

Space Capsule Recovery Experiment (SRE □)

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About SRE □

- Space Capsule Recovery Experiment (**SRE – 1**) is a **550 kg capsule** intended to demonstrate the technology of an orbiting platform for performing experiments in microgravity conditions.
- After completion of the experiments, the capsule was de-orbited and recovered.
- SRE – 1 mission provided a **valuable experience** in fields like navigation, guidance and control during the re-entry phase, hypersonic aero thermodynamic, development of reusable thermal protection system (TPS), recovery through deceleration and flotation, besides acquisition of basic technology for reusable launch vehicles.
- SRE – 1 **carries two experiments**, an Isothermal Heating Furnace (IHF) and a Bio-mimetic experiment. SRE was launched into a 635 km polar SSO in January 2007 as a co-passenger with CARTOSAT -2 and stayed in orbit for 10 days during which its payloads performed the operations they are intended to. The SRE capsule was de-boosted and recovered successfully back on earth on 22nd January 2007.
- The launch was conducted using the **PSLV C7 rocket**.
- The **information** obtained from this technology and experiment is being **applied to the design of India's Gaganyaan** crewed orbital capsule.

Space capsule Recovery Experiment (SRE) Mission Sequence

