

# India, UK navies to develop electric propulsion for next-gen warships

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The ministries of defence of India and the UK have signed a statement of intent (SoI) to cooperate in designing and developing Electric Propulsion Systems for the Indian Navy.

The signing, at Portsmouth, UK, took place on Thursday, during the meeting of the 3rd Joint Working Group on Electric Propulsion Capability Partnership (JWG EPCP), symbolising the joint commitment to promote indigenous development of niche technologies.

The decision by New Delhi and London to cooperate in the field of electric propulsion is enormously significant. It makes it highly likely that the Indian Navy's second indigenous aircraft carrier (IAC-2) will be powered by an "integrated electric propulsion system," based on Rolls-Royce MT-30 gas turbines, which drives the Royal

Navy's two aircraft carriers, His Majesty's Ship (HMS) Queen Elizabeth and HMS Prince of Wales.

The JWG EPCP, formed between India and the UK, provides a forum for exchanging information on electric propulsion (EP), while fostering industrial cooperation in this field.

It also increases the likelihood that a propulsion systems based on Rolls-Royce marine gas turbines would be chosen to power the Indian Navy's next generation of destroyers, frigates, corvettes and landing platform docks (LPDs), replacing the American, Russian and Ukrainian engines that currently propel many of the navy's current generation of warships.

"The SoI would serve as a broader framework intended

for cooperation in the co-design, co-creation and co-production of electric propulsion capability for future (Indian) naval ships. The LPDs, planned to be built at an Indian

shipyard, are envisaged to have a full electric propulsion system," stated an Indian MoD release on Thursday. Rolls-Royce's MT-30 turbine is regarded as one of the world's most power-dense propulsion systems. It entered service in 2008 when it was chosen to power the high-tech US Navy littoral combat ship, USS Freedom. Its power, which drives the USS Freedom to speeds in excess of 40 knots, is drawn from twin MT30 engines and two diesel engines.

MT30 alternator pack-



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ages also power the US Navy's all-electric Zumwalt-class destroyers, the Italian Navy's future flagship, the Korean Navy's Daegu-class frigates, the Royal Navy's innovative Type 26 city-class frigates and the Japanese Maritime Self Defence Force's new 30 FFM frigates. Another linked aspect is the Indian Navy's on-going acquisition of 26 multi-role carrier borne fighters (MRCBF) for its future aircraft carriers. US aerospace major, Boeing, is pressing hard for its F/A-18E/F Super Hornet to win the \$5-7 billion Indian Navy contract.

Also in the fray is French aerospace firm Dassault's Rafale Marine fighter, which is in pole position with the Indian MoD having announced its selection.

The Indian MoD's choice of a British hybrid-electric propulsion for India's warships also militates against the choice of a US-style, catapult-based system to launch its deck-based aircraft.