



## CAN I REALLY SEE THE NORTHERN LIGHTS IN THE UK?

### Audio slideshow transcript: The many faces of the Northern Lights

*CAROL KIRKWOOD:*

For many, the Northern Lights conjure images of a distinctive green glow, just like the lights Barry saw dancing in the sky over Wick.

But I've also heard people talk about ruby reds, brilliant purples and even blue colours in the sky – lights that hang, swirl and ripple above them.

So why are there so many different colours and patterns?

Well, it all depends on which gasses in the atmosphere get energised and how high above the surface of the Earth they are.

Green is the most common colour that we see 60 miles high in our atmosphere. But occasionally, the Northern Lights take on a warm, red glow. That's what happens when charged particles energise the oxygen even higher in the atmosphere, around 100 miles up.

And more rarely, particles can also interact with nitrogen closer to the surface of the Earth. When this happens, the aurora can produce a beautiful purple hue.

And, for a lucky few, the Lights can even look blue. This is caused by nitrogen very low down in the atmosphere.

But what about the different patterns?

When the solar wind isn't very strong, the Northern Lights appear as a diffuse, glowing band in the night sky.

After a solar storm, the Lights can start to swirl and move in the air. These dancing patterns can stretch across the horizon for miles.

Sometimes, people have seen the Lights as shimmering 'curtains'. These vertical stripes mark the journey of the energised gases as they travel down the Earth's magnetic field lines, creating these wonderful displays.

I'm amazed at the different shapes and sizes of the Northern Lights – and that it's possible to spot them here in the UK!

*Images courtesy of the BBC Stargazing LIVE and The Sky at Night Flickr group:*

*<http://www.flickr.com/groups/bbcskyatnight>*

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