

SCIENTIFIC CASE: MOTION OF THE SUN

Introduction

Team members

Writer: _____

Equipment manager: _____

Reader: _____

Spokesperson: _____

Ambassador: _____

SOHO is a satellite whose objective is to detect changes that might occur on the Sun. It takes pictures of it at various points in time to see if there is any difference.

On the surface of the Sun we can see some black spots, which we call *sunspots*. If we look close, each time they appear different in, and sometimes there are none.

Each sunspot lasts several weeks, but they travel along the surface of the Sun - or so it would seem to us, because the Sun is rotating!

There are two missions we have to accomplish:

- **Mission 1: Find out the Sun's rotational period**
- **Mission 2: How does the Sun look now?**

More educational materials:

<http://cesar-programme.cab.inta-csic.es/sun.php?Section=Now>
<https://sohowww.nascom.nasa.gov/classroom/>

Project CESAR:

<http://www.cosmos.esa.int/web/cesar>

ESA Kids:

<http://www.esa.int/esaKIDSes>



Mission 1: Find out the Sun's rotational period

How long does it take for the Sun to rotate once? What's your hypothesis?

You have three stapled sheets:

Sheet 1: Look at one of the sunspots on the left and the date. (*hint: the date goes year first, then month, then day*)

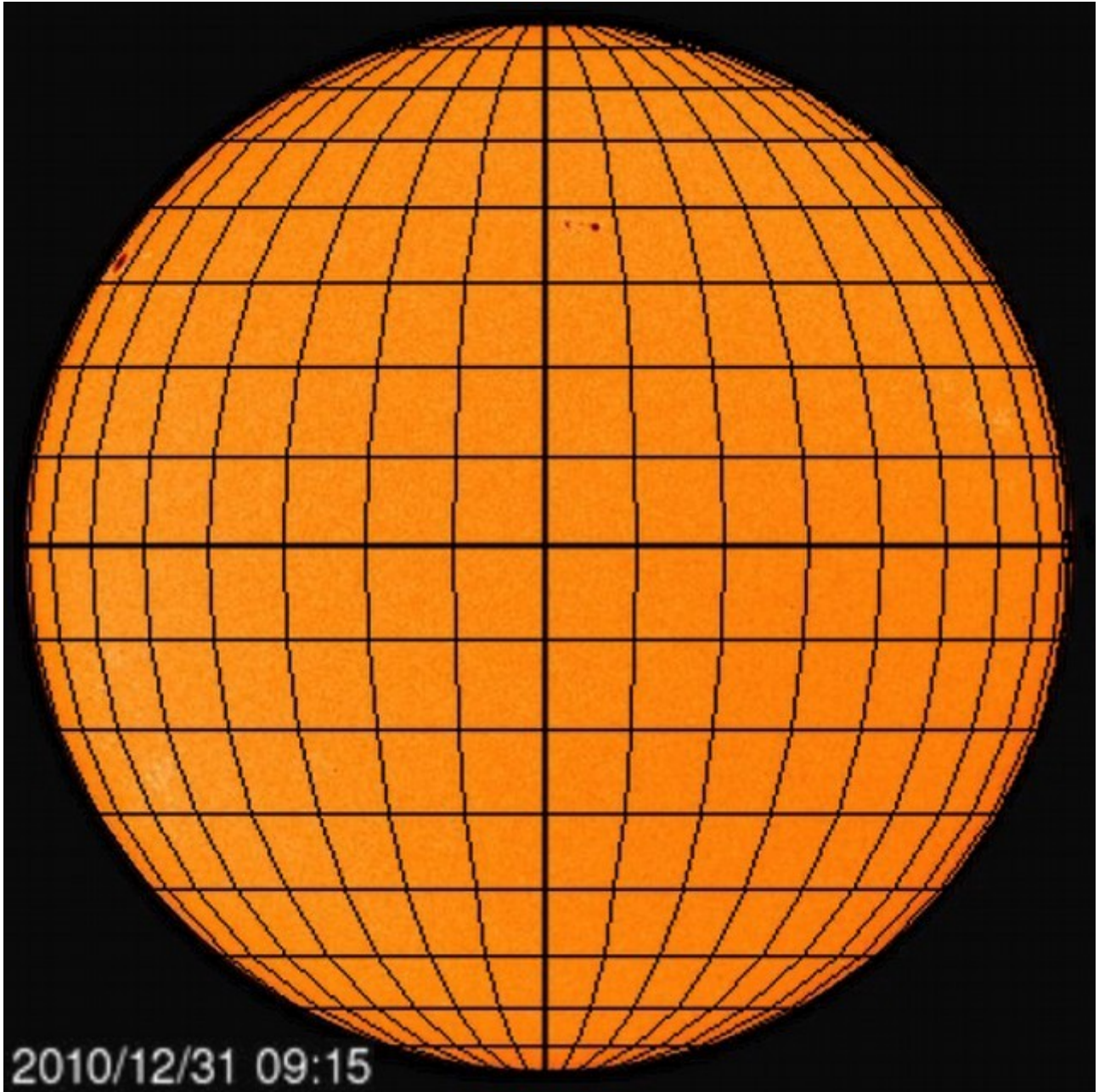
Sheet 2: Look at where the spots are, and what the date is.

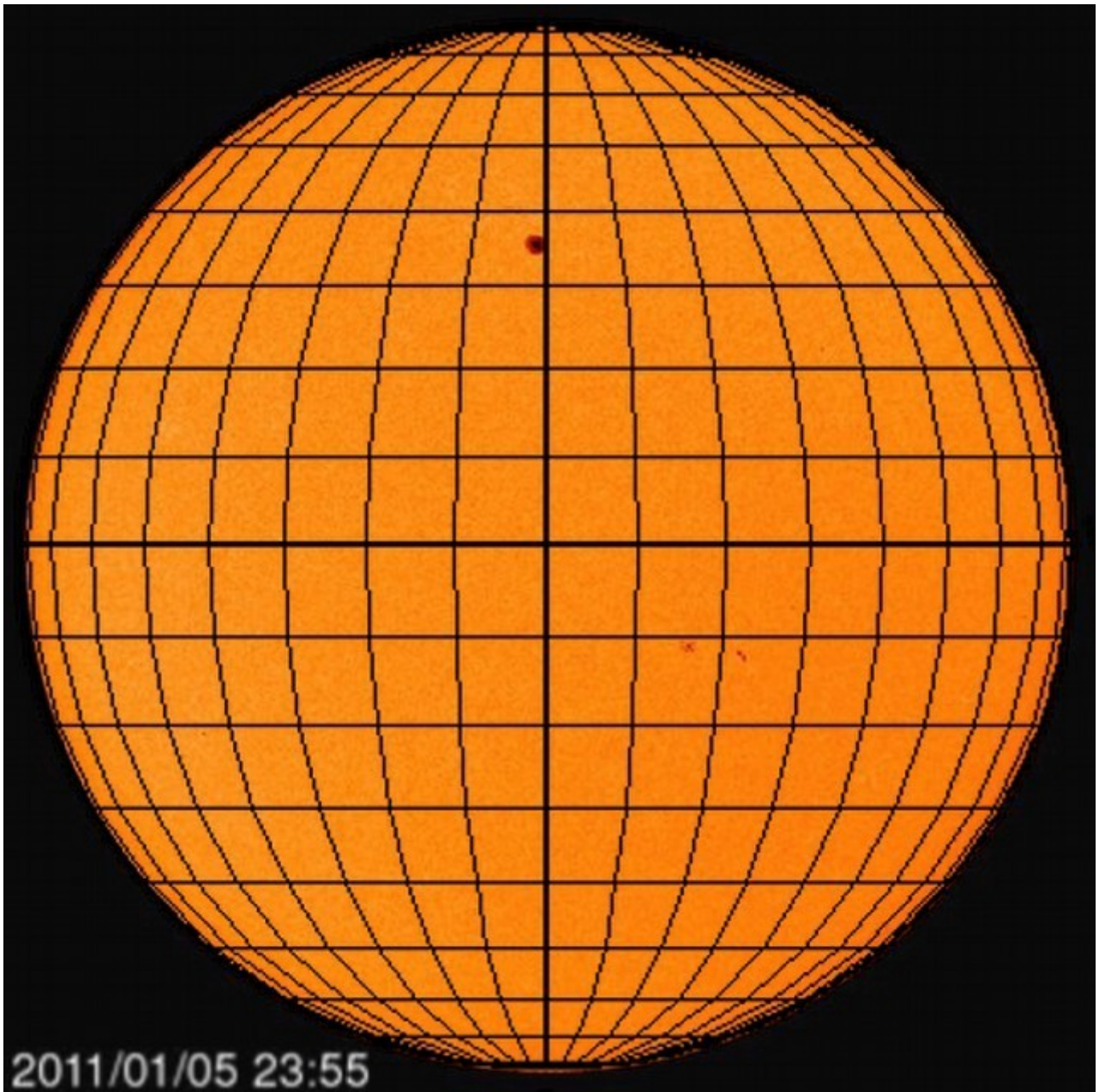
Sheet 3: Look again: where is it now? What's the date?

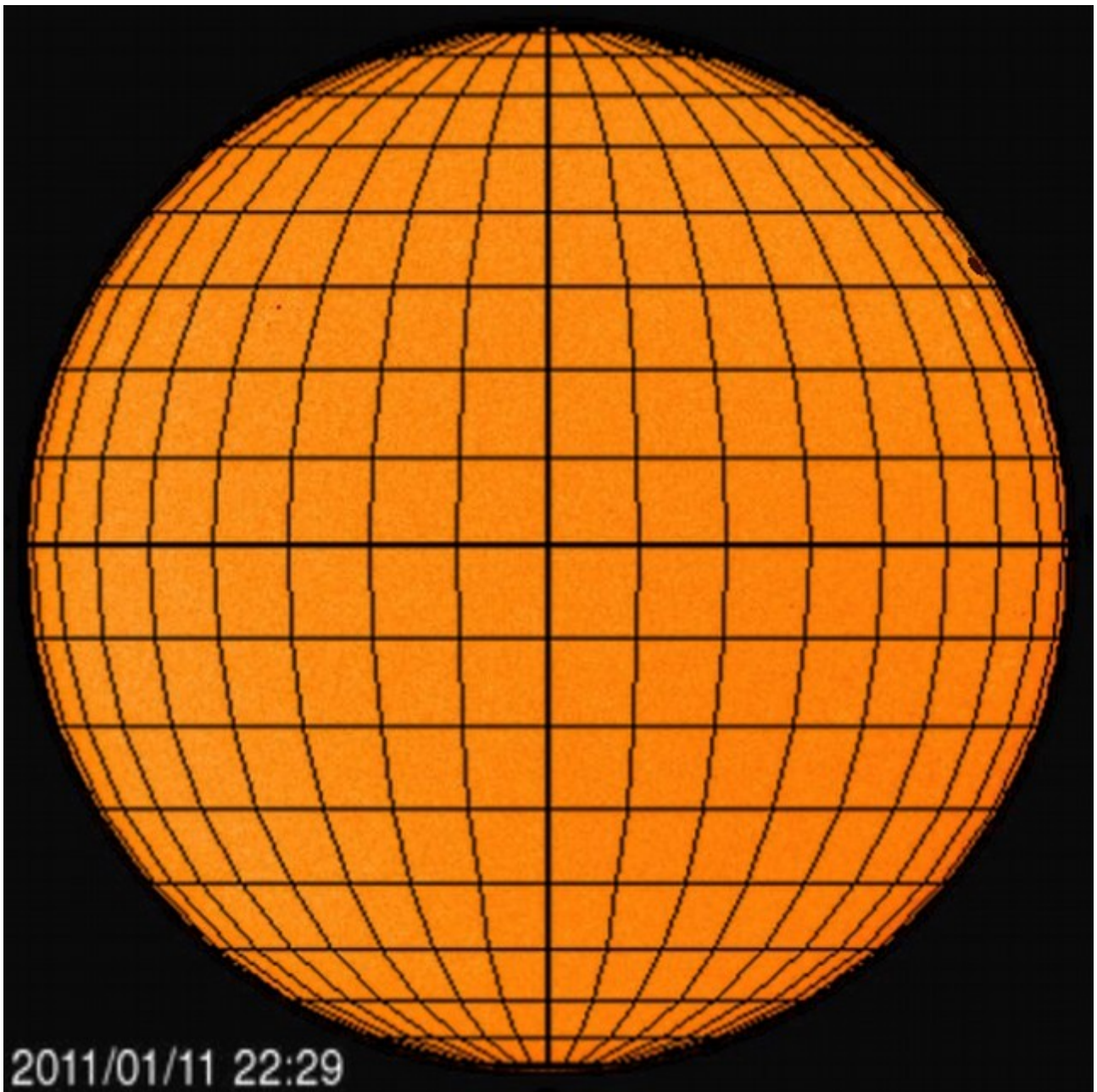
It is now time to make observations and calculations - you can use a draft page. (*hint: find out how long it takes for a spot to travel one quarter of the Sun's surface*)

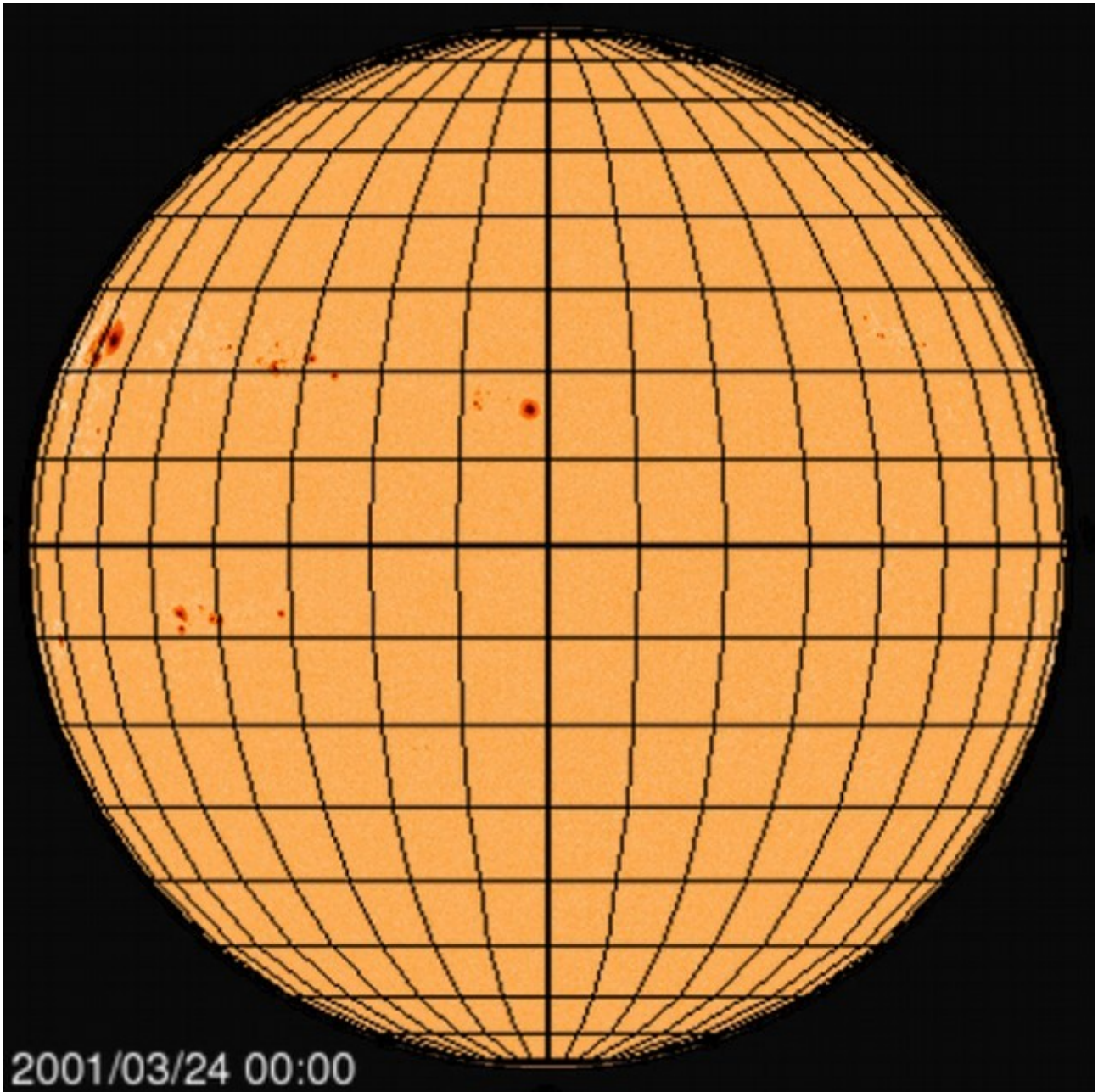
Result:

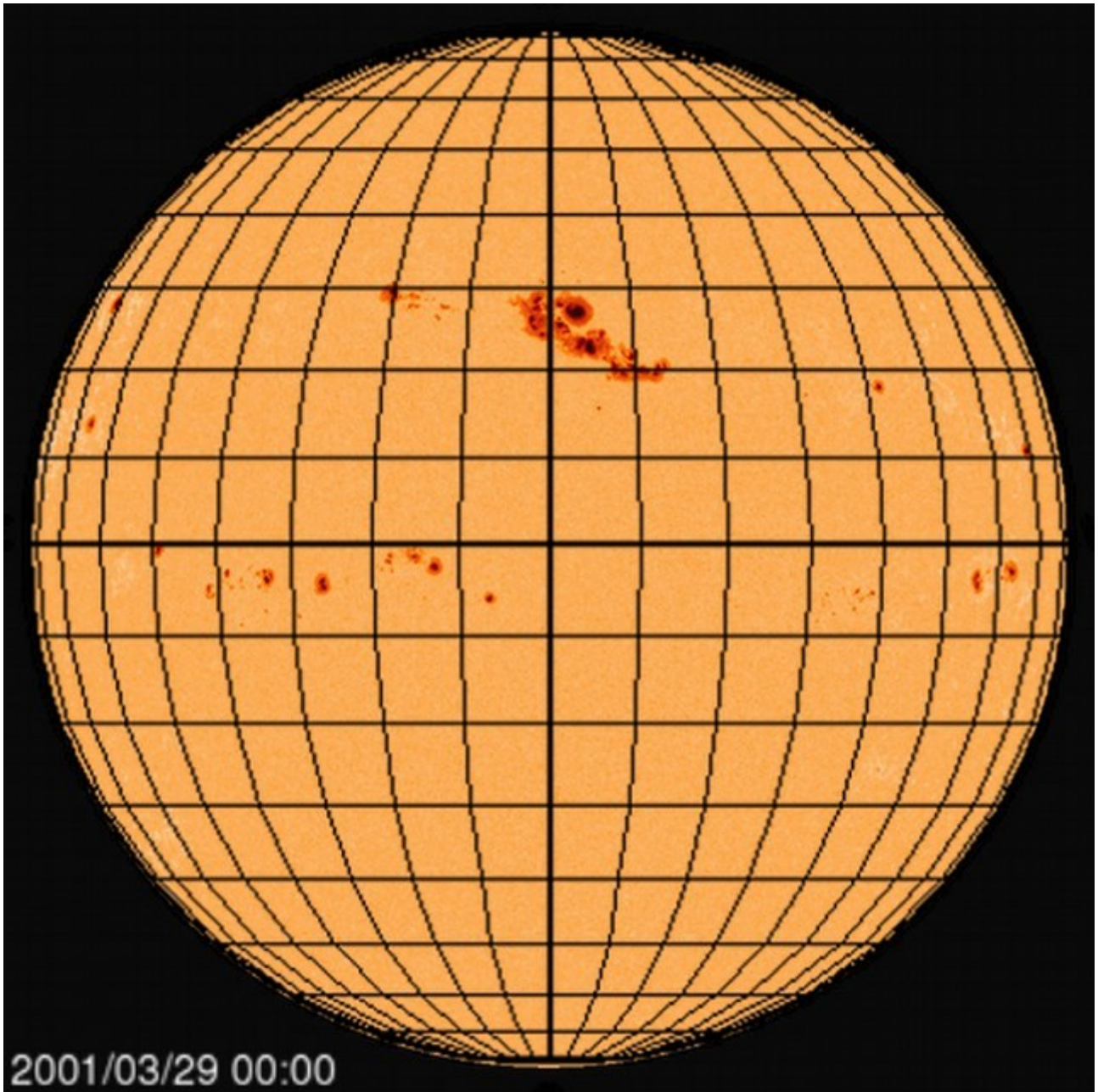
Conclusion. Do you think the Sun rotates the same in all of its surface? What other research would you suggest after this?

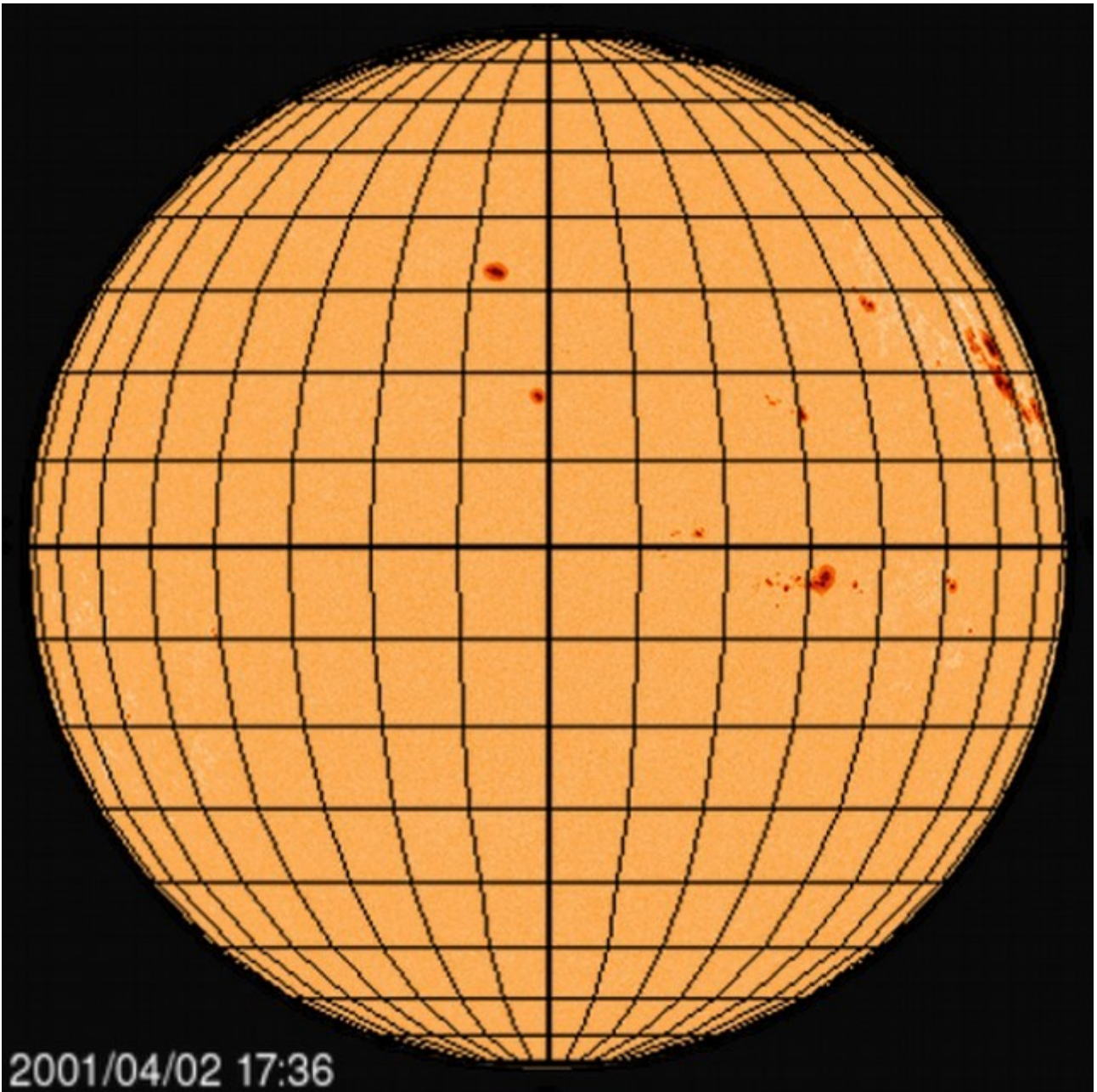












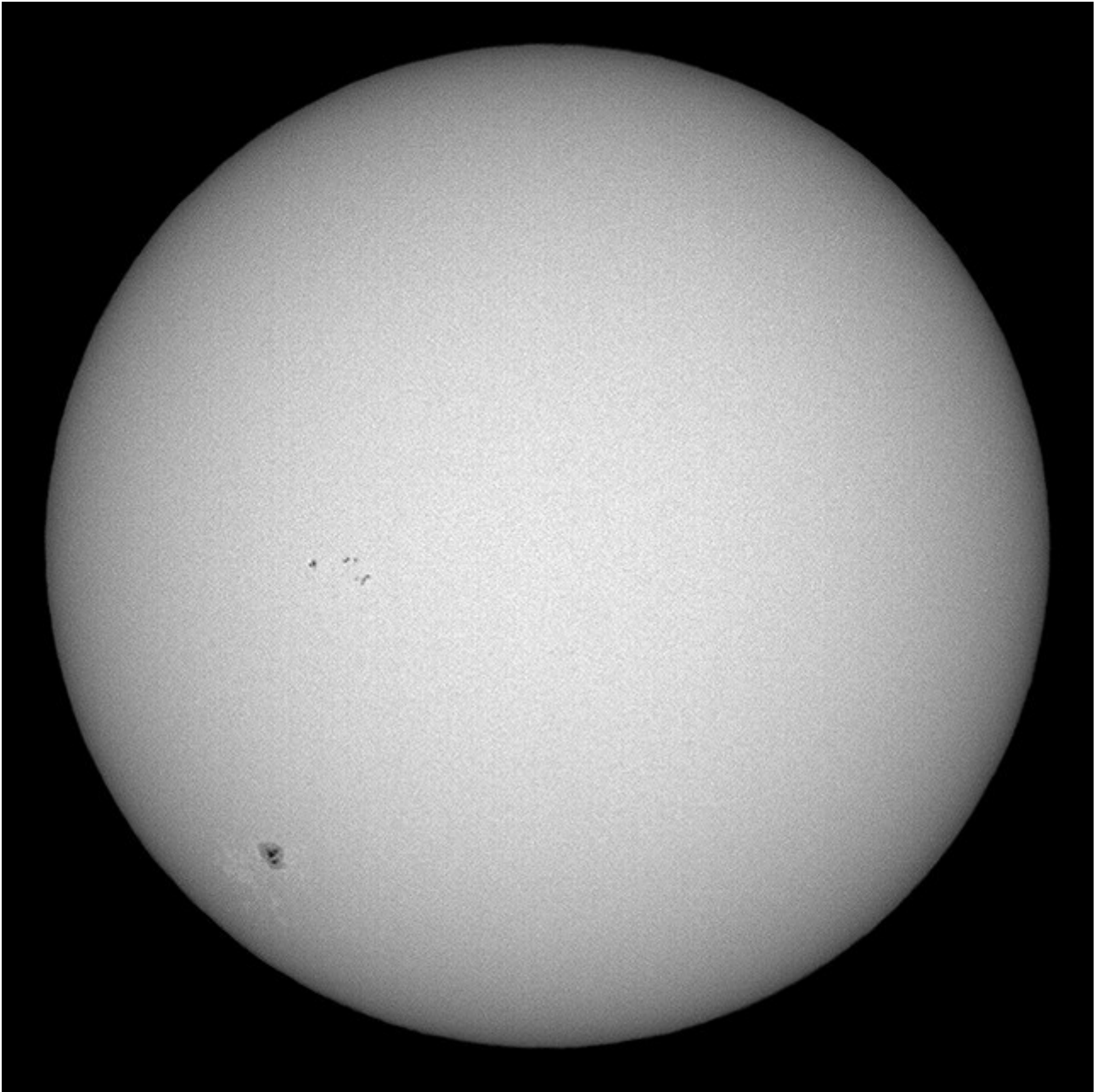


Mission 2: How does the Sun look now?

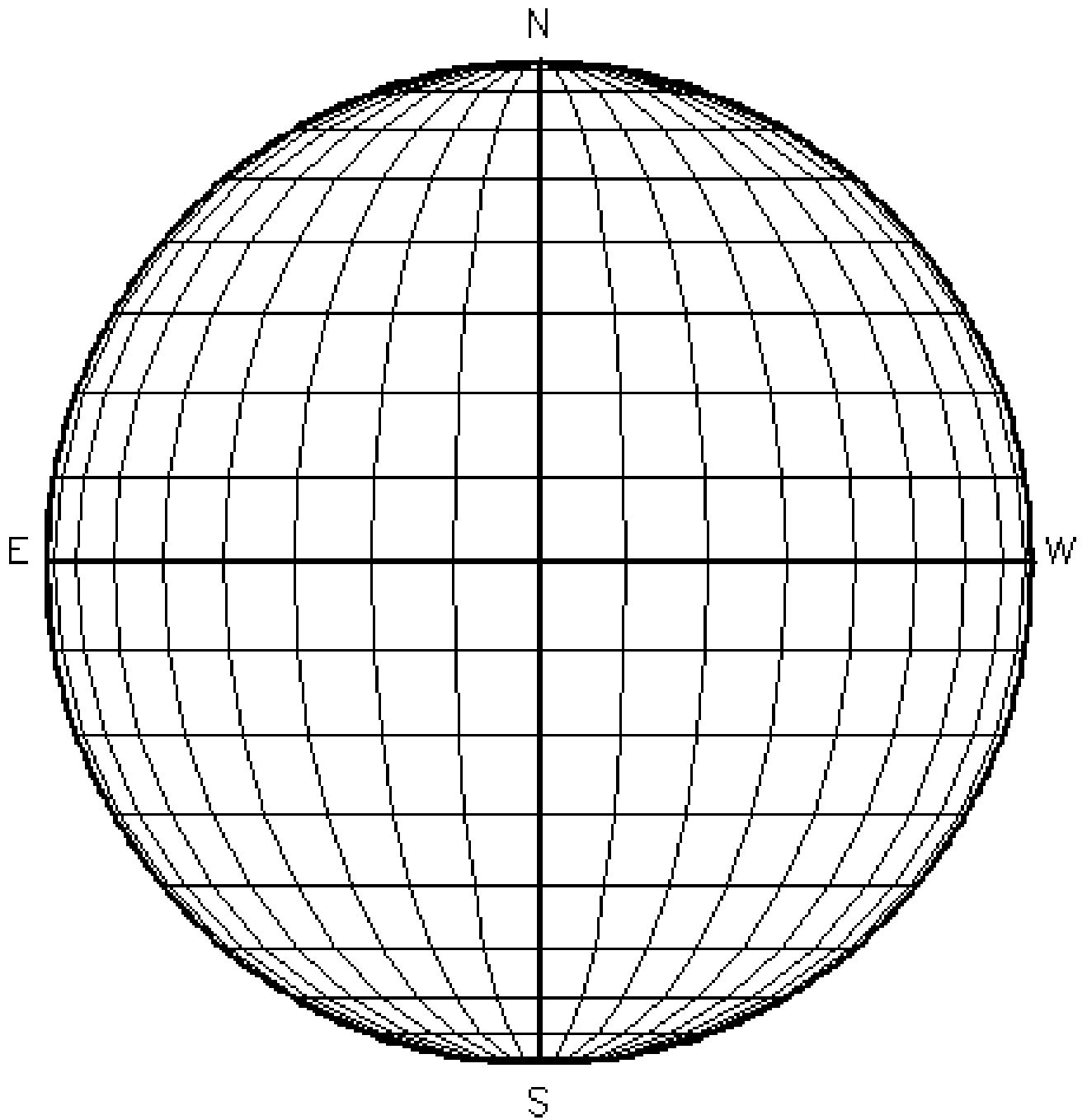
SOHO sent us a picture of the Sun on October 5th, 2016.

If your calculation about the Sun's rotation was right, then we'd be able to know how the sunspots have moved up until today.

Where do you think the sunspots are two days later? Draw them on the corresponding sheet (it's the one with an empty circle without a picture of the Sun)



2016/10/05 11:18:08



Prediction for:

Date: _____

Time: _____
