

Weather in a Tank, HSSP 2011

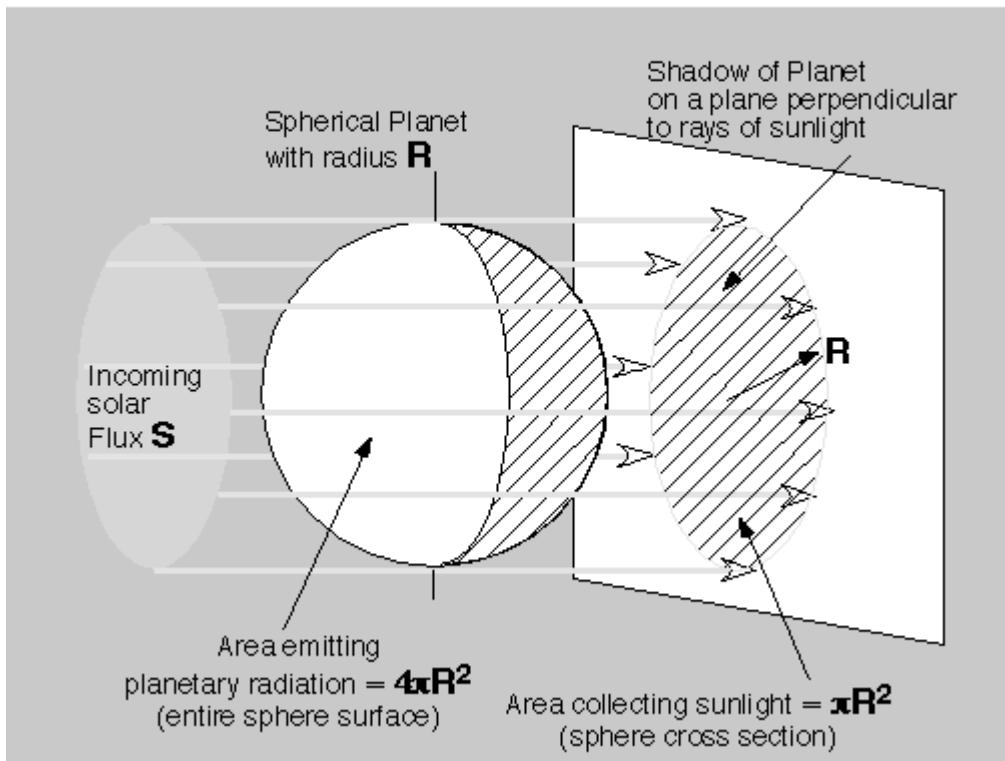
Class 1: Incoming Radiation

Insolation: The amount of solar energy per unit area received (by a planet, plant, solar cell, etc.). Depends on the distance from the sun, how clear the atmosphere is, and angle relative to the incoming energy.

Average for earth at top of atmosphere:	1,366 Watts per square meter
Maximum for earth at surface:	1,000 W/m ²
Average for earth at surface:	250 W/m ²
Average for Pluto:	.876 W/m ²

Relative area: The area an object has *relative* to a given direction. In a more concrete form, imagine shining a large light towards the object. The area of the object relative to the direction of the light is the size of its shadow.

A Spherical Planet Receiving the Sun's Radiation



Latitude: The angle between you and the equator on a globe. Essentially measures distance to the North or South Pole.

Longitude: The angle between you and Greenwich, England along the same latitude. Each point on the globe is given by a unique longitude and latitude (except for the poles).

