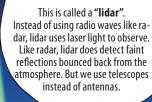
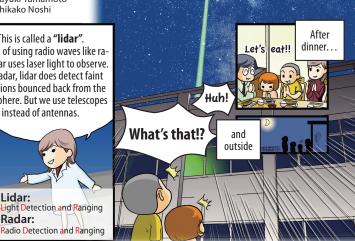


Written by: Takeshi Horinouchi/ Masavuki Yamamoto Illustrated by: Chikako Noshi





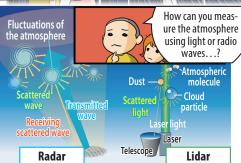


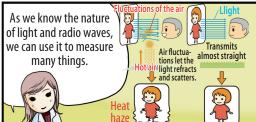






Radio wave reflects at fluctuations of air temperature or water vapor. and light does the same when it comes across molecules in the air (such as Nitrogen and Oxygen), dust, or clouds. We can measure the atmosphere







Heat haze seen near the ground on hot summer days, too.

People in the past were puzzled, and they found out why from studies.











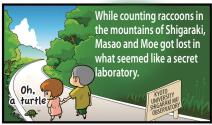
What's "measure the atmosphere using radio waves and light"?





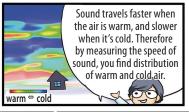












Wind?



RASS: Radio Acoustic Sounding System



We're actually measuring the speed of emitted sounds using radar.





Aha!

Good auess!

You're

correct.



The Yagi antennas used here for our MU radar are the same as T.V. antennas. We connect 475 of them to work as one antenna. But unlike T.V. antennas they transmit as well as receive.

We use them to measure winds, too. Changing timing of wave transmission, The surface of observation can be slanted.

MU:

Middle and Upper Atmosphere (100~500km or more)

Radar...? This one looks like the one on my roof!

T.V. antenná?

The End