

Mobile phone apps that may be useful for mapping

GPS

iPhone:

Lots available, but you need one that does the OS grid if you are mapping in the UK. Best of the bunch for me is 'GridPointGB' (but beware the low accuracy of phone GPS in comparison with Gekos). 'Basic GPS' is also good but you need to buy the 'Ordnance GB' datum separately (or European 1950 for Spain). Aruna has loan Gekos on a first come/first served basis.

Android:

'GPS essentials' [FREE]



provides a range of GPS facilities, however position is either in Lat Long or UTM. Best to use the map apps (see below)

Topo maps

iPhone:

If you have a birthday coming up, consider Route Buddy UK's 1:50k and/or 1:25k maps, which gives you the standard map on your phone. It's best to go for the individual rasters like these rather than the more expensive MemoryMap or Anquet products (which are rubbish on a phone and costly to boot)

Android:

Google maps [FREE]



can be useful to check location if there is good aerial photo coverage and if you have signal, but beware data usage. Similarly:

Google Earth [FREE]



OS Map [FREE]



can provide an OS map view of your position and provide readout of Lat Long and 6 figure Grid Ref. Useful for a quick check on your position. However to see a map you need to be online, i.e. have a signal and beware data usage.

OS atlas Lite [FREE]



and OS Atlas [£1.99] does roughly the same, but with a slightly better 8 figure grid ref. Can use cached map tiles, but you still need to be online to get them in the first place.

GPS Grid Reference [Lite £2.99][Full £4.99]



has the added bonus of being able to use maps offline. So you can download required map tiles from a range of sources when in WiFi range and then switch off the phone's wireless functions (airplane mode) so you just use GPS to save battery. OS grid ref up to 10 figures (NB. Consider phone GPS accuracy)

Backcountry Navigator [Free trial for 2 weeks, Pro version ~£5]



is similar to GPS Grid Reference using offline map tiles.

All the above support GPS logging (battery hungry), GPX import and export as well as import/export of a range of other GPS file formats

Clinometer

iPhone:

'Clinometer' comes first by miles. 'Strike & Dip' and 'GeoCompass' come a distant second.

'Lambert' allows you to plot stereonet in the field. Remember that is using with the built in compass, the latter does not correct for magnetic declination.

Android:

GeoClino [FREE]



There is a free version, a Lite version (~£5) and a full version (~£40). This app can record strike and dip as well as plunge and azimuth. Free version lets you record 100 data, and the paid version (very expensive – I haven't bothered) allows 500 data to be recorded. It also has a stereonet function. Another drawback is the use of online maps so you can't rely on it to show you location, just record position.

eGeoCompass [Free]



only has dip azimuth or dip strike. You can use the dip and azimuth to record lineations but be careful about how you record these. Doesn't require a map to locate but can offer a map preview and does record position.

Rocklogger [£6]



same idea. Can also record magnetic field strength in μT (Earth's field is something like 30-90 μT , not that useful to be honest) and can take geotagged photos on some phones. This app does allow you to organise data into bedding, cleavage and lineations of several generations. It can arrange data into sections. You can set it to GPS only, or you can set it to record strike and dip etc.

GeoClino [FREE] is not a compass clino. Its useless.

Geological maps

iPhone and Android:

'iGeology' from BGS is an absolute must. Scrollable 50k maps limited only by the download speed (absolutely beautiful on an iPad)

Android market code:



Others

'Trails' gives you a constant GPS log through the day which you can then use to georeference photographs (hungry on batteries though – best to use department GPS). 'Theodolite' is an excellent and beautifully thought out levelling tool, but I've yet to think of a use for it in the field. 'MagVar' gives magnetic declination relative to true north for any point in the world using the built-in GPS, but without know what the grid north offset is it's practically useless in the UK (use the legend column of an OS map). Tasa Geology have an excellent geological timescale based on the IUGS version, so it's bang up to date – good if you can't remember your stratigraphic column. iGeoLog is a rubbish French sedimentary logging package – use a piece of paper, it's quicker.

Android:

Tide 7 [£1.47] tide predictions.



Smart measure [FREE]



Can be used to help judge distance – useful for measuring thickness of a bed (using horizontal distance x sin of the dip). Need to input the height off the ground that you are holding the phone.

Finally Otterbox have a splashproof case to protect your phone from knocks, splashes and grit in the field, but they are not fully waterproof; Overboard and iDry supply watertight, transparent bags.