

What is Vayulink?

March 15, 2023

In news– India has developed Vayu Link, an Indigenous Tactical Data-Link, which will help commanders identify friendly forces in a joint battlespace.

About Vayu Link-

- Vayulink is effectively a data link system which connects all entities, combat and non-combat, through a single link.
- It has been **developed by Wing Commander Vishal Mishra, a helicopter pilot with the Indian Air Force (IAF).**
- He said it will not only **help enhance battlefield transparency through identification of friendly forces in a combat situation – whether airborne or on the ground – through secure, jammer-proof communication,** but will also arm pilots with accurate weather data before they fly.
- The Vayulink system was **showcased by the IAF at the Aero India 2023** show in Bengaluru recently.
- With more emphasis on future joint battles and the military opting for more indigenous weapon systems, this homegrown solution is expected to **benefit all users in a joint battlespace by providing real-time combat identification.**
- It will improve mission execution capabilities and reduce weather-linked accidents.
- It will facilitate better coordination during complex operations and curb instances of mistaken fratricide as happened in Budgam in the aftermath of the 2019 Balakot air strikes.
- It integrates inputs available from multiple sources in a joint battlefield and provides near real-time data to operators, thereby vastly improving their situational awareness and consequently aiding in effective decision

making.

- The IAF has already deployed the system on a trial basis at forward locations in the Western and Northern sectors.
- The system can help you get the position of all friendly forces in a battlefield or even those in support roles. When in use in a complex combat situation, the system can help all aircraft see each other's position and location of ground troops.
- The system can have a range of applications and is not confined to one service, but can integrate all combat entities through a single link.
- **It has also been inducted into the Army under the name Trishul link.**
- It is learnt that the system can also curb Budgam-like cases of mistaken fratricide by bringing in battlefield transparency that will enable the ground crew to identify friendly forces and be aware of their exact positions.
- After the Balakot air strikes in 2019, the IAF had shot down its Mi-17 V5 helicopter at Budgam by mistake, killing six personnel on board.
- The helicopter's IFF (Identification of Friend or Foe) system was also switched off, which had led to gaps in communication between the helicopter crew and the ground forces.
- The existing IFF systems is only applicable to an aircraft and requires radars to function.
- On the other hand, the Vayulink system can be carried by an aircraft, individual troops or armoured vehicles on ground, distinguishing them from their enemy counterparts.
- Secondly, the IFF system has limitations with respect to the line of sight.
- The Vayulink system can also arm the pilot with real-

time weather details before flying, thereby preventing accidents.