

INDIA TEST FIRES AGNI-3 NUCLEAR CAPABLE BALLISTIC MISSILE

In News:

- India recently carried out a successful launch of Agni-3 Intermediate Range Ballistic Missile from A.P.J. Abdul Kalam Island in Odisha.
- It was launched as part of routine user training launches carried out under the aegis of the Strategic Forces Command.
- India has also completed its **nuclear triad and operationalised its second-strike capability**, with nuclear ballistic missile submarine INS Arihant undertaking deterrence patrols.
 - A nuclear triad is a three-pronged military structure that consists of land-launched nuclear missiles, nuclear-submarines and aircraft with nuclear missiles.
 - A second-strike capability assures an ability to respond to a nuclear attack with powerful nuclear retaliation.

The Integrated Guided Missile Development Programme (IGMDP): What's in today's article:

- **About IGMDP:**
 - It was a programme for the **R&D of the comprehensive range of missiles in India**, started in **1982–83** under the leadership of Dr. APJ Abdul Kalam.
 - It was a Ministry of Defence programme managed by the **Defence Research and Development Organisation (DRDO) and Ordnance Factories Board**.
 - As part of this program, the Interim Test Range (renamed as A.P.J. Abdul Kalam Island in 2016) at Balasore in Odisha was also developed for missile testing.
- **Types of missiles under the programme:** APJ Abdul Kalam started multiple projects simultaneously to develop the following types of Indian Guided Missiles -
 - Short Range Surface to Surface Missile (SSM) 'Prithvi'
 - Long Range Surface to Surface Missile (SSM) 'Agni'
 - Medium Range Surface to Air Missile (SAM) 'Akash'
 - Short Range Surface to Air Missile (SAM) 'Trishul'

- Anti-tank Guided Missile (ATGM) ‘Nag’

About the Agni Missiles:

Indian Nuclear-Capable Ballistic Missile Programs			
Missile Type	Year Operational*	Stages	Range (km)
<i>Land-based</i>			
Prithvi VII/III	(1998)	1	150/350
Agni I	2007	1	700
Agni II	2011	2	2000+
Agni III	(2014)	2	3200+
Agni IV	(2015)	2	3500+
Agni V	(2016)	3	5000+
Agni VI		3	6000+
<i>Sea-based</i>			
Dhanush	(2013)	1	400
Sagarika K-15	(2015)	2	700

* Operational capability is not achieved until a few years after a missile is "inducted" into the armed forces and requires several successful operational test launches in addition to the development tests conducted prior to induction. Parentheses indicate possible future operational years.

- It was initially conceived in the IGMDP as a **technology demonstrator project** in the form of a re-entry vehicle, and was later upgraded to a ballistic missile with different ranges.
- A ballistic missile is a type of missile that uses projectile motion to deliver warheads on a target.
- These weapons are guided only during relatively brief periods and most of the flight is unpowered.
- The Agni missile is a family of **medium to intercontinental range ballistic missiles**, named after one of the five elements of nature.
- Agni missiles are long range, nuclear weapons capable, surface to surface ballistic missiles.
- **The first missile** of the series, Agni-I was developed under the IGMDP and tested in 1989.
- After its success, the Agni missile program was **separated** from the IGMDP upon realizing its strategic importance.
- The Agni series of missiles constitute the **backbone of India’s nuclear weapons delivery** which also includes the Prithvi short range ballistic missiles and fighter aircraft.

About the Strategic Forces Command (SFC):

- Sometimes called Strategic Nuclear Command, SFC (created in 2003) forms part of India's **Nuclear Command Authority (NCA)**.
- **The NCA** is the authority responsible for command, control and operational decisions regarding India's nuclear weapons programme.
- It comprises a Political Council headed by the **Prime Minister of India** and an Executive Council headed by the **National Security Advisor**.
- SFC is responsible for the management and administration of the country's **tactical and strategic nuclear weapons stockpile**.

GST ON ONLINE GAMING, CASINOS, RACING: ISSUES IN THE DEBATE

In News:

- The ministerial panel formed for casinos, race courses and online gaming under the Goods and Services Tax (GST) regime is likely to reiterate its earlier stance of a uniform 28 per cent tax rate for the three categories.
- Currently, online gaming platforms pay 18 per cent GST on platform fee alone, and not on the full value including prize money.
- The final call about the valuation mechanism, however, will be taken by the GST Council.
- This is due to the fact that the panel members have differed on whether it should be levied on the platform fee or the entire amount paid by the participants.

The online gaming market in India:

Types:

- **e-Sports:** These are video games that were played privately or on consoles in video game stores in the 1990s, but are currently played online in a structured manner between professional players, either individually or in teams.
- **Fantasy sports:** These are games in which the player selects a team of real sports players from several teams and earns points based on how well the players perform in real life. **For example,**
- **Online casual games:**
 - These could be **skill-based**, where the outcome is heavily impacted by mental or or **chance-based**, where the outcome is heavily influenced by some randomised activity, such as rolling a die.
 - A game of chance may be considered as gambling if players bet money or anything of monetary value.

Online gaming market in India

- The online gaming industry grew exponentially during the Covid-19 pandemic.
- Online gaming currently contributes more than Rs 2,200 crore of GST, as per a recent study by EY and ASSOCHAM.

- As per a KPMG report, the online gaming sector would grow to Rs 29,000 crore by 2024-25 from Rs 13,600 crore in 2020-21.

Challenges faced by online gaming sector:

- **Lack of regulatory oversight:**
 - Online gaming exists in a regulatory grey area and there is no comprehensive legislation with respect to its legality or its boundaries.
 - Having a grievance redressal mechanism, Protection of data and intellectual property rights, and Prohibiting misleading advertisements.
- **Online gaming is a state subject (Under Entry 34, List II 'Gambling' and 'Betting'):**
 - However, state governments have stated that it is extremely difficult for them to implement some restrictions, such as geo-blocking specific apps or websites within their state's borders.
 - There is also concern that legislation passed in one state may not be relevant in another, resulting in inconsistencies across the country.
- **Societal concerns:**
 - A number of reported incidences of persons losing big amounts of money on online games, resulting in **suicides** in various parts of the country.

GURU TEGH BAHADUR

November 24 is commemorated as the Shaheedi Divas of Guru Tegh Bahadur.



About:

- Guru Tegh Bahadur (1621 – 1675) was the **ninth of ten Gurus of the Sikh religion.**
- **Name:** He was born as Tyaga Mal. He came to be known by the name Teg Bahadur (Mighty of The Sword), given to him by Guru Hargobind after he shown his valour in a battle against the Mughals.
- **Family:** His father was the Sixth guru, Guru Hargobind. His son Guru Gobind Singh, became the tenth Sikh guru.
- **Life and works:**

- He built the city of Anandpur Sahib (in Rupnagar/Ropar district, on the edge of Shivalik Hills, near the Sutlej River, in Punjab). Here the last two Sikh Gurus lived and where Guru Gobind Singh Ji founded the Khalsa Panth in 1699.
- He contributed more than 100 poetic hymns to Granth Sahib which cover various topics, such as the nature of God, human attachments, body, mind, dignity service etc.
- He resisted the forced conversions of Kashmiri Pandits and non-Muslims to Islam.
- **Martyrdom:**
 - He was publicly beheaded in 1675 on the orders of Mughal emperor Aurangzeb in Delhi for himself refusing to convert to Islam. He is remembered for giving up his life for freedom of religion.
 - His martyrdom is remembered as the **Shaheedi Divas of Guru Tegh Bahadur every year on 24 November**, according to the Nanakshahi calendar released by the Shiromani Gurdwara Parbandhak Committee in 2003.
- **Memorials in Delhi:**
 - Gurudwara Sis Ganj Sahib mark the place of his execution.
 - Gurdwara Rakab Ganj Sahib mark the places of cremation of his body.

TENZING NORGAY NATIONAL ADVENTURE AWARDS 2021

The Ministry of Youth Affairs and Sports, Government of India recently announced the



National Adventure Awards called “Tenzing Norgay National Adventure Award” (TNNAA) for the year 2021.



About:

- Tenzing Norgay National Adventure Awards are given every year.
- It aims to recognize the achievements of persons in the fields of adventure, to encourage young people to develop the spirit of endurance, risk-taking, cooperative teamwork and quick, ready and effective reflexes in challenging situations and to provide incentive to the young people for getting exposed to the adventure activities.
- Awardees will receive statuettes, certificates and award money of Rs. 15 lakh each.

- The award will be given in four categories namely, **Land Adventure, Water Adventure, Air Adventure and Life Time Achievement.**
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NATIONAL GOPAL RATNA AWARD

Ministry of Fisheries, Animal Husbandry and Dairying recently announced the National Gopal Ratna Awards 2022. The awards to be conferred to winners on National Milk Day (26th November 2022).



About:

- It is one of the highest National Awards in the field of livestock and dairy sector.
- Its objective is to recognize and encourage all individuals like Farmers rearing indigenous animals, AI Technicians and Dairy cooperative societies / Milk Producer Company / Dairy farmers Producers Organizations working in this sector.
- **The Award is conferred in three categories**, namely,
 - Best Dairy Farmer Rearing Indigenous Cattle/buffalo Breeds,
 - Best Artificial Insemination Technician (AIT) and
 - Best Dairy Cooperative/ Milk Producer Company/ Dairy Farmer Producer Organization).

Rashtriya Gokul Mission:

- It is a project under **National Programme for Bovine Breeding and Dairy Development.**
 - **Objective:**Developing and conserving indigenous breeds through selective breeding and genetically upgrading ‘nondescript’ bovine population.
 - **Launched in:**
 - **Agencies involved:**
 - It is managed by Department of Animal Health and Husbandry (DAHD).
 - It is being implemented through “State Implementing Agencies (SIA) viz Livestock Development Boards.
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EL NIÑO-LA NIÑA WEATHER PATTERNS

A new study published in the Nature Communications journal on El Niño Southern Oscillation (ENSO) projects that climate change will significantly impact El Niño-La Niña weather patterns approximately by 2030 — a decade before what was earlier predicted.



About:

Findings:

- The combination of El Niño, La Niña, and the neutral state between the two opposite effects is called the El Niño Southern Oscillation (ENSO).
- Southern oscillations are large-scale changes in sea level pressure in the tropical Pacific region.

El Niño phenomenon:

- El Niño is the **warming of sea water in the central-east Equatorial Pacific** that occurs every few years.
- During El Niño, surface temperatures in the equatorial Pacific rise, and trade winds — east-west winds that blow near the Equator — weaken.
- Normally, easterly trade winds blow from the Americas towards Asia.
- Due to El Niño, they falter and change direction to turn into westerlies, bringing warm water from the western Pacific towards the Americas.
- **The phenomena of upwelling**, where nutrient-rich waters rise towards the surface, is reduced under El Niño.
- This in turn **reduces phytoplankton**. Thus, fish that eat phytoplankton are affected, followed by other organisms higher up the food chain.
- Warm waters also carry tropical species towards colder areas, disrupting multiple ecosystems.
- Since the Pacific covers almost one-third of the earth, changes in its temperature and subsequent alteration of wind patterns disrupt global weather patterns.
- **Impacts:**
 - El Niño causes dry, warm winter in Northern U.S. and Canada and increases the risk of flooding in the U.S. gulf coast and south-eastern U.S. It also brings drought to Indonesia and Australia.

La Niña:

- La Niña is the **opposite of El Niño**.
- La Niña sees **cooler than average sea surface temperature (SST)** in the equatorial Pacific region.
- Trade winds are stronger than usual, pushing warmer water towards Asia.
- On the American west coast, upwelling increases, bringing nutrient-rich water to the surface.
- Pacific cold waters close to the Americas push jet streams — narrow bands of strong winds in the upper atmosphere — northwards.
- **Impacts:**
 - This leads to drier conditions in Southern U.S., and heavy rainfall in Canada.
 - La Niña has also been associated with heavy floods in Australia.
 - Two successive La Niña events in the last two years caused intense flooding in Australia, resulting in significant damage.

Impact on India's monsoons:

- In India, El Niño causes weak rainfall and more heat, while La Niña intensifies rainfall across South Asia, particularly in India's northwest and Bangladesh during the monsoon.
- At present, India, like the rest of the globe, is witnessing an extended '**triple dip**' La Niña.

EXERCISE GARUDA SHAKTI



A contingent of Indian Special Forces troops are currently engaged in a bilateral joint training Exercise GARUDA SHAKTI.

About:

- It is a joint training exercise between Indian Special Forces and the Indonesian Special Forces.
- It is held at Sangga Buana Training Area, in
- The Exercise is the eighth edition of the series of bilateral exercises under this banner and this is a part of military-to-military exchange programs.

- It aims at enhancing understanding, cooperation and interoperability between the Special Forces of both armies.
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MISSION AMRIT SAROVAR

The government has recently completed the construction of more than 25,000 Amrit Sarovars within the 6 months.



About:

- Under the Mission Amrit Sarovar, a target has been set to build **50,000 Amrit Sarovars by 15th August, 2023.**
 - Mission Amrit Sarovar was **launched on 24th April, 2022** with the resolve to build 75 Amrit Sarovars during the 75th year of independence as a part of Azadi ka Amrit Mahotsav, on the call of Prime Minister Narendra Modi in every district to overcome the water crisis in rural areas of the country.
 - This Mission has been launched with a whole of Government Approach which involves 6 Ministries/Department namely:
 - Dept of Rural Development,
 - Department of land resources,
 - Department of Drinking Water and Sanitation,
 - Department of Water resources,
 - Ministry of Panchayati Raj,
 - Ministry of Forest, Environment and Climate changes.
 - **Bhaskaracharya National Institute for Space Application and Geo-informatics (BISAG-N)** has been engaged as Technical partner for the Mission.
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