

Courses

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 CAPF
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 INET OFFICER
 MNS
 MOCK TEST
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Indian Air Force Yearly Review 2022 Part-1

IAF- Exercise 2022

Exercise Eastern Bridge VI

- Indian Air Force (IAF) and the Royal Air Force of Oman conducted a five-day bilateral exercise at the Jodhpur air force station. The exercise is named Eastern Bridge VI, as is in its sixth edition.
- Senior officers from both sides who visited Air Force Station Jodhpur during this exercise included RAFO's Director General Operations and IAF South Western Air Command's Senior Air Staff Officer. They discussed further prospects of mutual co-operation. The exercise provided an opportunity for fruitful interaction between IAF and RAFO elements through mutual exchange of experience and operational knowledge. It also provided avenues of cultural exchanges between the personnel of both countries
- Naseem Al-Bahr is the naval exercise conducted between both countries.
- AL Nagah is a joint exercise between the armies of two countries.
- Eastern Bridge is the joint exercise between the air forces of two countries.



Tactical Leadership Programme in Egypt

- In July 2022, the IAF carried out a one-month long engagement with the Egyptian Air Force at the Egyptian Fighter Weapon School, located in Cairo West Air Force Base. This was a first of its kind interaction for both the air forces as it was conducted between their respective Fighter Weapon Schools.
- Tactical Leadership Program is a unique exercise, wherein IAF is participating with its aircrew as instructors. This exercise provides a good opportunity to showcase the reach and capability of the IAF. It will also assist in enhancing defence cooperation between the two countries and exchange of best practices.
- During the first two weeks of the exercise IAF aircraft participated in missions by day and night, involving air to ground & air to air combat scenarios and Combat Search And Rescue (CSAR) activity alongside Egyptian F-16, Rafale and Mig 29 aircraft.



Ex Garuda VII 2022

- The seventh edition of the bilateral air exercise between the IAF and the French Air and Space Force (FASF), 'Exercise Garuda-VII' concluded at Air Force Station, Jodhpur on 12 November 2022.
- The FASF participated in the exercise with Rafale fighter aircraft and A-330 Multi Role Tanker Transport aircraft, while the IAF contingent comprised Su-30 MKI, Rafale, LCA 'Tejas' and Jaguar fighter aircraft.
- This fighter element was complemented by the IAF's Flight Refuelling Aircraft, AWACS and AEW&C, as well as Mi-17 helicopters and the newly inducted LCH 'Prachanda'.
- Aim Of The Exercise
- Ex Garuda-VII provided the two Air Forces with the opportunity for professional interaction and sharing of operational knowledge and experience. Personnel of the IAF and the FASF were exposed to realistic air combat simulations and the associated Combat Support Operations.
- Other Defence Exercises
- Varuna Naval exercise
- Desert Knight Air exercise
- Shakti Army exercise



Exercise Pitch Black 2022

- The exercise is a biennial three-week multi-national large force employment exercise conducted primarily from RAAF Base Darwin and RAAF Base Tindal.
- Exercise Pitch Black 2022 is the Royal Australian Air Force's most significant
 International Engagement activity with forces participating from a wide range of
 partner and allied nations developing and enhancing military relationships at all
 levels.
- An IAF contingent participated in the Exercise Pitch Black 2022 which was conducted b/w **19 Aug 22 to 08 Sep** 22 in **Darwin**.
- This year's exercise saw the participation of over 100 aircraft and 2500 military personnel from 17 various air forces. This year's participants include Australia, Canada, France, Germany, Indonesia, India, Japan, Malaysia, Netherlands, New Zealand, the Philippines, Republic of Korea, Singapore, Thailand, UAE, the UK, and the US.
- Other Exercises B/W India And Australia
- Ex AUSTRA HIND
- Ex AUSINDEX
- Maritime Partnership Exercise (MPX)

- EX KAKADU (Multilateral)
- Ex MILAN (Multilateral)
- Ex Malabar (Multilateral)



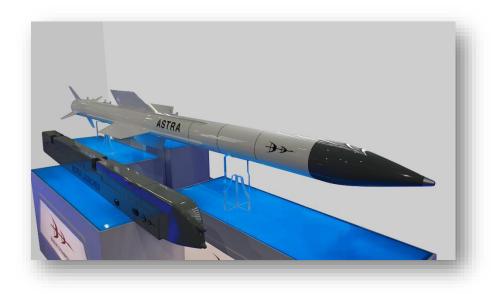
Ex Udara Shakti 2022

- A contingent of the Indian Air Force participated in a bilateral exercise named 'Udarashakti'.
- Indian Air Force (IAF) conducted the Humanitarian Assistance and Disaster Relief (HADR) Exercise 'Samanvay 2022' from 28th to 30th November 2022 at Air Force Station Agra.
- Ex UDARASHAKTI provided both the Air Forces, an opportunity to share each others' best practices. The culmination of the exercise was marked by a traditional closing ceremony and a seven aircraft formation flypast of Su-30MKI & Su-30 MKM aircraft over the air base. The IAF team will now fly to Darwin, Australia to participate in Ex PITCH BLACK-22.
- It is an annual joint exercise involving various stakeholders from India and representatives from the Association of Southeast Asian Nations (ASEAN) counties.



MOD Signs Over Rs 2,900 Crore Contract With BDL For Procurement Of ASTRA Mk I

- In a major boost to PM Shri Narendra Modi's vision of 'Aatmanirbhar Bharat', MOD, on May 31, 2022, signed a contract with BDL for the supply of ASTRA MK-I BVR AAM and associated equipment for the Indian Air Force & Indian Navy at a cost of Rs 2,971 crore under Buy category.
- Indian defence and security establishment is set for the maiden test of the indigenous Astra Mk 2 missile with a 160-km range.
- Defence Ministry announced the signing of a deal for the Astra Mk 1 BVR AAM and associated equipment, at a cost of Rs 2,971 crore. The Astra Mk 1 missile, for the use of the IAF & Indian Navy, is being procured from BDL.
- This is the first such indigenous missile to enter the service of the Indian armed forces, which has always depended on Russian (mainly R 73 and R 77) and French (Mica and Meteor) air-to-air missiles.
- Astra Mk. 2 will use a dual-pulse solid rocket motor for extended reach and better kinematics during the kill phase.
- The plan is to extend the range of Mk. 2 version to 160 kilometres (99 mi) rivaling American **AMRAAM AIM 120-D**. Astra Mk. 2
- A future variant Mk. 3 based on Solid Fuel Ducted Ramjet (SFDR) engine is being jointly developed by **India and Russia**. The missile was first tested on 30 May 2018 and a further test was carried out on 8 February 2019.



Diamond Jubilee of Chetak Helicopters

- The Chetak helicopter in the inventory of the Indian Armed Forces has completed 60 years of glorious service to the Nation. To commemorate this momentous event, a Conclave titled 'यशस्वत् षट् दशकम् with the theme 'चेतक आत्मनिर्भरता, बहुविज्ञता एवं विश्वस्तता के छः गौरवशाली दशक' organized on 2nd April 2022.
- The Hon'ble Raksha Mantri has kindly consented to be the Chief Guest for the occasion. The Conclave, scheduled at the National Industrial Security Academy Convention Centre, Secunderabad will be attended by the Chief of the Air Staff, senior retired & serving officers of the helicopter stream from the three services and officials of MoD, Indian Coast Guard & Hindustan Aeronautics Limited.
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- The Conclave intends to provide a platform to showcase six decades of helicopter operations in the country, highlighting Chetak helicopter operations in particular. This event highlight will involve reflections, narrations and discussions by prominent speakers from the veteran community and the Services. Deliverables to the audience would also include perspectives on the evolution of helicopter operations as driven by technology and future battlefield imperatives.



IAF Inducted LCH Prachand

- The IAF formally inducted the first batch of indigenously developed Light Combat Helicopter 'Prachand' to boost its combat prowess. The induction was at a ceremony in Jodhpur in the presence of Defence Minister Rajnath Singh and Chief of Air Staff Air Chief Marshal V R Chaudhari.
- The Light Combat Helicopter (LCH) is developed by state-run aerospace major Hindustan Aeronautics Ltd (HAL).
- The LCH has similarities with the Advanced Light Helicopter Dhruv, designed and developed by HAL.
- The 5.8-tonne twin-engine helicopter has been primarily designed for deployment in high-altitude regions.
- The LCH is armed with air-to-air missiles, 20 mm turret guns, rocket systems and other weapons.



C-295 Transport Aircraft Manufacturing Facility

- Shri Narendra Modi laid the foundation stone of C-295 transport aircraft manufacturing facility - the country's first in the private sector - in Vadodara, Gujarat on October 30, 2022. The facility will manufacture C-295 aircraft for the IAF through collaboration between Tata Advanced Systems Limited and Airbus Defence and Space S.A., Spain.
- This is the first project of its kind in which a military aircraft will be manufactured in India by a private company. The total cost of the project is Rs 21,935 crore. The aircraft can be used for civilian purposes as well.
- It is a matter of utmost importance and great pride that all 56 aircraft will be fitted with indigenous Electronic Warfare Suite to be manufactured by Bharat Electronics Limited & Bharat Dynamics Limited.
- Sixteen (16) aircraft will be delivered in flyaway condition. They are scheduled to be received between September 2023 and August 2025. Remaining forty (40) will be manufactured at the Vadodara manufacturing facility. The first Made in India aircraft is expected from September 2026.





Successful Firing Of Extended Range Version Of Brahmos Air Launched Missile From Su-30 MKI

- Indian Air Force successfully fired the Extended Range Version of Brahmos Air Launched missile against a Ship Target from a SU-30MKI aircraft. The missile achieved the desired mission objectives in the Bay of Bengal region. With this, IAF has achieved a significant capability boost to carry out precision strikes from SU-30MKI aircraft against land/ sea targets over very long ranges.
- The extended range capability of the missile coupled with the high performance of the SU-30MKI aircraft gives the IAF a strategic reach and allows it to dominate the future battle fields. The dedicated and synergetic efforts of IAF, Indian Navy, DRDO, BAPL and HAL have been instrumental in achieving this feat.





IAF To Weaponise Drones Under 'Project Cheetah'

- The Union gov has put a hold on or canceled all major import deals, so the IAF is now planning to move forward with **Project Cheetah** under the **Make in India** plan. This means that Indian defence manufacturers will add strike capabilities to **Israeli Heron drones**.
- Under the ambitious Project Cheetah, the IAF wants to improve its fleet of Israeli-made Heron UAVs by adding better communication tools and missiles that can hit enemy positions from far away.
- "Now, the IAF wants to upgrade its drones by working with Indian defence companies under the **Make in India** in defence programme".
- The IAF is in charge of the project that will give Israeli drones in the Navy and Army the ability to attack and better pods for surveillance and reconnaissance.
- IAF Searcher II and Heron UAVs made in Israel have been used by all three services for a long time to spy and do reconnaissance.
- With the improved ability to spy, the forces on the ground would also be able to get precise information about hideouts in areas where men are needed for operations.
- The upgrades would also make it possible for the ground stations to control these planes from far away using a satellite communication system.
- The surveillance abilities of the UAVs that are going to be upgraded would be the same as those of the ones that the Indian Army and IAF have been able to buy because the government has given them emergency powers to buy things because of the ongoing military standoffs.



Weapon Systems Branch in Indian Air Force

- Government has approved the creation of a new branch, called the Weapon Systems (WS) branch. The creation of WS branch would entail unification of all weapon system operators under one entity dedicated to the operational employment of all ground-based and specialist airborne weapon systems.
- The branch would encompass operators in four specialised streams of Surfaceto-Surface missiles, Surface-to-Air missiles, Remotely Piloted Aircraft and Weapon System Operators in twin/multi-crew aircraft. The branch will contribute immensely by enhancing the war-fighting fighting capability of IAF.

IAF Chief Speech At IAF Day 2022

- During the celebration in Chandigarh, Air Chief Marshal VR Chaudhari said, "This will essentially be for manning of four specialised streams of Surface-to-Surface missiles, Surface to Air Missiles, Remotely Piloted Aircraft and Weapon System Operators in twin and multi-crew aircraft."
- A weapon systems officer ("WSO" or "wizzos") is an air flight officer directly involved in all air operations and weapon systems of an aircraft. The WSO integrates with the pilot to collectively achieve and maintain crew efficiency, situational awareness and mission effectiveness.
- Weapon Systems Operators is responsible for the manipulation of complex sensor suites and communications equipment to derive tactical and strategic

intelligence to support the war fighter and military commanders. You can see more about the role in the video above.

- The WSOs, also known as wizzos, are specialised officers who fly in the multirole Su-30 fighter aircraft's **rear cockpit** and control the sensors and armaments that the aircraft will use to fire at hostile targets.
- The only female **Weapon System Operator** in the deadly Su-30 fighter fleet of the IAF said that pilots in the eastern sector were prepared to respond to any situation in the region and demonstrate their mettle in actual operations despite the ongoing military deployment along the China front.
- The team observed the fighter aircraft activities of the Su-30 fighter aircraft, which has been made more lethal with the introduction of new armaments and electronic warfare systems, while on a visit to the Tezpur advanced air base in the eastern sector, close to the China border.





Father-daughter Duo Creates History In IAF, Flies Same Formation

- A father-daughter duo has created history in the Indian Air Force (IAF), when they flew in the same formation here recently, IAF said on Tuesday. There has not been any previous instance in the IAF where a father and his daughter were part of the same formation for a mission.
- Air Commodore Sanjay Sharma and his daughter Ananya flew in the same formation recently.
- "The father-daughter duo created history on 30 May 2022, when they flew in the same formation of Hawk-132 aircraft at Air Force Station Bidar, where Flying Officer Ananya Sharma is undergoing her training before she graduates onto faster and more superior fighter aircraft of the IAF".



IAF Will Get An LCA Trainer By 2023

- HAL has already begun producing LCA Tejas Trainer aircraft in FOC mode; the first batch of 4 aircraft will be delivered this year, and Hindustan Aeronautics Limited aims to finish delivering 14 additional aircraft by the end of 2023.
- IAF had ordered 4 LCA Trainers in IOC configuration and 14 Trainers in FOC configuration in three batches, but all 18 will be in the chosen final configuration.
- The launch of LCA LIFT, which will be utilised for demonstration and trials to suit the requirements of the Indian Air Force, Royal Australian Air Force, Egyptian Air Force, and even Malaysia, may occur sometime in late 2025. LCA LIFT will be based on the LCA Trainer aircraft.
- Malaysia has been offered 10 Tejas Mk1A and 8 LCA-Trainer aircraft to meet its requirements for its Tender for 18 Light Combat Jets, As per Malaysian media reports by August, it is expected that the winner of the tender will be announced and the deal might be concluded sometime in mid-2023.
- HAL which claims to be a front runner in the Malaysian tender will deliver the first batch of LCA-Trainer from 2026 onwards and later 10 Tejas Mk1A by 2028.



Philippines In Talks With India To Procure Advanced Light Helicopters

- The Philippines is looking at procuring a batch of advanced light helicopters from India to crank up its combat capability, months after sealing a USD 375 million deal to acquire three batteries of the BrahMos cruise missile.
- The indigenously developed ALH helicopter is a twin engine, multi-role, multimission new generation helicopter in the 5.5 ton weight class and is considered to be an effective platform for various military operations.
- The Philippines is a key strategic partner of India in the Southeast Asian region and the bilateral defence and security ties have been on an upswing in the last few years, especially in the maritime domain.
- The Philippines is also a key member of the 10-nation Association of Southeast Asian Nations (ASEAN), an influential bloc with whom India's ties have witnessed major expansion in the last one decade.



Two More Women Officers Enter IAF Stream

- Two women officers have made it to an elite air force stream dominated by men for decades and have begun discharging their duties as flight test engineers – professionals who are responsible for evaluating aircraft and airborne systems before their induction into the armed forces, officials familiar with the development said on Saturday.
- Squadron Leaders Bhoomika Paliwal and Renuka Dey are among the only three women officers to have graduated as flight test engineers from the Air Force Test Pilot School in Bengaluru in its 50-year history, the officials said. Last year, Squadron Leader Aashritha V Olety became the air force's first woman flight test engineer.
- Excluding the medical wing in which women have been serving for decades, the army accounts for around 7,000 women officers, while IAF and navy have more than 1,600 and 700 women officers each. In percentage terms, women still form a small part of the military 0.56% of the army, 1.08% of the air force and 6.5% of the navy.



CCS Clears Indigenous LCA Mark 2 Fighter Aircraft Project

- In a major boost to indigenous fighter aircraft development initiatives, the Cabinet Committee on Security on Wednesday cleared the development of LCA Mark 2 fighter aircraft which would be a replacement for the Mirage 2000, Jaguar and MiG-29 combat aircraft in the IAF.
- Development of new aircraft is to be completed by 2027," Aeronautical Development Agency chief Girish Deodhare told on the project.
- The DRDO would be developing the aircraft with a GE-414 engine which is the advanced version of the GE-404s that power the existing LCAs in service and the 83 LCA Mark 1As which would start getting inducted into IAF in the next couple of years.





IAF Retired Abhinandan Varthaman's Mig-21 Squadron

- The IAF is set to retire its Srinagar-based MiG-21 squadron 'Sword Arms' that Wing Commander Abhinandan Varthaman was a part of when he downed an F-16 combat aircraft of Pakistan a day after the Balakot strike in February 2019. 'Sword Arms' is one of its four remaining squadrons of ageing MiG-21 fighter jets.
- The No. 51 Squadron retired in September 22, "as per the plan".
- The remaining three squadrons of MiG-21 will be phased out by 2025.
- The No. 51 Squadron or 'Sword Arms' is one of the decorated squadrons of the IAF, and it participated during Op Safed Sagar (Kargil conflict) in 1999.
- It was raised at Chandigarh in 1985. The crest of the squadron portrays a pair of muscular arms firmly clasping a sword, depicting the motto "Vijaya Prakrama" which means 'Valour for Victory'.





REVIEW QUESTIONS

- 1. Ex 'Pitch Black' 22 Conducted b/w India &
- A. Australia
- B. Oman
- C. UAE
- D. Maldives

ANSWER: A

- 2. Ex "Udarashakti" 2022 Conducted b/w India &
- A. Malaysia
- B. Oman
- C. UAE
- D. Maldives

ANSWER: A

- 3. MQ-9B Predator Is A
- A. Helicopter
- B. Machine Gun
- C. Fighter Jet
- D. Drone ANSWER: D

4. AESA Stands For

- A. Activated Electronically Scanned Array
- B. Active Electronically Scanned Array
- C. Active Electronics Scanned Array
- D. None

ANSWER: B

- 5. Chinook Has Created A Flying Record By Completing A Non-stop Sortie In India, Flying From
- A. Jalandhar to Panipat
- B. Jammu to Kashmir
- C. New Delhi to Chennai
- D. Chandigarh to Jorhat

ANSWER: D

SSBCrack

6. Super Hornet Is Made By

- A. Dassault
- B. Boeing
- C. Airbus
- D. HAL ANSWER: B

7. Joint Exercises B/w India And Japan Is Called:

- A. Shinyuu Maitri
- B. SLINEX
- C. Indra
- D. Yudha Abhyas ANSWER: A

8. B-1B Lancer Is A

- A. Bomber
- B. Sniper Rifle
- C. Anti-tank Guided missile
- D. Communication satellite ANSWER: A
- 9. Where Is The Hq Of The Eastern Command of The Indian Army?
- A. Kochi
- B. Vishakhapatnam
- C. Kolkata
- D. Mumbai ANSWER: C

10. Novator KS-172 Is A

- A. Air to Air missile
- B. Sniper Rifle
- C. Anti-tank Guided missile
- D. Communication satellite **ANSWER: A**

11. Which Of The Following Missiles Is Air To Air Missile?

- A. Astra missile
- B. Maitri missile

C. Nag

D. Nirbhay ANSWER: A

12. Where Is The Hq Of The Maintenance Command of The IAF?

- A. Kochi
- B. Nagpur
- C. Pune
- D. Mumbai ANSWER: B

13. The ALH MK III Helicopters Have Been Indigenously Manufactured By__.

- A. Boeing
- B. HAL
- C. DRDO
- D. Dassault Aviation **ANSWER: B**

14. C-390 Millennium Is A Civilian Aircraft of

- A. Qatar
- B. China
- C. Australia
- D. Brazil ANSWER: D

15. F 18 Super Hornet Fighter Aircraft Manufactured By

- A. Boeing
- B. Lockheed Martin
- C. Airbus
- D. HAL

ANSWER: A

16. Cabinet Committee on Security Is Headed By

- A. PM
- B. NSA
- C. The President
- D. COAS Indian Army ANSWER: A



17. Garud Regimental Training Centre (GRTC) Is In

- A. Air Force Station Chandinagar
- B. Air Force Station Chandigarh
- C. Air Force Station Chennai
- D. Air Force Station Belgavi ANSWER: A
- 18. The Indian Government Plans To Construct A 2,500-metre-long Airstrip On Minicoy Island In
- A. Goa
- B. Mumbai
- C. Lakshadweep
- D. Kochi

ANSWER: C

- 19. IAF Heritage Centre Being Set In ___ Has Received A Vintage Prototype Aircraft "Kanpur-1".
- A. Kanpur
- B. Chandigarh
- C. Noida
- D. New Delhi ANSWER: B

20. Exercise Samanvay - 2022 Commenced At

- A. Noida
- B. New Delhi
- C. Agra
- D. Ladakh

ANSWER: C



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