Met Office

# Artificial Satellites

# Artificial Satellites

Artificial satellites and natural satellites (such as the moon) orbit a larger object such as the Earth.

There are two types of orbit:

- Geostationary
- Polar

# Geostationary Satellites

These are not stationary in space but travel at the same speed as the rotation of the earth and therefore are always over the same part of the earth.

The good thing about this is that your satellite receiver on earth always needs to point at the same part of the sky.

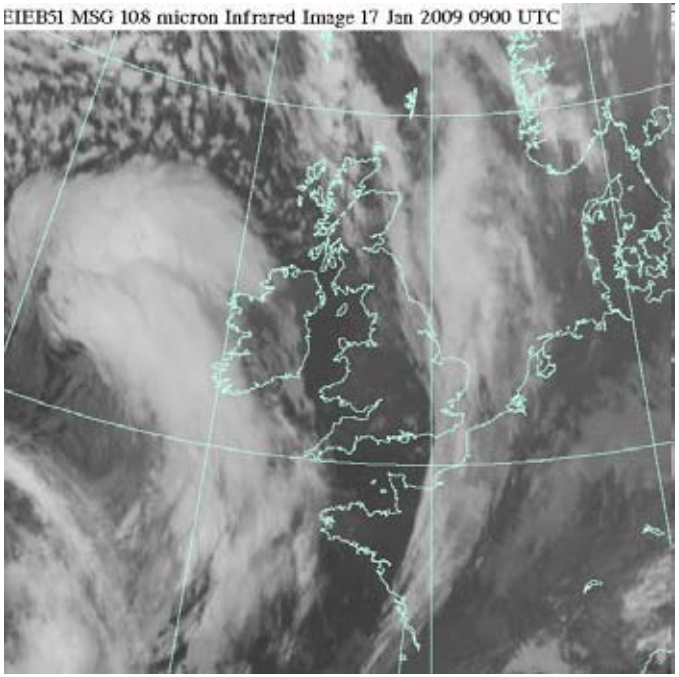
# Uses of Geostationary Satellites

Geostationary satellites are used for:

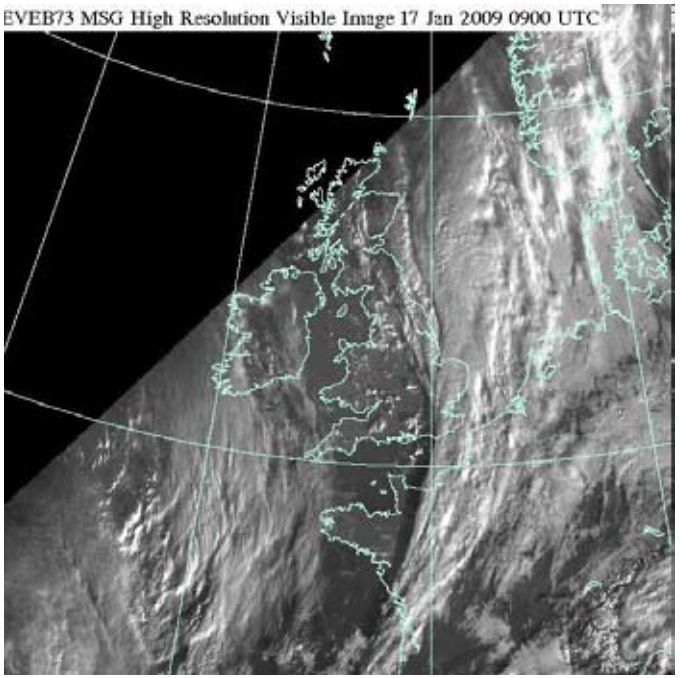
- Weather satellites (e.g. Meteosat)
- Communications Satellites
- Broadcast Satellites
- Intelligence gathering
- GPS

# Weather Imagery from Geostationary Satellites

## Infrared imagery




## Visible imagery



# Polar Orbiting Satellites

A polar orbiting satellite passes near to or directly over the pole on each orbit.

With the earth turning underneath it this means that the polar orbiting satellite sees a different bit of the earth each time.

To receive data from this satellite you need a receiving dish that will track the satellite as it passes overhead.

# Uses of Polar Orbiting Satellites

Polar orbiting satellites are used for:

- Weather satellites (e.g. Metop-A)
- Mapping
- Observations
- Intelligence gathering

Met Office

# Weather Imagery from Polar Orbiting Satellites