We live in the first eight miles of the atmosphere. No mountains, birds and few civil aircraft reach higher. It is the home of our familiar clouds and weather, of rainbows, glories and ice crystal halos. It is the troposphere. Above it the air thins, it drastically changes composition, two layers of intense cold produce rare and dramatic clouds and in it shines one of Nature’s greatest spectacles, the aurora.

http://www.atoptics.co.uk/hat1.htm
The next few pages make an upward journey past the troposphere and through the tropopause, the stratosphere and its ozone layer and on to the mesosphere or middle atmosphere with its intensely cold layer, the home of the highest clouds.