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ASSESSING THE EMERGING NEED FOR A EUROPEAN APPROACH TO SPACE TRAFFIC
MANAGEMENT

Abstract

The intensification of space activities worldwide accompanied by the emergence of new actors and various new concepts are raising new challenges to the security of existing space infrastructure and long-term sustainability. Among policy responses to these challenges, the development of space traffic management (STM) frameworks was recently brought to the forefront. The concept of space traffic management, although relatively widely discussed, is not approached in the international environment in the same manner. The U.S. Space Policy Directive-3, issued in June 2018, articulates the organisation of a national STM-framework with objectives ranging from mitigating the effect of orbital debris on space activities to fostering international space situational awareness data sharing, developing STM standards and best practises and encouraging U.S. leadership in SSA and STM.

A comparable STM policy has not yet been developed in Europe even though security considerations of European space activities are becoming more prominent and formally acknowledged in recent years. The significance of stakes at play is paving the way for a unified European approach to space traffic management to better protect its substantial public and private investment in space infrastructure and integration of space services into socio-economic and security and defence needs, including guaranteeing strategic autonomy and freedom of action. Despite the lack of formal space traffic management initiative in the European context, there already are a number of existing STM-like instruments in different forms and on various levels, which naturally leads towards considerations of perspectives for a harmonised European approach.

In this context, the European Space Policy Institute (ESPI) initiated a research study aimed at investigating the emerging need for a European approach to STM, with scheduled date of completion in July 2019. More specifically, the research activity:

1) examines the concept of STM and its significance in the face of global trends in the space sector while depicting the relation between STM and other security-related concepts in the international space arena, in a consolidated and independent manner;

2) assesses the relevance of STM in the European context, raising awareness and need for European acknowledgement of the increasing space traffic risks and related implications stemming from this state of affairs; and

3) provides reflections on existing elements and fragments of space traffic management system in Europe and investigates perspectives for future policy solutions in short- to long-term stakes of Europe in the domain of STM.

The paper will present key findings and conclusions of this study.