

**PS:Earth Science**  
**Star Trails**

Name \_\_\_\_\_

Period \_\_\_\_\_

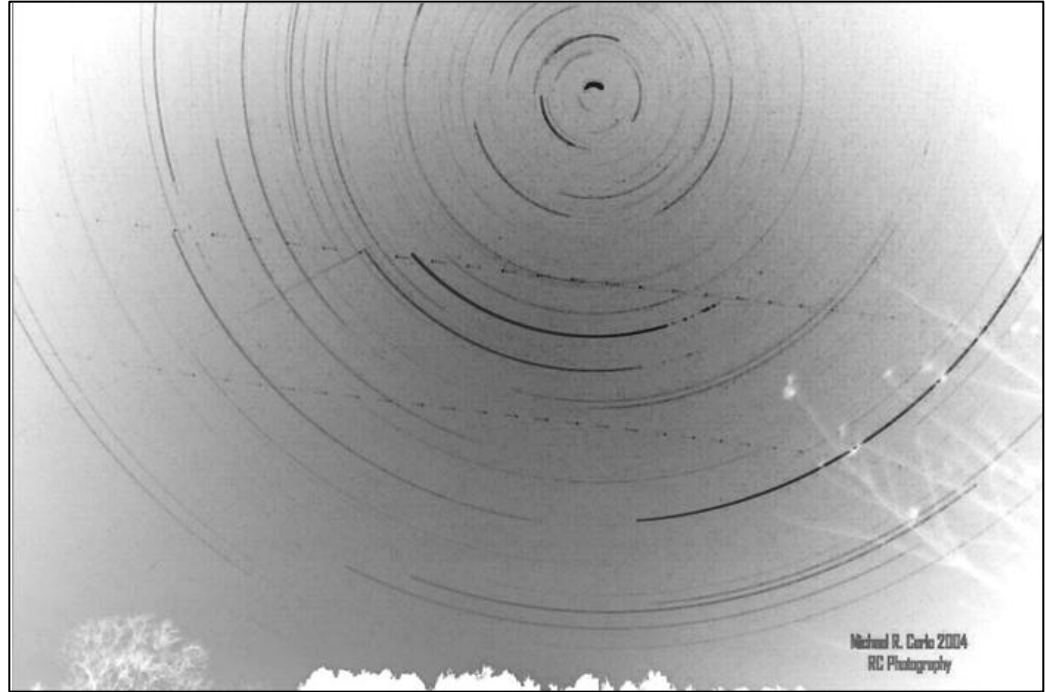
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Open a browser window and go to the following image:

<http://www.wilson.wnyric.org/t/drobison/webshare/forum/post.php?cat=3&fid=2&pid=17&page=1>

The picture was made by a high school student, Michael, in upstate New York in the late fall of 2004. A printer friendly negative version of the picture appears to the right.

View the on-line image and answer the following questions. You may have to search the internet for other images to confirm your answers.



1. What direction was the camera facing as Michael took the photo, and how do you know?

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2. On the image on this page, label the one star whose identity you can be sure of.

3. Notice the 2 dotted lines crossing the image. What might have caused those lines to appear on the image? Explain your reasoning.

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4. Notice the faint straight line trending to the lower left. What might have caused that line to appear on the image? Explain your reasoning.

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5. Devise a method to determine the length of time the shutter on Michael's camera was open to make this image. You may draw on the diagram, and you'll probably want a ruler and a protractor to help with your determination. EXPLAIN your reasoning in arriving at your answer!

Exposure time was \_\_\_\_\_ Reasoning is as follows: