



Date – 6 June 2022

Operation Mahila Suraksha



- Under Operation Mahila Suraksha, Railway Protection Force (RPF) has arrested 7000 persons who were traveling in coaches reserved for women in an unauthorized manner.
- During this, RPF also saved girls/women from being victims of human trafficking under Operation Aahat (AAHT).

About Operation Women's Safety

- All India campaign "Operation Mahila Suraksha" was organized from 3rd to 31st May, 2022 to ensure the safety of women.

Other campaigns like this:

- A pan India initiative “Meri Saheli” is also being organized with an aim to provide better security to the women passengers traveling by trains throughout their journey.
- Indian Railways has launched “Meri Saheli” initiative to focus on safety of women in all areas, which aims to provide security to women passengers traveling by trains throughout their journey from station to destination.

Railway Protection Force (RPF)

- RPF is a central armed force. Which works under the Indian Railways, Ministry of Railways.
- RPF originated in the year 1882 when various railway companies appointed their own guards to guard the railway property.
- Railway Protection Force was recognized as a statutory force by an Act of Parliament in the year 1957, which was later declared as an Armed Force of the Union of India in the year 1985.
- The RPF Rules were framed in 1959 and the RPF Regulations were published in 1966. In the same year, by enactment of Railway Property (Unlawful Possession) Act, 1966, some limited powers were given to this force to apprehend and prosecute offenders involved in railway property case.
- Initially, the RPF was primarily entrusted with the responsibility of safeguarding railway property but while the provisions of the RPF Act for effective and disciplined force maintenance were found to be lacking, the RPF rules and regulations were also judicially unreasonable.

- Accordingly, the RPF Act, 1957 was amended by the Parliament in the year 1985 to constitute and maintain this force as an Armed Force of the Union.

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Liquid-mirror telescope



- Recently, the Devasthal Observatory complex owned by Aryabhata Research Institute of Observational Sciences (ARIES), Nainital in Uttarakhand has set up the International Liquid-Mirror Telescope (ILMT).

Key Features of ILMT:

- It has become the world's first Liquid-Mirror Telescope (LMT) to be authorized for astronomy and the first of its kind to be operational anywhere in the world.
- Asteroids, supernovas, space debris and all other celestial bodies will be observed using ILMT from an altitude of 2,450 meters in the Himalayas.
- The first built telescopes either tracked satellites or were deployed for military purposes.

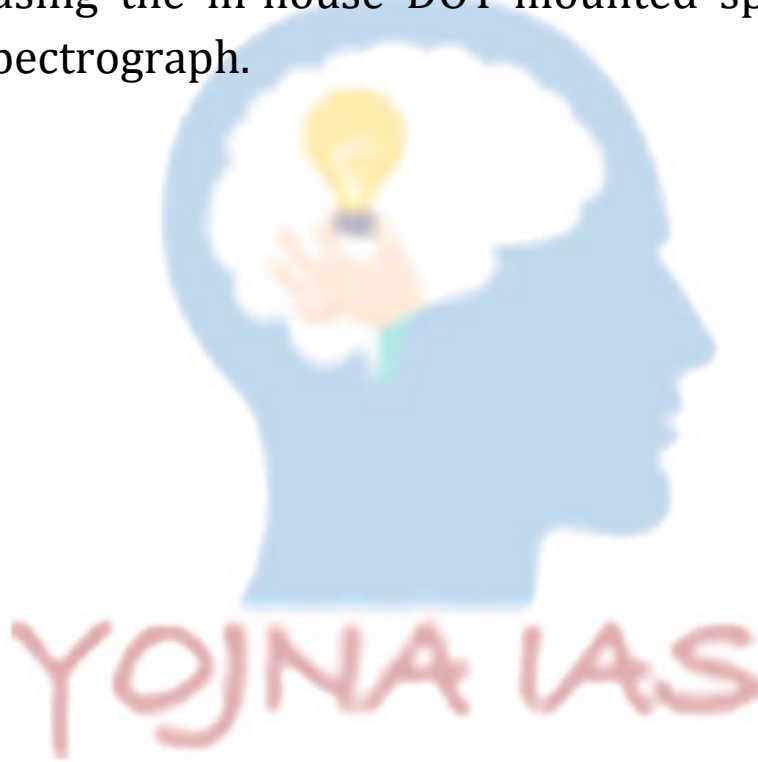
- ILMT will be the third telescope facility to be built at Devasthal.
- Devasthal is one of the original places in the world to get astronomical observations.
- Devasthal Optical Telescope (DOT) and Devasthal Fast Optical Telescope (DFOT) are the other two telescope facilities at Devasthal.
- Full scale scientific operation of ILMT will be started in October 2022.
- It will work with India's largest operational Devasthal Optical Telescope (DOT).
- The countries involved in the development of ILMT are India, Belgium, Canada, Poland and Uzbekistan.

Differentiation of LMT from Conventional Telescope:

- LMT is a stationary telescope, whereas a conventional telescope works in the direction of 'object of interest' in the sky.
- An LMT will survey all possible celestial bodies such as stars, galaxies, supernova explosions, asteroids and even space debris. However, a conventional telescope is able to see only a fraction of the sky at a given time.
- LMT consists of mirrors along with a reflecting liquid (ILMT contains mercury as the reflecting liquid). On the other hand a conventional telescope uses highly polished glass mirrors.
- The ILMT will obtain images of the sky on all nights, whereas conventional telescopes obtain specific objects in the sky only at certain hours.

Importance of ILMT:

- Large amount of data (10-15 GB/night) will be generated. This will be important to the global scientific community.
- It will deploy latest computational tools like Artificial Intelligence, Machine Learning and Big Data Analytics for screening, processing and analysis of data.
- Selected data can be used as base data for further focused research using the in-house DOT-mounted spectrograph, near-infrared spectrograph.



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