

Liability Rules for Spacecraft Re-entry

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Why in News?

Recently, The Indian National Space Promotion and Authorisation Centre (IN-SPACe) have released new guidelines requiring authorisation for planned re-entry of space objects.

- **Planned Re-entry** - Controlled return of satellites, launch vehicles, or space objects to Earth with managed landing area, time, or trajectory.
- **Uncontrolled re-entry** - Objects naturally decay and burn up in the atmosphere.

Key Provisions of Guidelines

- **Mandatory Authorisation** - Indian entities must seek IN-SPACe approval for planned re-entry; whether within or outside Indian territory, needs to get authorisation from IN-SPACe.

Foreign entities only via Indian-incorporated firms.

- **Risk Threshold** - Casualty risk must remain below 1 in 10,000.
- **Insurance** - Mandatory third-party liability insurance; companies bear full risk, not the Government of India.
- **Disclosure** - Re-entry intent must be declared during initial application; late decisions require authorisation at least six months before manoeuvre.
- **Approval Timeline** - IN-SPACe requires re-entry disclosure at application, re-verified three months prior; late decisions need application six months before planned controlled re-entry.
- **Exemptions** - Objects expected to fully burn up during disposal do not need separate approval.
- **Technical Documentation** - Applicants seeking re-entry authorisation

are required to submit detailed information about the mission

- Mission profile and re-entry trajectory.
- De-orbit strategy and failure scenarios.
- Fragmentation and survivability analyses.
- Ground casualty and reliability assessments.
- Identification of impact/danger zones and mitigation measures.
- **NOTAMs** - Planned re-entry requires IN-SPACe advisory note for Notices to Air Missions (NOTAMs) and maritime danger-zone notifications.
- **Liability** - 3rd -party liability and insurance requirements, and may have to amend their authorisation if timeline, trajectory, or impact zone changes occur

Reference

[Business Standard | Spacecraft Re-entry](#)

