

Polar Stratospheric clouds

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About Polar Stratospheric clouds (PSC)

- These are also known as nacreous clouds or mother of pearl, due to their iridescence.
- Formation:
 - These are formed in very cold conditions over Polar Regions and within the stratosphere, around 12-19 miles (19-31km) high, far above our normal clouds.
 - These clouds are made of smaller ice particles than those that form more common clouds.
 - These small particles help to scatter light in a different way, which gives them their unique appearance
- PSCs typically make their first appearance in January.
- Impacts of these clouds

- The frequency of these clouds is often a harbinger of ozone depletion, as they play a crucial role in stratospheric chemistry.
 - PSCs provide a surface for chemical reactions where benign forms of chlorine are converted into reactive, ozone-destroying forms.
 - They also remove nitrogen compounds that would otherwise moderate the destructive impact of chlorine on the ozone layer.
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Q1) What are Halogens?

The term Halogen in Greek means salt-producing because it reacts with many metals to produce salts. They are a group of elements located in Group 17 of the periodic table which includes fluorine (F), chlorine (Cl), bromine (Br), iodine (I), and astatine (At). In 1826, Swedish chemist Jons Berzelius coined the term halogen for the entire group of elements.

Source: [Rare phenomena make the sky glow in Arctic. It's not aurora](#)

Source: <https://vajiramandravi.com/current-affairs/psc/>

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