

EXAMEN : Baccalauréat général - Série S-SVT ou S-SI	Session 2013
ÉPREUVE : Evaluation spécifique de Langue en section européenne	
PHYSIQUE-CHIMIE en langue ANGLAISE	
Thème : « Mécanique et ondes »	Sujet n° 11

Uses of Satellites

Satellites are launched into space to do a specific job.

Astronomy satellite, e.g. Hubble Space Telescope

An astronomy satellite's vision is not clouded by the gases that make up the Earth's atmosphere, so it gives clearer pictures than telescopes on Earth. Astronomy satellites study stellar phenomena like black holes, and distant galaxies.

Navigation satellites, e.g. Navstar

It's a type of satellite that gives ships and aircraft their coordinate positions on the Earth.

Navigation satellites were developed in the 1950s, and they rely on the Doppler effect to calculate the position of boats emitting a radio signal. Navigation satellites are also widely used by the military.

Remote Sensing satellites, e.g. Radarsat

Remote sensing satellites are usually put into space to monitor resources that are important for humans. For example, remote sensing satellites might track animal migration, locate mineral deposits, watch agricultural crops for weather damage, or see how fast the forests are being cut down. All of these things can be done best from space because a satellite in orbit can normally take photographs of large expanses of land all over the world. The satellite is able to monitor areas in which the climate is very harsh, or which are nearly impossible to reach by land.

remote sensing : télédétection

From : http://www.cyberphysics.co.uk/topics/space/Satellite/satellites_uses.htm

Questions

1. a) Present and comment on this document
b) Describe the mechanics laws involved in the motions of satellites
2. How can physics and chemistry be involved in imaging?