

The Aurora: What does it look like?

An introduction for elementary school-aged children



Courtesy of Tom Eklund

Near the poles of Earth, observers have often seen glowing clouds shaped like curtains, tapestries, snakes, or even spectacular radiating beams.

Courtesy of NASA



Courtesy of Tom Eklund

Northern Hemisphere observers call them the Northern Lights or Aurora Borealis. Southern Hemisphere observers call them the Southern Lights or Aurora Australis.

Courtesy of NASA



Courtesy of Tom Eklund

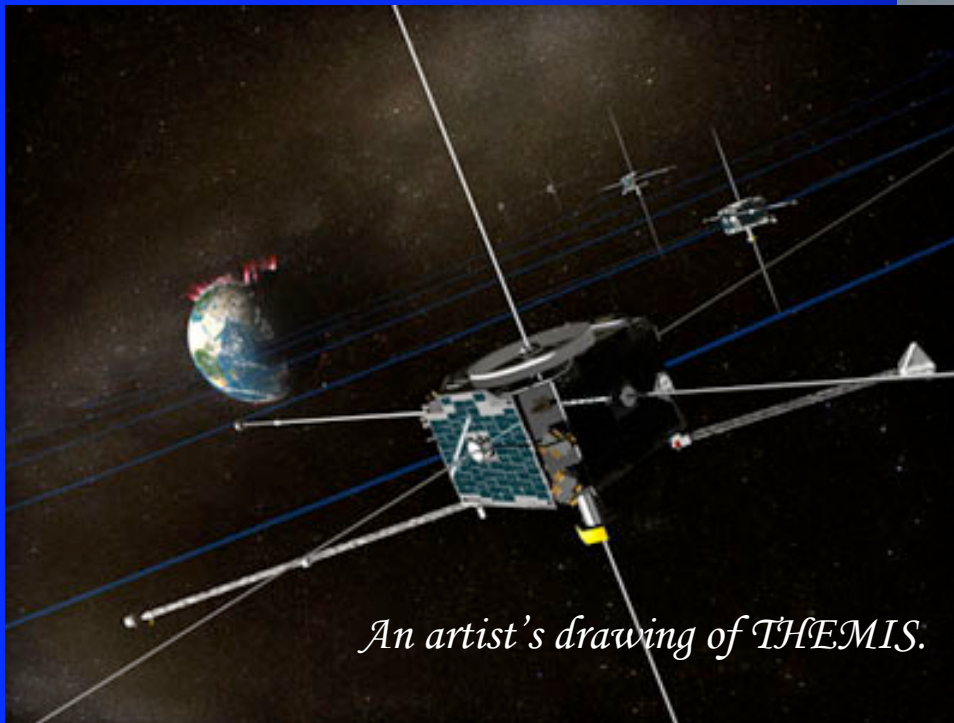
Because most people, and land masses, are found north of the equator, we have a longer record of observing them in northern regions such as Alaska, Canada, Scandinavia, but sometimes as far south as the Mediterranean Sea or Mexico!





Courtesy of Tom Eklund

Auroral activity can be observed from the ground or from space. For example, in 2007, NASA launched five THEMIS satellites aboard a single Delta II rocket from Cape Canaveral Air Force Station in Florida. The THEMIS satellites orbit Earth to monitor auroras, helping us better understand what they are and how they behave.



An artist's drawing of THEMIS.



Courtesy of NASA



Courtesy of Tom Eklund

What do you think these ovals of light look like from the ground if you were looking up at the sky? From space we can look down at an aurora and see that it actually looks like a crown of light! Scientists call this the Auroral Oval.

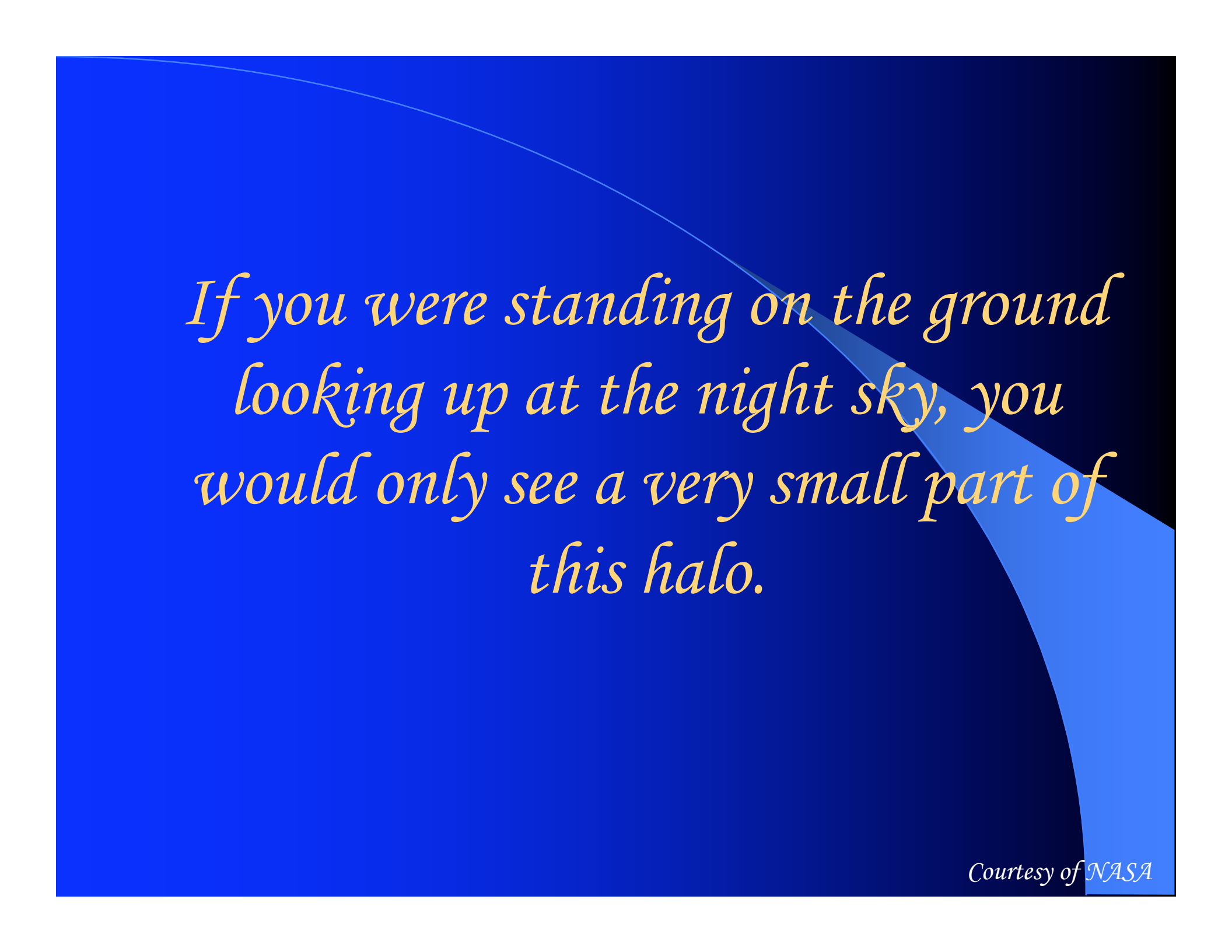


Courtesy of NASA

This is an image of the aurora taken from a satellite in space.



Courtesy of NASA

The background is a solid blue gradient. A thin white arc starts from the top left and curves towards the right. A blue wedge shape, pointing towards the bottom right, is overlaid on the background.

*If you were standing on the ground
looking up at the night sky, you
would only see a very small part of
this halo.*

Courtesy of NASA



Courtesy of Tom Eklund