. SDC colluded with the applicant to devise a scheme which enabled members to satisfy the dictates of the Habitats Regulations and vote in favour of LAA's application, against the recommendation of their planning officers who had been required to recommend refusal because of these dictates.
- iii. The scheme called Option 1, involved creating a revised AA on the evening of March 3rd 2010 which concluded the absence of adverse impacts on the SPA. This was achieved by inserting text provided by the applicant to this effect.
- iv. To facilitate a yes vote SDC deliberately withheld a letter from Natural England from members which contained important matters including the clarification of issues related to incorrect information given to members by Mr Gordon, LAA's CEO on the evening before March 3rd.

The decision was unlawful.

- i. It was not possible for members to conclude the absence of scientific doubt. They are not experts, there was no debate on the relative merits of the evidence behind the text inserted and replaced in the AA, and the evidence behind LAA's inserted text was flawed.
- ii. Natural England was not consulted on the composite AA created at the meeting on March 3rd before the decision was made by council members.

Development does not conform to the Air Transport White Paper

(72) LAAG accepts that the Air Transport White Paper (White Paper)⁶¹ gives in principle support to the smaller airports in the South East. The question that must be asked is whether LAA has support after other selection criteria set out in the White Paper are taken into account. In LAAG's view it does not, and LAA has failed to demonstrate that it does.

⁶¹ Conformity to the Shepway Local Plan and other planning documents is covered by CPRE

(73) The reference⁶² made to LAA in the White Paper refers to the airport's ambition. It is not a policy direction and while it is considered that Lydd could contribute to regional development, it is only through meeting local demand. Being subject to relevant environmental consideration has additional resonance at LAA because the airport is located in one of the most ecologically sensitive areas in Europe and is less than 3 miles from a nuclear power complex, where an accident would have intolerable social, health and environmental consequences. LAA had no defence on these points.

(74) Of more relevance is the White Paper's over arching policy in the document's foreword⁶³:

"Our starting point is that we must make best use of existing airport capacity."

The White Paper specifically refers to runway capacity in the section on the South East of England⁶⁴:

"Our main priority is to make the best possible use of the existing runways at the major South East airports."

Making best use of existing runways in the South East will provide some much-needed additional capacity."

(75) In relation to making best use of the existing capacity LAA state in evidence⁶⁵ that the White Paper then goes on "to make clear that making best use did not preclude the development of additional runway or even runway capacity". This is misleading and incorrect since the paragraph specifically refers to airports that need increased capacity⁶⁶.

(76) Ms Congdon's notion that "best use" must "be read in the context of best meeting demand in term of attracting airlines to operate services required locally⁶⁷" is flawed and illogical. While it is granted there is no sequential test - i.e. existing capacity must be used up first before any new capacity is introduced - this is implied in the overarching statement otherwise there would not be any point in having it.

(77) Lengthening runways and building new terminals add to airport capacity. The current terminal has a capacity of 300,000ppa, which is

⁶² "The operators of Southend, Lydd, and Manston argue that their airports could grow substantially and each has plans for development. The potential for other airports, including, Shoreham and Biggin Hill, should also not be overlooked.

We consider that all these airports could play a valuable role in meeting local demand and could contribute to regional economic development. In principle, we would support their development, subject to relevant environmental considerations." CD 5.24 (LAA) - 11.98 & 11.99 page 132

⁶³ Ibid -Foreword. page 7 - second last para

⁶⁴ Ibid - 11.6 & 11.7 page 110

⁶⁵ LAA/4/A - 3.4

⁶⁶ CD 5.24 (LAA) - Foreword page 7 - last paragraph

⁶⁷ LAA/4/D - paragraph 2.25

supported by LAA's previous Future Baseline⁶⁸, and the runway capacity far exceeds this throughput, yet the airport's current throughput is less than 1000ppa. There is plenty of scope to make best use of existing capacity.

- (78) The statement in the Future of Air Transport Progress Report⁶⁹ - "*The first priority is to make the most of the UK's existing airports through a process of improvements and modernisations.*" - is wholly consistent with the overarching statement of making best use of existing airport capacity. Modernisation can be carried out without adding to physical infrastructure, particularly runways. For example, LAA could modernise its existing underutilised 300,000ppa capacity terminal, to better exploit its existing runway.
- (79) Ms Congdon's claims that because the limiting factor at LAA is the runway length, overcoming this restraint would accord with "the *best use of existing airport capacity*" policy in the White Paper⁷⁰. This cannot be the case because the contention that the inability of LAA to attract airlines is due solely to runway length is flawed and defies rigorous analysis.
- (80) Like LAA, Manston Airport, (Manston) is also heavily loss making⁷¹, due to the difficulty it has in attracting airlines⁷². These losses are achieved despite it benefiting from one of the longest runways in the country. This in itself suggests that runway length is not the issue.
- (81) Why did Flybe, a public company with knowledgeable and experienced management, supporting aircraft types that are suited to operating on a smaller runway such as LAA's⁷³ choose to conduct services from Manston from 2010? Indeed, why did Flybe's management not positively seek LAA in preference to Manston since it faces the prospect of competition in the future from airlines such as Ryanair and Easyjet supporting the larger B737 and A320 aircraft types⁷⁴.
- (82) Further, why are Southampton and Bournemouth airports, which are only 25miles apart, successful and able to attract airlines⁷⁵ when Manston and LAA, which are about 50miles apart, cannot? The physical situation is similar to the Lydd versus Manston situation. Southampton has a shorter runway than LAA's, would be after the proposed extension,

⁶⁸ LAA's previous Future Baseline, or fall back position, of 300,000ppa without runway extension - see CD1.41A - paragraph 16.1.2, page 5

⁶⁹ CD 5.25, paragraph 1.12

⁷⁰ LAA/4/D - paragraph 2.28, page 12

⁷¹ LAAG/7/A - Table 2 page 5

⁷² Although Manston has more traffic than Lydd it has higher overheads, hence higher losses

⁷³ LAAG/8/D - 5.10-5.11 - page 15

⁷⁴ Contrary to Ms Congdon's belief, Flybe is not an airline up scaling its fleet to larger aircraft types over time so that it could maintain a niche presence at Lydd - See LAAG/8/D - 5.9 page 14

⁷⁵ See CD 16.16 (LAAG) - Southampton Airport - 1,733, 690 passengers in 2010 and Bournemouth 751,331.

while Bournemouth airport's runway is considerably longer than LAA's would be after its proposed extension⁷⁶.

- (83) Flybe has a major base at Southampton - ~ two thirds of the airport's traffic is carried on the Bombardier Q400⁷⁷ - an aircraft type highly suited to LAA's current runway⁷⁸. The shorter length of the runway protects Flybe from competition from major airlines such as Ryanair which is based at nearby Bournemouth since its longer runway is suited to B737-800s. Flybe has successfully exploited this situation and Southampton has more passengers than Bournemouth.
- (84) The successful coexistence of two airports has not occurred in Kent because, Lydd has serious operational constraints⁷⁹ other than runway length caused by the extent of restricted airspace in the vicinity of the airport, plus poor surface infrastructure which makes it unattractive to airlines able to use its existing runway.
- (85) In addition, both Manston and LAA suffer from poor population catchment areas by comparison with Bournemouth and Southampton, more competition from ferries and severe competition from the Channel Tunnel.
- (86) None of these factors will change when the runway is lengthened so that it will remain very difficult for LAA to attract airlines, despite its proposed development.

Extending the runway creates more, not fewer restraints

- (87) In addition to the plethora of operational constraints, the consequences of the operational constraints will be more severe with the extended runway since larger Group 1 aircraft, such as the B737 and A320, for which the extension is designed, will face more restrictions than the aircraft able to use the airport today⁸⁰.
- (88) Although disputed by LAAG's consultant Mr Spaven⁸¹, Mr Maskens⁸² from LAA believes all Group 2 aircraft⁸³ can undertake a circling approach⁸⁴ on both the **existing** and extended runway when the Lydd

⁷⁶ Southampton's runway is 1723m and Bournemouth's 2272m

⁷⁷ Included in the category termed -Bombardier Dash 8 (all models) in para. 3.19 of the Common Ground Statement between LAAG and LAA - CD 4.4 (LAA).

⁷⁸ LAAG/8/D - table 9 - page 20 - note too only 0.1% of movements by B737s

⁷⁹ See all LAAG/10/A note 6.1-6.3, LAAG/10/E paragraph 2.2 -2.10 and Table 2 page 1

⁸⁰ See CD 4.4 (LAA) - para/table - 3.19

⁸¹ LAAG/10/A 3.38 - 3.40 and 4.2-4.20

⁸² LAA/3/D - paragraph 2.7

⁸³ Up to a BAe 146 (40 tonnes and 112 passengers). Note Group 2 aircraft are able to operate from the existing airport - see CD4.4 - 3.19.

⁸⁴ One of the principal restraints faced by LAA is the 4000ft height restriction for aircraft over the Lydd Military Range. When the wind favours landing on runway 03, aircraft cannot fly through this airspace to land on this runway when the range is active which is approximately 300 days of the year. However, it is still possible to land into the wind on runway 03 by undertaking a circling approach. See CD 1.41A - Section 16 - Figure 16.1 - Runway 03 flight paths - Flight Path 1 (FP1)

military range is active and the winds favour runway 03, which is approximately 300 days per year⁸⁵. This means they can always land into the wind.

- (89) On the other hand, under the same circumstances⁸⁶, with the extended runway, LAA accepts that this circling approach cannot be undertaken by Group 1 aircraft such as the B737 and A319/320⁸⁷ because they cannot physically execute the turn. Instead, these aircraft must land with a tailwind on runway 21 provided there is a tailwind of no more than 10 knots; otherwise they must divert to another airport⁸⁸.
- (90) Thus, according to LAA, although the extended runway allows larger Group 1 aircraft to operate commercially from the airport⁸⁹, these aircraft are subject to more restrictions than the Group 2 commercial aircraft types⁹⁰ able to operate from the existing runway⁹¹.
- (91) Mr Maskens in his evidence⁹² tries to downplay the extent of tail wind landings by maintaining, that under the 500,000ppa scenario, a maximum of 438 Group 1 aircraft movements would be predicted to land on runway 21 with a tailwind component and that this would only represent 1% of total movements. But, what he fails to highlight is that this represents 19/20% of predicted Group 1 movements⁹³.
- (92) Another example of how the constraints on LAA are increased by the runway extension is provided by the Runway End Safety Area (RESA)⁹⁴ for the departure end of runway 21. This is limited in length by the existing rail line to Dungeness and is below the ICAO and CAA recommended minimum length.
- (93) Although accepted for current operations, the changes in types and levels of traffic using LAA after the runway extension could lead to the CAA determining that the RESA must conform to the standard length. This would force LAA to reduce the declared take off distances for

⁸⁵ See LAAG/10/K - confirmation from MOD

⁸⁶ When the Lydd Military Range is active and the wind favours runway 03

⁸⁷ See CD 4.4 paragraph 4.9 - also See CD 1.34A - Appendix 3 Noise modelling assumptions - 4th paragraph and CD 1.24C - Runway Extension - Section 3 - paragraph 3.2.5

⁸⁸ Mr Spaven has demonstrated that payload restrictions would be required for Group 1 aircraft landing with a tailwind on runway 21 when the wind speed is below 10 knots. See LAA/10/A - Usability discussion 7.1- 7.25 and particularly 7.20 and 7.21

⁸⁹ The tailwind constraint and the wind characteristics at LAA indicate for Group 1 aircraft that LAA would not be able to meet the ICAO recommended runway usability threshold of 95%- LAAG/10/A - paragraphs: 7.1-7.24

⁹⁰ For the definition of LAA's aircraft groups - see CD1.41A paragraph 16.3.11 page 8

⁹¹ Note, on the basis of Mr Spaven's analysis that Group 2 aircraft, undertaking commercial air transport movements would also be forced to land with a tail wind on runway 21, there would be no improvement in the efficiency of the airport with a runway extension. Group 1 and Group 2 airport would share the same constraint i.e. the need to land with a tail wind on runway 21 when the Lydd Military Range is active and the wind favours runway 03.

⁹² LAA/3/D - paragraph 2.6

⁹³ Based on 2180 and 2352 movements for B737s and A320s in Table 5.7, page 5, LAAG/4/G

⁹⁴ LAAG/10/E - 2.8-2.10

runway 21 and landing distances for runway 03 and would reduce the efficacy of the runway extension and further limit LAA's commercial prospects.

- (94) Therefore, Ms Congdon's claim that overcoming the runway length constraint will improve the efficiency of the airport is invalid which again proves that the development does not accord with "the *best use of existing airport capacity*" policy in the White Paper.

Related matters

- (95) Under XX Mr Village attempted to discredit Mr Spaven's opinion that Group 2 aircraft can operate from the current runway length which had been agreed as a matter of common ground between LAA and LAAG⁹⁵. Mr Village failed to appreciate that the other constraints faced by the airport mentioned earlier render the airport unattractive to airlines at the present time and that it is up to the airlines to judge whether services would be commercial in the context of the operating environment.
- (96) Example of such a judgement by airlines can be found at London City Airport. It essentially has the same runway length⁹⁶ as LAA's existing runway and has operational constraints due to its location, yet it is successful because it primarily serves high yielding business passengers. This means airlines can afford to operate with restricted payloads which are required on some routes because of these constraints.
- (97) As for the proposed new Air Transport White Paper, it must consider regional airports since it is part of its remit. It is only at the scoping stage and not surprisingly questions are being asked about the extent to which regional airports can absorb some of the demand from constrained London airports. It does not follow that all airports located in the regions will be given policy support as some airports will be deemed more suitable for expansion than others.
- (98) Broadly the respondents to the consultations behind the transport section of the South East Plan will be giving the same advice in the consultations for the new Air Transport White Paper. Therefore, there is a strong possibility that Southampton and Manston will be the preferred regional airports in the South East since there were good reasons to support them over other airports. The restraint on further expansion of London's airports was announced after the adoption of the South East Plan but this does not change the suitability of airports for expansion.
- (99) Summary and Conclusions: LAA has been unable to demonstrate that the proposals are in conformity with the Transport White Paper for the following reasons:

⁹⁵ CD 4.4 (LAA) - 3.19

⁹⁶ 1508m as opposed to 1505m at LAA

- i. The airport has considerable excess capacity,
- ii. Runway length is not the reason for LAA's inability to attract airlines so that overcoming this constraint will not lead to additional business from airlines.
- iii. Extending the runway will lead to more operational restrictions on Group 1 aircraft, than apply to the Group 2 aircraft that can operate on the existing runway, according to LAA's evidence.

No need for the development

Transport need

(100) No evidence has been produced at this inquiry which demonstrates the proposed development is being produced to satisfy a need. All the evidence points to it being a highly speculative proposal. Indeed, LAA admits to it publicly⁹⁷ and it is recognised in LAA's investment strategy and in the conditions proposed by its advisors.

(101) The conditions which LAA would accept on the planning permits would require the runway extension to be commenced within four years and the terminal within ten years. This does not indicate LAA's confidence in the demand for its services, nor does its plan to renovate and use its existing terminal before building the new one⁹⁸. It is obvious that this stance is commercially prudent⁹⁹ but equally obvious that there is insufficient demand to justify LAA making an investment in a new terminal.

(102) This framework gives LAA the flexibility to test the market with the extended runway before going ahead with the new terminal with the view to minimising losses should the venture fail. Had there been a need for the development - the planning proposal would have been reversed - a modern terminal to replace the old terminal to cater for 300,000ppa and an extended runway with an initial cap of 500,000ppa.

(103) It cannot be argued that this speculative approach to investment is the norm. The development strategy adopted by Manston whereby it wins airline business before embarking on an expensive expansion plan is typical of a more rational approach to investment¹⁰⁰.

(104) The revised forecasts denote the speculative nature of the proposal. Ms Congdon is only able to mount a case for a throughput of 500,000ppa by stretching the forecast period to 2030. This signifies hope, rather than

⁹⁷ LAAG/123 - page 1

⁹⁸ LAAG/8/D - 4.1-4.7

⁹⁹ LAA/4/D - paragraph 3.9, last sentence

¹⁰⁰ LAAG/123 - page 1

confidence based on evidence that there is a need for this airport investment.

- (105) No evidence was brought before the inquiry which demonstrates that any airline had experienced such limited capacity at other airports, that it required LAA's proposed development.
- (106) The assertion that LAA's lack of success since it installed its ILS in 2006 has been due to its lack of marketing¹⁰¹ is untenable. The fact is that LAA has marketed its facilities, but the proposition is unappealing¹⁰².
- (107) LAA has also maintained that the state of the terminal has put off potential customers. This is also disingenuous, as had there been demand, a conditional deal with an airline to improve or replace the terminal could have been negotiated.
- (108) The facts overwhelmingly point to Kent being well served by a wide range of transport options. It has two airports which are operating at a fraction of their existing runway¹⁰³ and terminal capacities¹⁰⁴; it has ferry services; and it has Eurotunnel with new train services proposed to a wider range of European destinations by both Eurostar and Deutsche Bahn¹⁰⁵.
- (109) Eurotunnel has opened up travel options for customers which have severely reduced demand for key short haul passenger routes and short haul airfreight services - all factors relevant to the need for LAA as it has no scope to expand into the long haul market even after its runway extension as the runway will still be too short.
- (110) Lyddair, the existing airline based at LAA and the obvious first candidate for expansion, has not branched out to other routes in addition to its traditional route to Le Touquet. Indeed, this service has been scaled down. This demonstrates how low the demand is for services from LAA.
- (111) Manston, Kent's established regional airport, is operating at a fraction of its capacity and will provide Kent with facilities that are far superior to LAA's, even after its proposed expansion¹⁰⁶. The fact that it is also

¹⁰¹ LAAG/4/G - 2.29

¹⁰² Ms Congon's lack of awareness of her client's marketing activities was evidenced in XX. She maintained that she did not believe that LAA had yet marketed the airport's capability to business jet operators, yet one of LAA's largest marketing initiatives was the high profile launch of FAL Aviation in 2005, a company providing handling services for business jets in particular. The venture was unsuccessful and was scaled back. See also LAAG/101

¹⁰³ Runway capacity defines overall airport capacity

¹⁰⁴ Lydd at < 1% of its existing terminal capacity and Manston at <2%, based on 2010 passenger figures (CD 16.16). For earlier figures see LAAG/7/A, Table 1 page 5

¹⁰⁵ LAAG/120 - page 3

¹⁰⁶ See LAAG/7/A - table 5

operating at a significant loss¹⁰⁷ indicates just how limited the need is for additional runway capacity in Kent.

- (112) Manston can service both long and short haul routes whereas LAA will only be able to serve the latter after its runway extension. Manston does not have any of the operational constraints faced by LAA caused by the scale of restricted airspace in its immediate vicinity and has better supporting road and rail infrastructure. Further, Manston is not surrounded by habitats protected under European laws, nor is it located beside a nuclear power station, which despite the regulator's complacency, will be regarded by some airlines as unacceptable.

Social Need

- (113) Predictably LAA and SDC argue that Shepway is a deprived area and is in need of regeneration being characterised by slow economic growth, high unemployment and long-term contraction of established industries. The position is overly pessimistic as it fails to differentiate between the status of Romney Marsh and the other areas within Shepway and fails to put unemployment on Romney Marsh into context¹⁰⁸.
- (114) Unemployment on Romney Marsh, the area most likely to benefit from the airport, is considerably lower at 3.1% than in Folkestone where the rate is 6.8% - the area which both dominates the statistics for Shepway and reduces its economic baseline. Within Romney Marsh there are also variations, with Lydd showing the highest unemployment level of 4.3% and New Romney Coast the lowest at 1.3%¹⁰⁹.
- (115) Neither LAA nor SDC has made any attempt to put LAA's development into context either quantitatively or qualitatively. It has been characterised as the answer to the employment needs of the area. No attempt has been made to outline other areas of employment that have helped compensate for the loss of the traditional industries and will continue to so, nor has there been any attempt to assess other trends which could lead to increasing wealth in the area such as changing trends in the leisure industry, the growing impact of the retired population¹¹⁰ and the rise in home working¹¹¹.
- (116) Both SDC and LAA refer to the continued importance of the Dungeness nuclear site despite the near term loss of Dungeness C and the scaling down of employment as Dungeness A is decommissioned. Yet they fail to explain why these pockets of unemployment on Romney Marsh will be eradicated by an expanded Lydd Airport when they have remained in place while the Dungeness complex was, and will continue

¹⁰⁷ LAAG/7/A - Table 2

¹⁰⁸ LAAG/8/D - paragraphs 3.1 - 3.11

¹⁰⁹ Ibid - Table 2, page 5

¹¹⁰ LAAG/8/D - Table 5 - page 8

¹¹¹ LAAG/8/G 3.4

to be, a materially larger on and off site employer than Lydd Airport will ever be.

- (117) The presence of a low level of young people is also highlighted by Mr Whittaker of SDC. This is to be expected. Romney Marsh is a rural area. It cannot furnish jobs for all its young people - a factor that is common in other areas of the UK, and, indeed abroad.
- (118) Romney Marsh is inherently in a better position to retain a higher proportion of its young people in the general vicinity than other rural areas. This is because it has leisure and green tourism interests centred on the attractions of both the seaside and Romney Marsh itself, a nuclear power complex which will continue to be a source of long-term employment even if a third nuclear power station does not go ahead. It also has the benefit of the proximity of Ashford where unemployment is considerably lower than in Shepway¹¹².
- (119) There are wider needs of the public which have been overlooked by both LAA and SDC. Romney Marsh has some of the most productive agricultural land in the UK, sandy beaches and at Dungeness some of Europe's most unique natural habitats. The creation of a regional airport will lead to urbanisation of this rural area over the longer term, compromising its ability to produce food and to provide leisure for residents both within and outside Romney Marsh.
- (120) It is in the national interest to maintain Romney Marsh as a rural area, from a food production viewpoint, to provide a green/leisure "lung" to complement urban development in both the Shepway and Ashford districts and to act as a buffer zone for the protected habitats on the coast at Dungeness. It is shocking that SDC and its members did not consider the issue of social need in a more balanced and responsible manner.

(121) Summary and Conclusions

LAA has been unable to demonstrate a need for its development:

- i. As demonstrated by its speculative nature - if it were truly believed by LAA that the expansion would provide for a need from the travelling public and the airlines it would propose extending the runway and constructing a new terminal immediately upon the grant of planning permission.
- ii. Kent is well served by transport options other than air travel.
- iii. Manston fulfils Kent's need for a regional airport. It is far better located and equipped to meet the needs of the airlines should they exist. That they do not exist is demonstrated by the fact that

¹¹² Ibid Table 4 - page 7

it is operating at a fraction of its existing capacity and is heavily loss making.

- iv. The description of Romney Marsh as a deprived area has been exaggerated. As a rural area it is axiomatic that it will not be able to employ all of its young people. Nevertheless, it is better served for jobs than many rural areas.
- v. It is in the national interest to maintain Romney Marsh as a rural area, from a food production, social and environmental perspective.

Socio Economic Case

Revised Forecasts

- (122) As part of LAA's economic evidence revised forecasts for the build up in passenger numbers over time to the stated 500,000ppa were provided. The passenger aircraft fleet mix was also revised, producing a reduction in movements¹¹³ relative to those described in the ES because of the use of larger aircraft¹¹⁴, and as a result, a change in effects.
- (123) Although the timing aspect is more realistic, the fleet mix which dictates the number of movements and thus the effects, is no more accurate or up to date than that portrayed in the original ES.
- (124) Apart from acknowledging in XX that forecasts require changing every 2-3 years Ms Congdon's updated forecasts are questionable anyway since she failed to account for the smaller aircraft replacement programme at Flybe¹¹⁵, an airline highly suited to LAA, and the full operational constraints on larger aircraft at LAA¹¹⁶.
- (125) Therefore weight should be given to all the evidence dependent on aircraft fleet mix produced in relation LAA's planning permission¹¹⁷, not just the evidence before the public inquiry.

¹¹³ Mr Perkins confirmed in XX that his revised noise assessment was based entirely on Ms Congdon's revised fleet mix for a throughput of 300,000ppa and 500,000ppa which resulted in fewer aircraft movements, and conveniently for LAA, a reduction in the noise impact for residents.

¹¹⁴ LAA/4/A - Table 5.6, page 49

¹¹⁵ LAAG/8/D - paragraph 5.12-5.15 - see also 8.0-8.2

¹¹⁶ LAAG/10/A - see 4.38 and summary 7.41. Ms Congdon acknowledges restrictions on B737-800 in para 5.36 of LAA/4/A by acknowledging that Ryanair, an exclusive operator of B737-800s, will not operate from LAA as the extended runway length is not sufficient.

¹¹⁷ Note also, the revised noise assessment omits to produce the residential house counts for the scenarios that focus exclusively on either runway 21 or runway 03 activity. In the earlier noise assessment based on the ES fleet mix, the runway 03 only analysis, for the seasonal summer period, shows that considerably more houses were above the noise threshold, than in the average scenario. Mr Perkins focussed his analysis only on the 3 properties for the average in the revised scenario. In Mr Perkins earlier assessment there were 106 houses subject to noise greater than 57db in the seasonal summer period when daily activity was focussed only on runway 03. No corresponding analysis was made in the latest assessment. See Table NV01 - LAA/5/C.

Employment

(126) LAA in its statement of case advances the proposition that: “*The applicant will demonstrate that the proposals would have significant benefits for Romney Marsh and the wider Shepway district in terms of employment opportunities and training opportunities, boosting the tourist in the sub region and acting as a catalyst for inward investment.*” The evidence does not support this contention.

(127) As a starting point, LAA’s capacity to generate employment for the area depends firstly on whether it can achieve its desired 500,000ppa throughput. LAAG believes it will not.

(128) Even if one assumes that LAA can achieve its 500,000ppa throughput target, its ability to generate employment depends on the rate of employment per unit of output - which all parties agree has been declining due to the impact of low cost operators - and the adverse impact the development will have on employment in established businesses.

(129) In this respect, LAAG believes LAA’s expansion has the potential to result in job losses that exceed the total employment generated by its development. Therefore, the development has the potential to destroy wealth and this could occur irrespective of the passenger throughput LAA achieves in the time horizon under consideration. This is because once the infrastructure is in place, it is the expectation that growth is possible to the limits of that infrastructure that influences how individuals and businesses will react to LAA’s expansion

Achieving 500,000ppa throughput is unlikely

(130) The extended runway does not overcome the operational constraints faced by this airport as we pointed out earlier. The first question that needs to be asked is why an airline would be attracted to LAA in preference to Manston when Manston is free of such constraints and has considerable excess capacity? LAA has not addressed this issue other than to suggest that a “flexible pricing” strategy will attract airlines¹¹⁸.

(131) Indeed, it is assumed that both airports will grow in unison¹¹⁹. Although it is correctly maintained that airlines want the flexibility to introduce larger aircraft¹²⁰, it is Manston which offers the most flexibility in this respect because of its longer runway, which is another reason for airlines being attracted to it in preference to LAA.

(132) On the subject of LAA wooing airlines with route development subsidies, this is commercially unsustainable, while for airlines such

¹¹⁸ LAA/4/A - paragraph 5.41

¹¹⁹ Ibid - paragraph 5.4 & 5.5

¹²⁰ Although incorrectly attributes upscaling at Flybe - see LAAG/8/D - paragraph 5.15

incentives must be weighed against the costs that might arise because of pay load restrictions and diversions to other airports. Further, Manston is owned by Infratil, which is a quoted New Zealand company with the resources to match LAA. It also owns Prestwick Airport which puts it in a strong position to offer customers package deals.

- (133) These factors combined suggest that Manston will remain the airport of choice for airlines for the foreseeable future. Indeed Ms Congdon's work for Manston Airport appears to recognise this. Her firm is forecasting Manston Airport employing 2000 people directly¹²¹ by the end of the decade with the help of night flying based on 2mppa. This compares with her firm's forecast for LAA of 210 gross jobs¹²² by 2024 under the high growth scenario for a throughput of 500,000ppa
- (134) In relation to constrained London airports and the impact this will have on demand for regional airport services in the South East, the issue is the scale of the displacement to the regions. In relation to LAA, it is overspill from Gatwick which is relevant since it has the dominant market share in the various catchment areas claimed by LAA to be the sources of future business.
- (135) Gatwick was conveniently left out of the one-hour drive time maps presented in LAA's evidence¹²³. Since it has good motorway links to the main catchment areas considered relevant to LAA, the prospect of LAA competing successfully against it are poor.
- (136) On the supply side, Gatwick, like all airports, has additional headroom created by the existing recession. In addition, capacity can be increased by using larger aircraft on short haul routes, increasing turnaround times, and winning increased night quotas. Further, the policy not to add new runways in the London area is that of the current government. A change of government could lead to a reversal of this policy in response to growing pressure from interest groups in the face of continued demand for air travel.
- (137) Indeed, the SOS state accepts the likelihood of a new runway at Gatwick. In a recent appeal decision provided to the inquiry by Mr Village concerning a proposed housing development close to Gatwick Airport, the SOS agreed that a second runway at Gatwick cannot be ruled out¹²⁴. Any increase in supply to relieve the bottlenecks in London will have negative consequences for a marginal airport such as LAA.
- (138) The net result of these factors is that although LAA will gain some benefit from displacement, it will continue to be regarded as a last resort airport so that any benefits are likely to come later in the time span

¹²¹ See LAAG/122 - Appendix 1

¹²² 140 net of exiting employment - see Table 6.1, page 59, LAA/4/A

¹²³ LAA/4/A, Figure 5.1 page 32 and LAA/4/D - Figure 4.1, page 26

¹²⁴ See LAA/111 paragraphs 10, 11, 16, 18 & 27

considered by LAA¹²⁵ resulting in passenger throughput being lower than the 500,000ppa and 300,000 passenger scenarios projected. Further, by the time the displacement begins to benefit LAA, it will be facing the prospect of a new runway, possibly at Gatwick, which will again temper, or reduce demand.

Minimal job creation if LAA achieves 500,000ppa

(139) Even if LAA achieves a throughput of 500,000ppa it will remain loss making and only generate 200/210 gross jobs by 2024/2028 under the lower and higher growth rate scenarios¹²⁶. This is equivalent to only 130/140 jobs, net of current employment, and represents a rate of job accumulation of 8 and 11 per year under the two respective scenarios.

(140) This compares with 300 jobs created by the new Sainsbury's supermarket in Hythe¹²⁷ today and the possibility that the same supermarket will have built 3-4 new supermarkets in Shepway before LAA has achieved its total 130/140 additional jobs by 2028/2024.

Loss of employment caused by LAA's development

(141) There has been no attempt by SDC or LAA to address the negative consequences of this development. Indeed, bizarrely, Mr Whittaker for SDC claimed that assessing the negative impact of the development on the tourism industry was beyond the scope of his proof¹²⁸, no doubt fearing the disapproval of aggrieved business ratepayers.

(142) There will be adverse impacts on the local tourist industry particularly on caravan parks¹²⁹ located under the ILS flight path. Due to the operational restrictions on the airport ~ 95% of the larger aircraft could be landing on runway 21¹³⁰ using the ILS flight path¹³¹ which tracks along the coast where the majority of the caravan parks are located.

(143) It will be the prospect that things will get worse that will reduce their attraction to holidaymakers so that the decline could be immediate. Their contraction will have a large multiplier impact on the rest of Romney Marsh because the thousands of people that holiday at these parks spend freely on local services.

¹²⁵ Period to 2030

¹²⁶ Based on 500 per million passengers falling to 400 per million by 2030. There is broad consensus - LAAG works on a notional average 350 per million and SDC accepts LAA's range of 350 - 600 per million and thus an average of 475.

¹²⁷ LAAG/8/G - paragraph 3.3

¹²⁸ SDC/3/A - paragraph 8.4

¹²⁹ LAAG/8/E paragraph 4.1 - 4.5 & LAAG/8/A paragraph 8.1

¹³⁰ This assumes that a condition is applied to the new RNAV approach procedure to ensure it is only used as a back up to the ILS.

¹³¹ Maximum percentage experienced by all caravan parks close to the airport but further out % could be lower because some aircraft could use the RNAV approach path which are further inland.

- (144) More importantly, if Lydd Airport's development proceeds, it could frustrate or even prevent Dungeness C proceeding after 2025, even if Dungeness C should pass the alternatives test of the Habitats Regulations and be allowed to proceed in the public interest¹³².
- (145) If Lydd Airport is established as a regional airport it will be viewed as a potential hazard. It will thus replace the constraints of the Habitats Regulations as the reason for Dungeness C not getting approval.
- (146) This situation could arise, either domestically via the Office for Nuclear Regulation (ONR¹³³), or should the ONR approve Dungeness C, via a chain of events resulting from European intervention.
- (147) Article 41 of the European Treaty¹³⁴ will allow the European Commission to make an assessment of the status of Lydd Airport as a hazard to the nuclear power station. Therefore, if LAA becomes established as a regional airport and the opinion of the Commission is at odds with that of the UK regulator, this could set up a chain of events which leads to Dungeness C's withdrawal¹³⁵.
- (148) It should also be noted that Article 8 of the European Directive (2009/71/EURATOM)¹³⁶ which has only recently been incorporated into UK law puts an obligation on the ONR to be more transparent in its dealings with the public. It offers opponents of LAA's development such as LAAG the opportunity to seek redress in Europe over the ONR's lack of transparency over its decision not to oppose Lydd Airport's development. A positive outcome for LAAG at this juncture could be the fatal to LAA's proposals..
- (149) However, if Lydd Airport's development proceeds and a similar exercise occurs at the time the planning application for Dungeness C is submitted, any revelations over safety that ensue because of the ONR's failure to recognise LAA as a hazard to development, could put the proposed development of Dungeness C at risk since LAA will be the established entity.
- (150) Further, any assessment must allow for future possibilities given the longevity of the infrastructure and the airports ambition, so that even if LAA is not successful commercially in its first few decades, this does not mean it will be ruled out as a hazard and therefore potentially jeopardise Dungeness C
- (151) LAA's intentions are clear, as set out in its Master Plan, and its new infrastructure gives it the potential to realize its current and future

¹³² LAAG/8/A - paragraph 8.3.4

¹³³ Formerly the Nuclear Installations Inspectorate (NII)

¹³⁴ LAAG/8/B - Appendix 4

¹³⁵ LAAG/8/A - 8.4.2

¹³⁶ Ibid - 8.4.3 and LAAG/8/B - Appendix 5

objectives over many generations¹³⁷. On the other hand, nuclear power stations have a projected life of 60 to 70 years¹³⁸ and long hazardous decommissioning periods¹³⁹ thereafter, an issue we will return to later. Indeed, in recognition of these factors EDF/British Energy based its Dungeness B safety case on the basis of LAA's Master Plan objective of a throughput of 2mppa¹⁴⁰.

(152) Loss of Dungeness C means the loss of at least 400 highly skilled jobs on site as well as additional indirect offsite employment, plus 1500 on construction. The latter compares to 320 on construction at LAA for the building of the runway and new terminal¹⁴¹.

(153) No credible evidence was produced by LAA to refute these arguments.

Loss of jobs in the tourist industry

(154) The imbalance between UK residents taking trips abroad and overseas residents taking trips to the UK is well established¹⁴². It cannot be dismissed on the basis that LAA based demand is a result of the redistribution of traffic between airports within the UK¹⁴³.

(155) The fact is LAA's expansion will help to facilitate growth of air travel in general. To the Exchequer, how employment is distributed within the South East is irrelevant, it is the overall costs and benefits to UK plc which are relevant. Therefore, to focus **only** on inbound tourists is misleading, as is inflating this direction of tourism by including UK domestic visitors as well as overseas visitors¹⁴⁴.

(156) Using data provided by Ms Congdon, Ms Barton adjusted for the 2:1 ratio in favour of UK residents going abroad, relative to overseas residents visiting the UK and on this basis calculated a loss of 23 jobs to overseas territories for a throughput of 500,000ppa¹⁴⁵. The deficit is expected to be higher at Lydd as traffic is likely to be heavily outbound based since LAA is too far removed from major tourist and business centres.

(157) Therefore, from the 130-140 jobs created net of current employment by LAA, at least 23 must be subtracted for the export of jobs overseas

¹³⁷ Particularly if circumstances change - for example, if the Lydd and Hythe military ranges were disbanded, this would transform the operational aspects of this airport and make it more attractive to airlines

¹³⁸ Generation 111 nuclear power stations have a projected life of 60-70 years

¹³⁹ Even when shut down, the decommissioning plant will remain a significant radiological hazard until the plant, buildings and radioactive waste stores are dismantled and totally removed from the site. The decommissioning period to a "green field" site is presently planned to last for 100-150 years or more.

¹⁴⁰ LAAG/3/B - Appendix 1, Letter 1 - page 3 second paragraph

¹⁴¹ LAAG/8/A - Table 19, page 29

¹⁴² See LAAG 119 and LAAG/8/D, paragraph 9.4 and LAAG/8/B - Appendix 3

¹⁴³ LAA/4/D - paragraph 5.19

¹⁴⁴ LAAG/8/D - paragraph 9.11

¹⁴⁵ LAAG/8/D paragraphs 9.5-9.9

with further reductions due to the airport's adverse impact on the established leisure industry. To this must be added the possible loss of 400 high quality jobs from the abandonment of Dungeness C which makes LAA's development, a wealth destroying proposition¹⁴⁶.

Wider economic benefits exaggerated

(158) LAA's user benefit analysis in terms of journey time savings is unreliable. It takes no account of the possibility that Lydd Airport might heavily subsidise car parking and/or attract airlines with lower fares than those that are serviced by other airports, so that people by-pass their normal closer airport and make an extended car journey to LAA.

(159) Similarly, LAA's assessment of the wider economic benefits is overstated. Kent has good connectivity for businesses as a result of the channel tunnel, the fast rail services, the motorway structure and its two underutilised airports. If existing connectivity by means other than air travel were a constraint, logically Manston, at least, should be performing better?

(160) Mr Whittaker of SDC was more rational in his assessment of LAA's wider benefits. He referred to an external consultant's report for SDC which states that Lydd Airport would not fundamentally alter the district's future economic direction or generate significant additional demands for employment land¹⁴⁷.

(161) He also referred to SDC's Employment Land Review which considers that the majority of spin-offs would be accommodated within the airport site¹⁴⁸. But as Ms Barton stated in her evidence, there are constraints on on-site development¹⁴⁹, and therefore on LAA's ability to generate employment from additional on site businesses due to the strictures of the Habitats Regulations¹⁵⁰ and the dictates of the ONR's demographic siting assessment¹⁵¹.

(162) Summary and Conclusion: LAA's economic case is flawed - the development has the potential to destroy wealth

- i. There would be minimal job creation if throughput of 500,000ppa is achieved. At most 130/140 net jobs would be

¹⁴⁶ Only direct employment is covered here for two reasons: (a) the data is measurable, and (b) firms having similar direct employment intensities have similar halo effects on employment outside their boundaries so that if one company replaces another there will be little change in the economic consequences.

¹⁴⁷ SDC/3/A - 5.29

¹⁴⁸ Ibid - 5.30 - 5.31

¹⁴⁹ Research undertaken by Cranfield University for LAAG indicates that even if LAA manages to achieve a throughput of 500,000ppa it will be unprofitable mainly because it will be limited in its capacity to generate revenue unrelated to commercial air transport services. LAAG/8/B - Appendix 2 - conclusion and 3.2.5 - 3.9

¹⁵⁰ LAAG/8/A - paragraph 5.5.3

¹⁵¹ LAA/15/D paragraph 6.21- also LAAG/127 - Annexe A - paragraph 6

created by 2028/2024 which is very substantially below employment created by a reasonably sized supermarket.

- ii. LAA is unlikely to achieve 500,000ppa which further reduces its employment prospects.
- iii. There would be major adverse impacts on the established leisure industry, particularly caravan parks
- iv. LAA's development would jeopardise the construction of Dungeness C with the potential loss of 400 high quality jobs.
- v. EEC regulations could override the UK regulators more relaxed attitude to safety and reverse a UK government decision to build.
- vi. LAA's impact on the tourist industry will be to further encourage the export of jobs to overseas destinations

Planning consequences if development does not proceed

(163) LAA contends that if the proposed planning application is not permitted, faced with growing losses the airport would be forced to *“either mothball, close or sell all or part of the Airport or seek to attract additional maintenance and other activities¹⁵²”*.

(164) Not surprisingly the usual stance taken by a developer is to paint as bleak a picture as possible so that his or her development proposal looks attractive by comparison with the fallback position. LAA proposes scaling back the business to reduce losses and exploring alternatives using the 24hr licence such as cargo and diversifications such as heavy maintenance - the same cocktail of “nasty” alternatives proffered at the time of the last planning application in 1988.

(165) Then, these possibilities were considered to be unacceptable because of the adverse impacts on residents and the SSSI and were deemed *“contrary to the protective aims and the objectives of the development plan¹⁵³”*.

(166) Although planning permission was granted in 1992 for a runway extension, it was allowed to lapse. Operations were subsequently scaled down and there has been minimal night flying or diversification. LAA's subsequent activity has centred on supporting general aviation and it has co-existed reasonably well with local residents and the surrounding environment.

¹⁵² LAA/.4/A - paragraph 4.22

¹⁵³ LAAG/8/D - Appendix 2

(167) There are four questions which need to be asked.

- i) First, why has the airport performed so poorly since 1988-1992?
- ii) Secondly, would the situation have been any different had the runway extension gone ahead?
- iii) Thirdly, have there been changes in circumstances which could lead to a better performance in the future under the fallback position?
- iv) Finally, what would be the consequences of closure or a major scale down?

(168) The reasons for LAA's historic poor performance have been covered previously. As regards the second question, would there have been a poor performance over the last two decades had the runway extension gone ahead, the answer is yes, since runway length is not the limiting factor at this airport¹⁵⁴.

(169) The restraint now placed on London airport capacity which is a major plank of LAA's case should result in a better future fall back position than that experienced in the past. Displacement implies an improvement in the pricing structure across the industry and should result in a temporary improvement in demand across all classes of business at LAA including limited¹⁵⁵ commercial passenger services.

(170) Passenger services are possible from LAA's existing runway using the smaller Group 2 commercial aircraft types agreed in common ground between LAA and LAAG¹⁵⁶ and acknowledged in LAA's original fallback position¹⁵⁷.

¹⁵⁴ It is worth pointing out that had LAA been able to attract commercial passenger airlines over the last two decades it would have faced a difficult period after the height restrictions over the military ranges were increased in 2001. Customer airlines would have been faced with the move from a normal straight in ILS to an ILS offset five degrees from the centre line. The absence of commercial passenger activity at the airport allowed this change to proceed unnoticed. With the benefit of customers, not only would there have been the possibility of their loss, but the signposting to the airline fraternity that changes at these important MOD ranges could lead to further operational constraints in the future.

¹⁵⁵ More limited than the developed case since LAA should generate a return on its investment in the developed case. The returns on capital employed in the fall back position are likely to be better than in the developed case as investment is more likely to be tailored to demand.

¹⁵⁶ See CD 4.4 (LAA) - table 3.19. Note these aircraft cover the three aircraft operated by Flybe, the Bombardier Q400, the Embraer 195 and more importantly in the future, the Embraer 175

¹⁵⁶ Only 3-4 movements per day

¹⁵⁷ The upper base line was the "old" fallback scenario - see CD1.41A - Appendix 16.5 - table 1

- (171) Instead, LAA's current fall back position is dominated¹⁵⁸ by business jet activity, with similar movements under both the developed and fallback scenarios forecast¹⁵⁹.
- (172) While we do not contest the general thrust of the argument that there will be continued displacement to the shires, it will not be at anywhere near the rate argued by Ms Congdon's so that the number of business jet movements per day will be appreciably below the 23/24 movements per day forecast for all scenarios including the fallback position¹⁶⁰.
- (173) The central question remains - Why LAA? London will remain the main focus for businessmen and business jets. Lydd will continue to be a last resort airport because of its poor location and compete with Manston for local demand.
- (174) Outside London, Farnborough is the premier business airport and is likely to continue to win material concessions¹⁶¹ for additional capacity headroom supported by more limited increases at other airports such as Biggin Hill. Longer term, as with the developed case, any new runway in the London region would work against demand for business jets and other commercial activities at LAA.
- (175) If one assumes that LAA's fall back scenario is achieved in 2028, the same year that LAA's slow growth scenario for its developed case achieves 500,000ppa, the compound annual rate of growth of aircraft over 5.7 tonnes, which largely represent the dominant business jets, is 24%¹⁶². This in itself casts doubt on the fall back projections, since the growth is unrealistically high for such a marginal airport.
- (176) Activities outside mainstream aviation such as maintenance services and training, including B737 training mentioned in XX, have theoretically always been an option for LAA, but have not materialised and are unlikely to in the future for the reasons outlined earlier.
- (177) On the question of night flying, it is incorrect to argue that residents will be worse off under the fallback situation. Conditions can be changed. The economics of this airport strongly indicate that Lydd will need to exploit its 24 hour licence to attract business, as witnessed by

¹⁵⁸ 91% of 9251 movements - see Table 5.7, page 5 - LAA/4/G. LAA's revised forecasts show 9251 movements of aircraft weighing over 5.7tonnes for the fall back situation. These comprise all aircraft in Table 5.7 down to the Citation x

¹⁵⁹ Business jets are taken as Learjet, Citation 11 and Citation X - See Table 2.1, LAA/4/G - page 7. There are 23 daily movements forecast for the fall back situation and 24 for the 500,000ppa scenario.

¹⁶⁰ 3-4 per day on average would be a more realistic figure

¹⁶¹ LAAG/4/G - paragraph 2.23

¹⁶² There are 9251 movements of aircraft over 5.7tonnes projected in the fall back position and it is assumed there are 234 movements of aircraft over 5.7tonnes in 2011(the same level as in 2009). This gives a compound growth rate of 24% per annum, over the 17 year period.. (Note: Aircraft weighing more than 5.7tonnes only constituted 234 or 1% of movements in 2009 - see common ground statement - CD4.4 (LAA) - 3.15)

developments at the equally financially challenged, Manston¹⁶³ which is lobbying for night flying to save the airport. This means whatever the outcome of this planning application, there is the risk of night flying.

- (178) As for the last question, what are the consequences of closure or a major scale down at LAA? The airport will survive with good management and realistic ambitions since there is a case for an airport supporting largely general aviation
- (179) The issue at LAA is that successive owners have failed to come to terms with Lydd being a legacy airport. As a result there has been a reluctance to tailor ambition to likely demand leading to speculative development. The situation occurred in 1988 and is being repeated today. Yes, the developer will face write downs in the book value of his assets on a going concern basis because the investment made to date at LAA has also been speculative. This is not a matter for the SOS, particularly when commitments have been made **without the requisite authority**¹⁶⁴.
- (180) Summary and conclusions: LAA has been unable to portray that the planning consequences will be unacceptable under the fall back position.
- i. The fallback situation will benefit from displacement across all classes of aviation including limited commercial passenger services making the latter common to both the developed and fallback scenarios, albeit at lower levels of activity.
 - ii. Business jet activity under the developed and fallback situations likely to be considerably below LAA's projections.
 - iii. Activities such as maintenance and training would be curtailed as they would be under the developed case.
 - iv. Night flying will be a feature of the developed and undeveloped case
 - v. The airport will survive with good management and realistic ambitions

Aviation operational matters

- (181) Aviation matters have largely been incorporated into the relevant sections above, and to follow. The following points are highlighted separately for issues of clarity, to demonstrate that there are shortfalls in the accuracy of the assumptions behind the noise and pollution studies

¹⁶³ LAAG/122 - Appendix 1

¹⁶⁴ LAAG/11/F - para 7.7 and 7.8 - page 9 & 10

and to throw further light on the operational constraints that face the airport which is of relevance to the economic and nuclear cases.

(182) LAA from the outset has sought to portray Lydd Airport as a “standard” airport. Not surprisingly Mr Spaven’s elucidation of the many operational shortfalls of LAA met with a strong challenge from both Mr Maskens and Mr Roberts. Unlike Mr Spaven, neither of these witnesses produced quantitative evidence - their evidence was entirely qualitative.

(183) This is an airport with unprecedented constraints. LAA has not disputed Mr Spaven's evidence that its airport is¹⁶⁵:

- i. The only civil airport in the UK with the maximum allowed 5° offset ILS localiser angle.
- ii. The only one in the UK with nuclear power station restricted airspace within 5km.
- iii. The only one in the UK with a military danger area crossing the final approach track within 2.5km.
- iv. The only one in the UK with a runway width less than 45m proposing commercial operations by B737/A319 size aircraft.
- v. The only one in the UK proposing commercial operations by B737/A319 size aircraft where only one runway direction is available for landing for the majority of the time.
- vi. One of only nine in the UK with a 3.5° ILS glideslope.
- vii. The only one in the UK with a 5° offset ILS localiser and a 3.5° ILS glideslope.
- viii. The only one in the UK with any combination of two or more of the above constraints.

(184) In seeking to counter Mr Spaven's evidence, Mr Roberts attempted to suggest, in XX, that commercial operators would have no difficulty in flying approaches to Lydd given these constraints. It is worth noting what he was proposing:

- i. That in order to get round the problem identified by Mr Spaven that there is insufficient room for even small airliners to make the circling final turn on to runway 03 when the Lydd range is active, it would be acceptable for them to "dip a wingtip" into the range danger area because that part of the range only contains domestic accommodation;

¹⁶⁵ LAAG/10/E, Table 2, page 14

- ii. that, alternatively, airliners could aim to land further up the runway, thus giving them more room to avoid the range, but equally, reducing the margins of available landing distance;
- iii. that, in order to make use of his suggested technique for avoiding the range, pilots should deliberately disregard the only information available to them on the correct glidepath to follow to guide them to the runway – the Precision Approach Path Indicators
- iv. that, on ILS approaches to runway 21, pilots should also ignore the guidance provided by the Precision Approach Path Indicators and should follow a steeper approach path to enable them to make use of the full landing distance available.

(185) LAA has at no point in this inquiry presented any evidence from the regulator, the Civil Aviation Authority, or from any existing or potential airline operators at the airport, to suggest that such practices – which are contrary to ICAO, European and CAA practice and recommendations - would be accepted by the authorities or operators.

(186) The close proximity of the **active** Lydd military range with its 4000ft minimum height restriction over its danger zone, is LAA's most challenging feature to its commercial success. The short distance¹⁶⁶ between it and the threshold of runway 03 makes it physically impossible for certain manoeuvres, such as the circling approach to runway 03, to be carried out by larger aircraft types such as the B737 and A320.

(187) As we mentioned earlier, it is common ground, that when the wind direction favours Runway 03 and the Lydd military range is active, B737 or A320 type aircraft must land on Runway 21 with a tailwind rather than undertake a circling approach to runway 03¹⁶⁷. Mr Spaven demonstrated that the constraint extends to Group 2 aircraft¹⁶⁸ making commercial Air Transport Movements¹⁶⁹. This means the modal split will be closer to 80/20 in favour of Runway 21¹⁷⁰, rather than the 70/30 split which approximates to the relative wind direction, used as a basis for analysis by LAA.

¹⁶⁶ 2.2km - Closest boundary of the Lydd range (D044).

¹⁶⁷ Mr Spaven believes Group 1 aircraft will face payload restrictions even at lower wind speeds - LAAG/10/A paragraphs 7.20 and 7.21

¹⁶⁸ i.e. They would have to land on runway 21 with a tailwind or if the tailwind exceeds the operational limits of the aircraft, they would be required to divert or cancel the flight.

¹⁶⁹ Air Transport Movements are landings or take offs of aircraft engaged on the transport of passengers, freight or mail on commercial terms.

¹⁷⁰ In his rebuttal (LAA/3/D paragraph 2.12) Mr Maskens claims Mr Spaven gives conflicting evidence by providing a 60/40 split to another witness. However, he fails to disclose that this is the estimated modal split for take off movements only (60% on runway 21 and 40% on runway 03) not the composite situation for both take offs and landings (95% on runway 21 and 5% on runway 03) for both runways which is the case in the 80/20 split.

- (188) There are also differences of opinion over departures from runway 21 by both Group 1 and Group 2 aircraft when the Lydd range is active. This requires a right turn on departure which must be executed without infringing the Lydd range danger zone. Differences of opinion between the two parties remain over the scale of payload restrictions required to enable this manoeuvre with LAA predictably at the least restrictive end of the spectrum.
- (189) Further, the environmental impacts of the new RNAV flight procedures¹⁷¹ introduced in 2009 were not assessed in the ES and have not been included in the evidence submitted to the inquiry. LAA maintains that the RNAV approach procedures to runway 21 will only be used as a back up to the ILS.
- (190) While the ILS on runway 21 will be the procedure of choice, this does not mean that the RNAV procedures will not be used. They exist, they are CAA certified and they offer material savings in air miles¹⁷² so that there is no reason why airlines should not approve their use.
- (191) Further, LAA's convoluted attempts to refute Mr Spaven's evidence on the track-mile advantages of the RNAV procedure are counter-intuitive. If RNAV procedures are so useless, why introduce them?
- (192) Indeed, LAA's reluctance to accept a condition which states that the use of the RNAV approach procedures to runway 21 must be confined to periods when the ILS is out of service, suggests that LAA agrees with Mr Spaven's assessment that the procedures will have wider commercial use by airlines.
- (193) More importantly, there remain two crucial exemptions and special dispensations which LAA must win from the CAA before it can exploit its new runway. They are both without precedent and against ICAO guidance. Further, no evidence has been brought before the inquiry to demonstrate the CAA's willingness to grant these dispensations. If they fail to be resolved, they will result in further serious operational constraints to the airport.
- (194) These two required CAA dispensations are:
- i. allowing a Runway End Safety Area (RESA) less than the CAA recommended length, despite the introduction of larger aircraft; and
 - ii. keeping the existing ILS configuration, which directs aircraft to the current runway threshold, even after the runway is extended, requiring pilots to make further manual/visual adjustments in the late stages of their approach.

¹⁷¹ LAAG/10/A paragraphs 3.5- 3.55 and CD 16.5, CD 16.6 & CD 16.12

¹⁷² See `LAAG/10/J - 4.1-4.4

- (195) Reference was made to the RESA earlier in relation to the issue of airport efficiency in conformity with the Aviation White Paper. In XX Mr Maskens said the runway 21 departure RESA would remain at 116m, but this length falls far short of the ICAO and CAA recommended minimum of 240m. This is because its length is restricted by the rail line to Dungeness.
- (196) If the CAA determines that LAA must rectify this situation by lengthening the RESA, LAA would be required to reduce the declared take off distances for runway 21 and landing distances for runway 03. This in turn reduces the advantages of a longer runway and provides a further constraint on the viability¹⁷³ of commercial aircraft operations at LAA.
- (197) In his Evidence in Chief (EIC) Mr Maskens mentions that Southampton Airport has a smaller RESA than LAA at 95m because of the M27 but overlooked to add that Southampton does not support B737s/A320s¹⁷⁴, the airport being dominated by Flybe and other airlines using smaller aircraft types.
- (198) In relation to the Instrument Landing System (ILS), LAA has maintained from the outset, that the ILS localiser aerial does not need to be moved to accommodate the extended runway. If this remains the case, the ILS localiser will not be capable of meeting ICAO requirements for a runway threshold located at the northern end of the proposed extension. Functionally this can only be overcome by reducing the Landing Distance Available to below 1799m, thus imposing limitations on the availability of the extended runway for landing¹⁷⁵ - another constraint for LAA.
- (199) Mr Maskens in his rebuttal contends that this will be overcome by using a similar solution to the CAA approved procedure at Sumburgh Airport which also has an offset ILS¹⁷⁶. However, as Mr Spaven illustrates¹⁷⁷, the Sumburgh ILS meets the ICAO Annex 14 standard¹⁷⁸ - that the glideslope/localiser/final approach track intercept height must be at least 180ft above the elevation of the runway threshold, whereas at LAA it is not, as the height is only 161ft¹⁷⁹.

¹⁷³ LAAG/10/E - paragraphs 2.4 - 2.10

¹⁷⁴ See LAAG/8/D paragraph 8.1 and Table 9, page 20

¹⁷⁵ LAAG/10/A 7.26 - 7.21

¹⁷⁶ LAA/3/D - paragraph 5.4

¹⁷⁷ LAAG/10/H

¹⁷⁸ For offset ILSs, the localiser course - the ILS approach path - is required by ICAO standards to cross the extended runway centre line no closer than the point where the nominal glide path is at a height of 180ft above the runway threshold - see LAAG/10/A - paragraph 7.28 and LAAG/10/D Appendix 27

¹⁷⁹ To make good the 180ft there are three options (i) displace the landing threshold, (ii) dig up the localiser aerial and move it so that the intercept point is further out and (iii) move the glideslope aerial so that the intercept point is raised.

(200) In Mr Maskens EIC he claimed that LAA would solve the problem of having to meet the 180ft intercept height by asking the CAA to raise the Reference Datum Point (RDH)¹⁸⁰ to 65.9ft. As Mr Spaven shows, an RDH of 65.9 ft is unacceptable as it does not conform to ICAO 10 recommendations¹⁸¹.

(201) Since there are no options available to meet the 180ft intercept height criterion by adjusting the RDH, LAA must compensate, as mentioned earlier, by displacing the designated runway threshold which means the Declared Landing Distance available will be less than the 1799m extended runway, or by moving the localiser aerial. Since the localiser aerial is located either on or close to the SSSI and SAC, moving it could require additional assessment work which the airport has not done.

(202) **Summary and Conclusions**

- i. Despite adding another aviation witness during the inquiry, LAA was unable to disprove LAAG's contention that LAA has serious operational constraints which have implications for the economic and nuclear safety cases.
- ii. The practices which Lydd Airport is proposing, in order to facilitate commercial air transport expansion which is the purpose of these two planning applications, are:
 - i. without precedent
 - ii. contrary to standard aviation practice
 - iii. contrary to ICAO, European and CAA Recommendations
 - iv. not supported by any statement from the CAA, the regulator of aviation safety in the UK.

Nuclear Safety

LAAG's position

(203) LAAG'S fundamental position is that approval of these plans would set up an inherently unsafe situation by introducing large aircraft taking off, landing and performing low level manoeuvres close to a nuclear site - bearing in mind that LAA and the power stations are separated by a major wetlands reserve and located under one of the largest migratory bird routes in Southern England

¹⁸⁰ Ht in feet of the glideslope above the threshold of the runway - see LAAG/10/H paragraph 2.3 (b)

¹⁸¹ Ibid paragraphs 2.9 & 2.10

(204) However much one tries to finesse and favourably interpret the historic data, expansion is **inherently** unsafe¹⁸² which is contrary to HSE guidelines. As British Energy noted in its letter to SDC: *‘The large scale increase in air traffic around the site is a risk that should be sensibly avoided in the local and wider public interest’*¹⁸³.

Background

(205) It is important for the SOS to appreciate that LAAG represents an area where the majority of people support nuclear power. Indeed, many LAAG members are either, working at the Dungeness A and B power stations, or have retired after years of service, a number having operated at senior management level. These knowledgeable people are united in their concern about the safety aspects of LAA’s development.

(206) LAAG has argued elsewhere that these planning applications should be refused as the airport’s fundamental constraints prevent it from being competitive, which means it will not achieve a throughput of 500,000 ppa and therefore its forecast economic benefits will not materialise. However, in the case of nuclear safety, the SOS must consider the worst case scenario due to the longevity of the infrastructure at both LAA and Dungeness and the severity of the outcome should an accident occur.

(207) In fact the ONR argued that the nuclear safety assessment should be made up to 2Mppa¹⁸⁴, given that this is LAA’s clearly stated Master Plan intention; in addition EDF/British Energy conducted its safety assessment on this basis¹⁸⁵. LAA’s infrastructure will be in place for generations, while nuclear power stations have a life of 60 years or more, with long decommissioning periods thereafter where the risk to the public from radiological release remains.

(208) It is of great concern to LAAG that nuclear safety was not considered to be a prime matter for consideration by the SOS. The Government of the South East Office (GOSE) raised nuclear safety as a concern in its original draft recommendation, having carefully analysed 14,000 letters and technical reports which opposed these expansion plans. However, GOSE’s concerns were edited out of later revisions on an assumption that the nuclear regulator’s view must be correct and that its position automatically takes priority¹⁸⁶.

(209) Our evidence¹⁸⁷ proves that the nuclear regulator was misinformed when he took his decision not to object and that his decision has been

¹⁸² LAAG/3/J paragraphs 8&9

¹⁸³ LAAG/3/B letter 6 - page 3

¹⁸⁴ LAAG/3/B - Letter 3 note 1

¹⁸⁵ See LAAG/3/B Appendix 1, letter 1 page 3, second paragraph

¹⁸⁶ LAAG/3/A - Section 6

¹⁸⁷ LAAG had four witnesses supporting its nuclear case: John Large of Large & Associates, Dr David Pitfield, Transport Studies Unit, Loughborough University, Malcolm Spaven, Spaven Consulting and Mrs Trudy Auty an independent consultant with over 25 years of industrial experience

overtaken by events. The SOS should not, therefore, place any weight on the ONR's decision as it is outdated and has been invalidated by the evidence which has been brought to this inquiry.

(210) Furthermore, the SOS should be aware that the ONR has persistently resisted disclosing the details of its quantitative¹⁸⁸ safety assessment of Dungeness B. It cannot be argued that this is for security reasons as the information required to undertake the assessment is in the public domain.

(211) LAAG believes that the ONR has not complied with Article 8 of the Directive (2009/71/EURATOM) which was incorporated into UK law on July 22nd 2011 which states that: *Member States shall ensure that information in relation to the regulation of nuclear safety is made available to the workers and the general public*¹⁸⁹

What is the nuclear decision

(212) The SOS must consider the extent to which airport expansion would **irreversibly** increase the risk of a large scale nuclear accident and whether this increase is acceptable to society.

(213) All parties at the inquiry agree that risk is defined as the probability of an event weighted by the severity of the consequences¹⁹⁰. Therefore, the SOS must consider the extent to which approving these plans increases each of these factors individually and in combination.

(214) Given the intolerable outcome of a large aircraft crashing onto the nuclear site, the SOS must have absolute confidence in the integrity and completeness of any risk assessment¹⁹¹ and the ability of the various stakeholders to provide long term control of this inherently unsafe situation.

(215) This closing statement first looks at the step change in the consequence of an aircraft collision, then at the step change in the probability of such a catastrophe if this expansion were to take place, and finally, at how these combine to give an unacceptable step change in the risk to the general public.

(216) It demonstrates that a high and unacceptable level of risk would remain long after the existing and future nuclear power stations are closed and that there is no mechanism for controlling this inherently unsafe situation past the snap shot of the public inquiry.

(217) Within this we shall demonstrate that major omissions have been made with regard to all aspects of the risk assessment process, that the

¹⁸⁸ Figures have been heavily redacted in FOI material and letters of explanation have been qualitative.

¹⁸⁹ See in full -LAA/8/B - Appendix 5 - See also ENSREG February 2011 - <http://www.ensreg.eu/transparency-and-social-involvement>

¹⁹⁰ LAA/3/A para. 24 and LAA/15/F - Appendix 1 paragraph 7

¹⁹¹ LAA/4/A paragraph 187

probabilistic methodology of risk assessment is flawed, and as a result of more recent evidence¹⁹², that the ONR has been poorly advised by its consultant, ESR Technology (ESR).

Step change in consequences

- (218) Much of argument put forward by LAA in its attempt to dismiss the nuclear risk was its assertion that any additional risk to the Dungeness nuclear complex arising from future commercial operations of LAA was acceptable, and that such a severely damaging accident would be most unlikely to occur. On this basis LAA would claim that there would be no need to be concerned about the potential radiological consequences.
- (219) LAA persisted with this false argument even after the tragic events at Fukushima Daiichi in Japan. Because of its position on this matter, LAA only put forward Mr David Nicholls as a witness to cover the aspect of probability.
- (220) Mr Nicholls admitted, under cross examination, that he has no expertise in the area of radiological consequences. Whilst there was a vague reference to colleagues having looked over his work, he admitted that he is not qualified to judge the radiological outcome of a large aircraft crashing onto the nuclear site. Therefore the SOS should not place weight on any comments from Mr Nicholls in this regard.
- (221) By contrast, Mr Large, LAA's consultant who presented evidence on the nature of the hazards at Dungeness and the consequences of an accident, has both extensive academic and practical field experience over many years¹⁹³.
- (222) ESR, the ONR's technical adviser, acknowledges that the introduction of heavy commercial aircraft¹⁹⁴ in the vicinity of Dungeness has the potential to cause a **large** radiological release¹⁹⁵. It specifically stated in the opening paragraph of ESR's 2007 report that:
*"The assessment of the aircraft impact that supports the current safety case considers the risk of a **large** radiological release as a*

¹⁹² CD13.9, CD 13.10, LAA/15/5.1- collectively named the ESR reports. Obtained as a result of protracted FOI requests

¹⁹³ As a full-time member of the academic research and teaching staff at Brunel University, Mr Large undertook applications research in the nuclear area on behalf of the UK Atomic Energy Authority and other government agencies. In the early 1990s he established the consulting engineers, Large & Associates, a firm that provides specialist analysis and advice on nuclear related activities, including the development, deployment, transportation and storage of nuclear warheads and weapons systems (CD3.2 (LAA) Appendix 8, paragraph 4)

¹⁹⁴ See CD 13.9 page 2 - a poorly redacted version of this report identifies the exact definition as - heavy military and commercial transport aircraft - *The risk relates to the impact of heavy military and commercial transport aircraft causing direct mechanical damage to the bioshield and fuelling machine.*

¹⁹⁵ Ibid - first paragraph - second line

result of an aircraft impact with the pressure boundary causing a significant breach of the pressure boundary.” Adding: “The risk [of significant radiological release] relates to the impact of heavy military and commercial transport aircraft causing direct mechanical damage to the bioshield and fuelling machine.”

(223) Mr Nicholls tried to suggest that the nuclear risk assessment covered a wide range of radiological outcomes. That Mr Nicholls obtained a **generalised** statement from an ONR staff member saying ‘**significant radiological release does not necessary mean severe**’ is irrelevant. The technical consultants who did the work in this case make clear that **this particular assessment** considers the risk of a **large** radiological release caused by **heavy (i.e. >5.7 tonnes)** aircraft crashing onto the critical areas of the nuclear site.

(224) By contrast, with regard to light aircraft operating from LAA, this ESR report goes on to say:

‘Essentially this latter case is based on a light aircraft crash impact being insufficient to cause significant direct damage¹⁹⁶ and any damage to other safety critical systems being sufficiently localised and subject to sufficient protection in order for a significant radiological release to be avoided’

(225) This confirms that the presence and number of light aircraft, which represent 99% of current LAA activity¹⁹⁷, are irrelevant in assessing the increased risk posed by this expansion as it is assumed that they make no contribution to the probability of a large radiological release.

(226) As the collision energy imparted relates to the mass and impact velocity of the aircraft, the SOS must appreciate that approval of these plans introduces a step change in the ‘consequence’ element of the risk assessment as it introduces regularly scheduled Boeing 737s and A320s into the aircraft mix compared to the light aircraft which dominate activity today.

(227) Despite this admission, there has been no analysis by the ONR¹⁹⁸ of the structural vulnerability of Dungeness A and Dungeness B to an aircraft accident, nor has there been an analysis of the consequences¹⁹⁹ of such an accident in terms of the potential number of deaths, both direct and indirect and the extent of the geographical impact in the UK and elsewhere.

(228) Mr Large demonstrated that this is unacceptable since both the Dungeness A and Dungeness B designs predate any regulatory necessity

¹⁹⁶ Text is redacted

¹⁹⁷ Currently representing 99% of movements - see CD 4.4 (LAA) - paragraphs 3.15 & 3.16

¹⁹⁸ LAA/4/A paragraph 137

¹⁹⁹ LAAG/4/A paragraphs 99-148 - for vulnerability & consequences - see Table 3 - page 24-27.. Mr Large has also given an indication of the consequences (radioactive dispersion) of a Fukushima type accident at Dungeness in LAAG/116

to take into account the possibility of crashes of large commercial-sized aircraft²⁰⁰.

- (229) Similarly, the ONR has failed to take account of the handling of intensely radioactive spent fuel²⁰¹ at the remote railhead at Dungeness. The railway line passes 200m from the end of the runway, yet there has been no assessment of the train or railheads vulnerability to an aircraft crash or an assessment of the consequences²⁰², should such an event occur²⁰³.
- (230) In a letter to residents²⁰⁴, dated September, 2009, ONR explains that it did not evaluate the potential consequences of an accident because it viewed the probability of this event to be “so low”.
- (231) This rationale is perverse.
- (232) As Ms Auty, who has over 25 years experience in managing complex technical programmes, points out, the starting point of any risk assessment is to establish the magnitude of the consequences and from this to determine the allowable frequency. If the outcome is too extreme, there maybe a need to reduce the probability to zero. So it is the **outcome** which is the driver for frequency, not the other way around.
- (233) It is also perverse and inappropriate to assume that the increasing level of accident damage severity is somehow inextricably linked to the reducing risk of occurrence of accident frequency - this is the assumption underpinning the logic of the ONR’s September 2009 letter.
- (234) Finally, the SOS should be aware that **the situation has changed** as the ONR is being forced to assess the potential outcome of such an event at both Dungeness A and Dungeness B following the nuclear disaster which occurred in Fukushima earlier this year, a point we shall return to later.
- (235) In the absence of an assessment from the ONR, Mr Large provided examples of consequence assessments from other sites, including Sizewell B which shows that the number of immediate deaths could be measured in **thousands** and the number of long term deaths from cancer measured in **tens of thousands**²⁰⁵. So the SOS should be in no doubt of the scale of nuclear accident which would be facilitated, were he to pass these plans.

²⁰⁰ LAAG/4/A - paragraphs 100 & 101

²⁰¹ In the future possibly radioactive waste

²⁰² LAAG/4/A - Table 3 - Scenarios 9 & 10 - pages 26 & 27

²⁰³ See LAAG/4/I - paragraph 54

²⁰⁴ LAAG/3/B - Appendix 1, letter 2, page 2 - A3 - last sentence of first paragraph

²⁰⁵ LAAG 4A, paragraph 141 and associated footnote 69)

Dungeness A now considered more dangerous than Dungeness B

- (236) Dungeness B is scheduled to cease power generation in 2018 but could gain a 5 to 10 year life extension. It is accepted that there are hazards and risks for this operational plant, which unlike the disused Dungeness A plant, has been subject to a risk assessment because of its twin nuclear reactors and the large volumes of highly irradiated (spent) fuel under store at the site.
- (237) More importantly, the SOS should be aware that the ONR has, reversed its view on the threat posed by Dungeness A during the course of this inquiry. It now perceives that this older Magnox station presents an even greater hazard than the active AGR station, Dungeness B.
- (238) This is because the decommissioning timetable has slipped which means approximately 50% of the intensely radioactive fuel remains in the reactors and that the more exposed²⁰⁶ fuel ponds remain full²⁰⁷.
- (239) This remarkable U turn was brought to light via evidence which Mr Nicholls submitted to the inquiry in May 2011.
- (240) In its response to the planning application in November 2007²⁰⁸, ONR dismissed Dungeness A on a prediction that de-fuelling would be complete by March 2011 and would not overlap with LAA's development. On this basis the increased risk was considered to be negligible²⁰⁹, a reasoning which is flawed as it fails to consider the long term hazard posed by these early reactors.
- (241) Even as late as January of this year, just days before the inquiry commenced, the ONR wrote to Mr John Large stating:
'The risks have not been quantified numerically. Instead, the qualitative judgement on Dungeness A is based on the principle that risk at this station, in its current shutdown state is greatly reduced, compared to levels of risk at the station in an operational state (when risks were fully quantified)..... Further, Dungeness A, in its partially defueled, shutdown state, is judged to present less risk than Dungeness B, which is still operational and where the risk has been quantified²¹⁰.
- (242) Yet two months later, in March 2011, ONR had a complete reversal of opinion, when it confessed to Mr Nicholls that:
HSE therefore considers the hazard to be greater from Dungeness A than from Dungeness B, even though the "A" station is shut down and depressurised²¹¹.

²⁰⁶ Ibid - point 2

²⁰⁷ The time table for de-fuelling is uncertain so that fuel could remain on site for many years

²⁰⁸ CD 13.4 (LAAG)

²⁰⁹ LAAG/4/H - Appendix 1 - Page 4 - second paragraph

²¹⁰ Appendix 9, LAAG/4/J

²¹¹ LAA/15/F Appendix 18, point 3

- (243) Mr Large concurs with ONR's more recent assessment that the risk posed by Dungeness A is higher than that posed by the operational B station. In his evidence, he explained that this is due to the unstable nature of the intensely radioactive spent fuel used in the first generation British Magnox nuclear power stations²¹².
- (244) That the ONR could reverse its opinion within a two month period, with different individuals projecting diametrically opposed views on the risk posed by these old reactors, means the SOS can have little confidence in the ONR's co-ordination or comprehension of this case.
- (245) However, the fact remains that this constitutes a major change in ONR's position which was not considered at the time it took its decision not to object to LAA's planning application. LAAG does not see how the SOS can determine these plans unless and until a full nuclear safety assessment of Dungeness A has been provided, given its potential impact on public safety.

Longevity of risk

- (246) If it is LAA's intention to suggest that, by the time it reaches the alleged throughput of its developed case there will only be a small residual risk, the SOS needs to appreciate that this postulation is wrong on a number of levels.
- (247) Firstly, whilst Dungeness B is scheduled to cease power generation in 2018, the SOS will be aware that commercial pressures could easily extend its operation by up to 10 years
- (248) Secondly, as Mr Large has revealed, for as long as Dungeness A and Dungeness B remain on site, even when shut down and with all of the spent fuel removed off-site, they will continue to present a radiological risk throughout the extended 100 year or so decommissioning phase.
- (249) This is because of the amount of radioactive and other hazardous substances on site, plus the vulnerability of certain irradiated and contaminated parts of the plant to aircraft impact²¹³. These structures will remain a hazard until they too are removed from the site.
- (250) Further, although both Dungeness A and Dungeness B will remain hazardous after ceasing power generation and being fully de-fuelled, it is possible that Dungeness A will still be considered the greater hazard

²¹² As John Large explained in great detail in his EIC, not only is the fuel clad in pyrophoric magnesium alloy (ie Magnox) but the elemental uranium metal fuel pin of each fuel rod will fiercely burn if exposed to air. The combination of exposure to air, the rapid formation of hydrides on any exposed uranium surface, and the self-heating radioactive decay of the spent fuel, is likely to result in spontaneous ignition at ambient temperatures. When alight and burning fiercely, the Magnox fuel liberates microscopic oxide particles that are freely windborne and readily respired into the human metabolism, with the consequential short- interim - and longer term radiological health consequences.

²¹³ LAAG/4/A - 19-75 - see also CD3.2 - Appendix 8, paragraphs 31-35=

because of the very large amount of Wigner Energy²¹⁴ stored in its twin graphite moderator cores, a feature that is not an issue at Dungeness B.

- (251) If the Wigner Energy is released - for example, as a result of the impact of an aircraft crash - it stimulates the release of radioactive particles and residual fission products trapped in the graphite core. Such an uncontrolled release to the atmosphere would be sufficient to cause a severe radiological incident with the potential of causing over 100 deaths.
- (252) Further, during decommissioning, there will not be a simple progressive reduction in risk over time as material is moved off site. For both Dungeness A and B power stations, the pattern of risk and hazard is likely to change significantly during the decommissioning period with some periods being more hazardous²¹⁵ than others, particularly when the reactor cores and operational radioactive waste silos²¹⁶ are being adapted for removal.
- (253) The SOS should also be aware that the bodies responsible for Dungeness A and Dungeness B decommissioning²¹⁷, have not determined a final decommissioning strategy for each power station. Therefore, it is possible that considerable volumes of decommissioning waste will remain on site for the next 50-100 years.²¹⁸
- (254) Equally, in relation to the de-fuelling of Dungeness A and Dungeness B, there remains uncertainty over the timing of fuel removal from the Dungeness site because of storage problems at Sellafield²¹⁹.
- (255) Thirdly, the recent NPS statement on Dungeness C includes an invitation to file additional information on the environmental impact with a view to ascertaining whether this environmental constraint could be overcome. Therefore Dungeness C remains a possibility²²⁰. LAAG's view is that the presence of an expanded LAA would jeopardise this opportunity for long term sustainable employment, but if it were to be approved, then it is likely that construction would begin nearer the end of LAA's forecasting horizon²²¹.
- (256) Although the new reactor will be designed with considerably more structural resilience than Dungeness A and Dungeness B, it is not possible to proof it against aircraft crash²²². Moreover, the presence of a new reactor will increase the probability of an accident because of the increased crash target area, while should an accident occur, the

²¹⁴ LAAG/4/D - paragraph 54

²¹⁵ See LAAG/4/A - paragraph 47 and 48 - also table 3 page 63

²¹⁶ Separate from the spent fuel

²¹⁷ The Nuclear Decommissioning Authority and EDF British Energy respectively

²¹⁸ LAAG/4/A - footnote 31 - page 14

²¹⁹ LAAG/4/D - para 53

²²⁰ LAAG/8/A - paragraphs 8.3.2

²²¹ 2030

²²² LAAG/4/A - paragraph 197

radiological consequences will be far greater as Mr Large highlighted in proceedings.²²³

(257) Against this background, any arguments put forward by LAA which claim that the protracted period for the build up in passenger numbers to 500,000ppa will mean LAA will fall outside the period in which the Dungeness site is considered hazardous, can be dismissed because the Dungeness site will remain hazardous for 100 years or more²²⁴ after LAA reaches its 500,000ppa objective.

Step change in probability of a large radiological release

(258) The industry's analysis of the acceptability of these planning applications has been based solely on the probability of a crash occurring at Dungeness as a result of aircraft taking off and landing at LAA and determining whether this risk, coupled with the background or non airport risk can be classed as insufficiently remote to be "acceptable". This assessment has only been made in relation to Dungeness B²²⁵, despite Dungeness A now representing the greater hazard.

Assessment criteria

(259) To comment on the probability element of risk, one must first understand the assessment criteria. LAAG's overall position remains that, as the assessment model is not fit for purpose²²⁶ then comparing its outcome with ONR's safety markers has no meaning. Ms Auty, who has many years of industrial management experience, notes that in practice one would never rely on a model which cannot accurately predict frequency when the consequences are so extreme. One would seek a solution which eliminates the uncertainty. That is the only robust and common sense approach.

(260) That said, Ms Auty's note to the inquiry²²⁷ demonstrates that Mr Nicholls own numerical assessment would lead to an objection when measured against the thresholds and guidelines which the ONR applied to this case.

(261) Mr Nicholls tries to argue that the probability is below a tolerability criterion, of 1 in 100,000, which he has adopted²²⁸. Mr Nicholls freely admits that this safety marker is based on his own, personal interpretation of ONR guidelines and is not endorsed by HSE.

²²³ LAAG/4/A –footnote 28

²²⁴ The present timescales being promoted by the Nuclear Decommissioning Agency stretch to 150 years or thereabouts.

²²⁵ Again confirmed in Appendix 9, LAAG/4/J - second last sentence.

²²⁶ Acknowledged by ESR in its 2009 report

²²⁷ Reference LAAG/3/H

²²⁸ LAA/15/D paragraph 2.12

- (262) The SOS should be aware that Mr Nicholl's interpretation is incorrect as the ESR report clearly states a 1 in 10 million chance of a large radiological release per year as the threshold which it applied to their Dungeness B nuclear safety assessment²²⁹.
- (263) Moreover, as Ms Auty explained in her note to the inquiry that if the risks are greater than 1 in 10 million²³⁰ the emphasis is on actively which reduces risk, whereas this application increases risk.
- (264) This is consistent with ONR's safety guidance which says, where there is a choice, *The option or combination of options which achieves the lowest level of residual risk should be implemented provided that disproportionate costs are not incurred*²³¹.
- (265) In contrast, Mr Nicholls would have the SOS apply a safety marker of only one in 100,000. Put into context, this means that the SOS would be asking the general public to accept that they could be 100 times more likely to experience the outcome of a large aircraft crashing onto the nuclear site each year, than winning the lottery ticket on a Saturday night²³².
- (266) It is hard to see how the SOS could justify these odds to society set against the backdrop of Fukushima which has reminded us that large scale nuclear accidents can and indeed do happen.
- (267) The SOS should be aware that a one in ten million safety threshold is in itself, too lax. This is because the ONR failed to review and reduce the allowable frequencies in light of the intolerable consequences and known deficiencies in its modelling²³³. This was a requirement under paragraph 51 of its Numerical Targets guidelines which state
In the case of accidents where the consequences are very much greater than target 9 [100 fatalities] then there may be a need to demonstrate correspondingly lower predicted frequencies of occurrence.
- (268) Letters from the Principal Nuclear Installations Inspector, submitted to this inquiry²³⁴, confirm that the ONR regarded a large aircraft crash onto the Dungeness nuclear site as having the potential for its highest category, target 9, accident resulting in more than 100 deaths, yet it failed to carry out this due process.
- (269) Moreover, LAAG believes ESR should have provided a robust health warning when presenting its quantitative analysis to the ONR, and

²²⁹ CD 13.9 page 2 - 4th sentence from top of page

²³⁰ The Basic Safety Objective

²³¹ LAAG 3/I/ paragraph 4.3. Extract from ONR guidance on ALARP, paragraph 50

²³² 1 in 14 million

²³³ ESRT 200, 2008, 2009 and 2010 reports acknowledges that the Byrne model is unable to represent the curved/non aligned flight paths and other site specific factors which prevail at LAA.

²³⁴ LAA/3/B, Appendix 1 letter 1

furthermore, recommended an adjustment to these thresholds to take account of the uncertainty in the methodology. There is no evidence that it gave such advice.

ONR was misinformed when it made its decision

(270) Mr Village raised an important point during his cross examination of LAAG's nuclear witnesses. He repeatedly asked whether ONR had seen the various ESR reports from which he tried to draw inference than the nuclear regulator was, therefore, informed and aware of the issues which LAAG witnesses had raised. This inference is wrong.

(271) However, LAAG agrees that it is important for the SOS to understand what the ONR misunderstood, or was not aware of, at the time it took its decision not to object, and we give the following examples

Example 1: Incremental Risk is over 1,000 times that which the NII understood at the time it formed a view

(272) The ONR's briefing document for DECC dated December, 2008²³⁵, states that expansion would result in only a 7% increase in the probability of a large radiological release derived from Lydd based traffic, compared with the 'current situation'. It further implies that this increment relates to the 2Mppa of LAA's master plan.

(273) These statements are incorrect and grossly misleading to the inquiry. The ONR could not possibly have achieved this small differential by comparing the **actual** current situation with 2mppa as this briefing note seeks to suggest. It is a mathematical impossibility.

(274). The **fact** which all parties at this inquiry have signed up to is that LAA currently operates only 234 hazardous movements per year. Therefore, approval of these plans increases the probability of a large radiological release by circa 35 times the current situation for the developed case, rising to over 100 times if LAA were to achieve its master plan²³⁶ - **not** 7% as the ONR was led to believe.

(275) This is a step change not a small increment. It means the probability of a collision is, at the very least, **well over a thousand times greater**²³⁷ than the ONR's understanding at the time it took a decision not to object. This

²³⁵ LAA/4/H - Appendix 1 - table at bottom of page 4

²³⁶ The figures based on frequency of hazardous flights alone would be 40 and 140 respectively, however applying the Byrne model's reliability coefficient decreases these multipliers slightly. LAAG believes these coefficients, which represent the average reliability of large and small aircraft, are too simplistic in this case as they do not reflect the fact that large aircraft movements will be more constrained than small ones; therefore it is inappropriate apply the average figures for each category. However, the overriding point is that is that development brings a step change in the risk, not a small percentage increase which the ONR perceived.

²³⁷ NII assumed only a 6.7 % increase due to Lydd based traffic which it claimed corresponded to 2Mppa. In fact there would be a 110 x increase at 2mppa i.e. $110/0.06 = 1,600$ times greater than the NII's perception. This is before the other underestimates listed in this closing statement are considered.

changes the entire backdrop to this case. The ONR's position has been invalidated by the revelation that its assumptions were three orders of magnitude too low at the time it formed a view²³⁸.

(276) Equally, for EDF/British Energy to suggest that the increased risk would be small, makes clear that they were labouring under the same misapprehension. This adds even more weight to British Energy's view that this is an unnecessary risk which should be sensibly avoided in the interests of public safety.

Example 2: ONR misunderstood the basis of the assessment

(277) In the DECC²³⁹ briefing document, the ONR states that, whilst there will be an increase in the number of larger commercial aircraft, there will be a significant decrease in the number of light aircraft and helicopters using the airport. It suggested that these factors will offset each other so that the overall risk to the Dungeness licensed site posed by air traffic using LAA, will remain unchanged.

(278) This is wrong and raises concerns about the comprehension of those at ONR who were assigned to pass judgement on this case. The ESR risk assessment is based solely on "heavy military and commercial transport aircraft". Light aircraft were not included on grounds that they do not have sufficient impact to cause a significant radiological release. Therefore, any perceived decrease in light aircraft activity²⁴⁰ cannot be used to offset the increased risk posed by larger aircraft categories as the light airport movements are irrelevant.

(279) The fact that ONR made such a perverse statement implies that it does not understand the workings of its own technical advisor. This is a wholly unacceptable situation²⁴¹ as it means that ONR went on to misinform DECC on the scale of risk posed by these proposed planning applications.

Example 3 - underestimation of target size

(280) As ESR derived a crash rate by multiplying a 'crash rate per square metre' by an 'effective target size', it follows that the choice of target

²³⁸ Worse still, in its updated assessment of January 2011, NII's (LAAG/4/J -Appendix 9) ONR/ESR modified these figures to show a remarkable 20% decrease in the probability of a large radiological release derived from Lydd based traffic. Again the NII presents this change as corresponding to LAA's 2Mppa master plan which is wrong and grossly misleading to the inquiry. It demonstrates that, even in 2011, the NII is still labouring under the misapprehension that expansion results in only a small differential when the facts show that it would introduce a step change in the increased risk of large radiological release posed by Lydd based traffic.

²³⁹ Appendix 1 - LAAG/4/H - page 4 last paragraph and page 5, 1st paragraph

²⁴⁰ In any event the offset claim is invalid as light aircraft figures increase, rather than decrease, under the developed case. LAAG/10/E - 7.1- 7.7. Note, Ms Congdon has 75/76 movements per day for her revised forecasts - LAAG/4/G - Table 2.1 page 7

²⁴¹ Through the numbers that are available in the 2007 ESR Report (CD 13.9) Mrs Auty has been able to relate the out put from report to the figures in the DECC briefing note (LAAG/4/H) Appendix 1, page 4

size has a huge leverage on the crash rate predictions. It can affect the outcome by orders of magnitude. This has the potential to swing it well above any of the safety markers put forward at this inquiry. There are several factors which contribute to the effective target size:

- (281) Firstly, the area which critical buildings present to an approaching aircraft. It is possible to deduce from the reports that the target size which ESR applied is many times smaller than that used by all other contributors. It is not understood how the ESR justifies this figure but clearly it results in the presentation of an overly optimistic case.
- (282) Secondly skidding: it is clear that, despite making a reference to skidding in ESR's 2007 report, no allowance for this phenomenon was made in the final numerical assessment which ONR used to justify its decision not to object.
- (283) ESR's 2007 report notes that even a conservative estimate of the potential skid distance has the potential to increase the target area, and hence probability of a large radiological release, by a factor of ten. Taking the full potential skid distance increases the target area still further²⁴².
- (284) Further, quasi-skidding situations in which an aircraft flies low across the ground in a desperate attempt to keep airborne were admitted under XX by LAA's aviation witness, Mr Roberts. This increases the potential for an aircraft in trouble to cover significant ground as it tries to recover its flight.
- (285) Thirdly, fuel fires²⁴³: the ESR reports make no reference whatsoever to fuel fires despite the Byrne model requiring these to be considered²⁴⁴.
- (286) The ESR 2007 report refers to the fact that skidding may be partially mitigated by the presence of non critical buildings on the site. However, it fails to point out that, whilst collision with a non critical building might arrest a skidding aircraft, this action could result in an equally devastating fuel fire. Either way it requires the application of a much larger target size to the assessment resulting in a much higher probability of a large radiological release.
- (287) Fourthly, the assessment was confined to Dungeness B and excluded Dungeness A which means the overall target was too small.

²⁴² CD 13.9, para 5.2.2

²⁴³(LAAG 3H, paragraph 2.10 (c))

²⁴⁴ Required by the Byrne Model. In fact the model suggests that if the probability of an aircraft collision is low then there is no need to consider fuel fires. This is a ridiculous and circular argument. The effect of considering fuel fires is to increase the target area under consideration which, in turn, increases the probability of a large radiological release. The increase could be some orders of magnitude. Therefore unless you consider the effect of fuel fires then you cannot say whether or not the probability is low, given the huge leveraging effect which this has on target size.

(288) Therefore, the ONR was misinformed at the time it took its decision not to object as ESR failed to extend the target area to account for these overriding factors.

Example 4: Byrne methodology underestimates the risk posed by Lydd based traffic

(289) We now address the efficacy of the twenty year old Byrne model which has been the basis of the Dungeness B safety assessment. This is crash rate based and relies heavily on comparisons with background risk. The ONR goes on to reason that, if the incremental risk posed by development at the airport is small, it has no grounds to object, which is the conclusion it reached based on ESR's technical reports.

(290) LAAG disputes this conclusion because the background comparator is unreliable and has been overestimated²⁴⁵ while the more relevant airport risk is significantly underestimated.

(291) Moreover, as Dr Pitfield has shown²⁴⁶, this methodology is incapable of accounting for the type of complex circumstances applicable at LAA. It therefore seriously underestimates the possibility of an airborne accident at Dungeness as a result of aircraft taking off and landing from LAA.

(292) As Mr Large says, *if extreme events over which the NPP operator has no control ... are to be discounted on probability alone, then the basis of that judgement must be absolutely indisputable*²⁴⁷.

(293) ESR has repeatedly cautioned the regulator that the standard model is inadequate and unable to cope with the specifics of this case. Both its 2008 and 2009 reports recommend the development of a new model, one which does not rely on analysing historical crash rate data as ESR admits that this will always carry the same, inherent limitations.

(294) In the absence of a new model, in its 2009 report, ESR attempts to overcome these shortfalls by adopting a "sticking plaster" approach²⁴⁸ using a range of different models. The SOS should be aware that none of the additional models are any better developed than the original, all having been conceived in the early nineties. Indeed, only eighteen months before, ESR had dismissed them as inadequate²⁴⁹.

(295) Moreover, ESR admits in its October 2010 report that the failure of the Byrne model to account for site specific factors means that its

²⁴⁵ LAA/3/A - paragraphs 48-53, LAAG/3/E paragraphs 67-79 and LAAG/3/G

²⁴⁶ LAAG/5/A - Paragraph 6.1

²⁴⁷ LAAG/4/A paragraph 187

²⁴⁸ CD13.10 - para 3.2.3

²⁴⁹ CD13.9 - page 15 - bottom of third paragraph - "*Some models have attempted to take account of curved flight paths but there are technical difficulties associated with the approaches employed and doubts about their validity*".

assessment may have underestimated the risk. However, it states that it **did not have the resource** for any further numerical assessment²⁵⁰. So the SOS should be under no illusion that the nuclear assessment is in anyway representative or complete.

Some examples of how this model has underestimated the risk are given below

Not able to deal with non-aligned/curved flight paths

(296) The model is incapable of dealing with non-aligned or curved flight paths²⁵¹. This is a serious shortfall since these types of flight procedures²⁵² are a major feature at LAA as Mr Spaven has highlighted in his evidence. When the Lydd Range is active and the wind favours runway 03, the only available instrument approach to LAA involves a curved flight path. Furthermore, all the other instrument approaches to LAA require a final flight path which is not aligned with the runway.

Not able to assess runway 21 approach risk

(297) A cut off point at 3.25 km beyond the runway, means that the numerical assessment has failed to consider any landings on runway 21, putting them all to zero. ESR admits this truncation is a limitation. David Pitfield demonstrated to the inquiry that in fact 1 in 6 crashes occur beyond this point which means the model is not fit for purpose.

(298) Since Runway 21 would account for ~95%²⁵³ of total commercial air transport landing movements at LAA, this means there has been no account of the risks associated with LAA's most active runway direction in ESR's risk assessment.

(299) Furthermore, in its 2007 report, ESR states that, if it can be proven that there are a higher number of go-arounds at LAA, then the standard model will underestimate the probability of a large radiological release²⁵⁴.

(300) In fact the CAA's director of safety regulations confirmed in writing that the **combination** of conditions at LAA is conducive to a higher number of go-arounds from runway 21²⁵⁵. This was supported

²⁵⁰ LAA/15/F.1 Page 2 - point 2.2 (October 2010 report)

²⁵¹ See CD 13.9 - page 15 - third paragraph plus CD 13.10 - 3.2.1 and first two paragraphs of 3.2.2

²⁵² 5 degree offset ILS to runway 21, 14 degree offset RNAV approaches to runway 21, 5 degree offset RNAV approach to runway 03 and circling approaches to runway 21 - see LAAG/10/A and LAAG/10/E

²⁵³ This assumes that both Category 1 & Category 2 aircraft will land on runway 21 when the Lydd Range is active and the wind favours runway 03 -ie Category 2 aircraft as well as Category 1 will be incapable of doing a circling approach in accord with Mr Spaven's belief..

²⁵⁴ Because a failed go around has the potential of carrying the aircraft closer to the nuclear site and hence a higher probability that, if there is a crash, it is in the area of the nuclear power stations. See LAAG/3/B, Appendix 1, letter 4, top of page 2

by both Mr Spaven and Mr Roberts at this inquiry. This implies that the model would have underestimated the risk posed by go-arounds **had they been counted.**

- (301) Worse still, ESR fails to recognise that by artificially putting all of the landings on runway 21 to zero, it has in turn, put all of the go-arounds to zero. Therefore **none** of these movements, which have the potential to carry the aircraft closer to the nuclear site have been considered. It is not just a case of underestimating the risk, it is that these movements are completely missing from the assessment.
- (302) The SOS should be clear why go-arounds increase the probability of a nuclear accident as LAA's witnesses have thrown up a considerable amount of chaff in this area. LAAG witnesses are not asserting that a go around is **necessarily** more dangerous than a normal landing²⁵⁶. The relevance to this case is that a go-around, in particular a failed go around, has the potential to carry the aircraft closer to the power stations than would be the case for a normal landing. So if an aircraft crash were to occur, it is more likely to be on to the nuclear site.
- (303) Indeed, this leads onto a principle failing of the model which is that it assigns the same probability weighting to all flight movements. Whilst manoeuvres such as go-arounds from runway 21 and landings on runway 03 may be relatively infrequent the probability of that manoeuvre culminating in a collision onto the nuclear power station is significantly higher; yet the model has no way of numerically assessing this higher risk profile, and in the case of LAA, go-arounds are not assessed at all.

Not able to account for birdstrike

- (304) The model cannot account for birdstrike - not even on a notional average basis for LAA as claimed by ESR²⁵⁷ - since the risks associated with the dominant runway 21 approaches are excluded, for the reasons outlined above.
- (305) The 2010²⁵⁸ ESR report addressed the issue of above average bird strike risk at LAA but its assessment is flawed. It relies on a 'back of the envelope' estimate which tries to relate the probability of a crash at Lydd to the number of crashes which have occurred due to birdstrike elsewhere in the UK. This approach is invalid as all parties agree²⁵⁹ with

²⁵⁶ The Director of Safety Regulations acknowledges that pilots have less practise of the go-around manoeuvre (LAAG/3/B, Appendix 1, letter 4, page 2). Since practice makes perfect, one could deduce that they must inevitably carry some higher level of risk. Indeed Captain Chapman does not dispute this when he admits that no study on increased risk of a go around has been undertaken.

²⁵⁷ LAAG/15/F.1 - page 8 - paragraph 1

²⁵⁸ LAA/15/F.1 - coves two documents - the first dated 22 October 2010 and the second April 2010. The numerical work

²⁵⁹ This is acknowledged by ESR (LAA/15/F. - page 9, last paragraph) and LAA's consultant Mr Deakin.

the CAA's statement²⁶⁰ that '*There is no proven mathematical model relating to the probability of a birdstrike incident at a given airport*'. If the hazard cannot be mathematically modelled it cannot, de facto, be a subset of any other model.

- (306) Despite ESR acknowledging that bird strike hazard at Lydd cannot be modelled by cross referencing to other airports²⁶¹, and being aware of the CAA's concerns about the increase in bird strike occurrences outside the perimeter of airports²⁶², it failed to make any attempt to understand the bird hazards in the vicinity of Lydd Airport²⁶³.
- (307) Given the enormity of the consequences, a thorough desk top analysis of all the available information on the types of hazardous birds and their movements in the vicinity of LAA and Dungeness should have been carried out so that it could relate bird movements to aircraft flight paths and investigate possible accident scenarios.
- (308) ESR partly justifies its stance on the basis of the historic bird strike record at LAA, which is judged as unexceptional. ESR does not appear to appreciate that the strike rate is low because 99% of current aircraft activity²⁶⁴ at LAA is accounted for by light aircraft which leads to low strike rates because the aircraft are slow and present a small cross section so that birds have the opportunity to avoid them. This is acknowledged by LAA's own evidence²⁶⁵. This will not be the case for larger, more vulnerable jet aircraft under the developed case pursuant to the proposed development.
- (309) The fact remains that LAA's ability to control birds outside its perimeter fence is limited. LAA is separated from the Dungeness site by the RSPB bird reserve which is extensive in its own right and has multiple designations²⁶⁶ which extend bird protection beyond its boundaries. Elsewhere, it has a number of farmers who are hostile to LAA's development.
- (310) Mrs Dear demonstrated in her evidence²⁶⁷ and XX that the western boundary of the RSPB reserve, the SPA and pSPA contains a mosaic of habitats covering a range of birds, including hazardous bird, with very unpredictable behaviour, and that this applies throughout the year. This means that even if it is assumed LAA is free to "control" these birds, their unpredictability would make it very difficult.

²⁶⁰ LAAG/3/B - Appendix 1 - Letter 4 - Note 1

²⁶¹ LAAG/15/F.1 - page 9 last paragraph

²⁶² Ibid 3.3, page 7

²⁶³ Ibid - Page 8, 3rd paragraph

²⁶⁴ CD 4.4(LAA) -

²⁶⁵ CD 1.33D - paragraph 2.1.3 - page 6 (August 2008 supplementary planning information)

²⁶⁶ SPA, pSPA, pRamsar and the bird features of the SSSI

²⁶⁷ NE/103, page 3, point 2 - 2nd and 3rd paragraph and NE/3/A - paragraphs 213-220

- (311) It also appears obvious to LAAG that the tensions between an airport operator needing to control birds, and organisations wishing to preserve birds, particularly where European Habitats are concerned, could lead to safety compromises.
- (312) This is because bird hazard management methods used by LAA must be compatible with the objectives of these European designations or otherwise the development cannot proceed. This suggests that there is unlikely to be the scale of bird control needed to maximise safety at Dungeness²⁶⁸.
- (313) Indeed, the replacement text provided by LAA in the revised Appropriate Assessment, compiled on the evening of March 3rd 2010²⁶⁹ gives a flavour of these compromises. It clearly states that bird hazard management techniques will be curtailed in order to protect the SPA and that this will be written into the Conditions. This is unlikely to be the rigour compatible with maximising safety at Dungeness.
- (314) Other illustrations which point to potential shortfalls in bird hazard management in relation to nuclear safety have arisen during this inquiry. Mr Deakin admitted under XX that Bird Hazard Management Plans are not influenced by features outside the airport. The same techniques would be applied at LAA irrespective of whether there was a furniture warehouse or a nuclear power station at Dungeness.
- (315) Finally, on the issue of bird strike, it is worth highlighting that ESR advocates that if its assessment of bird strike risk is incorrect, the regulator would be forewarned by the crashes that take place at the airport - *it would thus be alerted to the problem before a nuclear catastrophe were to occur*²⁷⁰.
- (316) This is gambling with human lives and the environment and displays contempt for both. It beggars belief given the wide margin of error in ESR's assessments.

ESR does not understand Integrated risk

- (317) The perception that accidents will always be close to the airfield²⁷¹ demonstrates that ESR has not accounted for integrated risk. It has failed to take into account the possibility that a chain of events²⁷² could lead to an accident at Dungeness - for example, a failed go-around, a pilot diverting left to avoid the military range, bird strike and engine failure. This is a serious shortcoming of ESR's analysis.

²⁶⁸ LAAG/3/A paragraphs 78 - 82 and paragraphs 101-111

²⁶⁹ CD 1.53 - paragraph 4.3.11

²⁷⁰ LAAG/15/f.1 - page 9 - second paragraph

²⁷¹ LAA/15/F.1 - page 5 & 9

²⁷² LAA/3/A - paragraph 68-75 - see also LAAG/10/A, paragraphs 6.12-6.19

(318) Indeed, each of the three ESR reports demonstrates this point²⁷³. Risks are rationalised away, one by one, rather than considering how they might interact with each other to create a situation where the total risk is greater than the sum of the parts.

(319) All these factors underline the extent to which airport related risk has been underestimated in this case. Even Mr Nicholls acknowledges that the Byrne model is unable to account for site specific factors²⁷⁴. He made a sweeping assertion that these site specific factors are unlikely to increase the probability of a collision more than 18 times - the figure that would have taken it over his own personal safety marker.

(320) However, this assertion was not backed by fact or evidence and did not stand up to scrutiny. Mr Nicholls admitted, under XX, that he it was not possible to assess the impact of these site specific factors in the numerical assessment. He was unable to define what proportion of the risk is known and what is unknown. Indeed, neither Mr Nicholls nor the ONR knows whether these site specific factors would increase the probability of an accident by a factor of 10, 100, 1000, 10,000 or maybe more. This is the message that needs to be conveyed to the SOS.

Byrne methodology overestimates Background Risk

(321) ESR/ONR has tried to assert that Dungeness is more at risk from aircraft crashing during their stable, en route, phase, than from large aircraft taking off and landing from LAA. Indeed this notion underpinned its decision not to object.

(322) However, Ms Auty demonstrated that ESR failed to take account of systematic biases in the model and made basic careless mistakes which invalidate this claim.

(323) She demonstrates that its analysis is flawed²⁷⁵ in a number of different ways::

- i. All four of the data points in the background crash rate database for large aircraft are incorrect as they have been wrongly assigned²⁷⁶.
- ii. The ONR's model contains systematic biases which underestimate the ratio of airfield to background crash rates.
- iii. Failure to recognise that Lydd based traffic is subject to the unpredictable and unquantifiable risk posed by birdstrike which is not an issue for aircraft flying overhead i.e. the risk profiles are not comparable.

²⁷³ LAAG/3/A - Paragraphs 44-47

²⁷⁴ LAA/15/D - paragraph 3.13, page 13 -

²⁷⁵ LAAG/3/E - pages 15-18

²⁷⁶ See LAAG/3/E paragraphs - 69 -79.

Increased risk posed by the developed case

- (324) Having considered the step change in consequence and the step change in probability separately, the SOS must assess the overall increase in risk were he to approve these plans. In doing so he must be wary of the smoke screen which LAA has thrown up with regard to its alleged fallback position.
- (325) LAAG contends that LAA's fallback position will never materialise as demonstrated earlier. History suggests that there is no reason to believe that LAA's grossly inflated fall back numbers are anything more than a ploy to make the incremental environmental and nuclear safety affects look small.
- (326) As mentioned earlier, there will be some increase in activity of aircraft weighing more than 5.7tonnes under the fallback positioned, but considerably less than the fallback position forecast by LAA²⁷⁷. Further, there will be no B737 and A320 aircraft undertaking commercial transport movements under the fall back position
- (327) The principal point to convey to the SOS is that the notion that there will be uncontrolled activity at LAA under the fall back position is flawed. Any excessive built up in airport activity²⁷⁸ including B737 training mentioned in XX, would precipitate an appropriate assessment under the Habitats Regulation due to that activity's propensity to cause adverse impacts on European designations and/or the need for a revised safety case by the ONR, given the inherent dangers of training in large aircraft close to a nuclear power station.
- (328) Moreover, even in the unlikely event that LAA does achieve its forecast fallback position, the fact remains that the overall combined risk will be higher in the developed case since the bare numbers cannot convey the consequences of fleet mix.
- (329) The modelling cannot differentiate between the outcome of a large Boeing 737 crashing onto the nuclear site, as opposed to a BAe 146 or a business jet. The bias towards large aircraft in the developed case poses a greater threat to public safety, not only because of the number of aircraft movements, but because of the higher consequences should an accident occur.

No mechanism for on-going control

- (330) Whilst ESR may attempt to rationalise away the issues, in reality it has no mechanism for managing the problems long term. During the course of this planning application, government departments and other organisations have shown a worrying inclination to slavishly follow their

²⁷⁷ 9251 movements over 5.7tonnes, with 91% of movements represented by business jets.

²⁷⁸ This would include the old fall back position (Future Baseline) which assumed the airport could achieve passenger throughput of 300,000ppa i.e. up to its terminal capacity limitations.

remit in situations where public safety ought to have resulted in co-ordination.

- (331) This has been demonstrated by the fact that new RNAV flight paths, which have the potential to increase the probability of a collision at Dungeness, were approved by the CAA without recourse to the ONR during 2009. The extent to which these flight paths increase the nuclear risk is not the issue; it is the fact that these operational changes could be made without formal consideration of the impact to public safety. Similarly, EDF/British Energy is not party to the bird hazard management proposals currently under discussion with the RSPB, NE and LAA.
- (332) An outstanding example of an issue being overlooked is provided by the railhead at Dungeness where intensely radioactive spent fuel is dispatched, and possibly in the future radioactive waste. No department is prepared to take responsibility for assessing the risks associated with it and the outward track.
- (333) The railhead is ignored by the ONR/HSE since it is not part of the licensed site²⁷⁹ despite the handling of radioactive material; it is surprisingly disregarded by the Office of Civil Nuclear Security (OCNS) despite being a potential terrorist target, and similarly ignored by the Department for Transport. The severe potential consequences of this oversight have been highlighted by Mr Large²⁸⁰.

Mitigation

- (334) The SOS should not be misled into thinking there is some remedy to these problems which could be applied at a later date.
- (335) It should be remembered that the restricted flying zone is not an arrester wire. It offers no protection, since it cannot physically stop an aircraft which is heading towards the site. ESR's 2007 report²⁸¹ states:
'Given the location and orientation of the runway relative to the nuclear site there are practical limits to the separation achievable during take off and landing operations'.
- (336) It then goes on to conclude:
'In summary we identify no obvious scope for implementation of operational procedures that would mitigate the risk of aircraft crash at the Dungeness nuclear site'
- (337) In other words, Mr Nicholl's suggestion that mitigation can be fulfilled through design, licensing, good practice or control is wrong. ESR confirms that the manoeuvres posing a threat are fundamental to the close proximity of the sites.

²⁷⁹ LAAG/4/D - footnote 9, page 5

²⁸⁰ LAAG/4/A - Table 3 - Scenarios 9 & 10 - pages 26 & 27

²⁸¹ CD 13.9, page 31 end of the first paragraph:

Terrorism

- (338) There has been no assessment of an airborne terrorist attack at Dungeness which is likely to have more severe consequences than an airborne accident as terrorists would seek out the most vulnerable parts of the plant. The ONR regards terrorist attacks as not “reasonably foreseeable” and therefore not a matter for the inquiry²⁸².
- (339) LAAG questions this assessment as most commentators would agree, in the light of events of the last decade, that terrorism is reasonably foreseeable, and as Mr Large states, the ONR’s view contradicts the government’s opinion that “*There is sufficient information in the public domain to identify possible ways terrorists might bring about a release of radioactive material from a nuclear facility.*”²⁸³

Demographic Siting

- (340) Prompted by a study by Mr Large, the ONR eventually produced a demographic siting assessment and on this basis concluded that it has not felt the need to change its position on demographics with regard to LAA’s planning applications²⁸⁴. Again these are the points which are relevant to the SOS as they undermine the credibility of this conclusion.
- (341) The assessment was based on a throughput of 500,000ppa as opposed to the 2mppa that British Energy used as a basis of its safety case for Dungeness B²⁸⁵. Given the acknowledged risks of Dungeness A due to fuel remaining on site, the operational life of Dungeness B, the continued decommissioning risks of both reactors even when fuel is removed from site, and the continued possibility of Dungeness C - prudence should have dictated an assessment to 2mppa.
- (342) Since it appears that the population commensurate with 500,000ppa is considered by the ONR²⁸⁶ to be at the outer limits of acceptability, it is disingenuous of the regulator to only make an assessment on a daily average population corresponding to 500,000ppa²⁸⁷. It took no account of the inevitable and likely sizeable seasonal peaks that will occur at LAA; no account of daily scheduling peaks; and no account of the type of sizeable congestion scenario outlined by Mr Large due to events such as the Icelandic volcanic ash incident.
- (343) Due to the entirely different characteristics of the remote railhead and outward railway track and the presence of considerable quantities of intensely radioactive spent fuel, a separate assessment should be made

²⁸² LAAG/4/A - paragraph 190 - 193 and 105-132

²⁸³ Ibid, paragraph 191

²⁸⁴ See LAAG/127 - also LAAG/15/F - Appendix 18

²⁸⁵ See LAAG/3/B - letter 1 - page 3, 2nd paragraph

²⁸⁶ LAA/15/D paragraph 6.21

²⁸⁷ See LAAG/127 - Annex A, point 6

for this system²⁸⁸. As Mr Large shows, this results in a more significant uptake of the reserve capacity for future residential development in the Lydd and New Romney areas²⁸⁹.

Regulatory repercussions of Fukushima

- (344) Fukushima demonstrated that incredible events can happen and that even if the reactor copes with the external event other factors can conspire to cause a radiological release²⁹⁰.
- (345) In the wake of this accident, the European Union Commission and the European Nuclear Safety Regulatory Group (ENSREG) is requiring all 143 nuclear power stations in EU Member States to be subject to ‘stress tests’²⁹¹, which are to include indirect initiating events, including ‘airplane crash’²⁹².
- (346) Under the timetable, the licensees of Dungeness A and B are each required to undertake a reassessment of nuclear safety in a form compliant with the ENSREG stress tests specification. This includes taking into account the plants’ ability to withstand an aircraft hazard. A progress report was due in mid August and a final report by 31 October 2011 at the latest. These national results are to be peer reviewed and the final report published in June 2012²⁹³.
- (347) Again, it is of great concern to LAAG that even at the late stage of this Inquiry’s proceedings, the ONR did not choose to provide further information on the relevance of this reassessment to the Inquiry.
- (348) It would appear to LAAG that the SOS cannot make a decision about LAA’s planning application, until the stress test process for Dungeness A and Dungeness B is complete, which will not be until June 2012²⁹⁴.

Guidance for the SOS in assessing nuclear risk

- (349) The above analysis demonstrates that the probability of a large scale nuclear accident due to Lydd based traffic has been grossly underestimated in the developed case and that the background crash rate is overestimated.

²⁸⁸ LAAG/4/D - paragraph 48, paragraphs 65-67, Table 3 page 17

²⁸⁹ Ibid - paragraph 103

²⁹⁰ These were reactors designed to the highest standard to resist earthquakes and tsunamis that are not infrequent occurrences in Japan. The plants shut down automatically but the tsunami knocked out the 12 on site generators Beyond all expectations of the nuclear safety regulators, both in Japan and worldwide, including the ONR, the protective safeguards failed and the resulting radiological consequences have been and will continue to be severe.

²⁹¹ Comprehensive risk and safety assessments

²⁹² see LAAG/128

²⁹³ Ibid - see timetable page 3

²⁹⁴ The above nuclear safety analysis provided by LAAG’s four consultants begs the question as to why there is not a restraint in the planning/regulatory framework which bans all flight movements at LAA above 5.7tonnes. This is not, but should be, a matter for the SOS.

(350) LAAG's evidence also shows that:

- i. The ONR was misinformed when it took its decision not to object to LAA's planning application based on the safety assessment of Dungeness B.
- ii. That it has failed to discharge its duty as a regulator by not undertaking an assessment of all hazards at Dungeness and choosing not to disclose timely, relevant information to the inquiry.
- iii. That its position is outdated given its own change of view on the safety status of Dungeness A and the regulatory repercussions of the Fukushima incident.

(351) The ONR has also failed to follow the HSE's safety guidelines by not adopting a consequence based approach in the face of a high degree of uncertainty.

(352) Since the SOS cannot rely on the ONR's original recommendation, he must now look to the HSE's to steer his decision.

(353) The relevant guidelines are²⁹⁵:

- i. A precautionary approach with the overriding message being to err on the side of caution where the safety of the general public is concerned.
- ii. A consequence based decision in situations where the outcome is extreme and the probability of the event is uncertain. HSE guidelines show a decision making matrix which has increasing uncertainty in probability along one axis and states: ***where there is a high degree of uncertainty about likelihood it is assumed that the event will be realised by focusing solely on the consequences.***
- iii. To set up situations which are inherently safe²⁹⁶

Nuclear case conclusion

(354) LAAG has shown that the variables associated with large aircraft taking off and landing at LAA are too complex to model with any degree of certainty. Further, that the development would bring a step change in the risk of a large scale nuclear accident, as opposed to the small increase in risk which the ONR comprehended at the time it took its decision not to object.

²⁹⁵ See LAAG/3/J

²⁹⁶ ONR guidelines strive for situations that are safe by design and not by control (LAAG/3/I)

(355) In addition, ESR acknowledged that there is no mitigation for this problem which is fundamentally driven by the close proximity of the two sites. LAAG has also demonstrated that approval would create an inherently unsafe situation due to the conflict with objectives of the SPA and that there is no mechanism for controlling the risk past the snap shot of the inquiry.

(356) Therefore, the SOS's only option is to refuse these plans based upon HSE guidance for such situations.

(357) Summary and Conclusions

The SOS needs to appreciate that:

(i) ONR's advisor, ESR Technology acknowledges that a commercial sized aircraft impact at Dungeness has the potential to produce a large radiological release.

(ii) The ONR has been poorly advised by ESR Technology.

- Despite ESR acknowledging that the Byrne methodology used for safety cases has shortfalls both generally and in relation to LAA, it failed to provide its quantitative assessment for the ONR with an appropriate "health warning". The Byrne methodology is flawed so that it is not possible for ESR, or anyone else using this methodology, to quantify the increase in risk associated with LAA related traffic, or to provide a credible assessment of background risk.
- ESR's safety assessment for Dungeness B is based on incorrect data, which has the effect of substantially underestimating the differential in risk between the developed and the underdeveloped case. This in its own right undermines ESR's advice.

(iii) The ONR has also misinterpreted the advice given to it by ESR in relation to the safety case and displayed confusion in its understanding of the safety assessment when it in turn is giving advice to outside parties.

(iv) The ONR has failed to discharge its duty as a regulator since:

- It has only conducted a safety case for Dungeness B. This is despite its recent disclosure that Dungeness A is now considered the greater hazard, and will most likely continue to be, over the 100 year or so decommissioning phase.

- It has not conducted a safety case for Dungeness A despite this reversal of opinion. When the ONR made its decision not to oppose LAA's planning application, Dungeness A was not considered a hazard.
- The safety case for Dungeness B is entirely based on the probability of an accident without assessing the severity of the consequences if one were to happen. There has been no attempt by the ONR, or the operators, to analyse the structural ability of the Dungeness A and Dungeness B nuclear plants to withstand an aircraft crash, or to examine the consequences of an accident, should one occur.
- There has been no assessment of the vulnerability of the railhead at Dungeness to an aircraft crash and the consequences, should an accident occur.
- There has been a total failure by the ONR and the operators to highlight the longevity of the hazards that remain on site at Dungeness during the extended 100 year decommissioning phase.
- The issue of an airborne terrorist attack at Dungeness has been ignored despite the belief of the government that it is possible to make an assessment of the threat.
- The demographic siting assessment is inadequate as it does not take into account seasonal and possible irregular influences.
- It has failed to abide by its own safety guidelines by not adopting a consequence based decision in the face of uncertainty.

(v) In the light of these revelations, the SOS should not give weight to the ONR's historic decision as it is unreliable.

(vi) The SOS should be guided by the HSE's own guideline when there is considerable uncertainty and focus on the consequences.

(vi) In the wake of the Fukushima incident, nuclear safety standards are being driven by Europe. Dungeness A and Dungeness B are currently undergoing safety assessments based on the stress tests specified by the European Commission at the direction of the European Council.

(vii) Until these assessments have taken place, and have been signed off by ENSREG in June 2012, LAAG believes it will not be appropriate for the SOS to make a decision about LAA's planning application.

Conditions

(358) LAAG believes in the interest of fairness and safety the SOS should address the following:

(359) The 4 and 10 year lead time periods allowed before the runway is extended and the new terminal is built, are unreasonable. These are major concessions over the standard 3 year period and cannot be justified given the speculative nature of the development.

(360) As mentioned above, the RNAV flight procedures were introduced in 2009 but were not included in the ES for the original planning application and have not been included in any of the evidence brought before the inquiry - other than LAAG's to highlight this shortfall. These flight paths should have been taken into account in the noise and pollution studies, particularly as the approach paths will lead to more noise at the local secondary school, the Marsh Academy.

(361) Mr Spaven has spelt out compelling reasons why these flight paths will be used by aircraft and airlines. LAA maintain that the approach paths will only be used as a back up for the ILS. If this is the case, LAA should be prepared to accept a condition to this effect. This would ensure that flight activity concurs with the original ES and the evidence before the inquiry.

(362) With regard to conditions related to nuclear safety, there needs to be a restriction on the number of movements of larger aircraft. Mr Spaven outlined that there remain anomalies²⁹⁷ between the more restrictive condition recommended by the HSE (ONR) at the time of the last planning application²⁹⁸ and the one condition imposed on flight paths by the ONR today²⁹⁹.

(363) In 1988 these recommendations involved restrictions on the use of flight paths and on movements based on the weight and nature of the aircraft³⁰⁰, the latter being incorporated into the final Conditions included in the SOS's decision³⁰¹.

(364) Today there are no movement restrictions based on aircraft weight and type in the proposed Conditions, despite the briefing note from the HSE

²⁹⁷ LAAG/10/A - paragraphs 6.5 -6.11 and LAAG/10/E - paragraphs 7.11-7.17

²⁹⁸ CD 13.5

²⁹⁹ CD 4.4 (LAA) - paragraph 3.22

³⁰⁰ CD 13.5 - Appendix C

³⁰¹ CD 1.46 (LAA) - para 66 point 2 (Note SOS's decision is also attached to LAA's Statement of Case

to DECC³⁰² dated May 2009 stating that: *The latest proposed expansion of operations **will also**[our emphasis] require caveats on flight paths and **flight mix** [ibid] to be put in place.*

(365) Further, it is implied that the reduction in the number of movements from 56,000 in 1988 to the 40,000 in the current Conditions will improve safety. In fact the reduction is irrelevant from a nuclear safety perspective as any reduction would commercially be accommodated by reducing **light** aircraft movements which are not relevant to the nuclear safety case. This means the population remains equally exposed, and indeed, potentially even more exposed, to the aircraft types which could cause a catastrophic accident³⁰³.

(366) Similarly Mr Nicholls evidence³⁰⁴ suggests that the ONR is at the boundary of its tolerance with respect to the demographic siting assessment at a throughput of 500,000ppa. This suggests that a condition should be imposed on LAA restricting activities on site outside the direct commercial possibilities defined by the planning application. This would cover activities such as large maintenance facilities and airline head offices which could involve large numbers of employees.

Conclusion

(367) **This is a planning application which has the potential to destroy wealth, to destroy the environment and to destroy the lives of many people. It should be refused.**

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³⁰² LAAG/4/H - Appendix 1 - Page 3 - last paragraph (under Background).

³⁰³ >5.7tonnes. With no restrictions on the type of aircraft, the likelihood of payload restrictions on larger aircraft because of the operational constraints at LAA, the number of flight movements of commercial passenger aircraft could be considerably greater than the numbers in evidence.

³⁰⁴ LAA/15/D - paragraph 6.21