Daily News Juice 1st May,2024

To receive Daily news juice pdf on your WhatsApp, send name and city through WhatsApp on 75979-00000.

1. Aviation carriers of India

Why in News?

On March 5, both aircraft carriers of the Indian Navy, INS Vikramaditya and INS Vikrant, showcased "twin carrier operations" with MiG-29K fighter jets taking off simultaneously from both and landing cross deck. This demonstrated an ability that only a handful of nations can boast of. Further one of the carriers, INS Vikrant is indigenously designed and constructed. Commissioned in September 2022, INS Vikrant has been fully operationalised and integrated into the operational cycle in record time. As the two carriers sailed, they were joined by a flotilla of frontline warships of the Indian Navy, a combined tonnage of around 1,40,000 as well as aircraft.

What does INS Vikrant signify?

A carrier is a floating city. The design work on the Indigenous Aircraft Carrier (IAC)-I, later christened Vikrant, began in 1999; however 2005-2006 were probably the most crucial years for the carrier and for India's war shipbuilding.

The crucial decision was on the warship grade steel, DMR-249 steel, which till then was procured from Russia. After much brainstorming, it was decided that it would be developed and produced in India, a collaborative effort between the Steel Authority of India, the Defence Research Development Organisation (DRDO) and the Indian Navy. DMR-249 steel is now being used for the construction of all warships in the country.

What is the composition of INS Vikrant?

Delays notwithstanding, Vikrant is an engineering marvel. It has a total area in excess of 12,450 sq. metre which equals to about two and a half hockey fields. The 262m long and 62m wide ship is powered by four General Electric LM2500 engines generating 88 MW of power giving it a maximum speed of 28 Knots and an endurance of 7,500 nautical miles.

Built at an overall cost of around ₹20,000 crore and 76% indigenous content, the ship has around 2,200 compartments, for a crew of around 1,600 that include specialised cabins to accommodate women officers and sailors. Vikrant houses two galleys which cater to all onboard, preparing upto 4,500-5,000 meals every day.

What are its capabilities?

Vikrant can operate an air wing of 30 aircraft comprising MiG-29K fighter jets, Kamov-31, MH-60R multi-role helicopters, in addition to indigenous Advanced Light Helicopters and Light Combat Aircraft (Navy). It uses the STOBAR (Short Take-Off but Arrested Recovery) method to launch and recover aircraft for which it is equipped with a ski- jump to launch aircraft, and three 'arrester wires' for their recovery. About 200 men start the day by preparing the flight deck for flying operations.

While the present Vikrant was the first carrier built in the country, India has had a long history of operating carriers. The erstwhile 19,500 tonnes Vikrant was India's first carrier purchased from the U.K., which arrived in 1961 and played a vital role in the 1971 war. Then came the 28,700 tonnes INS Viraat commissioned in 1987, formerly HMS Hermes, also from the U.K. Both of them have retired. INS Vikramaditya procured from Russia and commissioned in 2013 is India's third carrier.

After Vikrant, what next?

The Navy has already moved a case for a second Indigenous Aircraft Carrier (IAC-II), a repeat of a Vikrant-like carrier. The proposal was cleared by the Defence Procurement Board last September and has since been forwarded for approval by the Defence Acquisition Council, expected to be taken up once it meets after the elections.

The IAC-II displacing 45,000 tonnes will see some modifications and newer technologies incorporated in the original design of the Vikrant and will also be manufactured by Cochin Shipyard Limited (CSL). It will take around eight to 10 years to build a new carrier.

The proposed IAC-II has often been referred to as India's third aircraft carrier. However, that is not entirely right. Design, construction and operationalisation of a carrier takes a long time and the IAC-II, if it comes in time, will be a timely replacement for INS Vikramaditya.

Global Trend

While debate around carriers versus submarines continue, there is a renewed global interest with several countries now going for carriers of varying sizes. The U.S. is fielding new super carriers, and the U.K. has inducted new carriers while France and Russia have announced plans to build new ones. Japan has begun converting its helicopter carriers to operate F-35 fighter jets. Last month, China announced that it is building its fourth aircraft carrier, likely a nuclear-powered super carrier. From commissioning its first carrier, Liaoning, in 2012, launching second carrier Shadong in 2017, third carrier Fujian in 2022 and the fourth to be unveiled soon, China's pace is absolutely unprecedented.

Relevance: GS Prelims & Mains Paper III; Science & Technology
Source: The Hindu

2. Sierra Madre, an old ship fuelling China-Philippines tensions in South China Sea?

Why in News?

Countries such as China, the Philippines, Malaysia, Vietnam and Brunei Darussalam have long been making competing claims over regions of the South China Sea. Of late, the Philippines

and China in particular have clashed in the region, raising concerns about an escalation. An important part of this equation is Sierra Madre, a World War II-era ship.

In the 1990s, the Philippines decided to bring this ship to the Second Thomas Shoal, a submerged reef located in the South China Sea. The placement of the ship was deliberate, in order to further its territorial claims. Since then, the Philippines has sent smaller boats to the ship for repairs, and sending supplies to the crew onboard.

"Chinese coast guard and militia ships have repeatedly swarmed and collided with Philippine resupply vessels". China was also found to have increased the deployment of its ships and directed water cannons at Filipino boats during supply missions to the Sierra Madre.

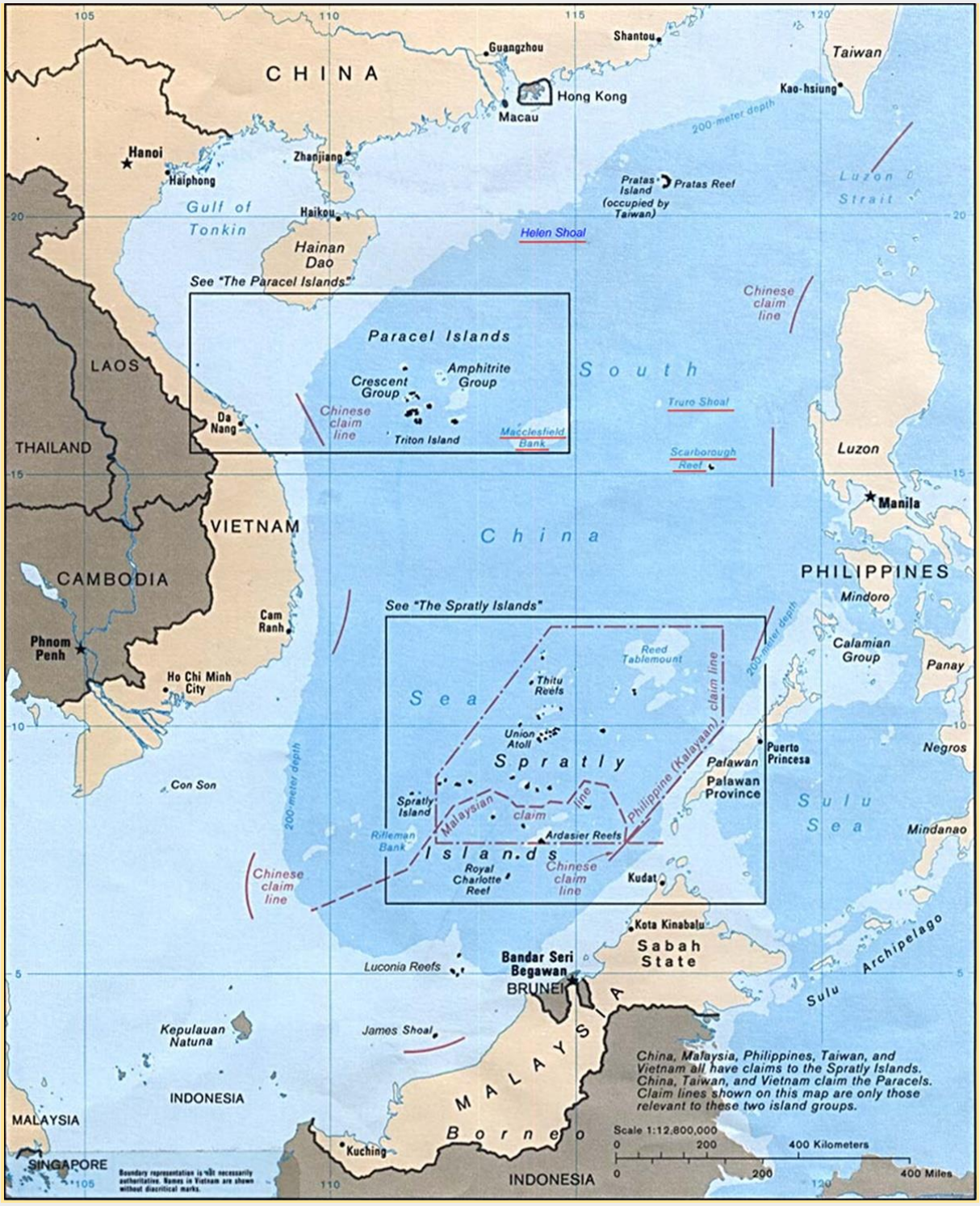
First, what is the Sierra Madre?
The 100 ft-long Sierra Madre was constructed in the US for World War II (1939-45). Subsequently, it was sent to Vietnam during the US participation in the Vietnam War (1954-75). In 1976, it was transferred to the Philippines, an ally of the US.

In 1999, it was left on the Second Thomas Shoal, which is a part of the mostly uninhabited Spratly islands. A few years ago, China had laid claims on the nearby Mischief Reef. The move was an attempt at halting further Chinese assertions.

China has since demanded the ship's removal – something the Philippines has rejected. Today, the ship is largely dilapidated and rusting. However, for the Philippines, its removal would risk weakening its claims over the islands and Chinese presence being established.

What is the battle over Spratly islands?
All countries bordering the sea have certain rights to access marine resources. An exclusive economic zone (EEZ) is an area of the ocean extending 200 nautical miles (370 km) beyond a nation's territorial sea (12 nautical miles or 12 miles from the coast). Within this area, a coastal nation has jurisdiction over both living and non-living resources.

For decades, countries in the region have extended overlapping claims on the South China Sea, claiming ownership over islands located there – such as the Spratly islands and the Paracel islands. Along with issues over sovereignty, the rich oil and gas reserves in the region and its rich fishing waters have also encouraged countries to lay their claims.



Dispute in recent years

The disputes gradually escalated and culminated in 2012 when China took effective control of the disputed Scarborough Shoal after a tense standoff.

The following year, Xi Jinping became the Chinese President. Under his rule, China has assumed a hardened stance on territorial claims and attempted aggressive posturing. It has claimed 90% of the South China Sea.

In 2016, an international tribunal in The Hague ruled in favour of the Philippines by noting China's activities in the dispute. Although the decision did not award sovereignty to any party, it said, "The Tribunal found that it could—without delimiting a boundary—declare that certain sea areas are within the exclusive economic zone of the Philippines, because those areas are not overlapped by any possible entitlement of China".

It also pointed to China's construction of artificial islands with helipads and buildings was "incompatible with the obligations on a State during dispute resolution proceedings, insofar as China has inflicted irreparable harm to the marine environment, built a large artificial island in the Philippines' exclusive economic zone, and destroyed evidence of the natural condition of features in the South China Sea that formed part of the Parties' dispute." China rejected the ruling.

What has the US response been like?

The US, which regards The Philippines as an important strategic ally, also voiced its support. In May 2023, the two countries also agreed on new guidelines to a defence treaty from 1951. It originally said the parties recognised "that an armed attack in the Pacific Area on either of the Parties would be dangerous to its own peace and safety and each party agrees that it will act to meet the common dangers in accordance with its constitutional processes."

Pentagon said in 2023: "The guidelines reaffirm that an armed attack in the Pacific, including anywhere in the South China Sea, on either of their public vessels, aircraft, or armed forces – which includes their Coast Guards – would invoke mutual defense commitments under Articles IV and V of the 1951 U.S.-Philippines Mutual Defense Treaty."

Relevance: GS Prelims & Mains Paper II; Bilateral Relations
Source: Indian Express

3. Pakistan's Hangor class submarines, built by China

Why in News?

The first Hangor class submarine, built by China for Pakistan, was launched recently at a Wuhan shipyard. This was the first of eight submarines of this class that the Pakistan Navy is set to induct into its fleet by 2028.

Basic characteristics

The Hangor-class, an export variant of the Chinese Type 039A Yuan class, is a diesel-electric attack submarine, named after the now decommissioned PNS Hangor, which famously sank Indian frigate INS Khukri during the 1971 war.

"Diesel-electric" refers to the mode of propulsion — diesel engines power the submarine when surfaced or snorkelling (as they need air to operate), while a battery, charged by the diesel engine, allows the vessel to operate while submerged. The Hangor-class boasts four diesel engines.

Attack submarines are specifically designed for sinking other submarines or surface vessels using torpedoes, or in modern times, cruise missiles. The Hangor-class has six 21 inch torpedo

tubes, and capabilities to launch anti-ship missiles, as well as the Babur-3 subsonic cruise missile, which has a range of 450 km.

Comparison with India's Kalavari class

Pakistan's Hangor class is the direct counterpart of India's Kalavari class of submarines, based on the French Scorpene-class. India currently operates six Kalavari class submarines, with three more set to be inducted into service by the early 2030s. The Kalavari class, like the Hangor class, runs on diesel-electric propulsion.

Relevance: GS Prelims; Bilateral Relations
Source: Indian Express