

Background Quality Report

The Pattern of Military Low Flying Across the United Kingdom

1. Introduction

1.1 Overview

These statistics cover Low Flying in the United Kingdom Low Flying System (UKLFS). The UKLFS is situated within Class G Airspace, which is airspace in which no restrictions on routing or entry apply. The UKLFS airspace extends vertically from surface to 2,000 feet Above Ground Level/Above Mean Sea Level (AGL/AMSL) and laterally to the UK Flight Information Region boundaries. It does not include any airspace within Air Traffic Zones, Military Air Traffic Zones, Restricted Areas or Danger Areas.

These UKLFS usage statistics will be published each Financial Year (FY).

1.2 Background and Context

The Day UKLFS comprises 19 LFAs, 3 Tactical Training Areas (TTAs) and the Thames Valley Avoidance Area (TVAA). The Night UKLFS is different than that by day; it comprises 13 NRRs (located in the south of the country and predominately used by rotary aircraft), 5 ARs (mostly located in the north of the country and predominantly used by fixed wing aircraft) and the TVAA (N). Maps of day and night low flying areas can be found in the official report. The report aims to provide interested parties with the usage of the UKLFS in total and the volume of low flying within day and night low flying areas.

Military fixed wing, including Tucano aircraft, are assessed to be low flying below 2,000 feet Minimum Separation Distance (MSD) i.e. the distance that must be maintained between any part of an aircraft in flight and the ground, water or any object; for helicopters and light propeller driven aircraft the relevant level is below 500 feet MSD. Fixed wing aircraft can fly down to a minimum of 250 feet MSD throughout the UKLFS, except in the TTAs where a lower height limit applies.

Helicopters normally operate down to 100 feet above ground level, but due to the nature of their task, for specific training purposes, they may fly down to ground level. Helicopters are predominately based in the south of the UK to enable closer interaction with ground forces and will therefore be seen here more often than in the north of the UK.

To realistically train for operations, fast-jets can fly down to a minimum of 100 feet MSD and C-130 Hercules transport aircraft down to 150 feet MSD in the 3 Tactical Training Areas. These are based in Wales, Northern England and Scotland. This is referred to as Operational Low Flying which accounted for 0.6% of all low flying in this reporting period. Operational

Low Flying takes place only in the 3 TTAs, between 100 feet MSD and 250 feet MSD.

Fast-jet aircraft cruise speed is limited to 450 knots but higher speeds are possible for certain, short duration events such as practice target runs.

Fast-jets, C-130 Hercules and helicopters also fly low level at night. Night low flying commences within the night low flying system from sunset plus 30 minutes at N5400 E or W00000 on the 15th of each month. Night flying ends at sunrise minus 30 minutes at the same position and date.

Military aircrew train at low level within a clear regulatory framework that sets out what activities they are authorised to conduct, and what limitations are placed on those activities. The regulations and limitations are designed to ensure that training is appropriate for the operational task, and is conducted safely with minimum potential for disturbance to the public.

Figures on low flying were previously published on 18 August 2014, at the following link:

<https://www.gov.uk/government/publications/military-low-flying-in-the-united-kingdom-statistical-appendix-2012-to-2013>

However, changes to recording and production processes mean that figures are not directly comparable to the earlier reports.

The number of complaints by day and night low flying area is obtained from the Low Flying Complaints and Enquiries Unit and is provided in the official report.

1.3 Methodology and Production

Since November 2015 the Centralised Aviation Data Service (CADS) has been used to manage bookings into the UKLFS and to provide the majority of the raw data for the Low Flying Statistics. Additional information is obtained directly from Royal Naval Air Station (RNAS) Yeovilton, RAF Shawbury and Wattisham Army Flying Station which directly manage low flying bookings for LFAs/NRRs 3, 9 and 10 respectively.

CADS is provided by BAE Systems Defence Information under contract to the MOD. CADS provides the LFA Booking information required for aircrew to book planned flights into the UKLFS and for actual flight information in the UKLFS to be subsequently recorded by the Low Flying Booking Cell, which is part of the Low Flying Operations Flight (LFOF). Actual flight information is subsequently extracted from CADS for this statistical report using a bespoke software report. The report provides details of flights by flying units/aircraft, minutes flown and area flown in.

The collection of this data can be broken down into methodological stages which are stated below:

1. Planned low flying is authorised and booked by aircrew on CADS or directly with RNAS Yeovilton, RAF Shawbury and Wattisham Army Flying Station for LFAs/NRRs 3, 9 and 10 respectively.
2. RNAS Yeovilton, RAF Shawbury and Wattisham Army Flying Station provide monthly returns to the LFOF of actual low flying activity in LFAs/NRRs 3, 9 and 10 respectively.
3. For LFAs other than LFAs/NRRs 3, 9 and 10, Flying Units subsequently provide details of actual flights; this information is entered on to CADS by the Low Flying Booking Cell.
4. A bespoke software report is run by BAE Systems Defence Information extracting CADS actual flights data.
5. The bespoke report records aircraft and flying unit, minutes flown and where aircraft flew. The number of minutes flown by day and night in each day and night low flying area is recorded in the report and split down further into Rotary wing and Fixed Wing flying.
6. The resultant report is peer reviewed within LFOF for correctness.
7. The Low Flying Analysis Cell, which is part of the LFOF, collates the bespoke report and LFAs/NRRs 3, 9 and 10 information into an excel spreadsheet for publication format.
8. The LFOF report is forwarded to Headquarters Air Command (Air Command Secretariat and Defence Statistics Air) for a sense check and conversion from minutes to hours flown.

2. Relevance

These statistics contribute to public accountability for MOD and are also available to assist in the answering of FOI and Parliamentary Questions.

3. Accuracy

Section 1 above describes the processes used to produce and check the data.

All flying activity in the UKLFS must be specifically authorised and, in most situations, booked in advance as part of aircrew planning to avoid conflict with other aircraft. Flying units are required to subsequently provide booking returns with actual times and low flying areas utilised. Detailed information on routes flown is not provided to LFOF. LFOF hastens flying unit returns but in FY16-17 there was a 4% shortfall in returns. This therefore has an impact on the accuracy of the statistical data provided.

As indicated above, certain sorties are not required to be pre-booked into the UKLFS, for example aircraft on short notice readiness. The result of this is

that there is no booking return for LFOF to hasten, thus when such flights take place the statistics do not include them.

Since the statistics are based upon the Low Flying returns which the crews complete and submit at the end of each sortie, plus information provided by RNAS Yeovilton, RAF Shawbury and Wattisham Army Flying Station, the information will also be subject to the accuracy of the individuals and the three Flying Units submitting them. LFOF cannot check the accuracy as they do not have data on the breakdown of individual sortie profiles, however all returns are checked against obvious gross error.

The total number of complaints shown in the report only includes those low flying complaints centrally recorded by the MOD Low Flying Complaints and Enquiries Unit and therefore is not complete. It excludes complaints about low flying which are directed to individual flying units and which are not centrally collated and which would be impracticable to collate.

4. Timelines and Punctuality

In general, there will be a time delay from the end of the Financial Year to the release of this report due to the time taken to chase outstanding returns, the cut-off date for which is 3 months, and to prepare the report.

The later publication of these statistics is due to a change in low flying booking software and reformatting as Official Statistics.

The release date for this publication was pre-announced on the MOD's Calendar of Upcoming Releases section of GOV.UK.

5. Accessibility and Clarity

These statistics are presented in an easy to utilise fashion and are available on the MOD gov.uk website.

6. Coherence and Comparability

Due to changes in production and methodology the statistics are not directly comparable to previously published low flying statistics.

7. Trade-offs between Output Quality Components

In order not to delay the report a line has to be drawn regarding the time allowed to chase outstanding LF booking returns. Where returns are not obtained this will impact on the accuracy of the statistical data provided. An electronic booking return process was introduced in January 2018. The process will not be fully automated as it relies on data input to CADS from individual air crew and so a 100% return rate in the future cannot be guaranteed.

8. Assessment of User Needs and Perceptions

Any interested parties are invited to contact Air-DResSec-Parlibusiness@mod.gov.uk with a view to future consultation on the format of these statistics.

The MOD invites users to provide feedback to the statistical output teams on any of their publications or reports using the contact information on the front of the publication.