

Answer on Question#37484 – Physics - Other

Why are satellite TV dishes in the northern hemisphere pointed south and in the Southern Hemisphere pointed north?

Answer

The satellite repeater of the television signal is situated on the ***geostationary Earth orbit***.

A geostationary Earth orbit or geosynchronous equatorial orbit (GEO, is a circular orbit 35,786 kilometers (22,236 mi) above the Earth's equator and following the direction of the Earth's rotation. An object in such an orbit has an orbital period equal to the Earth's rotational period, and thus appears motionless, at a fixed position in the sky, to ground observers. Communications satellites are often given geostationary orbits, so that the satellite antennas that communicate with them do not have to move to track them, but can be pointed permanently at the position in the sky where they stay.

According this (such as a satellite is situated "on equator") in all points in the northern hemisphere (on the north from equator) the dishes pointed south and in the southern hemisphere (on the south from equator) pointed north.