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SPACE FOR MARITIME SURVEILLANCE: MYTH, REALITY OF FUTURE?

Abstract

Most of the time operational have a limited knowledge of space capabilities for maritime surveillance. But they are already successful stories like in France and also many innovations around new concepts, sensors, constellation or stratospheric air balloons that give now a wonderful set of solutions and opportunities for space systems to monitor open seas, legal or illegal activities. This papers will focus on operational concepts, different identified needs in maritime surveillance and different space solutions to fulfill these requirements in complementarity of other solutions. Space imaging is already used by maritime communities like by the French Navy. What is the complementarity between radar and Optical? What are the added values of each system based on some uses cases? Do we need to invest in dedicated satellites for maritime surveillance or existing systems and technology are sufficient? Is tracking of vessels important ? why ? The space AIS communities have demonstrated all the relevance of vessels tracking to detect and understand abnormal behaviors. What about the non-declarative vessels ? Do we need also to track them, is it possible ? Is a global, permanent and systematic system is needed or a regional one is enough ? Or do we need both? Can we track others signals that AIS, which one, why ? Regarding persistency for regional solutions, what can bring air balloons ? Is it realistic? Security is always offered by a mix of different solutions, whether they are airborne, space, terrestrial or maritime based, and the complementarity of assets and systems is key. But can we also say that the use of different systems improves the efficiency of each of them ? This paper will analyze the complementarity of space systems to attend different requirements