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Hva er UTM og nord

What is UTM and north

In this magazine all coordinates are given in Euref89, which corresponds with WGS84. This system is also used on new maps in Norway in the 1:50 000-series with blue grid. (Older maps, with black grid, use ED50.) Norway lies in the zones 31-36, but it is recommended to use only 32 (from south to the border of Nordland), 33 (Nordland and Troms) and 35 (Finnmark). If one handles data for the whole country as one, zone 33 should be used. Be aware that a GPS unit automatically will show and store data relative to the zone you use it in, but you will have to manually choose Euref 89.

The compass we use to survey caves gives a bearing relative to magnetic north, (i.e. the direction of the magnetic north pole). Norwegian maps in the 1:50 000 series shows north as grid north. And last but not least we have true north, which is the direction to the North Pole. True north and grid north is invariable, whereas magnetic north changes from place to place and varies in time. The question that arises is whether, and if so, how to calibrate the compass readings. On Norwegian maps the deviation given is between grid north and magnetic north.

There are several solutions to calibration:

1. Do nothing. Easy, but not a good idea if a project continues over several years, because the readings will have significant differences.
2. Calibrate to grid north. Possible to integrate the cave on a topographic map.
3. Calibrate to true north. Gives a data set that is indifferent regardless of system and time.

There are also several possible levels of accuracy, reflected in the relation between deviation and time. In Tjorve the difference in deviation from 1993 to 2008 is 2,6 degrees.

Be aware that the sign is opposite when drawing a map on the basis of compass readings as opposed to taking a bearing from a map.

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