

## Rohini RH-200

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Why is in news? ISRO eyeing 200th successful launch of Rohini RH-200 sounding rocket in a row

Rohini is a series of sounding rockets **developed by the Indian Space Research Organisation** (ISRO) for **meteorological and atmospheric study**.

These sounding rockets are **capable of carrying payloads of 2 to 200 kilograms** (4.4 to 440.9 lb) between **altitudes of 100 to 500 kilometres** (62 to 311 mi).

The ISRO currently uses RH-200, RH-300, RH-300 Mk-II, RH-560 Mk-II and RH-560 Mk-III rockets, which are launched from the Thumba Equatorial Rocket Launching (TERLS) in Thumba and the Satish Dhawan Space Center in Sriharikota.

The rockets in the series are designated with the letters RH (for "Rohini"), followed by a number corresponding to the **diameter** (in millimetres) of the rocket.

RH-200: The RH-200 has a maximum launch altitude of 70 kilometres (43 mi).

The ISRO has launched more than 1,600 RH-200 rockets so far.

The rocket celebrated its 100th consecutive successful mission on July 15, 2015.

Over the years, the rocket has served as a flexible platform for **experiments and testing out new technologies**.

The **3.5-metre-tall RH-200**, a trusted member of the Rohini sounding rocket family used by the ISRO for atmospheric studies, has **completed 198 consecutive successful flights**, according to the Vikram Sarabhai Space Centre (VSSC), Thumba.

The 199th launch, from Thumba, will happen on October 7 during the **World Space Week celebrations**.

RH-200 is a **two-stage rocket** capable of climbing to a height of 70 km bearing scientific payloads. The **first and second stages** of RH-200 are powered by **solid motors**.

The **first sounding rocket** to be **launched from Thumba** was the **American Nike-Apache** — on November 21, 1963.

After that, two-stage rockets imported from Russia (M-100) and France (Centaure) were flown.

The ISRO launched its own version — Rohini RH-75 — in 1967.

The RH-200 rocket had used a **polyvinyl chloride** (**PVC**)-based propellant. The first RH-200 to use a **new** propellant based on hydroxyl-terminated Polybutadiene (HTPB) was successfully flown from the TERLS in September 2020

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