



TAG Farnborough Airport Ltd

Town and Country Planning Act Section 106/299A

Performance Monitoring Report.

Clause 10a of the Town and Country Planning Act Section 106/299A Agreement, between TAG Farnborough Airport Ltd and Rushmoor Borough Council, in respect of Planning Consent Reference 99/00658/OUT states:

"Within 6 weeks of the end of each calendar year, the Company shall submit to the Council a performance monitoring report detailing the performance of the Company against the objectives set out in this agreement, in a manner to be agreed with the Council."

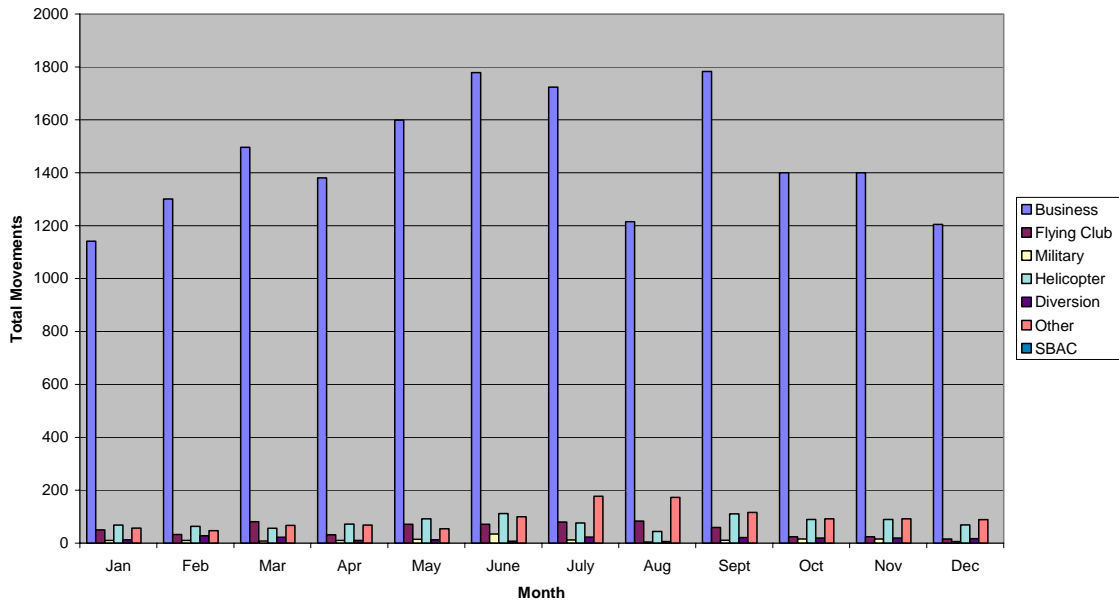
TAG Farnborough Airport hereby submits this report summarising the Airport's performance against the requirements laid out in the Section 106/299A agreement in compliance with the requirements of clause 10 of that agreement. Each Clause of the section 106/299A agreement is taken in turn and any performance information relative to 2005 supplied.

Clause:

Aircraft Movement Records

- 1a Detailed records are kept of every aircraft movement that takes place at the airport. These details include:
Time and date of the movement, Movement type (Arrival, or Departure) callsign, departure airport (if applicable) destination airport, aircraft registration, movement type, and aircraft type, Maximum take-off weight, aircraft ICAO Chapter, and runway used.
- 1b A PC and direct link to the recording system (the Noise and Track Recording system (NTMS) has been provided to Rushmoor.
- 1c Quarterly reports summarising movement numbers and details have been submitted to Rushmoor each within 4 weeks of the end of the quarter (as required) in both electronic and paper format.

Movements by Movement Type January - December 2005



Noise Control

- 2a Over all years following the granting of planning consent aircraft (other than those resulting from the airshow and large scale military activity) are controlled so as not to exceed the annual noise budget, defined by the position of and total land within the 55dB(A) and 60dB(A) LA eq (16hr) contours.
- 2b To date, the airport has operated successfully within the contours as referenced above. The Company has therefore not sought any alternative noise budget areas.

The planning consent granted by Rushmoor referred to the following contour areas, as being the controlling areas (as referred to as Figure 8 of the technical report from Acoustic Technology Ltd. Number AT 4769/1 rev 0, in the Section 106/299A Agreement accompanying planning consent 99/00658/OUT)

LEq dB (A)	1997 Contours (Km ²)	Predicted 20,000 movements (1997 mix)
55	6.43	9.07
60	2.77	4.03
65	1.24	1.70

INM Contours produced since 2003 based on actual movement data

LA Eq dB (A) (16hr)	July - September 2003 (Km ²)	January - June 2004 (Km ²)	January - December 2004	January - June 2005	January - December 2005
55	3.11	3.77	3.62	3.62	3.62
60	1.4	1.64	1.56	1.57	1.57
65	0.8	0.87	0.84	0.88	0.88

- 2c All references to aircraft noise and noise controls within the existing planning consent granted the airport refer to LAEq 16hr. The noise track monitoring system routinely

records LA EQ for aircraft noise events (LA EQ Event) and this data is provided to Rushmoor as part of the Quarterly Report submissions. LA EQ (Event) values are calculated from recorded aircraft derived noise and exclude background noise recorded. All aircraft using the airport are ICAO noise Chapter 3 compliant.

- 2d Through the continual review of operating procedures the airport seeks to achieve a reduction over time in the noise impact of flying. The airport continuously monitors aircraft noise using a Noise and Track Monitoring System (NTMS). The Federal Aviation Authorities Integrated Noise Model (INM) is used twice yearly to produce noise contours based on actual aircraft fleet mix and recorded radar tracks from aircraft using the airport. The contours produced will be subject review at 5 yearly intervals. TAG will have been operating under the terms of the planning consent granted (and CAA License) for 5 years in 2007, when the first review of the noise contours will take place.
- 2e The use of reverse thrust by pilots on landing aircraft is for safety purposes. While it would not be appropriate for TAG to dictate guidelines for the use of reverse thrust, TAG has inserted Paragraph f of AD 2-EGLF-1-9 of the UK AIP, referring to Farnborough, that reads:-
- “To minimise disturbance in areas adjacent to the aerodrome, commanders of aircraft are requested to avoid the use of reverse thrust at all times, consistent with the safe operation of the aircraft. Where the use of reverse thrust is essential, the use of idle reverse thrust should be used in preference.”*
- Use of reverse thrust is monitored by NATS on behalf of TAG and was subject to noise impact assessment using the portable noise monitor during 2004.
- 2f TAG banned entry to the airport by ICAO Chapter 2 aircraft in January 2001. Since this date only 1 hushkitted aircraft has used the airport, this aircraft was only permitted to do so following submission of the required paperwork to TAG, in compliance with the requirements of the Agreement. The ATP, 748 Jetstream aircraft has also been phased out and is no longer permitted to use the airport.
- 2g Details of preferred noise routes have been submitted to and agreed by, Rushmoor Borough Council in compliance with this clause of the agreement. Details of the preferred noise routes have been accepted by the CAA and are published in the UK Air Pilot (UK AIP) as required. A Brüel and Kjær Noise and Track Monitoring System (NTMS) has been installed consisting of 2 permanent and 1 portable monitor. Details (including speed altitude and location) of all Farnborough aircraft’s radar tracks are recorded and retained for future reference.
- 2h Details of all Farnborough Aircraft’s radar tracks are checked daily using the Noise and Track monitoring system. A staged infringement procedure has been successfully implemented to address aircraft who fail to abide by the requirements of the noise preferential routes without the appropriate consent from air traffic control.

Period	Total Infringements	Total Responses Received.
January to March	3	3
April to July	5	5
August to November	6	6
December	0	0
Total	14	14

- 2i Use of excessive reverse thrust is discouraged and monitored by air traffic controllers. A dedicated engine ground running point has been established at the furthest point possible from the boundary of the airport. Essential engine ground running is permitted at Weekends and public holidays only between 09:00 and 20:00, a total of 5 silent fixed electrical Ground Power Units (GPU's) have been installed by TAG, to reduce the requirement for aircraft to operate their Auxiliary Power Units (APU's), noise from which have, in the past caused concern. Aircraft whenever possible are parked with their engines facing away from sensitive areas (and the boundary of the airport) to prevent further escape of noise.
- 2j Ground running of engines is only permitted to take place between the hours of 08:00 and 20:00 Monday to Friday (one hour later in summer) excluding public holidays and commencement and cessation is notified to the duty air traffic controller. Engine testing is controlled and is only permitted to be carried out at the dedicated Engine Ground Running Bay (see 2i)
- 2k Auxiliary Power Units (APU's) are not permitted to be operated between 22:30 and 06:30.
- 2l Aircraft within the area shown on the plan: TOR 158901/SK7129/8/2000 are orientated so that their air intakes face away from nearby residential properties, aircraft within this area are only permitted to use Ground Power units (GPU's) rather than Auxiliary power Units (APU's).
- 2m Helicopter pilots are required to operate in accordance with minimum noise procedures, as agreed by Rushmoor.
- 2n To date no residential, academic or health care properties have been found to be within the 60dB (A) LA eq (16 Hour Annual average) contour.
- 2o The INM model has been prepared and run 5 times in total since the completion date, at the intervals prescribed by clauses a – e of paragraph 2o of the agreement. The results of all modelling exercises have been supplied to Rushmoor. Results of the latest modelling exercise (based on the calendar year 2005 operations) were submitted to Rushmoor on the 3rd February 2006.
- 2p Noise data is recorded by the three noise monitoring terminals continuously and noise events correlated with aircraft where appropriate. Review of the noise monitoring scheme carried out by Rushmoor in early 2005 found the existing system to continue to be acceptable to them.
- 2q Noise modelling exercises undertaken were audited in early 2004 by CAA noise consultants. Agreement was gained from Rushmoor officials, following this exercise that further auditing of the modelling system was not required at this time.
- 2r A dedicated PC and real time access to the noise and track monitoring system was provided to Rushmoor in early 2003 Quarterly summaries of noise information as recorded by the noise and track monitoring system together with details of movements are provided to Rushmoor within 4 weeks of the end of each quarter.
- 2s In line with the requirements four quarterly monitoring reports contained details of aircraft movements and noise data recorded were provided to Rushmoor over the course of 2005.
- 2t The review of the noise monitoring regime carried out by Rushmoor in January 2005 confirmed their acceptance of the continued use of the system in its existing format (i.e. 2 permanent 1 portable monitor).

Air Quality

- 3a 13 Air quality monitoring locations have been equipped with passive Nitrogen oxide monitoring apparatus. (Nitrogen oxides are widely accepted and agreed to be the most appropriate indicator pollutants for aircraft) Two monitoring sites have active sampling devices collocated with passive diffusion tubes. The combined data from these sites is collected, regularly and results published in TAG's quarterly submission to Rushmoor.
- 3b The extent and scope of the air quality monitoring regime was considered as a central element of the review carried out in early 2005. Rushmoor confirmed their acceptance of the existing monitoring regime (that as detailed above).
- 3c Details of air quality monitoring results are included in the quarterly reports submitted to Rushmoor.

Aircraft Weight

- 4a In 2005 a total of 399 Business Aviation Aircraft with maximum take-off weights (MTOW) in excess of 50t used the airport at Farnborough. According too the Section 106/299A Agreement, accompanying Planning Consent 99/00658/OUTa total of 576 Business Aviation movements with MTOW of over 50t were permitted to operate in 2005.
- 4b No Business Aviation Aircraft with a MTOW in excess of 80 tonnes has used the airport.

Freight

- 5a No aircraft is permitted to carry more than a total of 100k freight into or out of the airport, except race horses.
- 5b A total of 23 aircraft movements in 2005 involved the transportation of racehorses. This number complies with the requirements of the Section 106/299A agreement that states a maximum of 100 aircraft movements per annum involving racehorse transportation.

Safety

- 6a TAG continues to endeavour to improve levels of third party risk associated with the airport, through the use of external contractors recognised as leaders in the field of third party risk modelling to undertake annual reviews of third party risk associated with the airport's operations. Results of all of the modelling exercises undertaken to date have shown TAG's operations to remain well within the limits as set through the planning process for the airport.
- 6b The activities of the airport over 2005 remain within risk contours that form part of planning consent 99/00658/OUT. A summary of the audit of Third Party Risk carried out in respect to aircraft activity over 2005 is provided in Appendix A of this report. The calculations on which this summary is based have been carried out by third party risk consultants ESR (formerly a part of AEA Technology).

Community benefits and environmental improvements

- 7a A detailed management plan was submitted in 2003 that includes measures to conserve the part of Eelmoor Marsh SSSI located within the airport, the area designated by the

council as a Site of Nature Conservation Interest within the aerodrome boundary and has to date successfully translocated 3 areas of species rich grassland as defined in the original Environmental Statement accompanying the planning submission.

- 7b Over the course of 2005 a total of 5 students have undertaken work experience placements at the airport and TAG currently has 15 students undertaking training and apprentice courses at Farnborough College of technology.
- 7c TAG will provide a total of £38,135 funding shortly to Rushmoor Borough Council for community environmental projects. This value reflects contributions levied at an agreed rate of £2 per aircraft movement, and £5 per aircraft movement if the aircraft has a Maximum Take Off Weight of over 50t.

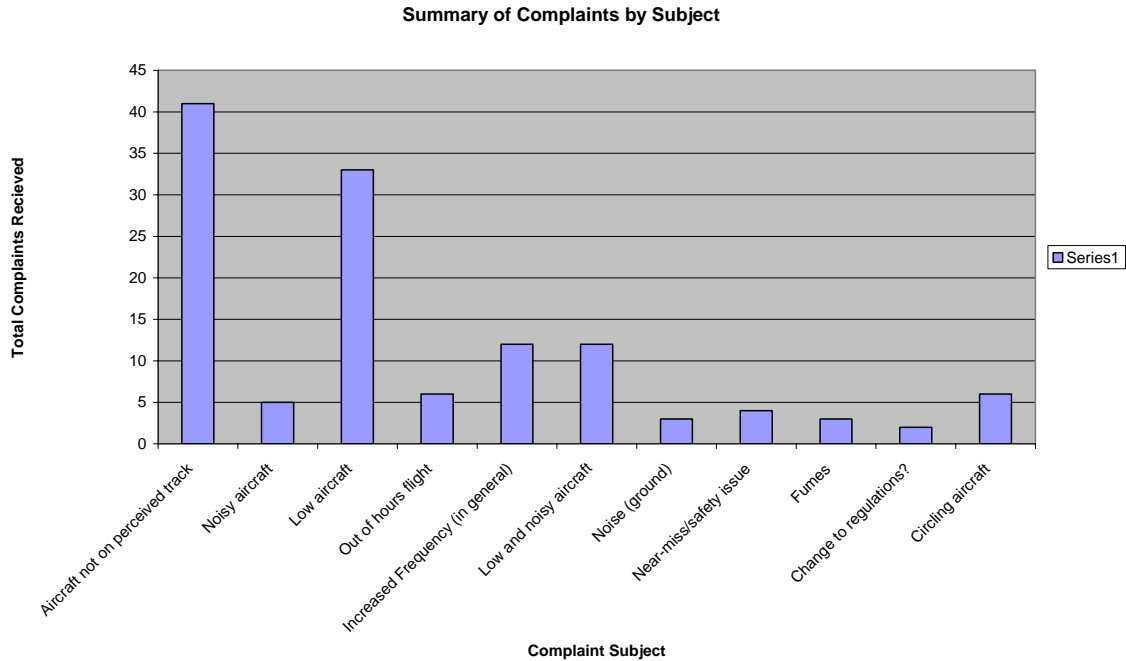
Aerodrome Safeguarding

- 8a The safeguarding map deposited with Rushmoor in December 2003 was submitted in compliance with this requirement.

Complaints

- 9a A record of all complaints received by TAG is maintained details recorded include the name address and contact details of the complainant and detail of the complaint, regarding noise, air quality, odour, track keeping, and alleged vortex damage. Records are also maintained of TAG's response to any such complaints received.

Month	Total Complaints	Complaints Relating to non compliant flights
January	4	0
February	2	0
March	4	0
April	10	0
May	3	1
June	15	1
July	19	0
August	11	1
September	18	1
October	10	0
November	10	0
December	10	0
Total	116	4



9b A report detailing all complaints received and responses made by TAG is submitted within 1 week of the end of each calendar month. A total of 12 such reports have been submitted over the course of 2005.

Performance Monitoring of the Section 106 Agreement

10a TAG hereby submits this report as a performance monitoring report for consideration under the terms of clause 10a.

TAG Farnborough Airport Ltd
Town and Country Planning Act Section 106/299A
Performance Monitoring Report 2005

Appendix A

Aviation

Kathy Wood

Environment Manager
TAG Farnborough Airport Ltd
Farnborough Airport
Hampshire
GU14 6XA

9th February 2006
Our Reference: D1000039

Dear Kathy

Farnborough Airport 2005 Annual Third Party Risk Audit Findings

Further to your recent request, I provide the findings of the Audit of Third Party Risk at Farnborough Airport in 2005, undertaken by ESR Technology. The context in which the audit has been undertaken is that, under the terms of the planning consent granted for civil aircraft operations at Farnborough Airport, specific conditions apply in respect of third party risk. Conditions 16 & 17 require that operations must maintain third party risk with defined limits, as characterised by the agreed 1 in 10,000 and 1 in 100,000 per annum individual risk contours, determined by use of an appropriate third party risk model. It is a further requirement that compliance with these conditions be demonstrated on an on-going basis.

Demonstration of compliance is achieved by monitoring of operations within a calendar year to gather operational data in respect of key parameters that determine the level of third party risk, as follows:

- the annual number of fixed wing aircraft movements;
- the weight of the aircraft that undertake those movements;
- the split of runway utilisation between Runway 06 and Runway 24 operations.

The risks for actual operations can then be determined and compared with those corresponding with the agreed contours. ESR Technology has determined the third party risk by using the NATS Third Party Risk Model, as previously employed to determine the agreed risk contours with which operations will apply. The third party risk was determined for operations in accordance with operational data supplied by TAG Farnborough Airport.

According to data gathered by TAG Farnborough Airport, the operations for 2005 are characterised as follows:

Movement numbers

20, 506 movements in total.
19,470 fixed wing aircraft movements.
1,036 helicopter movements.

Runway Utilisation

Runway 06 Departure: 11.1%

Runway 06 Arrival: 13.5%

Runway 24 Departure: 36.4%

Runway 24 Arrival: 39.0%

Aircraft weight

Movement weighted average weight: 16.6 tonnes

Associated area destroyed in the event of aircraft crash: 0.195 hectares.

For the purposes of the 2004 audit, the estimated aircraft weight was based on the numbers of movements within relatively broad weight categories. For the 2005 audit, an improved methodology has been employed and the average aircraft weight identified above is based on detailed data collected for each of 135 different fixed wing aircraft types using the airport during 2005. A further refinement in the assessment methodology adopted for the 2005 audit is the separate identification of departure and arrival operations at Runway 06 and Runway 24, rather than the assumption of equal numbers of departures and arrivals for an identified split of runway utilisation between the two runways.

The primary parameters that determine the estimated level of risk are the number of movements and the aircraft weight. The annual number of movements in 2005 was very much lower than that assumed for the determination of the agreed contour (28,000 movements per annum). The average aircraft weight and associated area destroyed on the ground for 2005 operations are also lower than those assumed for the determination of the agreed contour (24.37 tonnes, 0.24 hectares). Since the level of risk at any location is directly proportional to both of these factors, on the basis of this operational data, it can readily be shown that the 2005 operations comply with the planning conditions.

Whereas, in principle, the estimated risk level may vary with a change in runway utilisation, this effect is found to be minor. The actual runway utilisation in 2005 is found not to be significantly different from that assumed in determining the agreed contours (15% Runway 06 Departure and Runway 06 Arrival and 35% Runway 24 Departure and Runway 24 Arrival).

In summary, the operations for 2005, as characterised by the above operational data, have been assessed by means of the risk modelling approach described above, to determine the level of risk associated with them, and have been found to comply with the necessary planning conditions. That is to say, the 1 in 10,000 and 1 in 100,000 per annum risk contours on the North-East and South-West ends of the runway, determined for 2005 operations, are found to lie within the agreed risk contours.

Yours sincerely

Mark Eddowes

Direct line: 01925 843422

Facsimile: 01925 843500

e-mail: mark.eddowes@esrtechnology.com