

The Database of British and Irish Hills

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The main development in 2017 was the addition of the Dodds. This was always likely to happen once the category had been adopted by Rhsoc, but we ran a consultation exercise on the two forums to check that it had majority support among those who cared. Somewhat to my surprise, there was a solid majority in favour of retaining the Highland Fives. The three Sub categories were merged into a Subdodd class, so the 500s now have a similar taxonomy to hills over 600m.

Dave Marshall joined the editorial team in June. Dave has been helping us on data reviews and technical projects since 2012 and more recently had joined us on some surveys. His enthusiasm for LIDAR work is particularly valuable as we try to keep up with the stream of suggestions for new Tumps. Dave is domiciled in Aberdeen, which broadens the team's geographical spread.

Ordnance Survey recently replaced the online Get-a-map with OSMap. The product is based on different photogrammetry from their paper maps and Geograph. There are no spot heights and less contextual detail, but the largest scale gives contours at 5m intervals. We have established that col interpolations from OSMap are 60% more accurate than col interpolations from Geograph 10m contours, the default in upland areas.

LIDAR has become a routine tool in lowland areas outside Scotland. Most analyses have been prompted by suggestions for new Tumps, but we have started to use LIDAR to investigate competing summit locations from GPS submitters. Alongside a raft of proposals from Chris Pearson and others, Rob Woodall compiled a list of 318 possible Tumps from an analysis of the SRTM topography dataset by Andrew Kirmse and Jonathan de Ferranti. Ploughing through these has occupied George, Dave and me for several months, but we have 16 new Tumps to show for our efforts. Meanwhile we are learning more about the accuracy and limitations of the technique. One finding has been just how poor the DTM model can be in trees. On one hill in forestry the LIDAR summit is at least 6m too low. Another 'summit' was 3m below the highest ground observed on a site visit and 30m out on position. In such terrain photogrammetric heights on maps are sometimes as good or better, but we don't yet know which of Geograph and OSMap is the more reliable. The DTM also has a disconcerting habit of removing summit rocks, and is inconsistent in removal of hedges, embankments etc. Where there are no complications the accuracy can be very good indeed, justifying decimal heights and judicious addition of 10-figure grid references to the GPS Database.

Technical projects continue when we have the time. We have conducted further experiments to estimate precision and bias in the latest generation of walkers' GPS instruments. The newer Garmin models have similar accuracy to the original etrex, only slightly improved by GLONASS, but Satmap Active receivers are considerably more accurate.

Once again, thanks to everyone who submitted GPS measurements, and to Alan Dawson whose large batch of survey results arrived just in time for version 16.



An Stac (photo: Chris Crocker)