

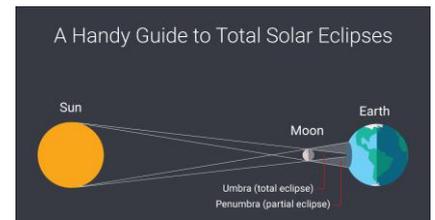
## OU MUAMUA

- ✚ It is an **Interstellar Cigar- Shaped Object** spotted in 2017, scientists have concluded that it is not an alien spaceship, however its composition remains a mystery.
- ✚ The reddish object estimated to be 800m long, was first spotted by astronomers in Hawaii
- ✚ It was **dark and faint**, with **No visible 'coma'** (Atmosphere of dust and gas around a comet's core) or **'tail'** (Elongated Cloud that points away from the Sun) signature identifiers of comets as they approach the inner Solar System.



## SOLAR ECLIPSE

**Context:** A rare total solar eclipse plunged a vast swath of Latin America's southern cone into darkness, briefly turning day into night and enthralling huge crowds in much of Chile and Argentina.



### About Solar Eclipse:

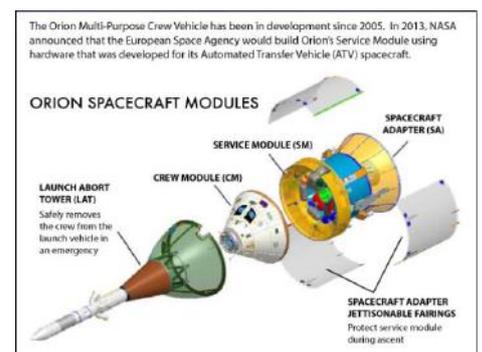
- ✚ A **Solar Eclipse** occurs when an observer (on Earth) passes through the shadow cast by the **Moon which fully or partially blocks the Sun**.
- ✚ This can only happen when the **Sun, Moon and Earth** are nearly aligned on a **straight line** in three dimensions during a new moon when the Moon is close to the ecliptic plane.
- ✚ In a total eclipse, the disk of the Sun is fully obscured by the Moon.
- ✚ In partial and annular eclipses, only part of the Sun is obscured.

## LAUNCH ABORT SYSTEM- ORION SPACECRAFT

**Context:** NASA officials were all smiles following the **Ascent Abort-2** flight test of the launch abort system (LAS) for **NASA's Orion spacecraft**

### About Orion Spacecraft:

- ✚ **NASA's Orion Spacecraft** is built to take humans farther than they've ever gone before.



- ✚ Orion will serve as the exploration vehicle that will carry the crew to space, provide emergency abort capability, sustain the crew during the space travel, and provide safe re-entry from deep space return velocities.
- ✚ Orion will launch on NASA's new heavy-lift rocket, the Space launch system

## ARCTIC FOX

- ✚ It is also known as the **White Fox, Polar Fox, or Snow Fox**, is a small fox **Native** to the Arctic regions of the Northern Hemisphere and common throughout the Arctic tundra biome.
- ✚ It is well adapted to living in cold environments, and is best known for its **Thick, Warm Fur** that is also used as camouflage.
- ✚ Arctic foxes only live 3–4 years in the wild.
- ✚ Its body is generally rounded shape to minimize the escape of **body heat**.
- ✚ The **IUCN status** of Arctic fox is “**least concern**”



## RED SANDERS

- ✚ **Pterocarpus Santalinus**, with the common names **Red Sanders, Red Sandalwood**, and saunders wood, is a species of Pterocarpus **endemic** to the **Southern Eastern Ghats** mountain range of South India.
- ✚ This tree is valued for the **Rich Red Color** of its wood.
- ✚ The wood is **Not** aromatic.
- ✚ The tree is **not to be confused** with the aromatic **Santalum Sandalwood** trees that grow natively in South India
- ✚ It is used in **Traditional Herbal Medicine** as an antipyretic, anti-inflammatory, anthelmintic, tonic, hemorrhage, dysentery, aphrodisiac, anti-hyperglycemic and diaphoretic.
- ✚ Pterocarpus santalinus was listed as an Endangered species by the IUCN, because of **Over exploitation** for its timber in South India; however, it was later reclassified to **Near Threatened in 2018**.
- ✚ It is also listed in the **Appendix II** of the **CITES**.



## NATIONAL ORGAN AND TISSUE TRANSPLANT ORGANIZATION

- ✚ National Organ and Tissue Transplant Organization (NOTTO) is a National level organization set up under Directorate General of Health Services, **Ministry of Health and Family Welfare**
- ✚ It has following Two Divisions:
  1. "National Human Organ and Tissue Removal and Storage Network"
  2. "National Biomaterial Centre".
- ✚ **Function:** NOTTO would function as apex centre for All India activities of coordination and networking for procurement and distribution of Organs and Tissues and registry of Organs and Tissues Donation and Transplantation in the country.

## LONGEST ELECTRIFIED TUNNEL

- ✚ The South-Central Railway (SCR) commissioned the **longest electrified tunnel of 6.6 km** built at a total cost of ₹460 crore between **Cherlopalli and Rapuru stations**.
- ✚ The tunnel is part of the recently completed Obulavaripalli-Venkatachalam new railway line.
- ✚ The **horse shoe-shaped tunnel** is of 6.5 metres height with ballastless track and LED lighting provided at 10-metre intervals inside.
- ✚ The new line also facilitates direct and viable connectivity between South Coast and West Coast, besides enhancing the freight basket of SCR
- ✚ If the average travel time taken by goods train from Krishnapatnam Port to Obulavaripalli is 10 hours, with the newly commissioned line, the travel time gets **reduced to about 5 hours**.



## RAT HOLE MINING

**Context:** Deposit Rs 100 crore imposed as fine on you by the **National Green Tribunal (NGT)** for failing to curb illegal mining, the Supreme Court ordered the Meghalaya government

### What is Rat Hole Mining?

- ✚ It involves **digging of very small tunnels**, usually only 3-4 feet high, which workers (often children) enter and extract coal.
- ✚ The rat-hole mining is broadly of two types - **side-cutting and box-cutting**.



- ✚ In **side-cutting procedure**, narrow tunnels are dug on the hill slopes and workers go inside until they find the coal seam.
- ✚ The coal seam in hills of Meghalaya is very thin, less than 2 m in most cases.
- ✚ In the **Box-Cutting type**, a rectangular opening is made, varying from 10 to 100 sq m.
- ✚ Through this, a vertical pit, 100 to 400 feet deep, is dug.
- ✚ Once the coal seam is found, rat-hole-sized tunnels are dug horizontally through which workers can extract the coal.

## GANGETIC DOLPHIN- MAHANANDA RIVER



**Context:** A population of **endangered Gangetic river dolphins** has been found for the first time in the **Mahananda river, a tributary of the Ganga**, in Bihar's Kishanganj district.

### About Gangetic River Dolphins:

- ✚ The Ganges river dolphin is primarily found in the Ganges and Brahmaputra Rivers and their tributaries in **Bangladesh, India and Nepal**
- ✚ It has been recognized by the government of India as its **National Aquatic Animal**
- ✚ It is one of the four freshwater dolphin species in the world. The other three are found in **Yangtze river, Indus river in Pakistan and Amazon river.**
- ✚ IUCN status: **Endangered**
- ✚ It is also placed in **Schedule-I of the Wildlife (Protection) Act, 1972.**

### Major threats:

- ▶▶ Fishing nets
- ▶▶ Hunting for their oil and meat
- ▶▶ Water pollution
- ✚ **Vikramshila Gangetic Dolphin Sanctuary** located in Bihar's Bhagalpur district of Bihar is India's only dolphin sanctuary is spread over 50 km along the Ganges.

## INTERNATIONAL SEABED AUTHORITY

- ✚ It is an **Intergovernmental Body** that organizes, regulates and controls all mineral (non-living resources) related activities in the



international seabed area **beyond the limits of National Jurisdiction.**

- ✚ **Objective:** Regulate deep seabed mining and ensure the **marine environment** is protected from any harmful effects which may arise from mining activities.
- ✚ **HQ: Kingston, Jamaica**
- ✚ **Established in 1994**
- ✚ It is an organization **established by the Law of the Sea Convention**
- ✚ It functions under the aegis of the **United Nations Convention on Law of the Sea (UNCLOS).**
- ✚ It has an **observer status to UN.**

