

FIND OUT MORE ABOUT GNSS

GNSS stands for Global Navigation Satellite System and is the collective term for satellite-based navigation systems which allow users to determine the position of a receiver anywhere in the world

HOW DOES GNSS WORK?

Global Navigation Satellite Systems have been in common use since the late 1980s.

Each system consists of a constellation of satellites, placed at an orbital height of about 20,000 km, which transmit positioning and timing data to GNSS receivers.

Simultaneous measurements from at least four satellites are required to calculate the position of a receiver.

This gives us very precise location data which we can use for measuring, monitoring or navigation.



WHAT'S IN A NAME?

Although you may be more familiar with the term GPS rather than GNSS, the distinction between these terms is important if you're using satellite systems for measurement purposes because each system works in a slightly different way.

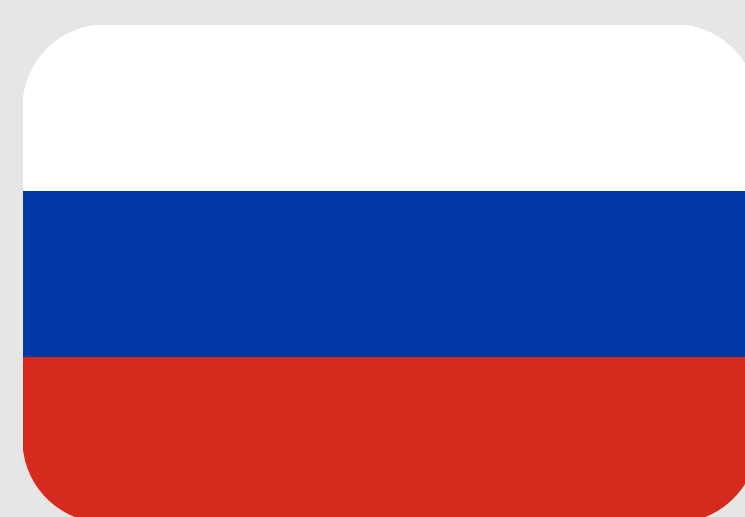
Different countries have developed their own GNSS. As of 2020, there are four main GNSSs:



GPS



Galileo



GLONASS



BeiDou-2

WHAT IS IT USED FOR?

GNSS is currently being used in a variety of fields where the use of precise, continually available position and time information is required, including mapping, engineering, land and marine navigation, monitoring of natural hazards, tectonic plate monitoring and increasingly for sport and leisure activities.



For more information visit:
ncl.ac.uk/engineering/undergraduate/geospatial