



AERODROME SAFEGUARDING GUIDANCE NOTE

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Combined Aerodrome Safeguarding Team

GA1: Safeguarding Guidance to General Aviation
Aerodrome Managers & Operators



1 INTRODUCTION

This Guidance Note has been prepared by the General Aviation (GA) Focus Group of the Combined Aerodrome Safeguarding Team (CAST), supported by the CAA. The purpose of the Guidance Note series is to provide guidance to aerodrome operators.

CAST is a forum for aerodrome safeguarding stakeholders with representatives from government organisations, aviation and the private sector. The content of Guidance Notes is intended to provide guidance only and does not necessarily constitute the position of CAST members.



2 WHAT IS SAFEGUARDING?

CAP 738 states that, *“The common aim of all safeguarding is to assess the implications of any development being proposed within the vicinity of an established aerodrome to ensure, as far as practicable, that the aerodrome and its surrounding airspace is not adversely impacted by the proposal, thus ensuring the continued safety of aircraft operating at the location.”* Chapter 1.1 of the same document gives a more detailed explanation.

It is a recommendation for all Licensed Aerodromes to have a safeguarding arrangement under the terms of CAP 738. In the words of CAP 738 *“We do not hold a view on safeguarding at non-licensed sites”*. Whilst, therefore, it is not a requirement for an unlicensed aerodrome to have a safeguarding arrangement it is a very good idea to do so.

A safeguarding arrangement, once accepted by your Local Planning Authority(ies) and County Council will not render your aerodrome immune to developments. It will, however, mean that you are consulted as part of the planning process and can therefore risk assess and comment in good time. Without a safeguarding arrangement it is entirely possible that a development could be consented and under construction without you knowing anything about it. That same development could prove terminal to your ability to safely operate your aerodrome; if it's consented and under construction, it's probably too late to do anything about it.



3 PLANNING AND SIMILAR APPLICATIONS OF CONCERN TO AN AERODROME

The CAST GA Group have reviewed a number of areas of concern. This advice, allied with that within other CAP's should be used and referenced when submitting your safeguarding arrangement. The following are listed in no particular order:

- 'New Construction and Developments' along with 'Change of Use' planning applications close to your aerodrome:
 - Within close proximity; a distance of 2000m from your aerodrome, new developments can result in considerable but unintended reductions of safety margins. Further away, risks still exist in particular, presented by tall structures such as wind turbines or 5G masts.
 - Along the departure route of your runway, developments on previously open areas like farmland can reduce or eliminate areas where an aircraft can put down following an EFATO (Engine Failure After Take Off).
 - Developments of height can easily impact your arrival and departure slopes; creating obstacles.
 - New housing developments will almost certainly result in increased noise complaints. It's important therefore that your presence and operations are made clear to the Planning Officer; the presence of your airfield should then be permanently visible on the Planning Application documentation and then hopefully result in it being visible to anyone conducting a Local Authority Search when purchasing property in the new scheme.

- Cranes and Temporary Structures of height
 - With new construction comes cranes; these are usually at least a third taller than the development with which they're associated.
 - The CAA will require an applicant for a new crane to consult and have "a positive" response from a Licensed Aerodrome. For aerodromes without a licence, the Local Authority is likely the only means by which you will be notified and consulted.

- Wildlife and Bird Strikes
 - CAP 168 requires licensed aerodromes to consider bird strike and wildlife hazards within **13km**.
 - Open air waste and sewage treatment facilities (i.e. not in an enclosed building) will see a considerable increase in bird activity.

- Areas of water such as reservoirs, lakes, ponds wetlands and marshes will also see increased levels of activity, which will only grow if they are proposed as sanctuaries and Sites of Special Scientific Interest. You need to know about these schemes as, if consented, overflight will no longer be possible.
- Quarries and mineral extraction sites will increase activity.
- Proposals for mass tree planting can be made; see below.
- Solar farms can also prove a magnet to birds, see below.

- Tree Planting

- Plans to massively increase the UK's woodland areas are well publicised.
- Tree planting can result in the following issues:
 - Increased wildlife
 - Creation of obstacles; whilst initial planting will likely not be an issue, consider the growth that will take place in the next 50 years and the resulting height.
 - EFATO's: as with developments, new tree planting will considerably reduce, if not eliminate areas for a forced landing. If they're all gone, can you continue to safely operate from the impacted runway?
- The Forestry Commission will be the leading agency driving the planting of trees, members of the CAST and GAAC are engaging with them to highlight the risks to aerodromes. It is vital, however, that you do what you can to be made aware of proposed planting.

- Model Aircraft and UAV flying sites

- The dangers of flying model aircraft / UAVs within the area around an aerodrome are obvious.
- Arrangements can be made with the operators of sites, far best achieved as part of the planning process so that the arrangement can be formally agreed and imposed by being made a 'condition' of the application's approval.

- Other Aerodromes

- Although rare, applications for new aerodromes can and are made. Careful consideration is needed so that two aerodromes within proximity can agree a way of working together safely.
- Formal agreements will be best negotiated and ratified as part of the planning process and may well also become 'conditions' of the application for absolute clarity.

- Considerable coordination is required where one of the two aerodromes has an Air Display (see below). Air Displays

- CAP 403 requires a Flying Display Director (FDD) to verify that a Risk Assessed 'Display Area' is kept mainly sterile. Whilst it is possible to denote some buildings or features as an 'Avoid', the safest and clearest method is not to do so. Pilots can easily become overloaded and distracted in manoeuvres by being distracted by the need to avoid a specific structure or area.



- It's therefore recommended that your safeguarding arrangement covers ALL developments within the display areas. Ordinarily this would come as a result of a close proximity safeguarding area (see next section)
 - Where airfields are in close proximity, agreement needs to be reached which results in the Air Display NOTAM or RA(T) being respected by the other aerodrome.
 - Some aerodromes are vital to the Air Displays community as they have standing Rule 5 and other exemptions which permit display practice at any time and often without the need for NOTAM action, using an established ATZ.
- Solar Farms
 - There is a marked increase in solar farm applications and a number of companies have now specialised in the planning and construction of them. They do present risks to aerodromes, but a number of examples indicate a 'sympathetic' approach which results in consultation, potentially pre-application. Issues to consider:
 - 'Glint and Glare', the term used by applicants to cover reflections cast by the panels. This is a complex process and it looks at the angle of the sun at certain times of the day. It is possible for the study to look at the potential for glare at certain altitudes, especially approaches to runways.
 - There are two types of Glare:
 - "Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
 - "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
 - Yellow glare is of considerable concern, especially for a pilot on approach.
 - Consideration of glint and glare should be made over a wider area, it could be an issue at Visual Reference Points (VRPs) and other important points like the circuit.
 - Fixed solar panels will give a known range of times when glare is possible. That is not the case for panels which track the sun. In proximity to an aerodrome, therefore fixed, and the certainty it brings, is best.
 - Wildlife; Solar farms can attract additional bird activity as they present nesting places.
 - EFATO; as with trees and other obstacles, solar farms take away sites for forced landings.
- Balloons
 - Applications for tethered balloons, usually used as advertising, should also be covered within your safeguarding arrangement. This may seem obvious to an Aerodrome Operator but it may not be so to a Planning Officer.



4 SIZE OF AREAS

The closer the site of a planning application to your aerodrome, the larger the potential issue. Therefore, you'll end up with most of the areas of concern above in the list of applications for a area of relatively close proximity, usually a circle within 2000m from the Aerodrome Reference Point (ARP).

Wildlife and solar farm concerns require a larger area. In CAP 168, bird hazards need to be monitored up to 13000m from the ARP. CAP 738 similarly uses this measurement, for both 'Wildlife Strike Risk' and 'Other Aeronautical Use' i.e. other aerodromes and helipads. Solar farms glint and glare could well be an issue within this same area if your VRPs are near one.

The example in the Case Study, 'Anyfield', uses these areas. It's based on a real CAA Licensed Aerodrome with a total of three runways, two of which are parallel. In addition to the circle-based areas denoted, the example also includes triangular areas which are designed to protect the departures (and approaches) to the runways. These are plotted to a maximum distance of 2.5nm in this case study.





5 HOW TO PRESENT YOUR SAFEGUARDING PROPOSALS

1. Keep it simple and to the point; ideally the safeguarding proposal should be concise (1000 words or less).
2. Make it easy for the planning department.
 - a. Explain the reason why safeguarding is important for you and the planning department
 - b. Ask in advance what format of mapping they prefer. Most planning departments are digitized or in the process of being so.
 - i. In some instances, an OS Map overlaid with colour coded squares has been successful. This is the format used in CAP 738.
 - ii. Many County Councils use .kml files which can be created and read for free with Google Earth. The example which accompanies this guidance Anyfield uses this system. There are excellent tutorials online for Google Earth and the Anyfield example required very little time in working out the software.
 - iii. 'Shapefile' is another format, very similar to .kml files. There are online converters between the two formats which are free. LPA's using shapefiles can also make the conversion very easily.
 - iv. In all instances you are creating an area, denoted by coordinates. All you need to do is draw the shapes, the software does the rest for you.
 - c. Keep it simple
 - i. Identify the types of applications of concern and the area within which they would be an issue.
 - ii. Present information in the most concise way possible. If using the .kml system you can list the applications that are of concern as part of the file itself within the legend.
 - iii. It is necessary only to briefly explain why each application would be a concern; a short paragraph will suffice.
 - d. Remember that they don't have to adopt your safeguarding arrangement or consult you. However, there is good reason for them to do so.
 - e. You are only asking to be made aware of an Application automatically. You're not asking for right of veto. This process means that you should be aware of planning applications so that you can respond, nothing more.
3. Make sure you include all interested stakeholders. In the example of Anyfield below, three Councils are approached: The County Council and two Local Planning Authorities which fall within the respective

areas. Make sure you approach them all – as some planning applications are managed by the County Council.

4. Make sure you give them all your contact info. Bear in mind that most consultations will come via email. Use a reliably checked system which does not have excessive security. Check your spam folder regularly. Emails from the LPA are likely highly automated and may well be flagged.

Make it comprehensive. Try to avoid going back with revisions and additions repeatedly; it would be a good idea to think ahead as to what could conceivably occur in the future. Will the local town double in size? Is the agricultural land next door looking miserable with poor crops? If so, the farmer may want more reliable income and be contemplating a solar farm or granting for trees. In addition, it would be a good idea to sign up to be consulted on the Local Plan.



6 WHAT TO DO WHEN YOUR SAFEGUARDING ARRANGEMENT IS APPROVED

1. Make sure to review it regularly. For some aerodromes with a lot of development nearby, or large numbers of applications, it may well be worth an annual review. For those more remote; two to three years may be appropriate.
2. Respond to every consultation. Some days you may well get 20 notifications for loft extensions or 'Change of Use' for a telephone box. No matter what the application is, if you have nothing to say on it, still reply thanking the Planning Officer and stating that you'll have no comment on the Application. A Planning Officer is obliged to make sure that they've consulted everyone on their list. It will annoy them if they need to chase you and the LPA is very unlikely to follow up, the onus is on you to respond within the stated timescale, or if necessary request a longer period of time to do so. One line or a standard pro-forma will suffice and you can always copy and paste or use keyboard shortcuts to produce it. You can also ask for more details if you need these to be able to comment.
3. Expect to be approached by planning applicants and their agents. Planning professionals may seek advice from the Local Authority before applying. The LA, in turn, will look at your safeguarding arrangement and tell the applicant who the consultees will be. Therefore, out of the blue, do not be surprised by a phone call from an applicant or agent. They want to submit a planning application which is likely to succeed and there are plenty of examples where a development design is adjusted before submission to suit the needs of an aerodrome, for everyone's benefit. Don't get put on the spot; ask them to email you with all the details and then take your time risk assessing before replying. If what they are describing is an abomination which will threaten the future, do not react angrily; give a calm, detailed and measured response contemplated over a few days or even weeks rather than an instant 'no'.
4. If you have an objection, bear in mind that you are not a statutory consultee. The greater the risk posed and the more detailed you make your argument, based always on the law and safety, the more successful it is likely to be.

Get Help. There are organisations, such as the GAAC (gaac.org.uk) who can assist you in responding to or mounting a defence against unwanted applications. In addition the Airfield Advisory Team are a non-regulatory department within the CAA who are well placed to support (aat@caa.co.uk). For complex issues you may wish to consider retaining a planning expert to assist you.



DRAFT SAFEGUARDING ARRANGEMENT

Anyfield Aerodrome (EG??)

Draft Agreement between Aerodrome Holdings, owner of Anyfield Aerodrome, Some Road, Somewhere, AN1 1FL and Some County Council, The Local District Council and Neighbouring District Council(s)

Introduction

Aerodrome Safeguarding is the process by which aerodrome operators ensure the airspace around the aerodrome is safe for aircraft. An element of process is used to ensure that appropriate procedures are in place when considering any development or change in activity in close proximity to an Aerodrome. The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction of 2002 refers.

Within the Direction, forty officially safeguarded aerodromes (including Airports) in the UK are identified. Anyfield is not amongst them. In common with the vast majority of the UK's aerodromes, special consideration is required to protect its established operations as a place of intense aerial activity.

The purpose of this safeguarding arrangement is to ensure that all developments within the area around Anyfield do not compromise the safety of aircraft and persons using the Aerodrome and its surrounding airspace. Further, it is vital that developers know in advance of the need to take the presence of the aerodrome into account when developing their proposals. We would also respectfully suggest that such considerations form part of the respective Local Planning Authorities' search results. The following plan sets out the areas of concern and lists within them applications which should be referred to the Aerodrome for consideration and comment.

Location

The Aerodrome's ARP (Aerodrome Reference Point) is located at Latitude: 522951N Longitude: 0010307E

A .kml file of this location accompanies this submission.

Proposed Areas

In order of size, a total of three areas, based upon simple circles, are proposed, including the extant Map. In addition, four roughly triangular areas cover the departure areas for each of the Aerodrome's runway directions. Each area and the applications of concern within them are identified below:

Area A, a circle of a radius of 13,000m (13km) centred on the ARP

Applications of Concern:

- Developments or Structures in excess of 15m in height.
 - Covers the potential risk of the creation of an obstacle which will endanger aircraft.
- Applications for the establishment of an Aerodrome or Heliport
 - Considerable co-ordination may be required between Anyfield and any new Aerodrome in order to manage aeronautical considerations.
- Proposed new tree planting – large forestry or similar schemes
- Waste Management Facilities not fully contained within a building
- Creation of bodies of water such as reservoirs, lakes, ponds, wetlands and marshes.
- Nature Reserves & Bird Sanctuaries
- Sewerage Disposal, treatment and plants.
- Quarries and Mineral Extraction

All of the above applications may result in increased bird and wildlife activity and therefore risk of bird-strike or runway incursion.

- Model Aircraft and UAV Flying sites
- Solar Farms
 - Risks posed by potential Glint and Glare
 - Potential for increased Bird Activity
- 5G and other radiotelephony Masts
 - Potential for interference with Navigation and other Aeronautical systems.

Area B, a circle of a radius of 1.07nm (2km) centred on the ARP

Applications of Concern:

- ALL applications for new Construction, irrespective of Height.
 - In addition to the potential for creation of an obstacle by taller structures, the reduction of open areas and farmland will also limit the options for a forced landing in the event of propulsion failure or other emergency.
- ALL Change of Use Applications
 - The potential for a change of use to increase the risk of bird and wildlife activity along with other issues identified.
- ALL Cranes and temporary Structures
 - CAA Regulations require all Crane Operators to make an application and have positive confirmation from Anyfield before erection. Applicants who do not do so will, it is to be assumed, apply to the relevant Local Authority. Cranes can present an obstacle to aircraft.
- ALL applications for tethered balloons.
 - Tethered balloons will present an obstacle, potentially and their maximum height Above Ground Level will be considered when assessing the risks they may pose.
- Solar Farms
 - In addition to the potential issues identified in Area B, solar farms in close proximity also result in the reduction of open areas and farmland in the event of a forced landing.
- Distracting Lights (eg. Nightclubs)
 - The Aerodrome has planning permission for operations after dark. Applications which result in high intensity and/or flashing lights may cause a distraction to pilots. By way of example, a poorly planned street lighting scheme adjacent to a runway resulted in a pilot lining up to land on the street.
- Balloon Releases
 - Whilst mass balloon releases (including airborne lanterns) have greatly reduced due to environmental concerns, such releases would pose a threat to air traffic and, where the councils are informed of such activity, we would be obliged to know.

Departure Zones

We have identified four triangular areas which emanate from each of the runway directions used at Anyfield. These areas will encompass every departure from the airfield. The Applications of Concern are the same as for Area C.

These zones are created using the widest range of likely departure (and arrival) paths taken by aircraft, limited to a distance of 2.5nm (4.63km) from the Aerodrome.

Contact

For all enquiries and further discussion.

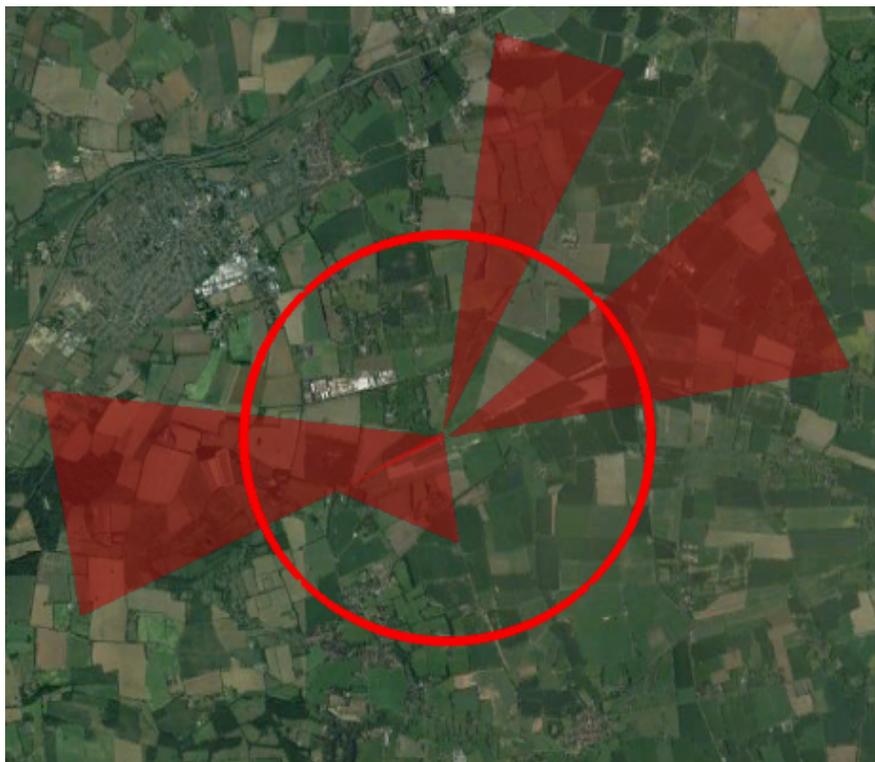
T. Manager, Aerodrome Manager. T: (0****) *** ***. Mobile: (0****) *** *** Email: t.manager@anyfield.com

For all consultations, please email:

Airfield@anyfield.com

Visual Representation of the Areas

When Plotted using Google Earth, the accompanying .kml files will appear as per the below image.





This Guidance Note has been produced for information only by the GA Focus Group of CAST (Combined Aerodrome Safeguarding Team) with the support of the CAA.

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