Single European Sky (SES)

**Objective**

The Single European Sky (SES) initiative was launched in 2000 by the European Commission following the severe delays to flights in Europe experienced in 1999. A [High Level Group](https://skybrary.aero/index.php/High_Level_Group) was established and, building on the recommendations in its report, the Commission drafted a legislative package at the end of 2001. The package was adopted by the European Parliament and Council in March 2004 and entered into force one month later.

The SES package is aimed to:

* Enhance safety and efficiency of air transport in Europe;
* Reduce delays by improving the use of scarce airspace and airport resources;
* Improve services and reduce cost to air transport passengers by reducing the fragmentation of the air traffic management in Europe;
* Improve the integration of military systems into the European air traffic management system.

In spite of much effort to modernise and streamline it, Europe’s air traffic management system remains safe, but fairly costly. It is also hampered by heterogeneous working practices and constrained by air route networks which, in the main, are based on national borders and not on air traffic flows. The SES initiative puts forward a legislative approach to solve these issues and enable ATM to cope with projected future traffic demand.

**First SES legislative package**

The legislative package adopted in 2004 comprises four basic regulations, which reinforce safety and foster the restructuring of European airspace and air navigation services. The regulations provide the framework for the creation of additional capacity and for improved efficiency and interoperability of ATM system in Europe.

* [The Framework regulation](https://skybrary.aero/index.php/Regulation_549/2004_-_SES_Framework) (EC No 549/2004) - laying down the framework for the creation of the single European sky;
* [The Service provision regulation](https://skybrary.aero/index.php/Regulation_550/2004_-_Provision_of_Air_Navigation_Services_in_SES) (EC No 550/2004) - on the provision of air navigation services in the Single European sky;
* [The Airspace regulation](https://skybrary.aero/index.php/Regulation_551/2004_-_Organisation_and_Use_of_the_Airspace_in_SES) (EC No 551/2004) - on the organisation and use of airspace in the Single European sky;
* [The Interoperability regulation](https://skybrary.aero/index.php/Regulation_552/2004_-_Interoperability_of_the_European_ATM_Network) (EC No 552/2004) - on the interoperability of the European Air Traffic Management network. This Regulation was **repealed**by [Regulation 2018/1139](https://skybrary.aero/articles/regulation-20181139-common-rules-field-civil-aviation-and-establishing-easa).

**SES implementation**

Implementing the provision of the SES regulations would bring a number of significant benefits:

* Improved level of safety of air navigation services;
* A more effective and integrated air traffic management architecture;
* Demand driven air navigation service provision;
* Enhanced cross-boarder co-ordination;
* Improved decision-making and enhanced enforcement in ATM.

The four basic regulations are complemented by more detailed implementing rules adopted by the [European Commission](https://skybrary.aero/index.php/European_Commission) after discussion within the [Single Sky Committee](https://skybrary.aero/index.php/Single_Sky_Committee). Industry is invited to advise the European Commission on actions to be taken on the basis of the regulations through an [Industry Consultation Body](https://skybrary.aero/index.php/Industry_Consultation_Body).

Due to its technical expertise, [EUROCONTROL](https://skybrary.aero/index.php/EUROCONTROL) is preparing various implementing rules on the basis of mandates issued by the European Commission and in close co-ordination with all relevant stakeholders. The final result of the mandate work is a report including a draft implementing rule. The European Commission submits then the draft implementing rule under its responsibility to the Single Sky Committee and adopts it following the favourable opinion of the Committee.

The following implementing rules have been adopted by the European Commission pursuant to the stipulations of the four basic SES regulations:

***Air Navigation Service Provision***

* [Regulation 2017/373 - Requirements for providers of ATM/ANS and other ATM network functions and their oversight](https://skybrary.aero/articles/regulation-2017373-requirements-providers-atmans-and-other-atm-network-functions-and-their)
* [Common charging scheme for air navigation services](https://skybrary.aero/articles/regulation-2019317-performance-and-charging-scheme-ses)
* Regulation (EC) N° 482/2008 (repealed by [Regulation 2017/373](https://skybrary.aero/articles/regulation-2017373-requirements-providers-atmans-and-other-atm-network-functions-and-their) in 2020) of 30 May 2008 establishing a software safety assurance system to be implemented by air navigation service providers and amending Annex II to the now repealed Regulation (EC) N° 2096/2005

***Airspace***

* Regulation (EC) No 2150/2005 of 23 December 2005 laying down [common rules for the flexible use of airspace](https://skybrary.aero/index.php/Regulation_2150/2005_-_Common_Rules_for_the_Flexible_Use_of_Airspace_%28FUA%29)
* Regulation (EC) No 730/2006 of 11 May 2006 on airspace classification and access of flights operated under visual flight rules above flight level 195, repealed by [Regulation 2016/1185](https://skybrary.aero/index.php/Regulation_%28EU%29_No_2016/1185_amending_Regulation_923/2012_as_regards_the_update_of_SERA) in 2020.

***Interoperability***

* Regulation (EC) No 1033/2006 of 4 July 2006 laying down the [requirements on procedures for flight plans in the pre-flight phase](https://skybrary.aero/index.php/Regulation_1033/2006_-_Procedures_for_Flight_Plans_in_the_Pre-Flight_Phase) for the single European sky. This Regulation was **repealed**by Regulation 2023/1772.
* Regulation (EC) No 1032/2006 of 6 July 2006 laying down [requirements for automatic systems for the exchange of flight data for the purpose of notification, coordination and transfer of flights between air traffic control units](https://skybrary.aero/index.php/Regulation_1032/2006_-_Exchange_of_Flight_Data_Between_ATC_Units). This Regulation was **repealed**by Regulation 2023/1771.
* Regulation (EC) N° 633/2007 of 7 June 2007 laying down [requirements for the application of a flight message transfer protocol used for the purpose of notification, coordination and transfer of flights between air traffic control units](https://skybrary.aero/index.php/Regulation_633/2007_-_Flight_Message_Transfer_Protocol_for_Use_by_ATC_Units). This Regulation was **repealed**by Regulation 2023/1771.
* [Commission Implementing Regulation (EU) N° 1079/2012 of 16 November 2012 laying down requirements for voice channels spacing for the single European sky](https://skybrary.aero/index.php/Regulation_1079/2012_-_Requirements_for_Voice_Channels_Spacing_for_the_SES). This Regulation was **repealed**by Regulation 2023/1770.
* [Regulation 2015/340 - Technical Requirements and Administrative Procedures relating to Air Traffic Controllers' Licences](https://skybrary.aero/node/31158)

Member States are responsible for the correct implementation of the EC rules. [National Supervisory Authorities](https://skybrary.aero/index.php/National_Supervisory_Authority) (which take in practice the form of civil aviation authorities) have to make sure that services are delivered to the highest standards in accordance with the legal requirements.

The actions defined in the regulations reinforce also the integration of civil and military air traffic control. This will ensure that the needs of both the civil and military communities are respected and properly taken into account, where there are areas of common interest, yet safeguarded where there may be specific requirements.

EUROCONTROL supports actively the implementation of the Single Sky. The organisation’s excellence and experience in the field of ATM are used in the development of SES implementing rules. Furthermore, EUROCONTROL produces technical specifications and implementation guidance materials. The Memorandum of Cooperation between EUROCONTROL and the European Commission establishes the framework of this important partnership.

**First Report on SES Implementation**

The Framework regulation requires that European Commission periodically reviews the application of the SES legislation and reports on the progress of its implementation. [The First Report on the implementation of the Single Sky Legislation](https://skybrary.aero/index.php/First_Report_on_the_Implementation_of_Single_Sky_Legislation) was published in December 2007. It presents the achievements, identifies new challenges and proposes the way forward. Based on the report findings, the Commission came forward with proposals for a second Single Sky legislative package, including extension of [European Aviation Safety Agency (EASA)](https://skybrary.aero/index.php/EASA) remit to ATM and airports and adoption of the [European ATM Master Plan](https://skybrary.aero/index.php/ATM_Master_Plan).

**Second SES legislative package**

The steady increase in demand for air transport is straining the capacity of infrastructure and pushing airports and ATM to their limits. Safety levels need to be improved in parallel with the increase in traffic. The fragmentation of ATM hinders optimal capacity use and imposes an unnecessary financial burden on aviation. The increased environmental awareness is also putting pressure on aviation to demonstrate its environmental performance.

To tackle these issues, the Commission has come up with a [second SES legislative package](https://skybrary.aero/index.php/Single_European_Sky_%28SES%29_II) aimed to:

* Create a single safety framework to enable harmonised development of safety regulations and their effective implementation;
* Improve the performance of the ATM system through setting of targets;
* Open the door to new technologies enabling the implementation of new operational concept and increasing safety levels by a factor of ten;
* Improve management of airport capacity.

**Further Reading**

**European Commission**

* [Air Transport Portal of the European Commission - Single European Sky](https://transport.ec.europa.eu/transport-modes/air/single-european-sky_en)
* [First Report on the implementation of the Single Sky Legislation: achievements and the way forward](https://skybrary.aero/bookshelf/books/457.pdf)
* [Presentation on SES II - Achieving more sustainable and better performing aviation, SCG 11 - 13 May 2009](https://skybrary.aero/bookshelf/books/663.pdf)

**EUROCONTROL**

* [EU Legislation for ATM/ANS & Aerodromes Chart](https://trainingzone.eurocontrol.int/doc/seslex.htm)

Categories

[Single European Sky](https://skybrary.aero/safety-regulations/single-european-sky), [SES Implementation](https://skybrary.aero/safety-regulations/single-european-sky/ses-implementation)