

METR 104, "Our Dynamic Weather"
Lab #2, Part II

In Lab #2, Part II, you will be working with insolation data recorded on three different surfaces at Hanford, CA, on December 16, 1998 and again on May 22, 1999. (These two times are close to the two times shown in **Figures 1(a)** and **1(b)** below.)

Two of the three surfaces were horizontal, and one directly faced the sun (perpendicular to the sun's rays). One was at the earth's surface and the other two were at the top of the atmosphere.

On both **Figures 1(a)** and **1(b)**, draw the three surfaces (as short, straight lines) at the two locations where insolation was recorded at noon. Draw them facing the right way (that is, as they faced when insolation was recorded at noon).

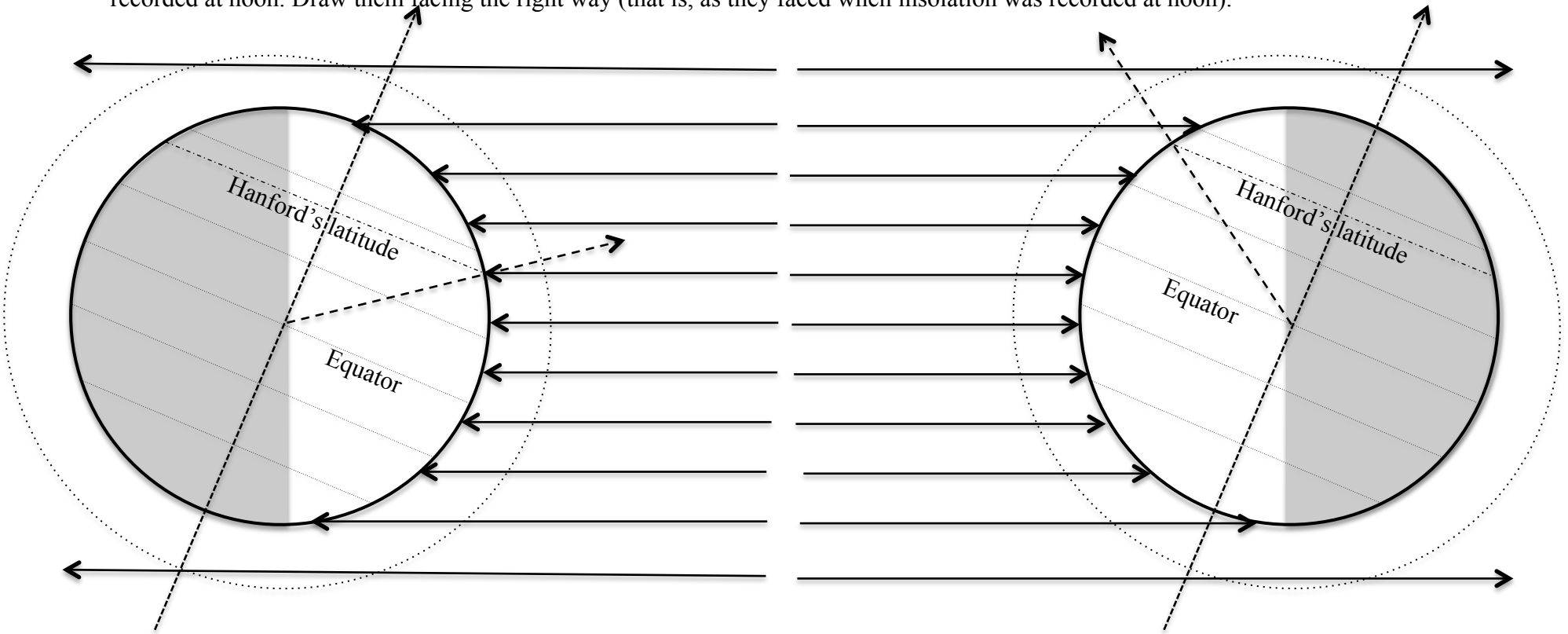


Figure 1(a): The earth at about the time of the June solstice. (Late May is not much different.)
The earth's axis of rotation is shown.
So is a line from the center of the earth through a location at the latitude of Hanford, CA at noon.
The atmosphere is shown, too, but its depth is greatly exaggerated!

Figure 1(b): The earth at about the time of the December solstice. (Mid December is almost the same.) The earth is now on the other side of its orbit around the sun, compared to **Figure 1(a)**.
(Note that the earth's axis of rotation points in the same direction at every point in the earth's orbit around the sun.)
A line from the center of the earth through the same location in Fig. 1(a), at the latitude of Hanford, CA at noon, is again shown.