Scientists are warning that Global Positioning Satellite signals from orbiting satellites could be drowned out by increased solar activity in 2011 and 2012. The solar cycle lasts a period of 11 years, and GPS systems which have become relatively popular during this low period of solar activity, could be disrupted by the next solar cycle which is expected to be up to 50% stronger

than the previous one. Charged particles from solar flares emit intense bursts of radio waves around the 1.2 and 1.6 gigahertz ranges, which also happen to be used by GPS for aircraft, naval and emergency location systems, power grids and mobile telecommunications.

Quote: "Navigation, power and communications systems that rely on GPS satellite navigation will be disrupted by violent solar activity in 2011, research shows. A study reveals Global Positioning System receivers to be unexpectedly vulnerable to bursts of radio noise produced by solar flares, created by explosions in the Sun's atmosphere. When solar activity peaks in 2011 and 2012, it could cause widespread disruption to aircraft navigation and emergency location systems that rely heavily on satellite navigation data.

Source New Scientist Tech