



Planning and operational requirements for light aircraft

AOPA provides free first aid help on planning and operational matters relating to General Aviation airfields and airstrips. For more information contact the association at info@aopa.co.uk.

This fact sheet is concerned exclusively with the choice of sites and operational requirements and relates solely to light fixed wing aircraft. For assistance relating to helicopters, gliders, microlights, paragliders etc, please contact the appropriate GA organisation.

A. The site

1. Choice: If you have a choice of site and/or have space to select the nature of the site layout, there are many points to consider at the initial planning stage.
2. Available length: What length of strip do you need for the aircraft type(s) you propose to operate? Add to this an allowance for long or wet grass (giving poor braking) uphill/downhill slope, ability to use the full length for take-off and landing - bearing in mind obstacles on the site or close to the site. Make sure that you do not reduce the usefulness or safety of the site by planning to erect a hangar or other building in line with the runway or close to the approach/climb-out funnel.
3. Available width: Many strips are too narrow, with obstructions close to their sides. Plan to allow for a possible swing due to a crosswind or even a tyre-burst on touchdown. Make sure that there is room on one side or the other for aircraft parking well clear of the active strip. (The Civil Aviation Authority (CAA) recommended minimum separation is 30 metres). Should you wish to have a licensed aerodrome, CAA requirements are described in [Civil Air Publication CAP168 \(The Licensing of Airfields\)](#).
4. Choice of heading: If possible, aim to have the strip aligned with the prevailing wind, which in most parts of the UK is on a north-east/south west heading (04/22 is about the best). Any direction far removed from this will reduce the number of days on which safe operations are possible, especially with tail-draggers. If you have space for a second strip, plan for it. The local authority or neighbouring residents may assume that a second strip means a bigger/busier site. You may need to explain the safety issues and the fact that this spreads the traffic more thinly over any point, which is environmentally beneficial.
5. Surface and condition: The strip used for take-off and landing should be as smooth and level as possible. Check drainage - the site might seem fine when you look at it in June, but will it be safe to use in the winter months?
6. The locality: Could you operate safely, carrying out a conventional circuit and approach without overflying sensitive areas? Consider what scope you may have for modifying operating procedures to minimise disturbance, but accept changes from standard practice only if there is no detrimental effect on flight safety. This is an aspect that the local authority and the neighbours may not understand.
7. Safety: Is the site used by other people, for example does a public footpath cross it? The associated risks can be reduced through footpath diversion and/or the provision of warning notices.
8. Convenience: If the strip is for your own use and is a part of your property, this is not an issue. However, if you need to make the operation economically viable, its location and available facilities must suit potential users, e.g. hours of operation, provision of hangarage and fuel?



9. **Airspace conflict:** Is the site clear of (or well beneath) controlled airspace? Will your plans conflict with activities at a neighbouring aerodrome? If there are problems on either of these points, take care, but sensible operating agreements have worked well at many places.
10. **Recognition:** You may wish to consider having the site marked on topographical air charts. This may help to keep over-flying aircraft away from your site but identification could encourage use by visiting pilots, whom you may or may not wish to welcome. Your attitude to this may be dictated by any planning constraints (e.g. movement numbers, hours of operation) that may be imposed by the Local Planning Authority (LPA). A request for inclusion in the CAA's VFR charts should be made to the VFR Chart Editor vfrcharts@nats.co.uk
11. **Intended scale of use:** Consider carefully the extent to which you wish to operate the site. If your aim is to provide a home base for your own and/or a couple of aircraft owned by your colleagues, keep it that way. This should not be a cause for complaint by any reasonable person. Conversely, if you are thinking of organising aerial events, consider the consequences. For example, fly-ins can be great occasions, but may lead to local objections when previously there were none.
12. **Intended nature of use:** It is not just movement numbers that affect the neighbourhood, it is also the aircraft sound qualities. Powered light aircraft taking off and flying away, repeated circuit work, helicopters, glider towing, aircraft carrying parachutists, microlights, etc., all create different levels of public reaction.
13. **Official help:** Various official organisations will advise you on specific matters, e.g. the Directorate of Airspace Policy (DAP) advise on airspace conflict or on problems relating to low flying military aircraft and the CAA provides advice on airstrips; [CAP 793 "Safe Operating Practices at Unlicensed Airfields"](#) is recommended reading. Also, help may be available from your representative bodies, e.g. BGA or BMAA, or further help from AOPA.

B. The operation

1. **Safety:** This must be at the top of your priority list. Not only must the physical layout of the site be designed to enable operations to be conducted in safety, but you should prepare a set of conditions by which all users will need to abide. In discussions with the LPA, do not accept constraints that would be prejudicial to safety of the operation. Aviation safety issues must take precedence over planning considerations - they affect not only the aircraft/airstrip users but also those who live in the neighbourhood. Decisions on matters affecting flight safety are the responsibility of the CAA and not the LPA.
2. **The practical aspect:** The LPA may, in good faith, put forward proposals that are wholly impracticable from an aviation standpoint. Planning officers cannot reasonably be expected to understand detailed aviation issues, so you must be prepared to explain what is and what is not safe or sensible.
3. **Movements:** Planning considerations relate to land use. Take-offs and landings fall clearly under this heading and the LPA can impose restrictions on numbers. A movement is a take-off or landing, so any limitation on movements means that you would be permitted to carry out only half that number of flights. As constraints are generally based on noise amelioration issues, take-offs should form the basis of any agreement or condition. Ideally, limitations should be based on annual or monthly figures as daily limits tend to be less flexible.
4. **Hours of operation:** Ensure that any such limits do not reduce the practical value of using an aeroplane, e.g. if take-offs are banned after a certain time on a summer evening, ensure that landings can be made at any time. It is important to stress the practical aspects of using an aeroplane, whether for business or pleasure, and the consequent need for flexibility.
5. **Flight paths:** Once an aeroplane's wheels leave the ground its movements are no longer a planning issue. The LPA cannot impose conditions affecting the passage of aircraft in the air, but often a workable agreement can be



reached to avoid unnecessary over- flying of noise sensitive areas. This is most easily established by incorporating 'no go' areas under local flying rules in a site's operating handbook/manual.

6. Highway safety: If your proposed airstrip runs towards a road at, or near, a right angle, concern may be expressed that aircraft would cross that road dangerously low on take-off. Such a view may be based on the erroneous thought that an aeroplane runs along the ground for the entire strip before lifting off. Therefore, you may need to explain matters such as average take-off runs in relation to the available strip length and the likely height at which a machine would cross the boundary.

AOPA provides free first- aid help for members. If you are not yet a member, you will be welcome to join. If you seek further guidance on operational or planning issues beyond initial help, this is available on a consultancy basis for a modest charge. Please ask.

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October 2009