

April- 14

TNPSC BITS

- ❖ India donated US \$1 million to Swaziland of Africa to support Swaziland's National Disaster Management Agency as well as for foodgrains production
- ❖ Labour Secretary M Sathiyavathy took charge as a member of Union Public Service Commission (UPSC). Vinay Mittal, the Chairman of the UPSC administered oath of office and secrecy.

NATIONAL

World EXPO 2020 Dubai

- ❖ India and World Expo 2020 Dubai have signed participants contract for India's pavilion in prestigious World Expo 2020 held once in 5 years.
- ❖ The contract provides for setting up of India pavilion at Expo 2020 on the extra-large plot (about one acre) in Opportunity segment.
- ❖ India's pavilion at World Expo 2020 will be developed in public-private partnership mode.

World's first micro-factory

- ❖ IIT-trained Australian scientist of Indian origin Veena Sahajwalla has launched world's first micro-factory.
- ❖ It can transform components from electronic waste items into valuable materials for re-use.
- ❖ This micro-factory can operate on site as small as 50 square meters and can be easily located wherever waste may be stockpiled.
- ❖ The e-waste micro-factory uses green manufacturing technologies to turn many types of consumer waste such as glass, plastic into commercial materials and products.

ECONOMY

Committee to review the enforcement of CSR provisions

- ❖ The Ministry of Corporate Affairs (MCA) has constituted 12-member committee to review enforcement of Corporate Social Responsibility (CSR) provisions under Companies Act, 2013.
- ❖ It will be headed by Regional Director (Western Region) Manmohan Juneja.
- ❖ Besides, there will be two sub-committees viz. legal and technical that will go into various aspects in relation to compliance with CSR provisions.
- ❖ Under Companies Act, 2013, a certain class of profitable companies (entities) are required to shell out at least 2% of their three-year annual average net profit towards CSR activities.

SCIENCE AND TECHNOLOGY

New website and mobile app of NCSK

- ❖ The Union Ministry of Social Justice & Empowerment has launched a new website and a mobile application of the National Commission for Safai Karamcharis (NCSK).
- ❖ The Mobile App will help the Commission in addressing the grievances/complaints of petitioners in an efficient manner.
- ❖ It is a statutory body established under the National Commission for Safai Karamcharis Act, 1993.
- ❖ The NCSK was established in 1994 to deal with the grievances of persons engaged in manual scavenging. It has a sanctioned strength of four members and a chairperson.
- ❖ It aims to promote and safeguard the interests and rights of Safai Karamcharis.

Digitally signed QR code

- ❖ The Unique Identification Authority of India (UIDAI) has brought in secured digitally-signed QR Code on e-Aadhaar.
- ❖ It will contain a photograph of Aadhaar holder in addition to demographic details.

- ❖ The small QR code will be on the front side of a cutaway portion of e- Aadhaar, with demographic data.
- ❖ It will also have UIDAI digital signature to make this information more secure and tamper-proof.

ICGS Vikram

- ❖ The first indigenously developed offshore patrol vessel - ICGS Vikram - was commissioned into the Indian Coast Guard at Kattupalli Port near Ennore of Chennai.
- ❖ The platform, which has been named ICGS Vikram with pennant number 33, was officially inducted on 11th April.
- ❖ The ship's construction design and construction processes have undergone dual certifications from the American Bureau of Shipping and Indian Registrar of Shipping.
- ❖ The ICGS Vikram, designed and built by Larsen and Toubro, is the 'First of Class' of seven new generation Offshore Patrol Vessels (OPVs) contracted by defence ministry to L&T in March 2015, under government's initiative of 'Make in India.'
- ❖ Vikram inherits the name and hull number of the first ship in a class of nine that was in service with the ICG since 1983 and began retiring in 2012.
- ❖ The service currently operates a single ship, ICGS Vighraha, in this older class of vessels.
- ❖ The ICGS Vikram class OPVs are long-range surface ships, equipped to handle helicopter operations and capable of operating in Indian maritime zones including island territories.
- ❖ The role of the OPV is to conduct coastal and offshore patrolling, policing maritime zones, control and surveillance, anti-smuggling and anti-piracy operations with limited wartime roles.

Ready to set sail

Vikram, the first of a series of seven Offshore Patrol Vessels (OPVs)

The long-range ship was built by Larsen and Toubro

What are OPVs?
OPVs are long-range surface ships capable of coastal and offshore patrolling, policing maritime zones, control & surveillance, anti-smuggling & anti-piracy operations with limited wartime roles

Order
6 similar OPVs have been ordered by the Indian Coast Guard with the same builder

Cost
₹1,432 cr.
The total order value to design and build seven OPVs.

Timeline | MARCH 2015 - MARCH 2018
The contract was signed on March 2015 and the target delivery of the first OPV was set at 36 months - March 2018 - and subsequent vessels at intervals of 6 months

Induction | APRIL 2018
"Vikram" is likely to be inducted into the Indian Coast Guard in April 2018 after completion of extensive trials

Width 15 m

Length 97 m

Gun: The ship is fitted with one 30 mm automatic gun with Fire Control System (FCS) and two 12.7 mm guns with FCS

Helipad: The ship will have Integral Twin Engine Helicopter which will enhance its operational, surveillance, search and rescue capabilities

Draught: 3.6 m
It is the distance between the surface of the water and the lowest point of the vessel.

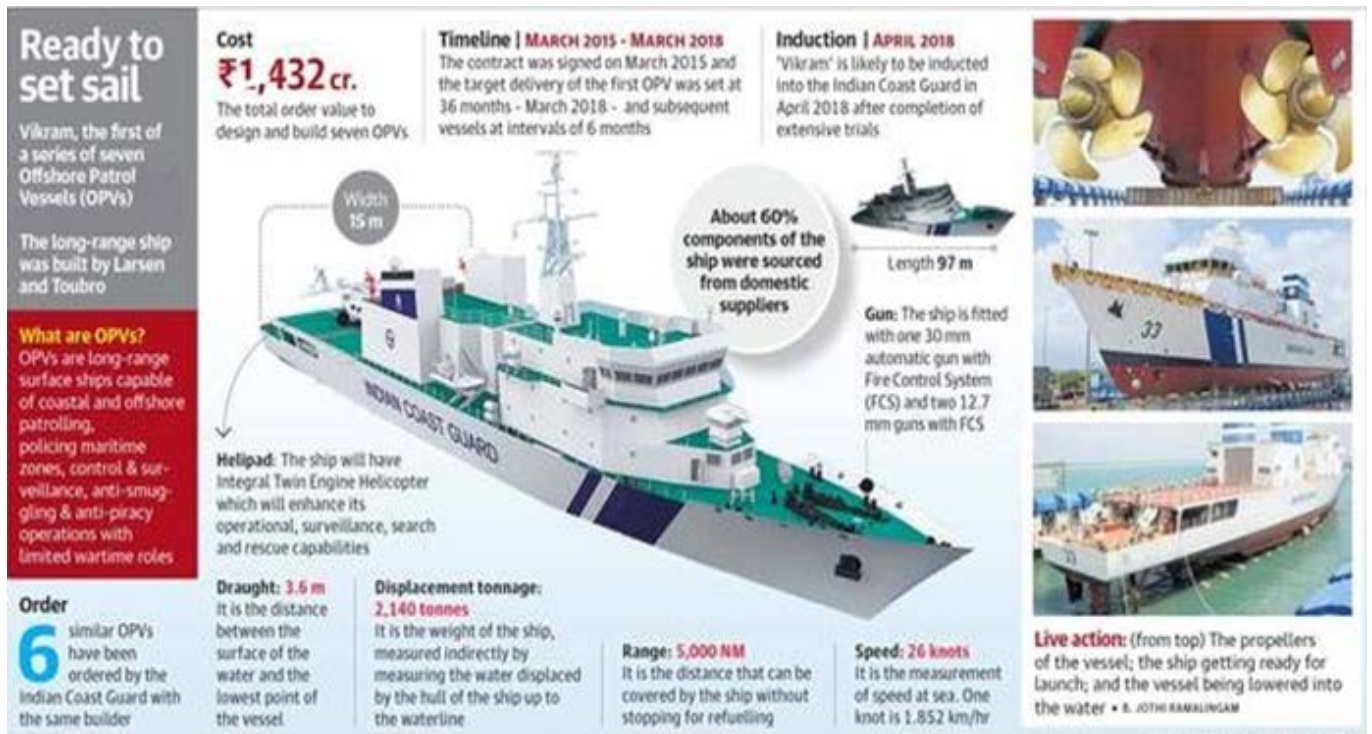
Displacement tonnage: 2,140 tonnes
It is the weight of the ship, measured indirectly by measuring the water displaced by the hull of the ship up to the waterline

Range: 5,000 NM
It is the distance that can be covered by the ship without stopping for refuelling

Speed: 26 knots
It is the measurement of speed at sea. One knot is 1.852 km/hr

About 60% components of the ship were sourced from domestic suppliers

Live action: (from top) The propellers of the vessel; the ship getting ready for launch; and the vessel being lowered into the water • R. JOTHIRAMALINGAM



09-3x Dynamic Tamping Express

- ❖ The Indian Railways has inducted three 09-3x Dynamic Tamping Express machines for improved mechanized Track Maintenance.
- ❖ This advanced technology simulator is presently only available in five countries including India.
- ❖ These machines have been manufactured in India under Make in India initiative with imported components.
- ❖ 09-3X- Dynamic Tamping Express' is an integrated machine that carries out multiple functions viz. measures pre & post track geometry corrects the track to required geometry.
- ❖ So far, each of these functions was being carried out by different machines.
- ❖ A new 3D state-of-the-art tamping simulator has been installed and commissioned at Indian Railway Track Machine Training Centre Allahabad (IRTMTC) for practical hands-on training to operate such advanced track maintenance machines.
- ❖ India Railway has planned complete mechanization of inspection, monitoring, relaying and maintenance of track by 2024.

4th Mark IV LCU vessel – L54

- ❖ The fourth of eight Mark IV LCU vessels – L54, built by Garden Reach Shipbuilders and Engineers Limited (GRSE), Kolkata was formally handed over to Indian Navy at GRSE, Kolkata.
- ❖ The first ship of Mark IV LCU vessels INS LCU 51 was commissioned into Indian Navy in 2016. Moreover, two more LCU ships L52 & L53 have been already delivered to Indian Navy.
- ❖ The Mark IV Landing Craft Utility (LCU) vessels are a further improved version of the Mark III LCU vessels presently being used by the Indian Navy.
- ❖ These total eight vessels Mark IV category are amphibious ships with a primary role to transport and deploy Main Battle Tanks (MBTs), armored vehicles, troops and equipment from ship to shore.
- ❖ LCU MK-IV vessels will be based in Andaman and Nicobar Command.

Crucial to Navy & Relief Work

The HSLCs will have bulletproof and armour plating with machine guns on both sides

The craft can be used for humanitarian aid, disaster relief & logistic support for islands

180 troops

The minimum number of men that the amphibious craft should be able to host

65 tonnes

The lowest weight the vessel needs to carry



ENVIRONMENT

New source of global nitrogen

- ❖ According to recently published study, over a quarter of nitrogen on Earth comes from weathering of planet's bedrock.
- ❖ For centuries, the prevailing science indicated that all of the nitrogen on Earth available to plants comes from the atmosphere.
- ❖ The study has found that up to 26 percent of the nitrogen in natural ecosystems is sourced from rocks, with the remaining fraction from the atmosphere.
- ❖ The discovery could greatly improve climate change projections.
- ❖ This study shows that nitrogen weathering is a globally significant source of nutrition to soils and ecosystems worldwide.
- ❖ Rock-derived nitrogen may fuel the growth of forests and grasslands, and allow them to sequester more CO₂ than previously thought.

STATES

Manu Bhaker

- ❖ India's teen shooting sensation Manu Bhaker will be the brand ambassador of Haryana's Measles and Rubella (MR) vaccination campaign.
- ❖ This campaign will be launched by Haryana Chief Minister Manohar Lal Khattar on 25th April 2017.
- ❖ Vaccination of about 85 lakh children -- from nine months to 15 years of age -- would be carried out under this campaign.
- ❖ The campaign, which would continue for 5-6 weeks, was decided in a meeting of State Level Steering Committee for Measles Rubella Campaign held under the chairmanship of Chief Secretary, D S Dhesi.



IMPORTANT DAYS

World Homoeopathy Day – 10 April

- ❖ The World Homoeopathy Day (WHD) is observed every year on April 10 to honor and to pay tribute to Dr. Christian Friedrich Samuel Hahnemann, founder, and father of Homeopathy system of medicine.
- ❖ This year it is the 263rd birth anniversary of the founder of Homoeopathy.
- ❖ On this occasion, Vice President M Venkaiah Naidu inaugurated scientific convention on WHD 2018 in New Delhi organized by Ministry of AYUSH.
- ❖ The theme of the two-day convention was “Innovate Evolve, Progress: Exploring Science since 40 years”.
- ❖ Homeopathy as a system of medicine was developed by Dr. Samuel Hahnemann in Germany in 1796.

National Safe Motherhood Day – 11th April

- ❖ The National Safe Motherhood Day (NSMD) is celebrated every year on April 11 to create awareness on proper healthcare and maternity facilities to pregnant and lactating women.
- ❖ The theme of 2018 NSMD was ‘Respectful Maternity Care’.

- ❖ The NSMD is an initiative of White Ribbon Alliance for Safe Motherhood, India (WRAI)
- ❖ It aims to ensure that every woman has access to services childbirth services during pregnancy and postnatal services.
- ❖ At the request of WRAI, the Central Government in 2003 had instituted this day on the occasion of birth anniversary of Kasturba Gandhi, wife of MK Gandhi.
- ❖ India is the first country in the world to celebrate National Safe Motherhood Day.
