

Glossary

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atomic clock

Very accurate clock which uses the known properties of certain atoms to record time.

cadastral maps

Maps which show who owns land.

cartography

The process of drawing or making maps.

control tower

A tall building at an airport from which the movements of air traffic are controlled.

coordinates

Angular or linear values that give the position of a point on a map.

covenants

Legal agreements to do with land use.

datum

A set of values used to define a specific geodetic system e.g. MSL - Mean Sea Level.

dead reckoning

The process of calculating your current position by using a known position, or fix, and working out your new position based on known or estimated speeds over the elapsed time and course.

easements

The legal right to do something on your own or someone else's land.

echo-sounding

The modern technique used to measure water depth by bouncing sound waves off the sea floor.

elevation

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The height above mean sea level.

erosion

Process of wearing away and transporting of rocks by wind, rain or ice.

fix

In navigation a fix is a position which is found by using known reference points and measuring from these.

flight path

A specified route that an aircraft takes.

geocaching

A sport where people use GPS to hide and seek containers called caches or geocaches anywhere in the world.

geographic datum

A datum which is based on the Earth's centre of mass. The advantage of the geocentric datum is its direct compatibility with satellite-based navigation systems such as GPS.

geologist

A scientist trained in the study of the Earth.

geology

The science of the make-up, shape and history of the Earth.

geospatial

To do with location.

geospatial data

Data or information about the location of specific things.

GPS

Global Positioning System - uses the known distance between satellites to calculate exact locations.

GIS

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Geographic Information Systems - maps that combine sets of information.

hydrographic surveys

A survey which records the physical features of waterways.

hydrography

The science of measuring and describing the physical features of waterways.

infrastructure

Services such as roads and water systems.

intersection

Sometimes called triangulation. Where the known angles and distance between points is used to calculate the location of a distant point.

latitude

Distance from the equator in degrees, shown as horizontal lines on a map.

longitude

Distance east or west from Greenwich, England, in degrees shown as vertical lines on a map.

nautical charts

Charts or maps of features at sea such as reefs, coastlines, shipping hazards and sometimes water depths and currents.

navigation

The process or activity of accurately working out your position and planning and following a route.

radar

An object-detection system that uses radio waves to determine the range, altitude, direction, or speed of objects such as aircraft.

satellites

Objects which are sent into space to orbit the Earth and send and receive information.

sounding line

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A line with a lead weight on the end which is lowered into water to measure the water depth.

surveyors

People who specialise in making accurate measurements on the surface of the earth to make maps.

theodolite

An optical instrument used by surveyors to measure angles to give exact locations of distant points.

topographic

The shape of the Earth's surface.

topographic map

Shows the shape of the surface, including altitude as well as natural and physical features - sometimes called a contour map.

trigonometry

A type of maths that measures the angles and sides of triangles and uses this information and set formula to find the unknown sides and angles. This type of maths can also be used to find the location of distant points.

utilities

Services such as water pipes and power lines.

waymarking

An activity where people can locate and log interesting locations anywhere in the world.

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