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Christina Giannopapa, Maarten Adriaensen, Ntorina Antoni, Kai-Uwe Schrogl

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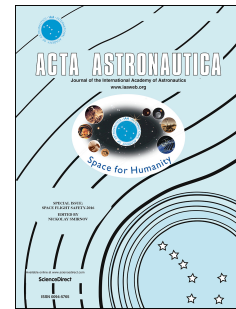
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## Elements of ESA's Policy on Space and Security

Christina Giannopapa<sup>a\*</sup>, Maarten Adriaensen<sup>b</sup>, Ntorina Antoni<sup>c</sup>, Kai-Uwe Schrogl<sup>d</sup><sup>a</sup> European Space Agency (ESA), Paris, France, [christina.giannopapa@esa.int](mailto:christina.giannopapa@esa.int)<sup>b</sup> European Space Agency (ESA), Paris, France, [maarten.adriaensen@esa.int](mailto:maarten.adriaensen@esa.int)<sup>c</sup> European Space Agency (ESA), Paris, France, [ntorina.antoni@esa.int](mailto:ntorina.antoni@esa.int)<sup>d</sup> European Space Agency (ESA), Paris, France, [kai-uwe.schrogl@esa.int](mailto:kai-uwe.schrogl@esa.int)

\* Corresponding Author

## Abstract

In the past decade Europe has been facing rising security threats, ranging from climate change, migrations, nearby conflicts and crises, to terrorism. The demand to tackle these critical challenges is increasing in Member States. Space is already contributing, and could further contribute with already existing systems and future ones. The increasing need for security in Europe and for safety and security of Europe's space activities has led to a growing number of activities in ESA in various domains. It has also driven new and strengthened partnerships with security stakeholders in Europe. At the European level, ESA is collaborating closely with the main European institutions dealing with space security. In addition, as an organisation ESA has evolved to conduct security-related projects and programmes and to address the threats to its own activities, thereby securing the investments of the Member States. Over the past years the Agency has set up a comprehensive regulatory framework in order to be able to cope with security related requirements. Over the past years, ESA has increased its exchanges with its Member States. The paper presents main elements of the ESA's policy on space and security. It introduces the current European context for space and security, the European goals in this domain and the specific objectives to which the Agency intends to contribute. Space and security in the ESA context is set out under two components: a) security from space and b) security in space, including the security of ESA's own activities (corporate security and the security of ESA's space missions). Subsequently, ESA's activities are elaborated around these two pillars, composed of different activities conducted in the most appropriate frameworks and in coordination with the relevant stakeholders and shareholders.

Keywords: ESA, space and security, policy, security from space, security in space

## 1. Space and security in Europe and ESA

### 1.1. The increasing involvement of ESA in space and security<sup>1</sup>

In the past decade Europe has been facing rising security threats, ranging from climate change, migrations, nearby conflicts and crises, to terrorism. The demand to tackle these critical challenges is increasing in Member States. Space is already contributing, and could further contribute with already existing systems and future ones.

Society has grown more and more dependent on space systems with services supporting citizens and the economy every day, while the safety and sustainability of all space activities is put at risk by

more numerous and diverse hazards, from space debris to cyber-attacks<sup>2</sup>.

The increasing need for security in Europe and for safety and security of Europe's space activities has led to a growing number of activities in ESA in various domains. It has also driven new and strengthened partnerships with security stakeholders in Europe. At the European level, ESA is collaborating closely with the main European institutions dealing with space security, namely the European Commission (EC), the European External Action Service (EEAS), the European Defence Agency (EDA), the European Union Satellite Centre (SatCen) and the European GNSS Agency (GSA). ESA today is therefore a recognised partner for space and security in Europe<sup>3</sup>.

<sup>1</sup> There are various definitions and interpretations of what is encompassed in "space and security". However, today space and security embraces a broad understanding of the requirement of access to and use of space by all states who wish to use it for the socioeconomic benefit of their people. It includes security from space and the security of space activities.

<sup>2</sup> A comprehensive academic assessment of space and security is contained in the "Handbook of Space Security", 2 volumes, Springer, 2015.

<sup>3</sup> The European Union Institute for Strategic Studies (EUISS), reporting to the High Representative, proposes a

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