CSC Sites Guides – Notes for sites officers

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Introduction
Having many sites officers has produced inconsistencies across the guides.
It's hoped these notes will improve that consistency.

There are two parts:

1. Guidance on hazard reporting and content.

2. A memory jogging checklist of 'things to consider' for inclusion in the guides.

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Part 1 – Guidance on hazard reporting and content

Overview
The sites officer is responsible for what goes in the guide but should at least mention any 'greater than normal' hazard. The following may help with that definition...

Power lines/suspended cables
As a minimum we should do our best to map the most dangerous lines. These include those that are in, or bordering, the landing fields and any in the fields immediately adjacent to the landing fields. We should also map any that are a threat at take offs or might be encountered during normal ridge soaring.

Rotors
If the sites officer feels a rotor presents a greater than normal hazard it should be mentioned. Those rotors should also be illustrated on the map with words. This should ensure clarity about which features generate the rotors without trying to define the extent of the rotor. The old defined rotor areas (eg Ullock, Souther and Walla) have been removed and replaced with words. Windy gaps at Blease and Whitestones are to remain marked as they are now.

Sea breeze
As a minimum it should be mentioned at sites where it makes flying more dangerous and where it makes the site unflyable (to help a late arrival decide on which site to go to). The direction it usually comes from should be included and a rough idea given as to how early it can arrive.

XC potential
Only a rough idea about XC potential should be given. We don't want to encourage XC flight from within the sites guides, so describing specific routes should be avoided.

Sites guides update frequency
Ideally we'd check the details for each site annually. Power lines move, trees grow etc. Please record the date when the guide was last known to be accurate. There should be a field for this. Then if a site has not been checked for years we'll know.

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Part 2 - A memory jogging checklist...

This is not intended to list what you should include in the sites guides but as a memory jogger to try and prevent issues being overlooked. The sites officer must decide what's appropriate for the site in question. It's focus is on the flying and flying hazards at a site. Parking and the nearest pub may not be mentioned.

Undecided about how much detail to include? Imagine yourself on the hill talking to a newly qualified club pilot who's never flown anywhere like the Lakes before. Would you choose to share the information with them? If the answer is yes, perhaps it should be in the guide? Is there any issue at the site in question that is unusually hazardous, surprising or just something you feel might catch out a pilot with poor judgement? If so then perhaps it should be in the guide? Is there a notable accident history associated with the site? If so, perhaps it should be covered.

If the checklist raises any questions then please share your thoughts with the CSC committee so we can improve it.

The memory jogging checklist...

Site difficulty

Is the site suitable for all pilots? If not, what experience is necessary and why? Pilot rating/hours? Hang gliders and paragliders? Speedwings?

Smaller wings and speedwings

An easy glide for a paraglider might be impossible for a speedwing? Any other wing-size related issues?

Accidents

Is there anything about the site that has caught pilots out?
Have you searched the BHPA incident reports for any accident history?
A site specific search is possible for informal investigations -
https://www.bhpa.co.uk/documents/safety/informal_investigations/
Formal investigations - https://www.bhpa.co.uk/documents/safety/formal_investigations/
There have been accidents at our sites that have not prompted sites guides changes. Perhaps they should have?

Wind

Wind direction

What range of wind directions does the site work with and is generally safe to fly in?
Does the site become particularly dangerous beyond the recommended range? Why?
Does anything change significantly with the wind direction? eg At Clough, with some south in the wind, the deeply gullied cliffs can be both soarable and dangerously turbulent at the same time.

Wind strength

Wind gradient – is it unusually severe anywhere?
Top landing areas – can any become dangerous if the wind shifts or strengthens?

Does the hill blow out quickly? Are there any signs at the bottom that are a guide to wind strength higher up?
Being blown back – is there a good strategy at the site?
Can strong wind make the bottom landing unusually difficult or dangerous to reach?
Are there any other issues that are unusually dangerous with a stronger or shifting wind?

Sea breeze
How far is the site from the sea? Is the site prone to sea breeze?
What direction/s does it tend to come from?
How is the flying affected when it arrives? Can it be dangerous? How?
When does it typically arrive? How early and/or late can it arrive?
Are there any local signs that can warn of it's approach or indicate it's presence?
eg A nearby tarn, chimney smoke, wind turbines, trees, boats etc
What's the best strategy if the arrival of the sea breeze is suspected? Is the regular landing field still safe? If not, what should the pilot do and where should they try and land?

eg Blease Fell can become very dangerous in a sea breeze. It has a significant accident history associated with the breeze. Currently the breeze is not mentioned in the guide. Similarly, several other sites guides for breeze affected sites do not mention it at the moment.

Wave
Is the site known for experiencing wave effects?
Are there specific wind directions or local conditions that more often produce these effects.
What local signs are there, if any. How dangerous can it be?

Katabatic flow
Does the hill spawn significant katabatic flows? When?

Variations with time of day
Does the site experience notably different conditions at different times of the day?

Any other unusual changes with wind that warrant comment?

Hill and local topography

How high and long is the hill? Does it's shape require comment?
Is the hill sufficiently small to comment on glider numbers? Is there any 'official' limit?
Are there any areas where flying is prohibited?
Top to bottom height difference? Is the walk up from the landing areas shown on the map?
How steep, grassy, rocky? Any unusually hazardous or hidden features? eg Water, gullys, spurs..
Upwind – Is there anything that can cause problems at the site and under what conditions?
Where and what upwind can be the problem?
eg At Swinside at least one pilot has been injured flying into the lee of Dodd.
Scratching – is it safe or allowed? Any hard to spot wire fences, bracken, hidden rocks etc?
Rotors – are there any areas with suspected rotors or bad mechanical turbulence? Where?
Specific wind directions only? Are they mentioned on the mapp appropriately.
Venturis – are there any on the hill or ridge or at the sides? Where? How dangerous are they?
Compression – can it be unusually pronounced anywhere? What's it like at the top?
XC - what's the terrain downwind like? Any other issues to be aware of if leaving the hill. eg Sinky areas, water, danger areas, steep sided valleys, no roads, any airspace in the vicinity?

Any other unusual changes with conditions that warrant comment?

NOTAM/CANP

Is the site vulnerable to close encounters with other aircraft, military jets etc.
Site code? Any site rules?

Coastal sites

Bottom landings? How do they change with the tides (spring/neap)? Any sections that are never bottom landable? Lifejackets? Tide tables?
Wind turbines on the ridge? Narrow lift band issues, passing clearance. Cliff issues – rotors top and bottom? Land breeze in the evening? Any safe top landings? Scratching dangers? Keeping clear of walkers/roads on cliff top paths? Railway line, turbulence off trains? Power lines?

Landing areas

Bottom landing

Can the bottom landing field change from day to day? Do the differences warrant comment?
Is it a good idea to recce the bottom landing fields?
Is the landing field big or small? (Dimensions are unambiguous) Large enough for tandems, hang gliders or for several gliders to arrive at the same time? What's the best alternative if on arrival the main field is busy. Any hazards in the adjoining fields? (eg Threlkeld power line crash)
Does the bottom landing area slope significantly? How? Is it flat or trickily lumpy?
Are there any dangerous areas below the hill that should definitely be avoided? Limestone pavements, cris-crossed with power lines, turbulent etc. Coastal sites will have very particular problems.

Any notable hazards to fly over to reach the landing area. eg suspended power lines or cables, rivers, railways, roads, walls, aerial masts, buildings, rocky outcrops etc?
Can the wind direction in the landing area differ to that found on the hill? Why?
Is a wind sock recommended? Is it prone to katabatic flow? Under what conditions?
Can the landing field be easily identified at take off?
Can the landing be reached easily or must height be carefully monitored to ensure a longer glide?
Wind gradient – is it unusually severe?
Can the air anywhere near the landing field be unusually turbulent. Why?
Can conditions at the landing field vary unusually with the season? Winter inversions etc
Any other unusual changes with conditions that warrant comment?

Top landings

Are the top landings suitable for all pilots or do nearby rocks/hazards require good precision and control for a safe landing? Can the hill profile cause turbulence anywhere near the top landings? In different wind directions? Can a glider generally drop well behind the ridge front on approach or might that cause problems? Is compression particularly pronounced on the hill?
Any other unusual top landing issues that warrant comment?

Thermals

How is the site oriented to the sun? Any resulting effects that warrant comment?
Where are known thermal triggers? Is there a 'house' thermal?
Are thermals plentiful at the site? Any areas that are particularly thermic? Screes or rock faces?
Is the hill known for particularly strong, rough or good thermals.
Can the thermal activity produce good flying on a nil wind day?

How turbulent can the site get with stronger winds on a thermic day?
Can leeside thermals cause problems?
Is the site in a convergence zone, related issues? Sea breeze signs?
Any other unusual changes with conditions that warrant comment?

Take off areas

Are there significant differences between different marked take off areas that warrant comment?
Where are the best take off areas? Why are they better? Grid ref/GPS fix?
Can any take off areas be unusually dangerous to launch from. eg Nil wind at Walla Crag
Any other unusual changes with conditions that warrant comment?

Other conditions / seasonal changes

Shear layers in winter, katabatic flows, high/low pressure differences, hill height & cloudbase
Spring thermals? Anything else unusual that warrants comment?

Site/hill map

Where required are the following included and correctly shown?
Power lines or other suspended cables.
Take off and landing areas. Walk up route?
Any prohibited areas, exclusion zones or other dangerous areas to be avoided?
Rotors, venturis, windy gaps and any other turbulent areas?
Any other hazards that should be marked? eg lakes, trees, wind turbines, accident black spots etc

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Final checks

Check that the right information appears under the correct tab. The guidance text that accompanies the online entry form should help.
When the guide is finished and checked please compare the details against what else is on the website just to make sure all agree. There are four main 'gateways to the guides'.
Site index - http://www.cumbriasoaringclub.co.uk/SiteManagement/CSC_SiteIndex.php
Map (OS) - http://www.cumbriasoaringclub.co.uk/SiteManagement/CSC_OSMapSites.php
Map (Google) - http://www.cumbriasoaringclub.co.uk/SiteManagement/CSC_GoogleMapSites.php
Wind rose - http://www.cumbriasoaringclub.co.uk/SiteManagement/CSC_WindRose.php
Note: 'Site alerts' are identical to 'Status messages' found under the sites guides 'key facts' tab.

Also check that there isn't any historical information that should be removed.
eg Sites that we no longer fly but are still listed etc.

Not directly flying related

Sites officer or local contact, photos, site records, access, parking, landing fields, landing fees, permissions, walk-ins, wind sock scheme, local avoidance areas or rules, permitted useage times, dogs, pony trekking, nesting birds, lambing, crops, livestock, nearest pub, nearest phone, mobile signal, when was the guide updated...anything else?

All done?

The revamped sites guides records who updated the sites guide and when. An annual check for sites guides accuracy is desirable.