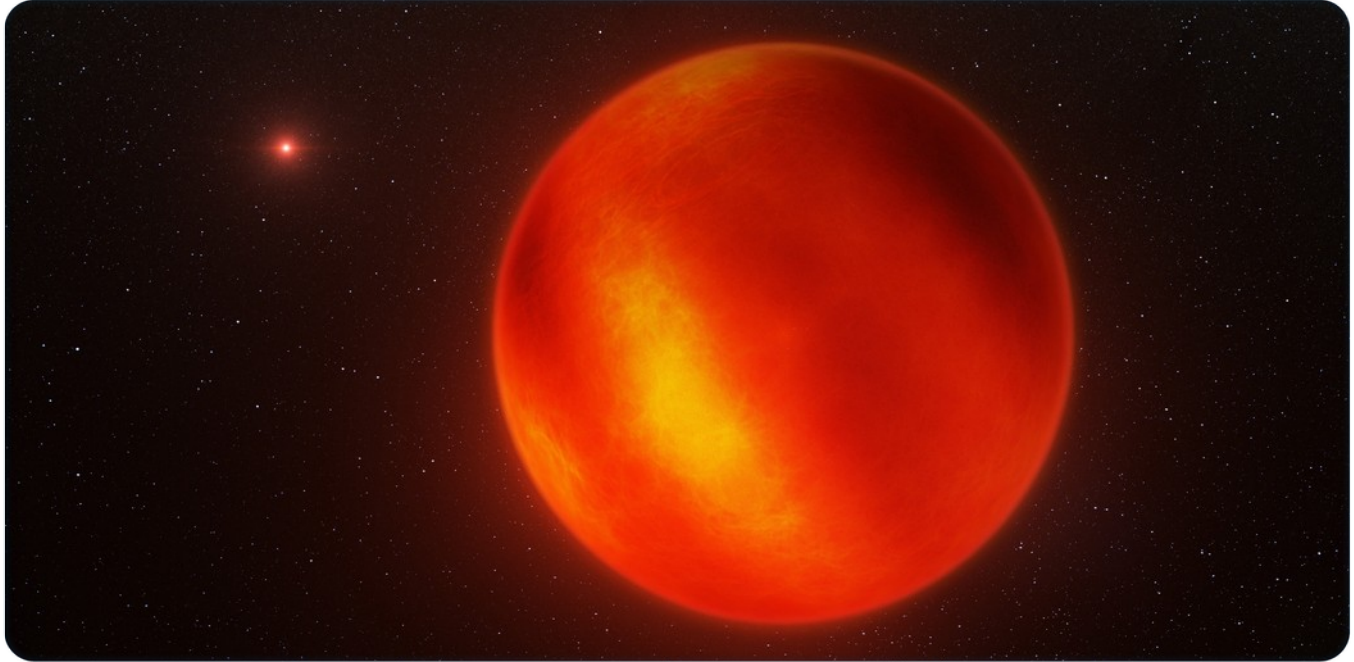




## Your Weather Report From Across the Galaxy



"Hi, this is 'Milky Way Galaxy Weather'. Here's your daily weather report...We couldn't ask for better weather on planet Zoltex. Right now, it's fifty degrees and clear. We're expecting orange skies throughout the day, with a small chance of methane rain during the night. This good weather can't last forever."

Could this be the future of weather reporting? You might have heard weather reports on the TV or radio. These use information collected by satellites surrounding the Earth to monitor our weather.

We have also sent spacecraft out into the Solar System which tell us about conditions on the surface of other planets and moons (for example, the Mars Express which is currently orbiting Mars). Now astronomers are starting to map the weather on other worlds well beyond our Solar System.

Using very powerful telescopes, scientists have just created the first ever map of the weather on a brown dwarf! Using a clever technique astronomers were able to create a map of the dark and light patches on its surface. Soon, we will be able to watch cloud patterns form, evolve, and disappear – just like on Earth.

Brown dwarfs are called "failed stars" by some astronomers. Unlike stars such as our Sun, they never become hot enough for a nuclear fire to ignite in their hearts.

This brown dwarf was discovered only as recently as this year. It is part of the third closest star system to the Earth, after Alpha Centauri and Barnard's star. Brown dwarfs are very useful for studying the atmospheres of young, giant planets which are similar, only brown dwarfs are much larger than planets.

### COOL FACT

Jupiter's 'Great Red Spot' is actually a giant hurricane known to have been roaring across the planet since at least 1831, and it might continue for many more centuries yet!

