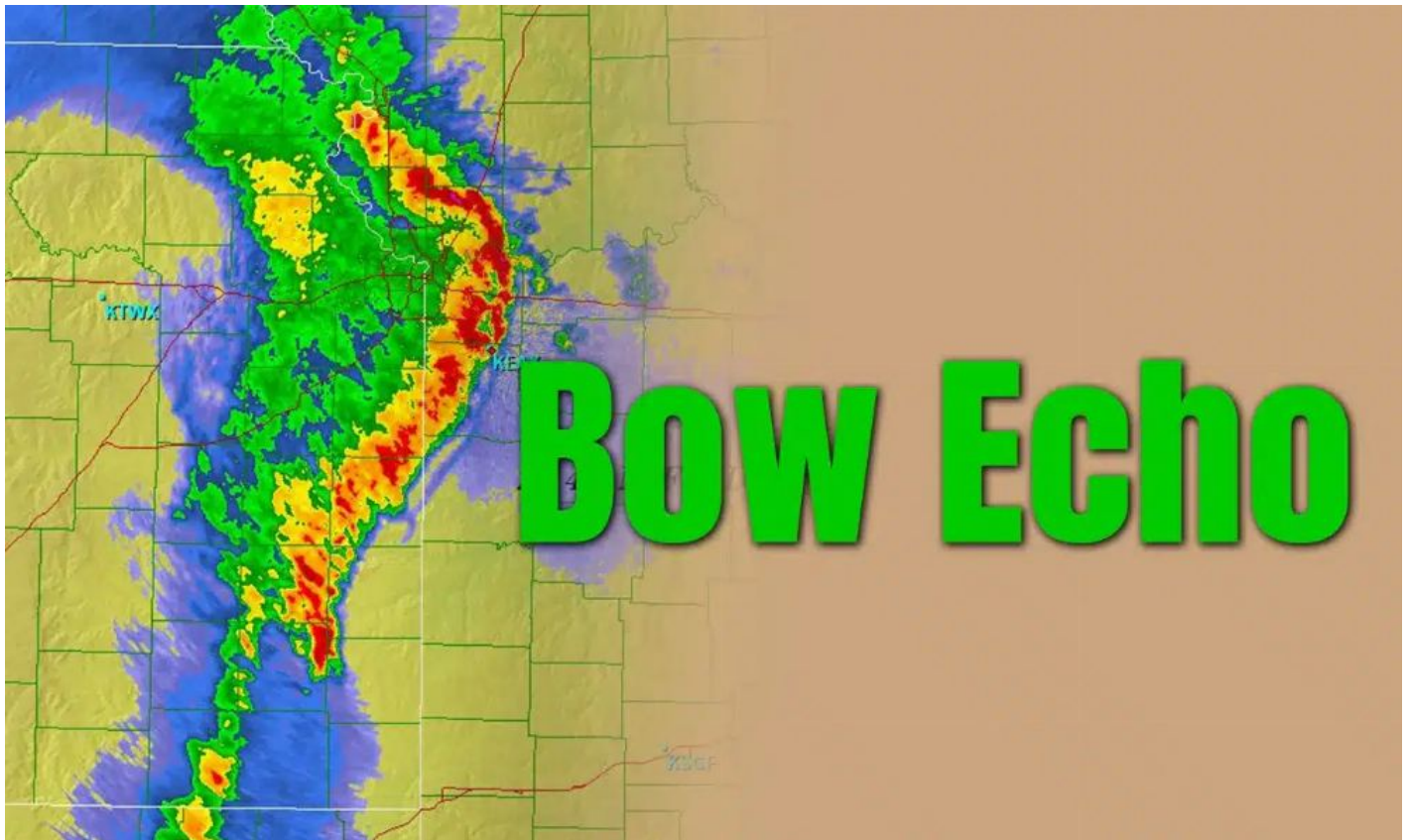


Bow Echo

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Bow Echo Latest News

The intense storms that hit Delhi recently looked like a crescent or an archer's bow which in technical terms are called "bow echoes."

About Bow Echo

- A bow echo is essentially a **line of storms, also called a squall line**, on the radar that looks like a bow. Note that this squall line can sometimes be embedded in a larger squall line.
- A bow echo can **extend from 20 km to 100 km**, and last between three and six hours.
- The **term was coined** in the 1970s by **Ted Fujita**, a Japanese American meteorologist known for developing the scale to classify tornadoes.

Formation of Bow Echo

- When **rain-cooled air comes down** to the ground, and spreads out horizontally. As this happens, a boundary **called the gust front** is created between the **rain-cooled air and warm-moist air on the**

surface.

- This front pushes up the warm-moist air into the atmosphere, which forms new thunderstorms.
- These new thunderstorms produce more rain, thereby creating more rain-cooled air, which helps the gust front to maintain its strength.
- As this process keeps repeating itself, there comes a point when there is an inflow of air on the trailing side of the line of storms and bends it like an archer's bow.
- The cycle lasts as long as **new thunderstorms keep forming at the front**, helping the system grow and move forward with strong winds.
- Bow echoes are not a new phenomenon. In 2022, a bow echo was formed **over Delhi and Noida**. However, it was short-lived, lasting for an hour, and produced winds of up to 100 kmph.

Bow Echo FAQs

Q1: What is a decharo?

Ans: A derecho (pronounced similar to "deh-REY-cho") is a widespread, long-lived wind storm that is associated with a band of rapidly moving showers or thunderstorms

Q2: What are the different types of bow echoes?

Ans: Three primary initial modes of bow-echo formation are (i) weakly organized cells, (ii) squall lines, and (iii) supercells.

Source: [IE](#)

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

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