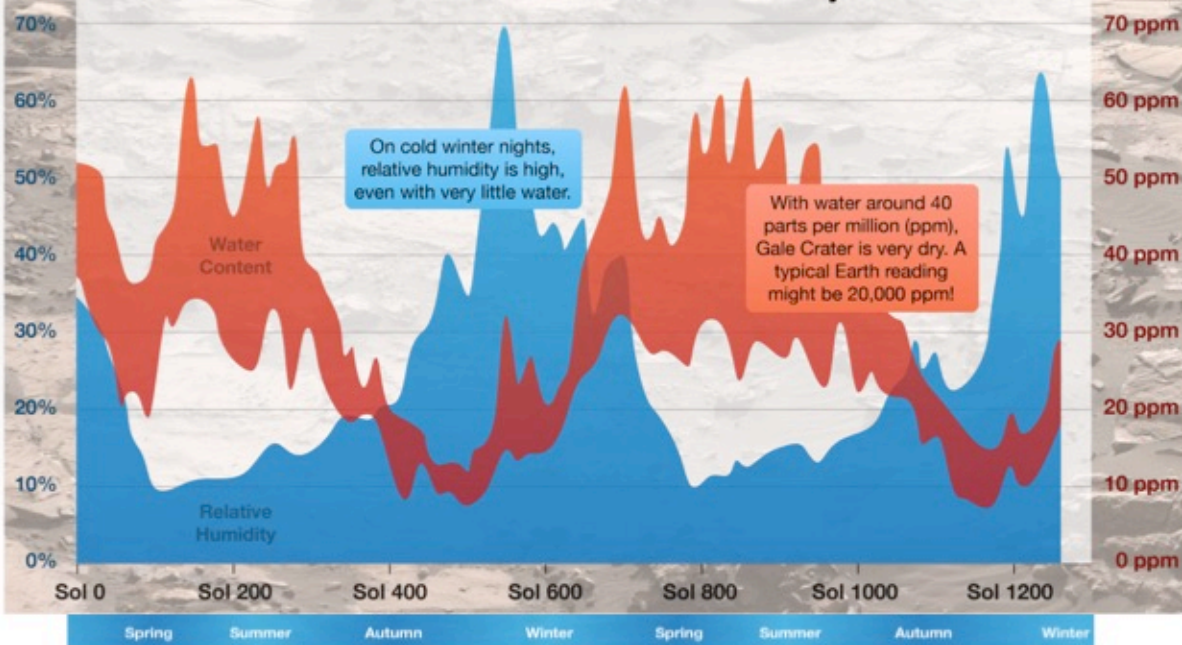


Two Mars Years of Meteorology

Ranges of Atmospheric Water Content and Relative Humidity at Gale Crater



For two full Mars years, the Rover Environmental Monitoring Station (REMS) instrument on the Curiosity rover has collected data on humidity and absolute water vapor.

- REMS, provided by the Spanish Centro de Astrobiologia (CAB), makes daily measurements of a series of atmospheric conditions via two small booms mounted on the rover's mast (see below).



- Measurements of relative humidity values reach ~70% at 1.6 meters (5.25 ft) above the surface, and even though there is very little water in the atmosphere, this means that near the ground where temperatures are colder, the humidity is potentially saturating.
- Importantly, even with this high relative humidity, after measurements through both winters, no frost or seasonal hydration of the soil has been detected.