Basic information

2013/0064(COD) COD - Ordinary legislative procedure (ex-codecision procedure) Decision	Procedure completed
Framework for space surveillance and tracking (SST) support See also 2011/0368(COD) See also 2011/0392(COD) See also 2011/0402(CNS) Repealed by 2018/0236(COD) Amended by 2016/0282A(COD) **Subject** 3.40.05 Aeronautical industry, aerospace industry 3.50.01.05 Research specific areas 3.50.03 European space policy 3.50.20 Scientific and technological cooperation and agreements	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
ITRE Industry, Research and Energy	ANDERSDOTTER Amelia (Verts/ALE)	18/04/2013
	Shadow rapporteur MAZEJ KUKOVIČ Zofija (PPE) PRODI Vittorio (S&D) JOHANSSON Kent (ALDE) KARIM Sajjad (ECR) FLASAROVÁ Věra (GUE/NGL)	

Committee for opinion	Rapporteur for opinion	Appointed
AFET Foreign Affairs	GAHLER Michael (PPE)	21/03/2013
BUDG Budgets	CARVALHO Maria da Graça (PPE)	10/06/2013
ENVI Environment, Public Health and Food Safety	The committee decided not to give an opinion.	
TRAN Transport and Tourism	The committee decided not to give an opinion.	

	REGI Regional Development	The committee decided not to give an opinion.	

Council of the European Union

Council configuration	Meetings	Date
Competitiveness (Internal Market, Industry, Research and Space)	3242	2013-05-30
Competitiveness (Internal Market, Industry, Research and Space)	3295	2014-02-20
Agriculture and Fisheries	3308	2014-04-14

European Commission

Commission DG	Commissioner
Internal Market, Industry, Entrepreneurship and SMEs	TAJANI Antonio

Key events

Date	Event	Reference	Summary
28/02/2013	Legislative proposal published	COM(2013)0107	Summary
14/03/2013	Committee referral announced in Parliament, 1st reading		
30/05/2013	Debate in Council		
16/12/2013	Vote in committee, 1st reading		
16/01/2014	Committee report tabled for plenary, 1st reading	A7-0030/2014	Summary
02/04/2014	Decision by Parliament, 1st reading	T7-0270/2014	Summary
02/04/2014	Results of vote in Parliament		
14/04/2014	Act adopted by Council after Parliament's 1st reading		
16/04/2014	Final act signed		
16/04/2014	End of procedure in Parliament		
27/05/2014	Final act published in Official Journal		

Technical information

Procedure reference	2013/0064(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Decision
Amendments and repeals	See also 2011/0368(COD) See also 2011/0392(COD)

	See also 2011/0402(CNS) Repealed by 2018/0236(COD) Amended by 2016/0282A(COD)
Legal basis	Treaty on the Functioning of the EU TFEU 189
Other legal basis	Rules of Procedure EP 165
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/7/12177

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee draft report		PE521.718	23/10/2013	
Committee opinion	BUDG	PE519.703	15/11/2013	
Amendments tabled in committee		PE523.078	19/11/2013	
Committee opinion	AFET	PE519.586	03/12/2013	
Committee report tabled for plenary, 1st reading/single reading		A7-0030/2014	16/01/2014	Summary
Text adopted by Parliament, 1st reading/single reading		T7-0270/2014	02/04/2014	Summary

Council of the EU

Document type	Reference	Date	Summary
Draft final act	00031/2014/LEX	16/04/2014	

European Commission

Document type	Reference	Date	Summary
Legislative proposal	COM(2013)0107	28/02/2013	Summary
Document attached to the procedure	SWD(2013)0054	28/02/2013	
Document attached to the procedure	SWD(2013)0055	28/02/2013	
Commission response to text adopted in plenary	SP(2014)471	09/07/2014	
Follow-up document	COM(2018)0256	03/05/2018	Summary

National parliaments

Document type	Parliament /Chamber	Reference	Date	Summary
Contribution	PT_PARLIAMENT	COM(2013)0107	24/04/2013	

Contribution	CZ_SENATE	COM(2013)0107	17/09/2013	

Other institutions and bodies

Institution/body	Document type	Reference	Date	Summary
EESC	Economic and Social Committee: opinion, report	CES3545/2013	10/07/2013	

Additional information

Source	Document	Date
National parliaments	IPEX	
European Commission	EUR-Lex	

Final act

Decision 2014/0541
OJ L 158 27.05.2014, p. 0227 Summary

Framework for space surveillance and tracking (SST) support

2013/0064(COD) - 03/05/2018 - Follow-up document

The Commission presented a report on the implementation of the space surveillance and tracking (SST) support framework (2014-2017).

Background to the report: Europe is set to have 40 Galileo and Copernicus satellites in space by 2020 and around 12% of the world's satellites. It therefore has a vital interest in ensuring that its space assets and services can be launched and operated safely.

In 2008, the Council underlined the need to develop a European capability for the monitoring and surveillance of European space infrastructure and of space debris. The EU's initial response was to establish a European Union space surveillance and tracking (EU SST) capability by means of Decision No 541/2014/EU of the European Parliament and of the Council establishing a framework for space surveillance and tracking support (the SST Decision).

Results and impacts: the main conclusion of the report is that the **framework delivered results** as regards the establishment and operation of EU SST functions and actions. However, given the relatively short timeframe of the EU SST operations, it is not yet possible to identify socio-economic impacts.

The main achievements of the framework can be summarised as follows:

- **availability of the EU SST services** – the SST Consortium has provided services under the EU SST logo since 1 July 2016, through the EU SST portal. The collision avoidance, in-orbit fragmentation and re-entry services are provided to all European institutional users and spacecraft owners and operators free of charge and on a 24/7 basis. The number of users has risen steadily;
- **outreach to users** – potential users were identified and their needs documented. While limited, feedback from users is promising. The EU SST helped to enhance stakeholders' awareness of space risks and the need to protect space infrastructure;
- **cooperation and collection of shared know-how** – regular communication has been established between NOCs. National experts share knowledge and working
- **mapping and pooling of European assets** – overall, 33 sensors contributed to the initial EU SST operations, covering all orbits. Their initial architecture and performance have been assessed. European sensors potentially suitable for EU SST have been identified and upgrades of national sensors have started;
- **outreach to other Member States** – the EU SST attracted interest and led new Member States to collaborate with or to join the SST Consortium.

Effectiveness: the report noted that the framework facilitated setting up the initial EU SST capability toward the general objective of ensuring the long-term sustainability of European space infrastructure and services. Since EU SST operations began, NOCs have provided collision warnings and there have been no catastrophic incidents involving registered spacecraft, including EU satellites. Re-entry events have been monitored and reported. The enlargement of the SST Consortium and execution of SST grants as of end 2017 was on track.

Despite these achievements, the EU SST has yet to **improve its performance and autonomy**. The EU SST functions as a sum of national capabilities, with different national databases and varying service level, and economies of scale and avoiding unnecessary duplications have yet to realise. The EU SST services does not cover space hazards over the entire life-cycle of spacecraft missions from launch to disposal, which however threaten the long-term sustainability of European space infrastructure and services. Moreover, the framework does not define actions or provide means to facilitate exploring potential synergies with other segments of space situational awareness (space weather and near-Earth objects) and has yet to create leverage on the international scene as the capability develops.

In terms of European added value, the SST support framework has given Member States an incentive to cooperate in this nationally sensitive area and has helped to increase transparency and build confidence.

It contributes to making OSH services accessible to European users and is a **first step towards the future development of a certain level of European autonomy in SST**.

Recommendations for the future: the Commission considers that the following **operational milestones** would facilitate achievement of the overall objective of helping to ensure the long-term sustainability of European space infrastructure and services:

- **defining an effective future EU SST architecture and suitable arrangements for service delivery**: the EU SST builds on complementarity between national assets and optimizes the EU SST architecture while
- **a common EU database of orbital objects, building on national data**: to this end, progress is needed in the near future on the networking between NOCs and the exchange of SST data and information;
- **outreach to, and active engagement with, potential users, supported by further development of EU SST services**: a large pool of potential users has yet to be reached. To this end, the quality and efficiency of EU SST services needs to be improved according to the needs of users, including in terms of added value and operational handling of the fleet. This should be supported by: intensified outreach campaigns; further development of the user feedback mechanism and common EU SST operational procedures and standards for service provision;
- **consideration of the needs for, and possible means of realising, synergies with other segments of space situational awareness**;
- **formulation of a long-term vision, strategic objectives** and general guidelines at the EU level – these should be supported by implementation roadmaps and multiannual plans;
- further simplification of the EU SST grant management scheme;
- **governance changes** to ensure the cost-effective management – this is crucial to accommodate possible broader Member State participation and EU SST development. The Commission's involvement in EU SST should be stepped up to enable providing more guidance and monitoring at the strategic, policy and organisational levels.

Framework for space surveillance and tracking (SST) support

2013/0064(COD) - 28/02/2013 - Legislative proposal

PURPOSE: to establish a space surveillance and tracking support programme for the period 2014 to 2020.

PROPOSED ACT: Decision of the European Parliament and of the Council.

ROLE OF THE EUROPEAN PARLIAMENT: the European Parliament decides in accordance with the ordinary legislative procedure and on an equal footing with the Council.

BACKGROUND: space-based applications and derived services as well as space research have become critical for the implementation of EU policies, such as environment, climate change, maritime policies, development, agriculture, security related policies.

In Europe there are today **limited capacities to monitor and survey satellites and space debris** as well as re-entry of space objects into the Earth's atmosphere. Furthermore, there are no proper services to issue collision warnings for satellite operators.

A space surveillance and tracking ('SST') **support programme** should therefore be established with the aim to support the setting up and operation of services consisting of monitoring and surveying space objects with a view to preventing damage to spacecraft resulting from collisions.

In its Communication entitled "Towards a space strategy for the European Union that benefits its citizens", the Commission underlined that the shared competence in the field of space conferred upon the Union by the Treaty on the Functioning of the European Union (TFEU) goes hand in hand with a reinforced partnership with the Member States. The need for EU action in the domain has been supported by Member States in **several Council Resolutions and Conclusions**. In its resolution on a space strategy for the European Union adopted on 19 January 2012, the European Parliament shares this point of view.

IMPACT ASSESSMENT: the proposal follows an extensive consultation with stakeholders and the public. It is accompanied by an impact assessment.

During the consultation, Member States asked the EU to define the governance and data policy for a European SST service, to play an active role in the setting up of the service, and to make best use of existing sensors and expertise. The consultation also showed that the public opinion is aware of and supports the need to protect space infrastructure.

LEGAL BASIS: Article 189(2) of the TFEU.

CONTENT: the current proposal for a Decision concerns the **establishment of a European service which will seek to prevent collisions between spacecraft or between spacecraft and debris** and monitor uncontrolled re-entry of complete spacecraft or parts thereof. In technical terms this service is referred to as a European SST service.

The proposal defines the objectives of the proposed action, namely, the provision of **Space Surveillance and Tracking services**, the scope of the services to be provided, the governance aspects, as well as the budgetary resources. The proposed Decision allows for the definition of a **partnership**, whereby Member States will contribute with their existing and future assets to the SST capability at European level and the Union will provide a legal framework and a financial contribution to the implementation of the actions defined. The legal framework defines the **governance scheme and the data policy**.

Lastly, the proposed European SST services accommodate an essential objective of the space industrial policy of the EU (indentified in the Commission's Communication on *Elements for an EU Space Industrial Policy* to be released in 2013), namely to **achieve European technological non-dependence** in critical domains, and to maintain independent access to space.

BUDGETARY IMPLICATION: the SST programme remains within the overall EU budget envelope proposed by the Commission for the next Multiannual Financial Framework.

No funding requests beyond the MFF proposal are made.

The indicative Union overall contribution to the implementation of the support programme is **EUR 70 million** over the period from 2014-2020 at current prices. However, this overall contribution depends on the outcome of the ongoing co-decision process on the MFF.

Framework for space surveillance and tracking (SST) support

2013/0064(COD) - 16/01/2014 - Committee report tabled for plenary, 1st reading/single reading

The Committee on Industry, Research and Energy adopted the report by Amelia ANDERSDOTTER (Greens/EFA, SE) on the proposal for a decision of the European Parliament and of the Council establishing a space surveillance and tracking support programme (SST).

The committee recommended that the position of the European Parliament adopted in first reading following the ordinary legislative procedure should amend the Commission proposal as follows:

Overall objectives: Members specified that the SST support programme should contribute to ensuring the long-term availability of European and national space infrastructure facilities and services essential for the safety and security of the economies, societies and citizens in Europe, by equipping the European Union with an autonomous space surveillance and tracking system.

Specific objectives: the programme should contribute to the following specific objectives:

- assessing and reducing the risks to in-orbit operations of European spacecraft in terms of collisions, enabling spacecraft operators to more efficiently plan and carry out mitigation measures;
- reducing the risks relating to the launch of European spacecraft;
- surveying uncontrolled re-entries of spacecraft or space debris into the Earth's atmosphere and providing more accurate and efficient early warnings with the aim of reducing the potential risks to the safety of Union citizens and mitigating potential damage to critical terrestrial infrastructure.

Main actions: the report proposed to define the establishment of the networking of sensors, of the processing of data and of the SST services as main actions rather than objectives, from which specific actions will be developed by the Commission in its multiannual work programme.

SST services: these must include a freely available and re-usable public information service on orbital elements of space objects orbiting the Earth.

Commission's role: this should: (i) be responsible for the SST support programme, manage the funds allocated, while providing transparency and clarity regarding the different sources of funding; (ii) define the governance and the data policy for the European SST service; (iii) ensure, in addition, the necessary dialogue and coordination bringing together relevant actors such as **European Defence Agency (EDA) and European Space Agency (ESA)** in view of ensuring coherence between military and civilian space programmes.

Use and exchange of SST data and information: Members stressed that efficient operations should be ensured and the use of the generated SST information should be maximised while preventing the unauthorised disclosure of SST data and information.

SST data and information generated in the framework of the SST support programme should be made available, including to **third countries**, on a need-to-know basis, in accordance with the instructions and security rules of the originator of the SST information and of the owner of the space object concerned.

Financing: the amount of Union funding allocated to the SST support programme for the period 2014-2020 will be **EUR 70 million**. Up to EUR 26.5 million may also come from the Copernicus programme.

Planning: in order to ensure proper planning of the programme, the Commission should have the power to adopt delegated acts in respect of the adoption of a multiannual work programme.

Report: at the beginning of each year, the Commission should send a report to the European Parliament and to the Council. The report should include information on the participation to the SST support programme and the actions supported by the programme.

Framework for space surveillance and tracking (SST) support

2013/0064(COD) - 16/04/2014 - Final act

PURPOSE: to establish a Framework for Space Surveillance and Tracking Support (SST).

LEGISLATIVE ACT: Decision No 541/2014/EU of the European Parliament and of the Council establishing a Framework for Space Surveillance and Tracking Support.

CONTENT: **space debris** has become a serious threat to the security, safety and sustainability of space activities. This Decision aims to establish **an SST support framework** with the aim of supporting the setting up and operation of services consisting of:

- **assessing and reducing the risks** to in-orbit operations of European spacecraft relating to collisions and enabling spacecraft operators to plan and carry out mitigation measures more efficiently;
- reducing the risks relating to the **launch** of European spacecraft;
- surveying **uncontrolled re-entries** of spacecraft or space debris into the Earth's atmosphere and providing more accurate and efficient **early warnings**;
- seeking to prevent the **proliferation** of space debris.

The actions supported by the SST support framework, include **the establishment and operation of a sensor function** consisting of a network of Member State ground-based and/or space-based sensors, including national sensors developed through ESA, to survey and track space objects and to produce a database thereof.

The SST support framework should promote the **evolution of the networking of Member State SST assets** for SST service provision. SST service provision should benefit all operators, public and private, of space-based infrastructures.

The SST support framework shall compliment the actitivites carried out under programmes such as Horizon 2020, Copernicus and Galileo. It should contribute to ensuring the peaceful use and exploration of outer space.

The operation of SST services should be based on **a partnership between the Union and the Member States** and use existing as well as future national expertise and assets, including those developed through ESA.

Member States should retain ownership and control over their assets and should remain responsible for their operations, maintenance and renewal. The SST support framework should not provide financial support for the development of new SST sensors.

The Commission and the Member States **should promote and facilitate participation by the greatest number of Member States** in the SST support framework, subject to compliance with participation criteria. All Member States which comply with the criteria shall designate a national entity to represent them. The designated national entities shall constitute a **consortium** and conclude an agreement laying down the rules and mechanisms for their cooperation in the implementation of the actions.

The Commission **shall monitor the implementation** of the SST support framework. By 1 July 2018, the Commission shall forward a report concerning the achievement of the objectives of this Decision.

ENTRY INTO FORCE: 16.06.2014.

Framework for space surveillance and tracking (SST) support

2013/0064(COD) - 02/04/2014 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted by 602 votes to 17, with 10 abstentions, a legislative resolution on the proposal for a decision of the European Parliament and of the Council establishing a space surveillance and tracking support programme (SST).

Parliament adopted its position at first reading following the ordinary legislative procedure. The amendments adopted in plenary are the result of an agreement negotiated between the European Parliament and the Council. They amend the proposal as follows:

Overall objective: Parliament and the Council agreed that the SST support programme should have as its general aim to contribute to ensuring the **long-term availability** of European and national space infrastructure facilities and services essential for the safety and security of the economies, societies and citizens in Europe.

The **specific objectives** are as follows:

- assessing and reducing the risks to in-orbit operations of European spacecraft in terms of collisions, enabling spacecraft operators to more efficiently plan and carry out mitigation measures;

- reducing the risks relating to the launch of European spacecraft;
- surveying uncontrolled re-entries of spacecraft or space debris into the Earth's atmosphere and providing more accurate and efficient early warnings with the aim of reducing the potential risks to the safety of Union citizens and mitigating potential damage to critical terrestrial infrastructure;
- seeking to prevent the proliferation of space debris.

Main actions: the SST support programme shall support the following actions which seek to establish an **SST capacity at European level and with the appropriate level of European autonomy**:

- the establishment and operation of a sensor function consisting of a **network of Member State ground-based and/ or space-based sensors**, including national sensors developed through ESA, to survey and track space objects and to produce a database thereof ;
- the establishment and operation of a **processing function** to process and analyse the SST data ▌ at national level to produce SST information and services for transmission to the SST service provision function.

The SST support framework **shall not cover** the development of new SST sensors.

SST services: the SST services shall be of a **civilian nature**. They shall comprise the following services: (i) the generation of collision avoidance alerts during the launch, early orbit, in-orbit operation and disposal phases of spacecraft missions; (ii) the characterisation of in-orbit fragmentations, break-ups or collisions; (iii) the risk assessment of the uncontrolled re-entry of space objects and space debris into the Earth's atmosphere and the generation of related information, including the estimation of the timeframe and likely location of possible impact.

Commission's role: the Commission shall: (i) manage the SST support framework and ensure its implementation; (ii) monitor risks related to the SST support framework; (iii) ensure the update of SST user requirements as appropriate; (iv) define general guidelines for the governance of the SST support framework; and (v) facilitate the broadest possible participation of Member States.

The Commission shall **provide to the European Parliament and to the Council**, in a timely manner, all relevant information on the implementation of the SST support framework, in particular to provide transparency and clarity regarding: (a) the indicative efforts and the different Union sources of funding; (b) participation in the SST support framework and the actions supported thereby; (c) the evolution of the networking of Member State SST assets and of SST service provision; and (d) the exchange and use of SST information.

Participation of Member States: any Member State wishing to participate in the implementation of the actions shall submit an application to the Commission demonstrating compliance with a certain number of criteria:

Member States which comply with the criteria shall designate a national entity to represent them. The designated national entities shall constitute a consortium.

Responsibility for the operation of sensors, the processing of data and the implementation of data policy shall lie with the participating Member States. The assets of participating Member States shall remain fully under national control.

The European Union Satellite Centre (SATCEN) may cooperate with the consortium by concluding the necessary implementing arrangements with the participating Member States.

Monitoring and evaluation: no later than 1 July 2018, the Commission shall forward a report on the implementation of the SST support framework to the European Parliament and the Council. This report may be accompanied by proposals for amendments, where appropriate, including the possibility for a **basic act** within the meaning of the Regulation (EU, Euratom) No 966/2012 (on financial rules applicable to the EU's general budget) for SST.