20th SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Small Earth Observation Missions (4)

Author: Mr. Carsten Tobehn
European Space Agency (ESA), Netherlands (Kingdom of the)

Mr. Amnon Ginati
European Space Agency (ESA), Netherlands (Kingdom of the)
Mr. Andreas Schoenenberg
European Space Agency (ESA), Netherlands (Kingdom of the)
Ms. Ana Bolea Alamanac
European Space Agency (ESA), Netherlands (Kingdom of the)
Mr. Alberto Ginesi
European Space Agency (ESA), Netherlands (Kingdom of the)
Dr. Antonino Coppola
European Space Agency (ESA), Netherlands (Kingdom of the)
Mr. Leendert Bal
European Maritime Safety Agency (EMSA), Portugal
Mr. Lawrence Sciberras
European Maritime Safety Agency (EMSA), Portugal

JOINT EMSA/ESA INITIATIVE FOR INNOVATIVE AIS SATELLITES, TECHNOLOGIES, APPLICATIONS AND SERVICES

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 working on setting up elements to maximise the provision and utilisation of SAT-AIS data and services. Within its Advanced Research in Telecommunications Systems (ARTES) programme, ESA together with private partners is working on the implementation of SAT-AIS small satellites, technologies, applications and services. EMSA and ESA have implemented a SAT-AIS Data Processing Centre (DPC) under a joint project team, which is currently in the demonstration phase and will be become part of the newly developed Integrated Maritime Data Environment (IMDatE) at EMSA to enhance the operational maritime services. One example for these services is the successful EMSA Blue Belt pilot project, which promotes and facilitates short sea shipping in the European Union by reducing the administrative burden for intra-Community trade. The use of SAT-AIS data helped customs to benefit from an added degree of certainty with regard to ship's voyage when ships were transiting outside the range of shore based AIS coverage. The achievements of the on-going EMSA/ESA SAT-AIS activities are summarized in the following paper.