## Navy to use U.S. aircraft launch system in ship

On track: INS Vikramaditya uses an entirely different launch system.Thulasi Kakkat

The Navy is likely to go with an advanced catapult-based aircraft launch mechanism (CATOBAR) from the U.S. for its second indigenous aircraft carrier (IAC-II), which is on the drawing board. For some time, India has been exploring the possibility of installing the U.S. electromagnetic aircraft launch system (EMALS).

"IAC-II will have a CATOBAR launch. However, the kind of propulsion is yet to be decided," a senior officer said. The U.S. has offered India its latest EMALS technology, developed by General Atomics Aeronautical Systems Inc., which has just been installed on the *Gerald Ford* carrier.

While the older generation of CATOBAR was powered by a steam catapult, EMALS uses an electric motor-driven catapult instead, which allows the launch of much heavier aircraft and also reduces the stress on the aircraft.

However, the system is expensive, something that needs to be factored in.

"EMALS will allow us to operate heavy surveillance aircraft in addition to heavy fighters," another officer observed.

**50 aircraft**

The Navy envisages the IAC-II to be around 65,000 tonnes and capable of carrying over 50 aircraft. While the Navy is keen on nuclear propulsion, which would give it unlimited range and endurance, its development in time seems doubtful.

The two countries had set up a joint working group on Aircraft Carrier Technology Cooperation (JWGACTC) under the Defence Technology and Trade Initiative, which held several rounds of discussions.The group concluded its 4th meeting in New Delhi last Friday.

India's first domestic carrier, *Vikrant*, weighing 40,000 tonnes, is in an advanced stage of construction in Kochi and is scheduled to be launched by 2018-end. It works on a Short Take-Off But Arrested Recovery (STOBAR) mechanism similar to that in the present carrier *INS Vikramaditya*, with an angular ski-jump.