

# Manthan HEADLINES



English

Weekly Compilation  
[06th - 11th October, 2025]



News

# RBI constitutes 6-member Payments Regulatory Board

## Context

- **RBI** has constituted a six-member **Payments Regulatory Board (PRB)** to oversee India's payment systems.

## About PRB

- Replaces the **Board for Regulation and Supervision of Payment and Settlement Systems (BPSS)**.
- Authority derived from the **Payment and Settlement Systems Act, 2007**.
- Supported by **RBI's Department of Payment and Settlement Systems (DPSS)**, which reports directly to PRB.

## Composition

- It is chaired by the RBI Governor.
- It includes two RBI officials: **Deputy Governor and Executive Director for Payment Systems**.
- **Three Central Government nominees:** Secretaries of Financial Services, Electronics & IT, and former Telecom Secretary.
- Decisions by **majority vote, chairperson or deputy governor** has casting vote in tie.
- Must **meet at least twice a year**; decisions can also be made via circulation.

## Functions

- **Regulates and supervises all payment systems:** electronic, non-electronic, domestic, and cross-border.



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# After NISAR, ISRO gearing up for next U.S. collaboration with BlueBird communications satellite launch

## Context

- ISRO to launch the **Block 2 BlueBird communication satellite** in the next 3–4 months.

## About BlueBird Communications Satellite

- **Developed by:** AST SpaceMobile, a U.S.-based company.
- **Weight:** 6,500 kg.
- Expected to arrive in India by September 2025.
- **Launch Vehicle:** LVM3 (formerly GSLV Mk III), ISRO's most powerful launcher.
- **Purpose:** To enhance global mobile broadband connectivity directly via satellites.

## Significance

- Marks growing international **collaboration in satellite launch services**.
- Showcases ISRO's capability to launch heavy **foreign satellites using LVM3**.
- Supports **space-based internet and communication services** worldwide.





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## ISRO organizes Space Analog Mission in Tso Kar Valley, Ladakh

### Context

- Protoplanet, a Bengaluru-based space science organisation, has launched the **Human Outer Planet Exploration (HOPE) initiative** from **Tso Kar, Ladakh**.

### About HOPE

- A **high-altitude research station** simulating deep space environments on Earth.
- **Objective:** To prepare for future manned missions to the Moon and possibly Mars.

### Key Features

- **Isolation Missions:** 10-day missions undertaken by selected crew members.
- **Research Focus:**
  - Physiological adaptation.
  - Psychological resilience.
  - Epigenetic changes due to extreme environments.
- **Site Selection:** Tso Kar's environment mimics extraterrestrial conditions; site studied for 9 years before setup.

### Significance

- Aids in understanding **human survivability** and **performance in hostile**, space-like conditions.
- It contributes to the **design** and planning of **long-duration** space missions.



## A heritage train chugs again in MP: Story of historic Patalpani-Kalakund line

### Context

- **Western Railway** has resumed operations of the **9.5 km metre-gauge heritage train** on the **Patalpani-Kalakund line, Madhya Pradesh**.

### About the Line

- **Location:** Part of the Dr. Ambedkar Nagar (Mhow)–Khandwa section.
- **Terrain:** Passes through the hilly regions of central Madhya Pradesh.
- **Gauge:** Metre-gauge railway.

### Historical Background

- **Proposed by:** Maharaja Tukoji Rao Holkar II (Reign: 1844–1886).
- **Purpose:** To connect Indore to Khandwa via rail.
- **Completion:** 1878.
- **Name:** Originally known as Holkar State Railways.
- **Merger:** Integrated with Rajputana–Malwa Railway in 1881–82.

### Significance

- One of the oldest **operational railway lines** in India.
- A heritage route **attracting tourism and preserving colonial-era railway architecture**.
- Offers scenic views and showcases engineering marvels in hilly terrain.





# Webb Detects Biosignature Gas Phosphine in Atmosphere of Ancient Brown Dwarf

## Context

- **Astronomers** detected phosphine traces in the atmosphere of **brown dwarf Wolf 1130C**, located several light-years from **Earth**.

## About Phosphine (PH<sub>3</sub>)

- Composed of three hydrogen atoms and one **phosphorus atom**.
- On Earth, produced mainly by microbial activity in **swamps** and **animal intestines**.
- **2020**: Detection on **Venus triggered** debates about possible extraterrestrial life.
- Also found on Jupiter and Saturn, indicating non-biological formation in **uninhabitable conditions**.

## Scientific Significance

- Helps understand natural formation mechanisms of phosphine.
- Aids in refining the search for biosignatures (possible hints of life) on other planets.

## About Brown Dwarfs

- Celestial bodies with traits between **stars** and **planets**.
- Formed from collapsing gas **clouds, like stars**, but lack **sufficient mass for hydrogen fusion**.
- Known as “**failed stars**” due to their inability to shine like stars.
- Have planet-like atmospheres with molecules such as **H<sub>2</sub>O** and **clouds**.
- Can be up to 70 times the mass of **Jupiter**.

Source: NYT



News

## Centre plans National Camel Mission to save India's dwindling desert icon

### Context

- The **Ministry of Fisheries, Animal Husbandry and Dairying** plans to launch the **National Camel Sustainability Initiative (NCSI)** to address the declining camel population in India.

### About the Issue

- India's camel population is declining rapidly, especially in **Rajasthan and Gujarat**.
- **Population trends (Livestock Census):** 1977 – ~11 lakh, 2013 – 4 lakh, 2019 – 2.52 lakh
- Approx. 90% of India's camels are found in **Rajasthan and Gujarat**.
- **The NCSI** will involve coordination among multiple ministries – **Animal Husbandry, Environment, Rural Development, Tourism, and State Governments**.

### Camels in India

- **Species:** *Dromedary Camel (Camelus dromedarius)* – single-humped, adapted to hot desert conditions.
- **State Symbol:** Camel is one of the State Animals of Rajasthan (along with Chinkara).

### Economic & Cultural Importance

- **Transport & Labour:** Used for carrying goods, ploughing, and desert transport.
- **Milk Production:** Camel milk is nutritious and has growing market demand.
- **Tourism:** Popular for camel safaris in Rajasthan.
- **Defence Use:** Employed by the Border Security Force (BSF) for desert patrols.

Source: IE



**Stay Tuned!**