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INNOVATIVE AIS MICRO-SATELLITES AND SERVICES DEVELOPED WITHIN THE EMSA/ESA  
SAT-AIS INITIATIVE

**Abstract**

Satellite-based Automatic Identification System (SAT-AIS) will provide AIS data via satellite, allowing for the detection and tracking of seafaring vessels on global scale and contribute therefore to maritime awareness. The provision of SAT-AIS data would bring additional added value to existing maritime information services. SAT-AIS will be able to assist European entities and institutions in law enforcement, fisheries control campaigns, maritime border control operations, maritime safety and security issues including marine pollution response, search and rescue and anti-piracy. The European Space Agency (ESA) and the European Maritime Safety Agency (EMSA) are jointly setting up elements to maximise the provision of SAT-AIS data and have recently announced the roll-out of new SAT-AIS data services. EMSA and ESA have implemented a SAT-AIS Data Processing Centre (DPC) under a joint project team which is currently being integrated into the newly developed Integrated Maritime Data Environment (IMDatE) at EMSA to enhance the operational maritime services. ESA is developing next generation of SAT-AIS micro-satellites within type of Private Public Partnership (PPP) with exactEarth as the customer, operator and service provider is exactEarth and LuxSpace as the satellite prime. Through a second activity, ESA aims to develop a new generation SAT-AIS receiver payload for the Norwegian NORSAT-1 mission. The Norwegian Space Centre is the customer and mission prime and Kongsberg Seatex is the receiver prime. The achievements of the on-going SAT-AIS activities, are summarized in this paper.