

Python-5 Air to Air missile

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In News: India's Indigenous Light Combat Aircraft Tejas has added capability of firing Israeli-origin Python-5 air-to-air missile (AAM) after successful tests that concluded.

About Python-5 Air to Air missile

- Python-5 is a fifth generation air-to-air missile (AAM) manufactured by Rafael Advanced Defense Systems.
- It is the newest member in the range of Python AAMs.
- The missile can engage enemy aircraft from very short ranges and near beyond visual range.
- Python-5 is the most accurate and reliable AAM of the Israeli Air Force and one of the most sophisticated guided missiles in the world.
- The development on the Python-5 began in the 1990s. The missile was unveiled for the first time during the Paris Air Show in June 2003.
- The missile demonstrated superior target detection and tracking capabilities during the developmental and operational test programme, involving captive carry evaluation and homing trials.
- The first operational kill by Python-5 was in August 2006 during the Lebanon War.

Features of the Israeli air-to-air missile

- Python-5 incorporates the aerodynamic airframe of the Python-4 missile.
- It also retains the inertial navigation system (INS), rocket motor, warhead and proximity fuse of its predecessor.
- The advanced technologies combined with operationally proven components deliver superior performance.
- Python-5 is a dual use missile suitable for air-to-air and surface-to-air missions. It integrates a fifth-

generation imaging seeker, modern software, advanced infrared counter-countermeasure (IRCCM) and flight control systems.

- Python-5 has a length of 3.1m, wing span of 64cm and diameter of 16cm. The weight of the missile is 105kg. It can carry an 11kg high explosive fragmentation warhead equipped with an active laser proximity fuse.

Python-5 air defence capabilities

- Python-5 is also provided in air defence configurations. The missile along with the Derby BVR missile is employed in the Spyder-SR/MR short and medium range mobile air defence systems. The missiles are installed with a booster assembly in the Spyder-MR configuration.
- The Spyder-SR/MR system is capable of engaging a wide range of targets including attack helicopters, fighter aircraft, bombers, cruise missiles, UAVs and precision guided munitions. The system has 3600 engagement capability and can engage multiple aerial targets simultaneously.
- Python-5 missiles were delivered along with Spyder systems to the Indian Air Force, Georgian Air Force, Republic of Singapore Air Force and Peruvian Army.