

### ANTHROPIC BARS FOREIGN ACCESS TO ITS MOST POWERFUL AI MODELS

The US government has issued an **export control order** barring **all foreign nationals** — even those working inside Anthropic, a leading AI company — from accessing its two newest AI models, **Fable 5 and Mythos 5**.

These were launched recently and are Anthropic's most advanced publicly available AI systems. The order cites **national security concerns**, but its broad scope has raised fresh questions about how governments can control access to AI technology.

#### **What Are Export Controls, and Why Is This Different?**

- Export controls are rules that stop certain goods or technologies from being sent to other countries. Normally, they apply to **physical items** — for example, the US restricts the sale of advanced computer chips to China.
- This new order is different. For the first time, it controls how an AI software product can be used and by whom — not a physical product.
- This is being seen as a new and unusual use of export control law, applied to artificial intelligence for the first time in this manner.

#### **Export Control Order Banning Access of AI Model?**

- The order blocks **all foreign nationals** from using Fable 5 and Mythos 5 — whether they are located inside the US or outside it. This includes Anthropic's own foreign employees.
- In simple terms, only American citizens or entities can access these two models for now.
- As per the Anthropic, the government did not give a clear, written explanation. Based on informal communication, the company believes the **concern relates to a possible "jailbreak"** — a method to bypass an AI model's safety restrictions.
  - This technique works by asking the AI model to read a piece of software code and identify and fix flaws in it.
- Anthropic has pushed back, stating that this capability is not unique to its models — other publicly available AI systems, including OpenAI's GPT-5.5, can do the same thing.

### What Are Fable 5 and Mythos?

- Anthropic has launched **Fable 5** and **Mythos 5**, its most advanced publicly available AI models.
- Both are built on the company's new “**Mythos-class**” architecture, derived from the earlier **Mythos Preview** model, which was not publicly released due to concerns over potential misuse.
- **Why Was Mythos Preview Not Released?**
  - Anthropic had previously claimed that Mythos Preview possessed the capability to identify severe vulnerabilities in major operating systems and web browsers, including some that reportedly remained undetected for years.
  - The company feared that such powerful capabilities could be misused, particularly against critical infrastructure worldwide. As a result, it decided against a public release.
  - Before the launch, Anthropic provided limited access to Mythos Preview through Project Glasswing.
  - In India, the company reportedly discussed sharing the model with a small number of organizations.
- **Key Difference Between Mythos Preview and Fable 5/Mythos 5**
  - Although Fable 5 and Mythos 5 are based on the same underlying technology as Mythos Preview, they include **additional safety safeguards**.
    - Requests related to sensitive cybersecurity issues or biological threats are filtered.
    - When the system detects a potentially high-risk query, it automatically redirects the user to a less capable AI model (Claude Opus 4.8) instead of allowing the full Mythos-level system to respond.
  - The company acknowledges that the safeguards may occasionally block harmless requests.

### INDIAN SEAFARERS' SAFETY - GOVERNMENT STEPS AND CHALLENGES

- Seafarers are professional sailors who serve aboard merchant ships engaged in international and domestic trade.
- **With over 2.5 lakh seafarers**, India ranks among the top three countries supplying skilled maritime workforce globally.

#### Regulatory Framework

- The **Directorate General of Shipping (DGS)** under the Ministry of Ports, Shipping and Waterways is the principal authority responsible for:
  - Certification and training of Indian seafarers.
  - Implementation of the Merchant Shipping Act, 1958.
  - Oversight of seafarer welfare measures.
  - Compliance with international conventions like the Standards of Training, Certification and Watchkeeping (STCW) Convention and the Maritime Labour Convention (MLC), 2006.

#### Government Steps for Safety and Welfare of Indian Seafarers

- **Regulatory and Institutional Measures**
  - **Merchant Shipping Act, 1958**
    - The principal legislation governing Indian seafarers and merchant shipping. Provides for certification, employment conditions, welfare, and safety standards.
    - Currently undergoing modernisation through the proposed Merchant Shipping Bill to align with international conventions.
  - **Directorate General of Shipping (DGS)**
    - The regulatory authority for seafarer training, certification, and welfare.
    - Issues Continuous Discharge Certificates (CDCs) to Indian seafarers.
    - Implements the **Maritime Labour Convention, 2006** provisions.
    - Maintains a central database of registered seafarers.

- **National Shipping Board**

Advisory body on matters relating to Indian shipping and merchant marine. Recommends policies for maritime development and seafarer welfare.

- **Skill India Initiative**

- Specialised maritime skill development programmes.
- Apprenticeship and pre-sea training for aspiring seafarers.
- Recognition of prior learning (RPL) for experienced mariners.

### Safety and Security Measures

- **Maritime Security Coordination**

- Information Fusion Centre - Indian Ocean Region (IFC-IOR) at Gurugram for maritime domain awareness.
- Coordination among the Indian Navy, Coast Guard, and DGS.
- Real-time threat assessment and dissemination to shipowners.

- **Anti-Piracy Measures**

- Indian Navy escorts in the Gulf of Aden and Western Indian Ocean.
- Best Management Practices (BMP) for ships transiting high-risk areas.
- Armed guards on Indian-flagged vessels in piracy-prone regions.

- **Search and Rescue Operations**

- Indian Coast Guard maintains 24/7 search and rescue capabilities.
- Maritime Rescue Coordination Centres (MRCC) at strategic locations.
- Rapid response for distress situations involving Indian seafarers.

- **Strengthening Maritime Security**

- Enhanced naval deployments in critical regions.
- Expanded Coast Guard surveillance.
- Rapid response capabilities.
- Preparedness for hostage rescue and evacuation operations.
- Timely dissemination of actionable intelligence to shipowners.
- Regular threat assessments for operators.

### NATIONAL PHARMACEUTICAL PRICING AUTHORITY



- It is an **independent regulator** for **pricing of drugs** and to ensure availability and accessibility of medicines at affordable prices.
- It was constituted in 1997 under the **Department of Pharmaceuticals (DoP), Ministry of Chemicals & Fertilizers**.

#### **Functions:**

- To **implement and enforce the provisions of the Drugs (Prices Control) Order** in accordance with the powers delegated to it.
- To **monitor the availability of drugs**, identify shortages, if any, and to take remedial steps.
- To **collect/ maintain data on production**, exports and imports, market share of individual companies, profitability of companies etc, for bulk drugs and formulations.
- To recruit/ appoint the officers and other staff members of the Authority, as per rules and procedures laid down by the Government.
- To **render advice to the Central Government** on changes/ revisions in the drug policy.
- To render assistance to the Central Government in the parliamentary matters relating to drug pricing
- To **fix and revising drug prices** as per the provisions of the **Drugs Prices Control Order (DPCO)**,
- NPPA provides **ceiling price to all drugs** notified under **Schedule-I of DPCO** and so far.

### UDANTI-SITANADI TIGER RESERVE



- **Location:** It is located in Chhattisgarh.
- It was established by joining the regions represented by **Sitanadi and Udanti wildlife sanctuaries.**
- **Rivers:** The drainage system of the reserve consists of the **Mahanadi as the main river**, along with the Udanti, Sitanadi, Indravan, and Pairi Rivers as tributaries.
- The location of the reserve is strategic since it also connects with the Kanker and North Kondagaon forest divisions, forming a **contiguous forest corridor to Indravati Tiger Reserve in the Bastar region.**
- **Deo Dongri** is the **highest point**. The most prominent mountain is **Atānga Dongar**.
- **Vegetation:** The forest type here is predominantly **tropical dry and moist deciduous**.
- **Flora:** The forest is dominated by Sal (*Shorea robusta*), which forms dense patches across the landscape.
  - Alongside, species such as Teak (*Tectona grandis*), Bamboo, Tendu, Mahua, Bija, and Harra contribute to the green diversity of the region.
- **Fauna:** It is home to the last few herds of the highly endangered **Wild Buffalo**, tiger, Indian Wolf, Leopard, Sloth Bear, and Mouse Deer etc.

### JIANGMEN UNDERGROUND NEUTRINO OBSERVATORY (JUNO)



- It is a large **underground neutrino detector** located near the city of Kaiping in the southern Guangdong province of **China**.
- It is the product of an **international collaboration** involving **74 institutions from Asia, Europe, and America**.
- It is led by the **Chinese Academy of Sciences (CAS)** via the Institute of High Energy Physics (IHEP).

- The primary JUNO scientific **goal** is the **determination of the neutrino mass ordering (NMO)**.
  - This can be **inferred by measuring the oscillation pattern of electron anti-neutrinos emitted by nuclear power plants**.
- Juno is designed to have a scientific **lifespan** of up to **30 years**.

### What are Neutrinos?

- Neutrinos, often called '**ghost particles**', are **elementary particles** that belong to the **lepton family** of particles.
- Since neutrinos have **very little interaction with matter**, their **detection is very difficult**.
- They have **no electrical charge** and have a **very small mass** (less than one millionth of the mass of the electron), and their **speed is nearly equal to the speed of light**.
- First predicted in 1930, they weren't **discovered** in experiments until **1956**.
- **Of the four fundamental forces in the universe**, neutrinos only **interact with two** — **gravity and the weak force**.

### WHAT IS AN-32 AIRCRAFT?



- The AN-32 (Antonov AN-32) is a **Soviet-origin twin-engine turboprop military transport aircraft**.
- Its **NATO reporting name** is **Cline**.
- It is designed and manufactured by the Antonov Design Bureau of Ukraine, then part of the USSR.
- It was **purchased by India from the USSR in 1984**. The planes were specially customised to suit the IAF's requirements.
- The IAF has a **fleet of around 100 AN-32 planes**.
- It is designed to excel in **extreme environments**, functioning perfectly in **high-altitude airfields** (up to 4500 m above sea level) and **hot tropical climates**.

- **Features:**
  - It is powered by **two single-shaft turboprop engines**.
  - It can carry a maximum weight of 27 tons at a maximum speed of 530 km/h.
  - It can transport up to 7.5 tons of cargo, 50 passengers, or 42 paratroopers, and it is extensively used for supply drops in remote regions.
  - The **range** and service ceiling of the aircraft are **2,500 km** and 9,500 m, respectively.
  - It can **take off and land on rough airfields and dirt runways**.
  - It also has a **limited bombing role** and is used for para-trooping operations.

### MASROOR ROCK-CUT TEMPLES



- Masroor Rock-Cut Temples, also referred to as **Masroor Temples**, is an **early 8th-century complex of rock-cut Hindu temples** in the **Kangra Valley of the Beas River in Himachal Pradesh**.
- They are often referred to as the **Ellora of Himachal and the Himalayan pyramid**.

#### **History:**

- Archaeological surveys say that they have been **built around the 8th century**, almost 1200 years ago, due to their **resemblance to the “Gupta style of architecture”** from the same period.
- However, there is **no mention** of the temple in any of the **scriptures or historical records**.
- The temple complex was **first reported by Henry Shuttleworth in 1913**, bringing it to the attention of archaeologists.
- They were **independently surveyed by Harold Hargreaves** of the **Archaeological Survey of India** in

### KEY FACTS ABOUT VITAMIN C



- Vitamin C (also known as **L-ascorbic acid** or **ascorbate**) is a **water-soluble vitamin**.
- **Function:**
  - It is a powerful **antioxidant** that can **neutralize harmful free radicals**.
  - It is needed for the **growth and repair of tissues** in all parts of your body.
  - **Sources:**
    - Unlike most mammals and other animals, **humans do not** have the ability to **synthesize vitamin C** and must obtain it from the diet.
    - Vitamin C comes from **fruits and vegetables**.
    - **Good sources** include **berries, cantaloupe, tomatoes, peppers, potatoes, cabbage, Brussels sprouts, broccoli, spinach, and citrus fruits, such as oranges.**
    - **Some juices and cereals** have **added vitamin C**.
    - Vitamin C is **sensitive to heat**, so some of its nutritional **benefits can be lost during cooking**. Raw foods are more beneficial as dietary sources.
  - **Vitamin C Deficiency:**
    - Vitamin C is not stored in body, so deficiency can happen quickly.
    - Vitamin C deficiency is more **likely in people who:**
      - **Smoke** or are around secondhand smoke.
      - Have certain **conditions of the digestive tract** or certain types of **cancer**.
      - Have a diet that doesn't include enough fruits and vegetables.
    - Not having enough vitamin C can lead to a **condition called scurvy**.
      - Scurvy **causes anemia, bleeding gums, bruising, and poor wound healing**.