

Sky Canvas project

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In news– A Tokyo-based space company, ALE, has announced it will create the world's first artificial meteor shower in 2025 under Sky canvas project – producing man-made shooting stars that could be seen from the UK.

About the project-

- The project **hopes to give people all over the world the opportunity to view the world's first live human-made meteor shower.**
- The project is called Sky Canvas and **it is designed to collect atmospheric data in the mesosphere**, which is the third layer of the atmosphere.
- Meteor showers are beautiful celestial events, peppering the sky with shooting stars.
- The Mesosphere is too low to be observed by satellites and too high for weather balloons or aircraft.
- **ALE plans to do this by using a pressure-driven system of gas tanks** that will shoot pellets at a speed of 8 kilometres per second.
- The satellite was initially scheduled to launch in 2020 but a malfunction in one of the satellites meant that the launch had to be delayed.
- **A natural meteor shower happens when our planet passes through the trail of debris left by a comet or an asteroid.**
- **Meteors are chunks of rocks and ice** that are ejected from comets as they orbit the Sun.
- **Around 30 meteor showers that are visible to observers on Earth occur every year** and some of them have been observed for centuries.
- For example, the Perseids meteor shower, which usually happens every year in August, was first observed about 2,000 years ago and was recorded in Chinese annals.

- ALE hopes to reproduce the effect of natural meteor showers by using metal “shooting star” particles that are around 1 centimetre in size.
- These grains will be taken to a low-Earth orbit about 400 kilometres above the planet by small satellites.
- Once the satellites’ orbit stabilises, they will release the particles. The particles will then travel around part of the planet before entering the atmosphere at an altitude of 60 to 80 kilometres.