



**Date: 31/05/2026**

## Terms in News SkyCast System



- It is an **advanced integrated aviation weather monitoring system**.
- It is developed under "**Mission Mausam**".
- The scientific foundation of SkyCast comes from the Winter Fog Experiment (WiFEX), jointly initiated by **IITM and IMD under the Ministry of Earth Sciences at IGI Airport in 2015**.
- India becomes 19th in the world to deploy advanced integrated aviation weather monitoring systems

### Key Features

- The system integrates state-of-the-art atmospheric **remote sensing** technologies which includes
- **Radar Wind Profiler:** It forms the core of the system and measures wind speed, wind direction, turbulence, vertical velocity and boundary-layer dynamics.
- **Ground-based Fog Aerosol Spectrometer (GFAS):** It is an advanced fog monitoring instrument which provides detailed

information on fog droplets, aerosols and aerosol-fog interactions.

- **CL61 Lidar-based Ceilometer:** It monitors the vertical structure of fog and visibility conditions in real time,
- It improves understanding of fog formation and atmospheric behaviour affecting aviation operations.
- It brings together real-time measurements of fog, aerosols, turbulence, moisture, visibility and atmospheric conditions into a single advanced aviation weather intelligence framework.
- It can assess atmospheric conditions from the surface up to nearly 10 km altitude and generate aviation meteorological parameters (wind shear, turbulence, fog formation indicators and icing potential).

## Lokayan 26



- It is a **10-month transoceanic expedition of INS Sudarshini ship**.
- It will sail over 22,000 nautical miles, visiting 18 foreign ports across 13 countries.

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- During the course of the voyage, over 200 Indian Navy and Indian Coast Guard trainees will undergo intensive sail training, gaining invaluable experience in long-range ocean navigation and traditional seamanship at sea.
- It will strengthen India's maritime cooperation and advance the vision of **MAHASAGAR**

### Key Facts about INS Sudarshini

- It is an **indigenously built Sail Training Ship (STS)**.
- It was built by **Goa Shipyard Limited** and based at Kochi, Kerala under the Southern Naval Command of the Indian Navy.
- It was successfully built and was commissioned on 27 Jan. 2012.
- The aim of using such ships is to make sailors sea-friendly, as they are taught how to survive alone at sea, understand rough weather conditions and train themselves to become good sailors.
- It has a very high endurance and can be deployed at sea continuously for a period of twenty days.

## Lavender Cultivation



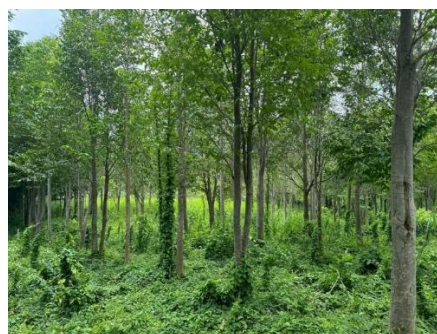
- Lavandula (common name lavender) is a genus of 47 known species of flowering plants in the mint family, Lamiaceae.
- It is a **small, perennial aromatic herb shrub**.

- The flowers may be blue, violet or lilac in the wild species, occasionally blackish purple or yellowish.
- These flowers grow in **temperate areas and are drought-resistant crops**.
- A single lavender plant bears flowers for up to 15 years, requires minimal maintenance, and can be harvested from the second year onward.
- It is a crop **native to Europe** but was introduced in the temperate regions of Jammu & Kashmir state by the **CSIR Aroma Mission**.
- **Propagation:** Propagation of lavender can be done by seeds, rooted cuttings, tissue culture, and layering.
- **Applications:** Food and flavouring, Pharmaceutical and therapeutic, Cosmetic, and Industrial purposes etc.

### Required Climatic Conditions

- **Climate:** It is a hard and temperate plant that can tolerate drought and frost conditions. The ideal climatic conditions are cool winters and cool summers.
- It requires a good amount of **sunlight**.
- **Soil:** It can grow well in light well-aerated soil rich with organic matter. It grows best in neutral to alkaline soil which is free draining.
- It is very sensitive to waterlogging however can go well with poor or eroded soil.
- **Rainfall:** It can produce well with an annual rainfall range from 300 to 1400 mm per year.

## Agarwood



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- It is a species of tree belonging to the Thymelaeaceae family.
- It is also known as Oud, Gaharu or Agar
- The Aquilaria tree is a **fast-growing, subtropical forest tree**.
- The **resin is produced as a defence mechanism due to the intense stress suffered by the trees when they are infected by a type of mold belonging to the Phaeoacremonium species (Phialophora parasitica)**.
- **Distribution:** It is mainly found in South Asia's Himalayan foothills, throughout Southeast Asia, and into the rainforests of Papua New Guinea.
- In India, it grows in the wild in the Northeast, especially in Assam, Tripura, Arunachal Pradesh, Nagaland, Mizoram and Manipur.
- **Soil:** Aquilaria can grow on a wide range of soils, including poor sandy soil.
- **Applications of Agarwood:** It is one of the world's most valuable aromatic raw materials and is widely used in luxury perfumes, incense, cosmetics and traditional products across the Gulf, Europe, and Southeast Asia.

## Border Security Force



- It is one of the seven Central Armed Police Forces (CSPFs) of the Union of India under the administrative control of the **Ministry of Home Affairs**.

- It was raised in the wake of the 1965 War on 1 December 1965.
- It is meant to secure India's borders with its neighbouring nations and is empowered to arrest, search and seize under several laws.
- Currently, BSF is deployed at the Indo-Pakistan International Border, the Indo-Bangladesh International Border, and Line of Control (LoC) along with the Indian Army, and in Anti-Naxal Operations.

### Role:

- The primary role of BSF is to protect the country's land borders during peacetime and prevent transnational crime.
- They help the Indian Army during wartime as they are familiar with local people and topography.
- **Motto:** The motto of BSF, "DUTY UNTO DEATH" is placed at the bottom.
- It has a separate **camel and dog wing** that lets them expand their reach into varied terrain such as the India-Pakistan border in the Rann of Kutch.
- BSF is the only CAPF to have its own Air Wing, Marine Wing, and artillery regiments, which support the General Duty Battalions in their operations.
- **Powers:** It has been given powers of arrest, search, and seizure under various Acts. "These Acts include Passport Act 1967, Passport Act (Entry into India) 1920, Customs Act, NDPS Act and Arms Act.
- The head of the BSF is known as the Director General (DG), and he should be an officer from Indian Police Services (IPS).

## Practice Questions

Q1; The Skycast system recently seen in the news is related to which of the following

- Weather Monitoring
- Air Defense
- Space Exploration

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D. Moon Landing

Q2; Lokayan 26, recently seen in the news is related to which of the following

- A. Naval Expedition
- B. Military Exercise
- C. Space Internet
- D. Bilateral Treaty

Q3; Which of the following states is ideal of Lavender Cultivation in India

- A. West Bengal
- B. Gujarat
- C. Kerala
- D. Himachal Pradesh

Q4; This is a fast-growing, subtropical forest tree. The resin is produced as a defence mechanism due to the intense stress suffered by the trees when they are infected by a type of mold belonging to the *Phaeoacremonium* species (*Phialophora parasitica*). It is mainly found in South Asia's Himalayan foothills, throughout Southeast Asia, and into the rainforests of Papua New Guinea.

Identify the tree species from the above description

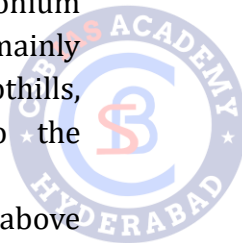
- A. Sandalwood
- B. Red Sanders
- C. Agarwood
- D. Elephant Bamboo

Q5; Which among the following security forces come under the Ministry of Home Affairs

- A. Indian Navy
- B. Indian Coast Guard
- C. Border Security Force
- D. Indian Airforce

### Answers

1. A
2. A
3. D
4. C
5. C



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