Prologue

Working as an airline pilot I have personally experienced the difference of flying in distinct parts of the world. In the United States of America, as well as in some other parts of the world, an aircraft can fly direct routes between places even though the distance covers hundreds of miles. This appears to be logical since there are no physical roads to follow. However, in Europe this is not the case. In Europe the sky is fragmented and divided into small sections that follow the borders of states’. Each state is in charge of their airspace and the operation within it. As a result, it is almost impossible to get a direct route between two places and pilots need to take detours around different areas, some of which are reserved for military traffic only.

Coming from a little island in the Atlantic Ocean, international transportation has always interested me. While studying for my pilot licence I was introduced to air law which inspired me to the extent that today I am writing my master’s thesis on air transport. Since I have found myself repeatedly wishing for better organisation of European skies it was logical to choose EU’s initiative on single European sky as subject for my thesis. I have enjoyed reading and writing about European skies and will enjoy even more the actual experience of a single sky, if and when it becomes a reality.

I consider myself to be very lucky to have met my instructor Dr. Elvira Mendez-Pinedo. Her enthusiasm and passion is inspiring. Guðmundur Jósepsson has my deepest gratitude for his inexhaustible helpfulness as well as my brother-in-law, Gunnar Björn Bjarnason, whom I owe many favours, among them for introducing me to the world of aviation and air law.

Kópavogur, 1 May 2011
Sara Hlín Sigurðardóttir
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Abbreviations

AEA  Association of European Airlines
ANS  Air Navigation Services
ANSP  Air Navigation Service Provider
ASM  Airspace Management
ATC  Air Traffic Control
ATFM  Air Traffic Flow Management
ATM  Air Traffic Management
ATS  Air Traffic Services
CANSO  Civil Air Navigation Services Organisation
CNS  Communication, Navigation and Surveillance
EASA  European Aviation Safety Agency
EATMN  European Air Traffic Management Network
EC  European Community
ECAC  European Civil Aviation Conference
ECJ  Court of Justice of the European Union
ECR  European Court Reports
EU  European Union
EUROCONTROL  European Organisation for the Safety of Air Navigation
FAA  Federal Aviation Administration
FAB  Functional Airspace Block
FIR  Flight Information Region
IATA  International Air Transport Association
ICAO  International Civil Aviation Organization
MET  Meteorological Services
NSA  National Supervisory Authorities
PRB  Performance Review Body
OJ  Official Journal of the European Union
SES  Single European Sky
SSC  Single Sky Committee
SESAR  Single European Sky ATM Research programme
UNTS  United Nations Treaty Series
1 Introduction

Four hundred years ago the English poet John Donne wrote the famous line “No man is an island”. His view was that no one can stand alone without taking the rest of the world into account. This certainly applies in the world of modern aviation. Presently, European skies are the most congested skies in the world.\(^1\) To increase the complexity, European sky is divided into 27 different areas of airspace that remain under the control of national governments. In the late 1990s the situation of air transport in European skies ‘reached crisis proportions’\(^2\) and it was described as ‘disastrous’\(^3\). The reason for such a disturbing description was the saturation of airspace and growing delays, resulting from the deficiencies of the European air traffic management system.\(^4\) It was obvious that current arrangements, where each state organises and controls the airspace above its territory, did not work and measures needed to be taken on the regional level.

Since the first powered aircraft took off only 108 years ago, aviation has developed into one of the most important industries in the world and today there are more than 1,000 scheduled airlines in the world operating over 15,000 aircraft. These aircraft carry around 1.6 billion passengers and 22 million tons of cargo annually, about 40% of the world’s manufacturing exports based on value.\(^5\)

The regulation of air transport has inevitably evolved with the industry. The 1919 Paris Convention, signed by 27 nations, was the first legal instrument to enter into force in air law. The Paris Convention was later replaced by the 1944 Chicago Convention which is, still today, the fundamental basis for agreements upon which the aviation industry is founded.\(^6\)

International air law is built on the basic principle of a state’s exclusive sovereignty over the airspace above its territory. Aircraft do not automatically enjoy the right of innocent passage through states’ airspace, unlike on the sea, and permission is needed prior to entry into foreign airspace.\(^7\) However, since the aviation industry is international in scope it is necessary for states to grant aircraft of other states the right to enter into and across their territory. To respond to this need, the air transport market has developed so-called ‘open

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3 The creation of the single European sky COM(1999) 614 final/2, p. 3.
4 In 1999, the Commission estimated that approximately 21 per cent of all flights were delayed with an average delay of 25 minutes. See: Single European sky. Report of the high level group. European Commission, p. 9.
5 Dempsey: Public international air law, p. xiii.
6 Diederiks-Verschoor: An introduction to air law, p. 7.
7 Wallace and Martin-Ortega: International law, p. 113.
skies’ agreements. Open skies agreements are bilateral air transport agreements that allow for unrestricted market access and service by airlines of the partners’ country.

Besides air transport agreements, the aviation industry relies heavily on air traffic management. Aircraft have to follow pre-planned routes based on a fixed route network. In order to avoid collision and enable aircraft operators to follow their preferred flight profiles with minimum constraints, air traffic management is necessary. The services and functions of air traffic management are generally the responsibility of individual states, which have individually put in place the necessary organisations and infrastructure. As a consequence, each state is almost entirely free to decide the level of service to be provided and the means to be employed for this purpose. The result is that the technology used and the results achieved vary greatly from one country to another, making the overall system less efficient than it could be. At a global level, the provision of air traffic management is governed by the Chicago Convention and the International Civil Aviation Organisation (ICAO). At the regional level in Europe, both the European Civil Aviation Conference (ECAC), with its current 44 member states, and the European Organisation for the Safety of Air Navigation (EUROCONTROL), with its 39 member states, have played an important role in developing strategies for air traffic management.

The creation of the European Economic Community 1957 (now the European Union), and its continuous expansion in different fields, has raised the question whether the European Union (EU) could or should involve itself in the regulation of international aviation. While the EU is working on a daily basis to bring its citizens and territories closer together, in the sky each member state has retained full sovereignty over its airspace. The airspace is one of the areas in which European integration has been slow to keep up the pace.

With help from the Court of Justice of the European Union (usually referred to as the European Court of Justice or simply ECJ), the EU has extended its powers to the conclusion of international agreements on behalf of its member states in certain fields, including the negotiation of open skies agreements. With the single European sky initiative the EU has now also intervened in the regulation of air traffic management.

The European Commission estimated that air transport demand grew by 5–7 per cent a year up to 2000, leading to a doubling of air traffic every 12 years. Current systems, with ongoing improvements, should be able to handle this increased load until the middle of the

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8 *White paper on air traffic management - Freeing Europe's airspace* COM(96) 57 final, p. 4.
next decade. After that, more radical measures are needed in order to avoid serious congestion. The increased traffic requires that we change the way we fly, but such changes call for challenges and not only from a technical point of view. Strategies have to change, procedures need be harmonised and cooperation must be increased in order to optimise the use of the airspace. Transformation of current working methods will only be possible through a combination of initiatives at all levels.

With the aim of reforming the architecture of the European air traffic management system, the single European sky initiative was launched in 1999 by the Commission of the European Union. The initiative lays down the foundations of a unified system which will be able to cater for the anticipated growth of traffic in the skies. The creation of a single sky brings big challenges for EU member states. They must hand the operation of air traffic management over to another entity and some states have argued that this involves giving up part of their sovereignty.

After a long process, a package of four Regulations, aiming to form a single European sky, was delivered in April 2004. The first Regulation provides a framework for the creation of the single European sky. The second Regulation addresses the provision of air navigation services, the third deals with the organisation and use of airspace and the last Regulation tackles the interoperability of European air traffic management network. The overall goal of the legislation package is to restructure European airspace around air traffic flow, rather than according to national borders. This will create additional capacity and at the same time increase the overall efficiency of the air traffic management system.

The four single European sky Regulations set up cross-border provision of air navigation services through the establishment of ‘functional airspace blocks’ (FABs). These are blocks of controlled airspace that are specially defined to enable maximum efficiency and capacity of the air traffic management network, regardless of the underlying state boundaries. Within such FABs, the provision of air navigation services should no longer be exclusively in the domain of air navigation service providers that are based within the territory of a state.

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10 Today, Europe is home to approximately 150 scheduled passenger airlines and 450 airports, which in 2009 supported 751 million passengers. Flightpath 2050 Europe’s Vision for Aviation. Report of the high level group on aviation research, p. 5.


Rather, they make it possible to have air navigation service providers with their principal place of operation in the territory of another state to offer the service.\textsuperscript{13}

Even though the 2004 regulation package was an essential legislative step, it had serious shortcomings. As it turned out it was more of a monitoring scheme, lacking tools to ensure performance improvement. This was recognised and, accordingly, a second legislation package was adopted in 2009. The second package, comprising two regulations, aims to drive performance improvements through a legally binding target-setting regime with incentives and penalties. It extends the competence of the European Aviation Safety Agency (EASA) as well as implementing an action plan that addresses airport capacity and efficiency. The Commission hopes that today’s single European sky framework will be able to produce the safe and sustainable air navigation service network that Europe so desperately needs, with much lower air traffic management cost and at the same time allow for growing traffic.\textsuperscript{14}

Europe eliminated frontiers on the ground with the 1985 single European market. It dismantled economic frontiers with the 1990 economic and monetary union.\textsuperscript{15} It is a view widely held that borders in the sky should not exist.\textsuperscript{16} This thesis aims to investigate the legal basis behind the single European sky framework and how the Union’s intervention into the field of air traffic management will affect its member states.

In order to understand the background on which European Union legislation in the field of aviation is founded, main principles and sources of air law will be briefly discussed. As the single European sky is centred on managing the airspace as well as air traffic, an important description of air navigation services and air traffic management is provided. An overview of the relevant international organisations which have a direct influence on the development of air traffic management will be given. The role and law-making powers of those international organisations will be investigated as well as the question how their legislative powers can collide with the powers of the European Union.

Further, the origins of single European sky legislation will be explained, covering the first and second legislation packages. Finally, the reaction of European states to the single sky initiative will be studied as well as its influence on non-EU states, especially Iceland.

When the Lisbon Treaty entered into force in December 2009, the European Community became the European Union. When referring to the European Union before December 2009,

\begin{itemize}
  \item \textsuperscript{13} Antwerpen: \textit{Cross-Border Provision of Air Navigation Services with Specific Reference to Europe}, p. 93-94.
  \item \textsuperscript{14} \textit{White paper – Roadmap to a single European transport area: towards a competitive and resource efficient transport system} COM(2011) 144 final. European Commission, Brussels 2011.
  \item \textsuperscript{15} Craig and De Búrca: \textit{EU law: text, cases and materials}, p. 13 and 728.
  \item \textsuperscript{16} \textit{SESAR in brief: delivering the future ATM system in partnership}. EUROCONTROL, p. 2.
\end{itemize}
the phrase ‘European Community’ will be used. After entering into force of the Lisbon Treaty, ‘European Union’ will be used.

The research is built on both primary and secondary law of the European Union, comprising the European Union Treaties, applicable regulations and directives forming the single European sky framework as well as relevant case law of the European Court of Justice. Numerous soft law methods and policy instruments of Union institutions were relied on in order to shed light on ideas and reasons behind the single sky framework. So far, few scholars have devoted their attention to European air transport legislation and, therefore, academic literature on the subject of the single sky is scarce. Hopefully, along the way, the single sky will be the subject of interesting academic debates and literature.

2 An introduction to air law: main sources and fundamental principles

2.1 The early beginning of aviation

The history of aviation began in 1783 in France when an unmanned hot air balloon was launched into the air for the first time.\(^17\) Free ballooning soon spread throughout Europe and in 1785 the first international manned balloon flight crossed the English Channel, a distance of 38 km, between France and England. Internationalism in aviation had taken its first step and the need for international rules became clear.\(^18\) Nevertheless, it was not until in the historical year of 1903 that the first engine-powered, controlled, heavier-than-air airplane took off at Kitty Hawk in North Carolina, flown by the Wright brothers.\(^19\) Six years later, a French aviator named Louis Bleriot, crossed the English Channel and that was the first international flight by a heavier-than-air machine. At that time no legal framework existed, and no authorisations for crossing the borders between France and England had been given.\(^20\)

Jurists did not agree in their views on whether the air should be treated like the high seas, free for use of all, or if states should enjoy sovereignty in the airspace above their territory.\(^21\) In 1900 the French jurist Fauchille suggested a creation of an international air navigation code. With that in mind, the Paris Conference was convened in 1910.\(^22\) However, due to political disagreements, no result was achieved until in 1919 when the Convention relating to the Regulation of Aerial Navigation (the Paris Convention) was signed in Paris by 27 states.

\(^{19}\) Dempsey: Public international air law, p. 10.
\(^{21}\) Johnson: Rights in air space, p. 11.
\(^{22}\) Diederiks-Verschoor: An introduction to air law, p. 2.
nations. By then the first scheduled air service between Paris and London had already taken place. The Paris Convention recognised the principle of full and absolute sovereignty of each state over the air above its territory and territorial waters, carrying with it the right of exclusion of foreign aircraft. Each state also had the right to impose its jurisdiction over the air above its territory and territorial waters. However, the Paris Convention never produced universal approval and number of important states, such as Russia and the United States, did not ratify it. The Convention was soon followed by the Ibero-American Convention in 1926, which contained provisions largely similar to those of the Paris Convention. In 1928, the Air Navigation Convention for the Americas, i.e. the Pan-American Convention, was signed in Havana. However, it lacked technical annexes and failed to achieve a measure of uniformity in air traffic regulations.

With Charles Lindberg’s first flight across the Atlantic in 1927, interest in international aviation grew fast. The development in aviation during the two World Wars resulted in states insisting on unified international rules governing safety, navigation and other aspects of civil aviation to ensure protection of the public. As the World War II was nearing its end the United States invited the world community to a conference in Chicago to discuss rules regarding international civil aviation. The conference had two basic purposes; to make arrangements for the immediate establishment of provisional world air routes and to set up an interim council to collect, record and study data concerning international aviation and to make recommendations for its improvement. The conference was described as one of the most successful, productive, and influential international conferences ever held. The most significant result of the conference was the 1944 Convention on International Civil Aviation (the Chicago Convention). The Chicago Convention consists of 96 articles and 18 Annexes which contain ‘International Standards and Recommended Practices’ (SARPs). Today, the Chicago Convention is the basis for agreements upon which the aviation industry is founded and virtually the entire global aviation community of states has become party to it.

23 Ultimately, 38 States became parties to the Convention. See: Freer: “A Convention is signed and ICAN is born – 1919 to 1926”, p. 44-45.
24 Diederiks-Verschoor: An introduction to air law, p. 3-5.
25 Articles 1 and 2 of the 1919 Paris Air Navigation Convention.
26 Freer: “Regionalism is asserted, ICAN’s global prospects fade – 1926 to 1943”, p. 66.
27 Diederiks-Verschoor: An Introduction to air law, p. 7.
28 Dempsey: Public international air law, p. 3.
29 Dempsey: Public international air law, p. 2.
30 Freer: “Chicago conference (1944) – Despite uncertainty, the spirit of internationalism soars”, p. 43.
2.2 Main sources of air law

Air Law is a body of rules governing the use of airspace and its benefits for aviation, the general public and the nations of the world.\(^{34}\)

Air law had an international character almost from the very beginning and hence multilateral conventions are the primary source in this field of law.\(^{35}\) Due to rapid developments in aviation, custom has largely been bypassed as a source of law, the result being that air law today consists almost exclusively of written law.\(^{36}\) Multilateral conventions and agreements, both in public and private international law, govern issues as air safety and navigation, security, sovereignty, transit and commercial traffic rights and liability.\(^{37}\) In addition to multilateral conventions the sources of public international air law are mostly bilateral agreements, general principles of international law, ICAO’s Standards and Recommended Practices, intergovernmental decisions and regulations (e.g., those of the European Union), national legislation and regulations promulgated by national aviation agencies and case law jurisprudence of courts.\(^{38}\) Regulation of airspace, the subject of this research, is mostly effected via interstate agreements.\(^{39}\)

2.3 The rule on states’ sovereignty and freedoms of the air

The first flight crossing the English Channel commenced without any thought of obtaining a permission to enter and land in Great Britain. In the following years, international flights frequently took place in a completely unregulated and unmonitored environment, alarming both officials and jurists.\(^{40}\) Today, one of the basic principles underlying the whole system of international air law is the rule on states’ sovereignty.\(^{41}\) It recognises that a state’s exclusive sovereignty extends to the airspace above the landmass and territorial sea belonging to the state.\(^{42}\) State sovereignty over the airspace above its territory quickly became customary

\(^{34}\) Diederiks-Verschoor: An Introduction to air law, p. 1.

\(^{35}\) Diederiks-Verschoor: An Introduction to air law, p. 4.

\(^{36}\) Diederiks-Verschoor: An Introduction to air law, p. 4.

\(^{37}\) Dempsey: Public international air law, p. 7.

\(^{38}\) Diederiks-Verschoor: An Introduction to air law, p. 4.

\(^{39}\) Wallace and Martin-Ortega: International law, p. 113.

\(^{40}\) Freer: “An aborted take-off for internationalism – 1903 to 1919”, p. 25.

\(^{41}\) Zylicz: International Air Transport Law, p. 58.

\(^{42}\) The Chicago Convention, article 1. The Chicago Convention recognises the exclusive sovereignty of all states over their airspace regardless of whether or not they are parties of the Convention. Three criteria characterise a sovereign state: a territory, a population living there and government exercising authority over them. Sovereignty refers to the exclusive right to complete political (i.e. legislative, judicial and executive) control and decision by the state over its territory and the airspace above it. In that respect, states have the right to decide whether and under which conditions someone will operate in their airspace. See: Wallace and Martin-Ortega: International Law, p. 64.
international law and was crystallised in the 1919 Paris Convention. Nevertheless, the height limit of the airspace in relation to outer space is yet to be established.

According to articles 5 and 6 of the 1944 Chicago Convention states, retain exclusive control of the air above their territories. No scheduled international air service may be operated over or into the territory of a contracting state, except with the special permission or other authorisation of that state, and in accordance with the terms of such permission or authorization. Furthermore, all aircraft flying over or manoeuvring within the territory of another state shall comply with the rules and regulations relating to the flight that are in force there. Contracting states shall nevertheless keep their own regulations uniform to the greatest possible extent with those rules established under the Chicago Convention.

For the commercial aviation industry to operate effectively, it is necessary for states to grant the aircraft of other states the right to fly into and across their territory for both traffic and non-traffic purposes. Based on those grounds, the Chicago Convention attached great importance to the question of the exchange of commercial rights in international civil aviation. It was not possible to reach an agreement satisfactory to all the original states as some individual states demanded to retain territorial rights over their airspace. In order to make the Convention work, the conference set up two supplementary agreements: the International Air Services Transit Agreement, and the International Air Transport Agreement. The former permits aircraft of a signatory state to fly over, or land for technical reasons, in the territory of another signatory state. The latter allows the carriage of traffic between the state of registration of an aircraft and another signatory state. These two agreements, which are annexed to the Chicago Convention, establish ‘the five freedoms of the air’. According to the five freedoms:

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44 Various definitions of the upper limit have been proposed in the past referring to the height of buildings, the range of weapons, the altitude in which a man is able to survive, the flight ceiling of aircraft or the point of equilibrium between the earth and other planets. These definitions were never considered precise enough. See: Zylicz: International Air Transport Law, p. 59-60.
45 Aircraft have been shot down number of times as they have entered the airspace of a foreign country without permission. There is no established rule in international law on how states should respond to the appearance of an unauthorized civil aircraft in their airspace. Article 3 bis of the Chicago Convention states that the use of weapons against civil aircraft in flight is prohibited. This is recognised as a customary rule in international law. It is certain that the international community does not accept death or injury to innocent air passengers in relation to violation of air sovereignty. See Wallace and Martin-Ortega: International Law, p. 116.
46 The Chicago Convention, article 12.
47 Jeppesen: Air law. JAA ATPL Training, p. 2-1.
1. A civil aircraft of one country has the right to fly over the territory of another country without landing;
2. A civil aircraft of one country has the right to land in another country for technical reasons, such as refuelling or maintenance, without offering any commercial service to or from that point;
3. An airline has the right to carry traffic from its country of registry to another country;
4. An airline has the right to carry traffic from another country to its own country of registry;
5. An airline has the right to carry traffic between two countries outside its own country of registry so long as the flight originates or terminates in its own country of registry.

Since the Chicago Convention was signed several other freedoms have been added.\textsuperscript{50} The five freedoms have become extremely important in the legal environment of international air transportation. However, the freedoms have not been widely adopted and as a result it has prompted the regulation of international scheduled flights through a network of bilateral and multilateral agreements.\textsuperscript{51} The bilateral air service agreements call for substantial government intervention. They permit states to be selective in which states they enter into agreements with and therefore give them the opportunity to control market access and protect their flag-carriers against the international air traffic market to, from and through their territory.\textsuperscript{52}

The air transport industry has also established more liberalised agreements, so-called ‘open skies’ agreements. Open skies agreements allow unrestricted service by the airlines of each country to, from and beyond the other’s territory.\textsuperscript{53} They allow the market, instead of governments, to decide what happens in international aviation markets. Open skies agreements also help expand the overall market for aviation and produce enormous benefits for passengers in the form of better, lower-priced and more competitive service.\textsuperscript{54} After the end of the Cold War in 1991 liberalisation of traffic rights has made the skies more open. The range of aircraft technology and the growth in international markets has also called for reduced restrictions and increased freedoms.\textsuperscript{55}

\textsuperscript{50} Dempsey: \textit{Public international air law}, p. 38.
\textsuperscript{51} Wallace and Martin-Ortega: \textit{International law}, p. 114.
\textsuperscript{52} Havel: \textit{Beyond open skies: a new regime for international aviation}, p. 4.
\textsuperscript{54} Bartlik: \textit{The impact of EU law on the regulation of international air transportation}, p. 44.
\textsuperscript{55} Dempsey: \textit{Public international air law}, p. 36.
2.4 Organisation of air traffic management

Technical progress in the aviation industry has been fast and aircraft fly increasingly faster and farther. As traffic increased it became necessary to manage the airspace and to allocate air-routes and assist pilots in staying on their routes safely without risking collision with other aircraft and terrain. In order to maintain adequate separation between aircraft so as to keep passengers safe, both on board aircraft and on the ground, states have put in place so-called air traffic management (ATM) systems.\textsuperscript{56} The term ‘air traffic management’ is generally accepted as covering all the activities involved in ensuring the safe and orderly flow of air traffic, both on the ground and in the air.\textsuperscript{57}

Air traffic management is one of the five main parts that together form the concept of air navigation services (ANS), which are provided to air traffic during all phases of operation.\textsuperscript{58} The following figure shows the standard definitions for air navigation services and its component services.\textsuperscript{59}

The term ‘air navigation services’ was only mentioned in the Chicago Convention by its full name, but not defined. However, it has been used as a term comprising all main air

\textsuperscript{56} Dempsey: \textit{Public international air law}, p. 165.
\textsuperscript{57} White paper on air traffic management - \textit{F freeing Europe’s airspace COM(96) 57 final}, p. 3.
\textsuperscript{58} The impact of fragmentation in European ATM/CNS. EUROCONTROL, p. 5.
navigation services. It includes five broad categories of facilities and services demonstrated in
the figure above, i.e. communication, navigation and surveillance services (CNS), air traffic
management (ATM), meteorological services for air navigation (MET), aeronautical
information services (AIS) and search and rescue (SAR).

The air traffic management pillar falls into three sub-groups. The first sub-group is air
traffic services (ATS), which covers three very important services. The first one is alerting
service, a service notifying the appropriate organisations in the event aircraft are in need of
search and rescue aid. The second service is flight information service (FIS), providing advice
and information regarding safe and efficient conduct of flights. The third service ATS covers
is the air traffic control service (ATC). The ATC unit executes both the alerting service and
the flight information service. The ATC’s primary task is to maintain sufficient separation
between aircraft and between aircraft and potential obstructions on the ground in order to
avoid collisions. In addition, the ATC’s purpose is to expedite and maintain orderly flow of
air traffic. Air traffic control services are subdivided in three service categories: aerodrome
control service, responsible for controlling air traffic on the ground and in the close proximity
of an airport, approach control service, responsible for the control of arriving and departing
flights, and area control service, responsible for the control of en-route flights. The service is
provided by air traffic controllers working at airports for the arrival and departure flight
phases and in air traffic control centres for the en-route flight phase.

Finally, under air
traffic management we also have air traffic flow management (ATFM) and airspace
management (ASM), supporting ATC as a planning tool to regulate the flow of aircraft as
efficiently as possible in order to avoid the congestion of certain control sectors. This is done
by staggering the demand over time and space in order to have an optimum flow of air traffic
to or through areas during periods when demand exceeds or is expected to exceed, the
available capacity of the ATC system.

Scheduling of flights by route and timing is essential for a successful commercial
operation. Within a state, scheduled operations are a matter for the authority of that state,
whereas international scheduled operations require uninterrupted provision of air traffic
control services across state boundaries. This calls for close cooperation between the
authorities of the states concerned based on international agreement negotiated at government

60 ICAO’s Policies on Charges for Airports and Air Navigation Services. ICAO, p. 27.
61 Annex 11 to the Chicago Convention on Air Traffic Services, chapters 3 (air traffic control services), 4 (flight
information service) and 5 (alerting service).
62 Commission Regulation (EU) No 255/2010 laying down common rules on air traffic flow management,
level. Scheduled operations are subject to international agreement for repetitive operations, whereas in non-scheduled operations each flight is individually approved. In some cases two or more countries have used regional organisation to provide some of the air traffic services. In Europe for example, EUROCONTROL’s control centre at Maastricht has provided air traffic control for the upper airspace of the Benelux countries and Northern Germany under specific agreements between EUROCONTROL and the states concerned. EUROCONTROL also provides air traffic flow management over nearly all of Europe.

3 International organisations involved in the regulation of European air navigation services: law-making powers and enforcement mechanism

3.1 Introduction

From the beginning, aviation has been international in scope. Air law has evolved and grown along with the aviation industry. Today, there is a wide-ranging collection of international conventions, treaties, and agreements, as well as a highly developed body of domestic law having international application that governs air transport. They affect different parties such as air carriers, air navigation service providers, airports authorities, national aviation authorities, international organisations and manufacturers of aircraft and various systems. This list is not exhaustive. To ensure a safe, timely and cost-efficient aviation system, these parties have to work in perfect harmony with each other.

Each sovereign state has its national air traffic management regulatory framework. At a global level, the provision of air traffic management is governed by the 1944 Chicago Convention and the International Civil Aviation Organisation (ICAO). At regional level in Europe, air traffic management regulatory framework has been established by the European Union and through joint efforts of the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the European Civil Aviation Conference (ECAC) states. Besides these governmental organisations, private organisations such as the International Air Transport Association (IATA) are also able to have significant influence. The purpose, powers and possible enforcement competences of these organisations are explained in the following section.

64 White paper on air traffic management - Freeing Europe’s airspace COM(96) 57 final, p. 4.
65 Dempsey: Public international air law, p. xiii.
66 Dempsey: Public international air law, p. xiii.
3.2 The International Civil Aviation Organisation (ICAO)

Fifty-four nations attended the International Civil Aviation Conference in Chicago in 1944. The product of the conference was the Chicago Convention representing the foundation of civil aviation. The preamble of the Convention gives the main reasons of its existence highlighting that the abuse of international civil aviation can become a threat to general security. Accordingly, it emphasises the desire to promote cooperation between nations in order for international civil aviation to be developed in a safe and orderly manner. It also states that international air transport services should be established on the basis of equal opportunity and operated soundly and economically.\(^67\)

The Chicago Convention has two principal functions; it is a source of international air law as well as being the ‘constitution’ of an international organisation. Article 43 of the Chicago Convention establishes the International Civil Aviation Organisation (ICAO).\(^68\) The aims and objectives of the Organisation, as provided in article 44 of the Convention, are inter alia development of the principles and techniques of international air navigation and fostering the planning and development of international air transport. The Organisation should furthermore ensure safe and orderly growth of international civil aviation throughout the world, encourage the development of airways, airports, and air navigation facilities for international civil aviation. The Organisation aims to meet the needs of the world population for safe, regular, efficient and economical air transport and to promote safety of flight in international air navigation.

ICAO is vested with both quasi-legislative power, with its ability to adopt so-called ‘International Standards and Recommended Practices’ (SARPs), and quasi-judicial power, with its ability to settle disputes arising under the Chicago Convention.\(^69\) The ICAO SARPs are provided for in the eighteen annexes of the Chicago Convention. They are intended to harmonise safety and navigation in air transportation and ICAO has been urged by its member states to monitor and report compliance and noncompliance with these rules. It is every state’s discretionary right to implement the Standards and Recommended Practices in their national legislation. If a member state finds it impractical to comply in all respects with any such

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\(^67\) Preamble of the Chicago Convention.

\(^68\) Dempsey: *Public international air law*, p. 41.

\(^69\) Besides SARPs, ICAO also issues other recommended procedures and guiding material. Since the Chicago Convention was signed, the ICAO Council has adopted 18 annexes addressing the most important fields of air law. The annexes are, however, not self-executing and depend upon the member states to incorporate them into national law. See: Dempsey: *Public international air law*, p. 51.
international standard or procedure, it shall give immediate notification to ICAO of the differences between its own practice and that established by the international standard.\textsuperscript{70}

Despite being a central regulator for international aviation, ICAO lacks supra-national enforcement powers.\textsuperscript{71} The Chicago Convention does not identify any sanctions which are to be adopted against offending contracting parties, and states are left to take whatever measures they see fit. Measures that states have used include denying aircraft from certain states landing rights and not flying to states of offending countries.\textsuperscript{72} The United States and the European Union have blacklisted noncompliant airlines and nations, thereby making the enforcement of conventions and agreements a reality.\textsuperscript{73}

ICAO has been the forum for negotiation of most of the world’s major multilateral aviation conventions in areas such as carrier liability and aviation security, hijacking and terrorism.\textsuperscript{74} ICAO has also created a leading global framework for the operation of air navigation services, a framework which is relevant for this thesis. ICAO’s entire structure of air navigation services has been widely acknowledged and implemented throughout the world.\textsuperscript{75}

In 1946, ICAO became a specialised agency of the United Nations.\textsuperscript{76} Under provisions of article 65 of the Chicago Convention the ICAO Council may enter into agreements with other international bodies for the maintenance of common services and for common arrangements. Accordingly, ICAO has established collaboration with numerous international bodies, both governmental and non-governmental.\textsuperscript{77}

In the light of the EU’s ever-increasing competence in the field of aviation it is interesting to note that even though all the EU member states are also members of ICAO, the Union itself is not a contracting party. The reason is that, although article 65 of the Chicago Convention allows for ICAO to enter into agreements with international bodies, membership is only open

\textsuperscript{70} This procedure of notification is required for standards, but not for the recommended practices. See the Chicago Convention, article 38.

\textsuperscript{71} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 41.

\textsuperscript{72} Wallace and Martin-Ortega: International law, p. 117.

\textsuperscript{73} Dempsey: Public international air law, p. 52. Lists of airlines banned within the EU are updated regularly and published in the Official Journal of the European Union. See: http://ec.europa.eu/transport/air-ban/list_en.htm.

\textsuperscript{74} Dempsey: Public international air law, p. 9.

\textsuperscript{75} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 27.

\textsuperscript{76} Protocol concerning the entry into force of the Agreement between the United Nations and International Civil Aviation Organisation, [1947] 8 UNTS 315. Article 57 of the Charter of the United Nations ([1945] 1 UNTS XVI) provides for specialised agencies established by inter-governmental agreement and have wide international responsibilities to be brought into relationship with the United Nations.

\textsuperscript{77} For example the International Air Transport Association (IATA) and the International Federation of Air Line Pilots Associations (IFALPA).
to states. Therefore, membership of regional organisations, such as the European Union, would require an amendment of the Chicago Convention. However, the EU has an observer status within ICAO and is invited attend all suitable ICAO meetings. In September 2005, the European Commission established an office in Montreal and appointed its special representative to ICAO.

3.3 The European Civil Aviation Conference (ECAC)

The European Civil Aviation Conference (ECAC) is an intergovernmental organisation created in 1954 at an ICAO conference on the co-ordination of air transport in Europe. Its objective is to promote the continued development of a safe, efficient and sustainable air transport system in Europe and to promote understanding on policy matters between its member states and other parts of the world. The ECAC has continuously been looking for arrangements that are best suited to ensure ongoing implementation of measures that increase airspace capacity and reduce delays at the same time as they maintain high levels of safety in European airspace. However, the ECAC does not have rule-making or enforcement powers. The functions of the Conference are only consultative and its resolutions, recommendations and other conclusions are subjected to the approval of governments. The organisation has nevertheless played an important role in the development of a strategy for air traffic management in Europe. For example it has played an important role in the development of EUROCONTROL.

The ECAC has its own ‘constitution’ and membership is open for all European states. With its current 44 member states it is the largest grouping of any European organisation dealing with civil aviation. The ECAC shall maintain a close relationship with ICAO in order to further the aims and objectives of the Chicago Convention.

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78 The Chicago Convention, article 92.
81 The ECAC Constitution, article 1(3).
82 Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 43.
83 Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 88.
84 Albania, Armenia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom.
86 The ECAC Constitution, articles 2 and 3.
3.4 The European Organisation for the Safety of Air Navigation (EUROCONTROL)

When jet aircraft were first introduced for commercial aviation, several European states realised that their air traffic management systems could no longer meet the changing demand of airspace users. Jet aircraft operated in the upper airspace and states normally did not have adequate equipment to provide navigation service in this portion of the airspace. The high airspeed of jet aircraft also placed an increased burden on national air navigation service providers as they had to transfer the control over to neighbouring states at a much swifter pace. The ground navigation system in place did not allow for such efficient transfer. With the growth of air traffic in mind, states realised that continuation of air navigation service on the same basis would ultimately jeopardise the safe, orderly and expeditious flow of air traffic.\(^87\)

Faced with these operational problems, six European states came up with the idea to create a common organisation of air traffic control services in a single upper airspace.\(^88\) In 1960, these six states ratified the International Convention Relating to Co-operation for the Safety of Air Navigation (the EUROCONTROL Convention), establishing the European Organisation for the Safety of Air Navigation (EUROCONTROL).\(^89\)

The EUROCONTROL Convention, in its original form, provided for the transfer of sovereign rights of member states in the field of air traffic control services. The provision of air traffic control services being provided by EUROCONTROL equalled the execution of certain sovereign rights of member states. These rights were transferred to EUROCONTROL regarding the upper airspace and EUROCONTROL did therefore become a supra-national organisation with sovereign rights.\(^90\) This idea however never came fully to life as some of the member states found that this represented unacceptable transfer of sovereignty. They therefore refused to entrust EUROCONTROL with the provision of air traffic control services in the upper airspace. As a result, the main goal of the EUROCONTROL Convention was not achieved and air traffic control services continued to be provided by national authorities. As this was in contradiction with the original idea, the convention had to be amended by the so-called Amended Convention, which entered into force in 1986.\(^91\)

In 1997, the Protocol consolidating the EUROCONTROL Convention was signed by the member states for the purpose of covering the needs of all stakeholders and in order to avoid

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87 Antwerpen: *Cross-Border Provision of Air Navigation Services with Specific Reference to Europe*, p. 44.
88 These states were Belgium, Luxemburg, the Kingdom of Netherlands, Germany, France and the United Kingdom. See: Schwenk: *Aspects of International Cooperation in Air Traffic Management*, p. 32.
any overlapping and unnecessary duplication of work in Europe.\textsuperscript{92} This protocol is usually referred to as the Revised Convention. The Revised Convention extends the competences of EUROCONTROL to all aspects of air traffic management and authorises EUROCONTROL to adopt measures which are binding on the member states. This provides the organisation with more efficient decision-making mechanisms, thereby reinforcing the disciplines of its member states.\textsuperscript{93} Similar to the regulatory framework for the ICAO Standards and Recommended Practices under the Chicago Convention, the Revised Convention offers the possibility to opt out from adopting certain EUROCONTROL measures. This is possible only if national defence and security interests prevent the member state from adopting the EUROCONTROL measures. The member state must give an explanation for the reasons for such deviation.\textsuperscript{94}

In terms of enforcement, EUROCONTROL is able to trigger a dispute mechanism in a way that disputes between member states, or between the EUROCONTROL and its member states, can be subject to arbitration. This opens the possibility for forms of regulatory enforcement against inactive members or members that are unwilling to implement or exercise regulatory obligations based on the decisions of EUROCONTROL.\textsuperscript{95}

When signing the Revised Convention, those member states that were also members of the European Community incorporated a statement in the Revised Convention. The statement said that their signature to the Convention would be without prejudice to the European Community’s exclusive competence on certain areas covered by the Revised Convention. This was done in order to avoid infringement of their treaty obligations under the EC Treaty.\textsuperscript{96} The statement given by the EC member states conforms with previous communications by the European Commission acknowledging that EC member states could not transfer powers to EUROCONTROL that they had previously transferred to the European Community.\textsuperscript{97}

As some of the aspects of the Revised Convention were under the competence of the European Community, it was necessary for the EC to become a member of EUROCONTROL.\textsuperscript{98} This happened in October 2002, when the European Community and its


\textsuperscript{93} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 51.

\textsuperscript{94} The Revised Convention, articles 8(4) and 9.

\textsuperscript{95} The Revised Convention, article 34.

\textsuperscript{96} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 72.

\textsuperscript{97} Action programme on the creation of the single European sky and proposal for a Regulation of the European Parliament and of the Council laying down the framework for the creation of the single European sky COM(2001) 123 final/2, p. 6.

\textsuperscript{98} Article 40 of the Revised Convention opened up for the accession and signature of the European Community.
member states signed a Protocol on the Accession of the European Community to the Revised EUROCONTROL Convention. The Accession Protocol defines the terms and conditions to what extent the EC (now the EU) can exercise particular competences within EUROCONTROL. The accession of the EC was thought to strengthen the organisation and give it added legal force which was considered necessary for the effective development of the single European sky initiative.

When the European Community acceded to EUROCONTROL some of its member states were not EUROCONTROL member states. The European Union, as an international organisation, has with the Accession Protocol promised to impose the treaty obligations under the Revised Convention on all of its member states. In order to prevent any problems rising out of this, the Union has urged all of its member states to become members of EUROCONTROL. Latvia joined EUROCONTROL on 1 January 2011 making Estonia the only EU member state not being a member of EUROCONTROL. The reasons for Estonia’s reluctance to join EUROCONTROL are not known. However, if Estonia would fail to comply with the obligations imposed by the EU in accordance to the Revised Convention, it could be considered as a breach of EU’s obligations towards EUROCONTROL and its member states. By its accession to EUROCONTROL the European Union has imposed obligations under the Revised Convention on its member states in its own legal order. Failure by Estonia to comply with these obligations could of course be sanctioned by the Union in its own legal order under the enforcement competences granted to it by its founding treaties.

The ratification process of the Revised Convention is still ongoing. Nevertheless, EUROCONTROL member states have agreed on the early implementation of some of the provisions contained in the Convention related to institutional changes and new tasks assigned. European Union membership is therefore currently being implemented on a provisional basis. Full membership will be realised when all the EUROCONTROL member

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101 Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 74-75.
102 Neither the European Commission nor EUROCONTROL could provide answers when contacted via e-mail in March 2011.
103 Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 75.
104 Germany, Austria, Belgium, Spain, Sweden and Turkey have not ratified the Revised Convention yet. Information received from Mr. Alain Cherry, legal assistant at EUROCONTROL’s Director General’s Office, on 13 April 2011.
106 Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 74-75.
states have ratified the Protocol on the accession of the European Community to the EUROCONTROL Convention.\textsuperscript{107} In 2003, EUROCONTROL and the European Community concluded a memorandum of cooperation to establish a framework of cooperation between the two organisations. The memorandum covers five areas of cooperation: implementation of the single European sky, research and development, data collection and analysis in the areas of air traffic and environmental statistics, satellite navigation and international cooperation in the field of aviation. The memorandum is not supposed to create any rights or obligations under international law but it defines, amongst others, the priority areas and forms of cooperation.\textsuperscript{108} If Iceland were to join the European Union it could probably no longer forgo EUROCONTROL, as the EU has urged all of its member states to become EUROCONTROL members.

Today, EUROCONTROL has legal personality with its seat in Brussels.\textsuperscript{109} It has pan-European membership, currently with 39 member states.\textsuperscript{110} Iceland is not a member of EUROCONTROL, partly due to high membership cost and also because Iceland’s air traffic management mostly takes place in the so-called North Atlantic airspace region (NAT), as defined by ICAO, and not in the European airspace region (EUR). The Icelandic Civil Aviation Authority has therefore not considered the benefit of being a member to add up against high membership fees.\textsuperscript{111}

The tasks of EUROCONTROL have evolved through the years, but the first goal of the organisation has persisted; the development of coordinated European air traffic management system for all airspace users.\textsuperscript{112} The organisation performs various tasks and responsibilities in the field of air traffic management including air traffic services, airspace management and air traffic flow management. The aim is to harmonise and integrate air navigation services in

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\textsuperscript{107} There are still 11 states that have not ratified the Accession Protocol of the European Community to EUROCONTROL. Those states are Germany, Austria, Belgium, Croatia, Spain, France, Greece, Monaco, Portugal, Sweden and Turkey. Information received from Mr. Alain Cherry, legal assistant at EUROCONTROL’s Director General’s Office, on 13 April 2011.


\textsuperscript{109} The Revised EUROCONTROL Convention, articles 1(3) and 4.

\textsuperscript{110} EUROCONTROL: “Member flags and adhesion dates”, http://www.eurocontrol.int/articles/member-flags-and-adhesion-dates.

\textsuperscript{111} According to information received from Mr. Pétur K Maack, Director General of the Icelandic Civil Aviation Administration, on 10 September 2010.

\textsuperscript{112} The Revised EUROCONTROL Convention, article 2.
the contracting states in order to achieve safe, orderly and more expeditious and efficient flow of traffic throughout Europe, while minimising adverse environmental impact.\textsuperscript{113}

Like ICAO, EUROCONTROL has been very important in bringing uniformity to the field of air navigation services.\textsuperscript{114} EUROCONTROL also plays a big role regarding both the regulatory and the technological dimensions of the single European sky, as will be explained in later chapters.

\section*{3.5 The European Union (EU)}

The EEC Treaty of 1957, often referred to as the Treaty of Rome, established the so-called European Economic Community.\textsuperscript{115} The aim was to promote a harmonious development of economic activities, a continuous and balanced expansion, increased stability, raise the standard of living and provide for a closer relationship between the member states.\textsuperscript{116} Next to the European Economic Community stood the European Atomic Energy Community (EURATOM) and the European Coal and Steel Community (ECSC).\textsuperscript{117} The ECSC ceased to exist in 2002.\textsuperscript{118}

The EEC Treaty was amended in 1986 by the Single European Act to give it new impetus in reaching its aims, the creation of a common market without any physical, technical or fiscal barrier.\textsuperscript{119} The European Economic Community had its name changed under the 1992 Treaty on the European Union to simply the ‘European Community’. Accordingly, the EEC Treaty became the EC Treaty.\textsuperscript{120}

Agreement on a European Union Constitution was secured at a European Council meeting in June 2004. However, the Treaty establishing the Constitution of Europe,\textsuperscript{121} failed to enter into force due to opposition of a number of member states.\textsuperscript{122} Consequently, the European Council decided in June 2007 to approve the mandate to draft a new ‘Reform Treaty’. The Reform Treaty was to shed the form, language and symbols of a European Constitution. It was also meant to preserve as many as possible of the technical reforms proposed under the Treaty establishing the Constitution, intended to improve the effectiveness, efficiency and

\begin{itemize}
\item \textsuperscript{113} The Revised EUROCONTROL Convention, preamble.
\item \textsuperscript{114} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 88.
\item \textsuperscript{115} Treaty Establishing the European Economic Community (the EEC Treaty), [1957] 298 UNTS 3.
\item \textsuperscript{116} The EEC Treaty, article 2.
\item \textsuperscript{117} Treaty Establishing the European Coal and Steel Community (the ESCS Treaty), [1951] 261 UNTS 140.
\item \textsuperscript{118} Treaty Establishing the European Atomic Energy Community (the Eurotom Treaty), [1957] 298 UNTS 167.
\item \textsuperscript{119} Craig and De Búrca: EU law: text, cases and materials, p. 1.
\item \textsuperscript{120} Single European Act, [1986] OJ L 169.
\item \textsuperscript{121} Treaty on the European Union (the Maastricht Treaty), [1992] OJ C 191.
\item \textsuperscript{122} Craig: “The Treaty of Lisbon: process, architecture and substance”, p. 138.
\end{itemize}
accountability of the EU.\textsuperscript{123} The Reform Treaty was signed by the member states in Lisbon on 13 December 2007 and entered into force in December 2009.\textsuperscript{124} The name was accordingly changed into ‘the Treaty of Lisbon’, in recognition of the place of signature.\textsuperscript{125}

With the Lisbon Treaty, the EC Treaty becomes the Treaty on the Functioning of the European Union (TFEU).\textsuperscript{126} The Treaty on the European Union (TEU) retains its name but articles are renumbered and new ones have been added.\textsuperscript{127} The two Treaties thus now serve the same political entity: the European Union.\textsuperscript{128}

Just like the international organisations previously discussed, the creation of the European Union involved delegation of the exercise of particular national competencies by states to the international organisation. Nevertheless, as the European Court of Justice has confirmed, the former EC Treaty, was more than an agreement which merely created mutual obligations between contracting states. It introduced a new legal order of international law creating rights and obligations for both member states and individuals.\textsuperscript{129} The EU member states have created a community of unlimited duration with its own institutions, its own personality, its own legal capacity and capacity of representation on the international field and, in particular, with real powers stemming from the limitation of sovereignty or transfer of powers from the member states to the European Union. The EU member states have limited the sovereign rights within certain fields and have thus created a body of law which binds both their nationals and themselves.\textsuperscript{130}

If a member state of the European Union fails to fulfil its obligations under EU law the Treaties provides for enforcement procedures to pursue such failure. If the European Commission considers that an EU member state has failed to fulfil its obligations under the Treaties it shall give the state concerned the opportunity to submit its observation. This may result in the Commission delivering a reasoned opinion on the matter, directed towards that state. If the state does not comply with the opinion within the period laid down, the Commission is entitled to bring the matter before the European Court of Justice.\textsuperscript{131}

\begin{thebibliography}{99}
\bibitem{125} Craig: “The Treaty of Lisbon: process, architecture and substance”, p. 137.
\bibitem{129} ECJ, Case 26/62, NV Algemene Transport- en Expeditie Onderneming van Gend & Loos v Netherlands Inland Revenue Administration (Van Gend en Loos) [1963] ECR 1, at 12.
\bibitem{130} ECJ, Case 6/64, Flaminio Costa v E.N.E.L. (Costa v. Enel) [1964] ECR 585.
\bibitem{131} TFEU, article 258.
\end{thebibliography}
If a member state considers another member state to have failed to fulfil an obligation under the Treaties it may bring the matter before the European Court of Justice. Before a member state brings an action against another member state for an alleged infringement of a Treaty obligation, it shall bring the matter before the European Commission. The Commission gives each of the states concerned an opportunity to submit its own case and comments on the other party’s case. After this the Commission delivers a reasoned opinion. If the dispute is not solved by this, the matter it may eventually be brought before the European Court of Justice.\footnote{TFEU, article 259.} A member state may also be challenged by individuals for harm suffered due to an infringement of Union law.\footnote{See for example the joined ECJ cases 46/93 and 48/93 \textit{Brasserie du Pêcheur SA v Germany and the Queen v Secretary of State for Transport, ex parte Factortame Ltd and Others (Factortame)} [1996] ECR I-1029.}

Most cases are settled on the pre-litigation level and do not end up before the European Court of Justice.\footnote{Tobler and Beglinger: \textit{Essential EU law in charts}, p. 304.}

\section{3.6 The International Air Transport Association (IATA)}

In addition to these above mentioned governmental organisations, there are also non-governmental international organisations fulfilling particular roles in air traffic management and representing the interests of particular groups involved in aviation. Among them is the International Air Transport Association (IATA), representing airlines around the world. It was founded in 1945, intended for inter-airline cooperation in promoting safe, reliable, secure and cost efficient air service. Its members consist of 230 airlines from 126 states, including the world’s leading airlines, representing 93 percent of scheduled international air traffic.\footnote{International Air Transport Association: \textit{“The founding of IATA”}, http://www.iata.org/about/Pages/history.aspx.}

Airlines require the highest standards in air navigation, airport infrastructure and flight operations. Therefore, the most important tasks of IATA during its earliest days were to provide input for the work of ICAO, as that organisation drafted its Standards and Recommended Practices.\footnote{International Air Transport Association: \textit{“Early Days”}, http://www.iata.org/about/Pages/history_2.aspx.}

With its strong relations with governments involved in aviation matters, IATA has significant influence on international level. The areas of its particular interest are airport planning and development projects worldwide aiming to meet airline requirements for safety
and efficiency. IATA also provides for cooperation on a global level with airlines, airports and air navigation service providers to promote fair pricing policies.\textsuperscript{137}

3.7 Conclusions
This chapter has explained how European states have delegated the exercise of national competencies in the field of air navigation services to number of different organisations. The regulation of air navigation services in Europe is therefore no longer within the exclusive domain of the states.

The International Civil Aviation Organisation (ICAO), from a global level, has rule-making competences but relies on individual states for national implementation. As is typical for an international organisation, ICAO has no enforcement mechanism in place. Along with ICAO, three European bodies also take part in regulating the air transport sector of European states. The European Civil Aviation Conference (ECAC) has neither rule-making nor enforcement competences. Its functions are only consultative and the resolutions, recommendations and other conclusions that it issues remain subject to the approval and implementation by states. This is different from EUROCONTROL and the European Union where the respective member states have, to a certain extent, limited the national competences as far as air navigation services is concerned. EUROCONTROL has been afforded with rule-making competences on the basis of the Revised Convention. Nevertheless, EUROCONTROL member states have the opportunity to opt out from the mandatory application of those rules provided that they are able to give an explanation for their deviation. Unlike ICAO, EUROCONTROL does not need to depend on its member states to take enforcement measures. The Revised Convention provides for an enforcement mechanism by way of arbitration that can be triggered by the states as well as EUROCONTROL itself. The possibility for member states to opt out from regulatory measures, even though a good reason is needed, leads to the result that EUROCONTROL cannot be considered as a supra-national organisation.

Of the organisations discussed, the European Union is the most developed with regards to international law. The EU has rule-making powers and can limit national competences of its member states in certain areas. The EU also has a mechanism in place that can force its member states to obey a decision of the Union, even if these are adopted against the will of

\textsuperscript{137} McLean: *Shawcross and Beaumont air law*, p. II-53.
some member states. Taking account of these powers attributed to it by the member states, the EU can be considered to be a great example of a supra-national organisation.

The next chapter will further discuss the competences of the European Union to enact legislation in the area of air transport and air traffic management.

4 Competences of the European Union: legal basis behind EU’s involvement in the regulation of air transport

4.1 Introduction

The European Union institutions can use different type of instruments when developing the Union policy. Principally, the legal tools are regulations, directives and decisions. These instruments can also be used in conjunction with each other. In addition, the institutions can use numerous soft law measures and other legal and policy instruments in order to reach goals in particular areas. The basic principle prevails that the EU may only act within the framework of the competences given to it by the member states. Therefore, it must always have a legal basis within the Treaties for every legal act it adopts. In other words, it must always be possible to point to a treaty provision, or to another legal act based on a treaty provision, which provides a legal basis. If no such basis exists the act will be annulled for lack of competence.

When drafting the EEC Treaty of 1957, the authors probably intended the Community to have relatively limited treaty-making powers. The member states originally adopted a restrictive interpretation of these powers and even tried to deny the European Community some powers which it undeniably possessed. However, the Commission fought back by resorting to legal action, counting on the ECJ for support. The result was that the ECJ extended the powers of the Community and reduced those of the member states.

The powers set out to the Community in the EEC Treaty were greatly extended by the Single European Act from 1986, the Treaty on European Union from 1992, and the Treaty of Amsterdam from 1997. The European Court of Justice has also interpreted the Community’s legislative competences broadly through recognition of the implied-power doctrine, saying that the Community has not only the powers expressly laid down in the

138 TFEU, article 288.
139 Craig and De Búrca: EU law: text, cases and materials, p. 88.
142 Hartley: The foundations of European Community law, p. 175. This is also evident from the case law discussed in chapter 3.4.
Treaty but also powers implied from express provisions.\textsuperscript{144} The Lisbon Treaty, however, finally offers a clearer and more precise delimitation of competences conferred on the European Union and definition of Union competences has for the first time been incorporated into treaty provisions.\textsuperscript{145}

It is a matter of EU law to determine which fields it governs, and what legal effect it has in those areas.\textsuperscript{146} These rule-making powers, or competences, have been divided into three different categories of competences: exclusive competence, shared competence and competence to take complementary, supporting or supplementary action. Competences are attributed to the EU in two ways. The normal way is via \textit{explicit} attribution when powers given to the EU are stated in legal provisions of the Treaties, which explicitly mention the areas concerned. The exceptional way is via \textit{implicit} attribution when the existence of certain powers, through the areas concerned, are not explicitly mentioned in the treaties but are recognised by the European Court of Justice through an extensive interpretation of legal provisions.\textsuperscript{147}

International air transport agreements have always been a matter that was dealt with through bilateral agreements between states. The creation of the European Community, and its continuous expansion in different fields, has raised the question whether the Community could or should involve itself in the regulation of international aviation.\textsuperscript{148}

In order to understand the competences of the European Union to enact legislation binding to the member states and possible conflicts or inter-relationship with other international organisations this chapter will provide an overview of EU’s rule-making powers. A special focus will be placed on the air transport sector and how the European Union has slowly been increasing its involvement in this field. With help from the European Court of Justice, EU has gained exclusive competence to negotiate ‘open skies’ air transport agreements on behalf its member states and with the single European sky initiative the Union has demonstrated its powers in the field of air traffic management. As matters of international aviation have always been closely linked to states’ sovereignty it is important to understand the legal basis behind EU’s actions in this field. This will be discussed in the following chapter.

\textsuperscript{144} Craig and De Búrca: \textit{EU law: text, cases and materials}, p. 101.
\textsuperscript{145} TFEU, article 2 and Protocol on the exercise of shared competence, annexed to the Treaty.
\textsuperscript{146} Chalmers, Hadjiemmanuil, Monti and Tomkins: \textit{European Union Law: Text and Materials}, p. 188.
\textsuperscript{147} Tobler and Beglinger: \textit{Essential EU law in charts}, p. 82.
\textsuperscript{148} Bartlik: \textit{The Impact of EU law on the regulation of international air transportation}, p. 11.
4.2 Categories of European Union competences

4.2.1 Principles of conferral, subsidiarity and proportionality

The operative provisions on competences are partly contained in the revised Treaty on European Union (TEU). According to article 5(1) TEU, the limits of Union competences are governed by the principle of conferral. Articles 4(1) and 5(2) TEU stress that competences which are not conferred upon the Union in the Treaties remain with the member states.

The Lisbon Treaty distinguishes between the mere existence of European Union competence and the use of such competence. When the EU has competence, the use of such competence is determined by the principles of subsidiarity and proportionality.\textsuperscript{149} Only in cases of non-exclusive EU competences does the principle of subsidiarity have to be observed.\textsuperscript{150} The relevant principles are stated in TEU articles 5(3) and 5(4), saying that the Union shall only act if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member states, either at central level or at regional and local level. The content and form of the Union action shall not exceed what is necessary to achieve the objectives of the Treaties. However, the most significant changes that the Lisbon Treaty brought in this field concern the way in which subsidiarity is to be better monitored and enforced within the Union.\textsuperscript{151}

A Protocol on the application of the principles of subsidiarity and proportionality is annexed to the Lisbon Treaty, significantly increasing the role of national parliaments. According to article 2 of the Protocol, the Commission must provide a detailed statement before proposing a legislative act. It shall also submit an annual report on the application of subsidiarity to the European Council, the European Parliament, the Council and to national parliaments.\textsuperscript{152} The Commission must notify the national parliaments of all its legislative proposals at the same time as the Union institutions themselves. Similar obligations apply to other Union institutions.\textsuperscript{153} National parliaments are then to ensure compliance with the principles of subsidiarity and proportionality in accordance with the procedure set out in the Protocol.\textsuperscript{154} The Protocol also implements a so-called ‘yellow card’ system, first proposed by the Lisbon Treaty. According to it, each national parliament has the power to object to any given legislative proposal by means of ‘reasoned opinion’, on the grounds that the legislation

\textsuperscript{149} TEU, article 5(1).
\textsuperscript{150} Tobler and Beglinger: Essential EU Law in Charts, p. 84.
\textsuperscript{152} Protocol on the application of the principles of subsidiarity and proportionality, article 9.
\textsuperscript{153} Protocol on the application of the principles of subsidiarity and proportionality, article 4.
\textsuperscript{154} TEU, article 5(3) and Protocol on the application of the principles of subsidiarity and proportionality, article 6.
infringes the principle of subsidiarity. The EU institutions are obligated to consider all such opinions. If a certain number of national parliaments object, the draft legislation must be formally reviewed.155

4.2.2  Exclusive Union competences

Where the EU has exclusive competence to legislate, the mere existence of such competence is sufficient to prevent member state laws. Determining the scope of the Union’s exclusive competence is not an easy task and different scholars have argued for both broad and narrow construction of the term.156 The Commission has taken the view that an area falls within the exclusive competence of the EU if the Treaties impose on the Union a duty to act, so that it has sole responsibility for the performance of a particular task.157 ECJ agreed with the Commission on this in the AETR judgment, saying that the existence of Community powers excludes the possibility of concurrent powers on the part of the member states.158

Article 2(1) TFEU establishes the category of exclusive competence. When competence is exclusive, only the EU can legislate and adopt legally binding acts unless the member states are empowered to do so by the Union or if they are implementing EU acts. The subject matters that fall within exclusive competence are found in article 3 TFEU.

Areas that fall within the Union’s exclusive competence are limited and relatively few. There may, nonetheless, be difficulties with categorisation in relation to exclusive and shared competence, e.g. regarding cases that fall either under the custom union, where competence is exclusive, or the internal market, that generally falls under shared competence.159 The scope of EU’s exclusive competence in relation to external matters, namely the conclusion of international agreements, is even more problematic. The complexity of the exclusive external competence will be examined in more detail in chapter 4.3.160

4.2.3  Shared competences as between the Union and the member states

In areas where the Union shares competences with its member states, both the member states and the Union may legislate and adopt legally binding acts. However, the member states may

155 The Protocol on the application of the principles of subsidiarity and proportionality, articles 6 and 7.
156 Craig and De Búrca: EU law: text, cases and materials, p. 101.
157 Report to the European Council on the application of the subsidiarity principle 1994 COM(94) 533 final, p. 3.
158 ECJ, Case 22/70 Commission v. Council (AETR) [1971] ECR 263. The AETR judgement is discussed in detail in chapter 3.3.2.
only exercise their power to the extent that the EU has not done so.\textsuperscript{161} Insofar as the field is occupied by EU law, the member states have lost their competence to legislate. So, where the EU has shared competence with the member states, its rule-making power must actually have been exercised in order for member state laws to be prevented. Union action, therefore, supersedes member state competence. The consequence is that the amount of shared power held by the member states in relevant areas will diminish over time, unless the EU decides not to exercise its competence within a specific area.\textsuperscript{162} Due to member states concerns, as to the possible pre-emptive impact of article 2(2) TFEU, a Protocol on the exercise of shared competence was annexed to the Lisbon Treaty. It provides that in areas of shared competence where the EU has taken action, the scope of its exercised power only covers the elements governed by the act in question but not the whole area.\textsuperscript{163} Despite the Protocol it is still possible for an EU act to cover the entire area subject to shared powers as long as the Union is able to do so under the relevant Treaty provisions.

There are different ways in which the EU can intervene in certain areas. It may choose to make uniform regulation, it may harmonise national laws, it may introduce minimum harmonisation, or it may impose requirements of mutual recognition. The scope of EU competence is determined by the treaty provisions relating to each area.\textsuperscript{164} The fact that EU competence is shared, in different areas and different ways, makes the task of ‘limiting’ or ‘defining’ the competences even more problematic.\textsuperscript{165}

The categories of shared competence are listed in article 4 TFEU, among them being the area of transport.

\textbf{4.2.4 Supporting, coordinating or supplementing competences of the Union}

This category of competence allows the EU to take action to support, co-ordinate or supplement the actions of the member states, without superseding their competence in these areas.\textsuperscript{166} The areas that fall within such competence are set out in article 6 TFEU.

The meaning of supporting, co-ordinating and supplementing action and the precise extent of EU power, varies in the different areas listed. It is, nevertheless, clear that even though the Union cannot harmonise the law in these areas it has significant power.\textsuperscript{167}

\textsuperscript{161} TFEU, article 2(2).
\textsuperscript{162} This is dealt with in Declaration 18, relating to the delimitation of competences, annexed to the Treaty of Lisbon.
\textsuperscript{163} Sole article of the Protocol on the exercise of shared competence, annexed to the Treaty of Lisbon.
\textsuperscript{164} Craig: “The Treaty of Lisbon: process, architecture and substance”, p. 147.
\textsuperscript{165} Craig and De Búrca: \textit{EU law: text, cases and materials}, p. 107.
\textsuperscript{166} TFEU, article 2(5).
It is likely that there will be boundary problems between this category of competence and that of shared competence. For example, media regulation might fall under the internal market, which is shared power, or it might be regarded as falling within culture, where only supporting, co-ordinating or supplement action is allowed.\(^{168}\)

The following image shows which areas fall under exclusive Union competence, shared competences or competences to support, co-ordinate or supplement actions of the member states.

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\(^{167}\) See for example TFEU, article 167 on culture; article 168 on public health; and article 173 on industry.

4.3 External Union competence: the AETR and the ‘open skies’ judgements

4.3.1 General

With respect to the regulatory powers of the European Union, one needs to distinguish whether the EU adopts acts that are binding on the member states within the Union or if it concludes an international agreement with a non-EU country. Competences that allow the EU to adopt acts that are binding upon the member states are referred to as internal competences. Competences that enable Union institutions to conclude international agreements are referred to as external competence or treaty-making powers. In the EU system of external relations, the European Union co-exists with the member states. This can give rise to complex issues.\(^{169}\)

For a long time there were two rival theories regarding Community’s power to conclude international treaties. Some argued that the treaty-making power of the EC, namely its external competence, should reflect its internal competence. According to this, the Community should be considered to have not only those treaty-making powers expressly granted to it in the Treaty, but also regarding any topic falling under its internal law-making power. This may be justified on the basis of the doctrine of implied powers.\(^{170}\) According to the doctrine of implied powers, the EU enjoys powers in particular fields even though these fields are not explicitly mentioned in the Treaties.\(^{171}\) In the beginning, this theory was rejected by the member states. They said that the EC possessed only such external powers as were expressly granted to it by the Treaties. The member states also favoured a narrow interpretation of all provisions expressly granting treaty-making powers.\(^{172}\) The Commission fought back by resorting to legal action. Two important cases where this issue is dealt with will now be discussed.

4.3.2 The AETR judgement

The first case on the external competences of the European Community was the AETR case.\(^{173}\) It regarded the European Road Transport Agreement. Five of the then six EC member states and some other European countries signed the first AETR agreement in 1962. However, the agreement never entered into force. In 1967, negotiations started for a second AETR agreement. Then in 1969, the Council enacted a regulation within the internal competence of the Community, covering much of the same matters as the AETR agreement. The member

\(^{169}\) Cremona: *Developments in EU External Relations Law*, p. 18.


\(^{171}\) Tobler and Beglinger: *Essential EU Law in Charts*, p. 88.


\(^{173}\) ECJ, Case 22/70 Commission v Council (AETR) [1971] ECR 263.
states still wanted to regulate the subject on a wider basis and decided to continue with the AETR negotiations. The Council agreed that the negotiations would continue to be carried on by the member states. However, the Commission objected. The Commission felt that it should have a role to play since the subject matter of the negotiations had already been regulated internally on a Community basis. Therefore, it brought legal action against the Council to annul its decision to entrust the conduct of the negotiations to the member states.\(^{174}\)

The issue went to the European Court of Justice which stated that when the Community acted to implement an EC policy pursuant to the Treaty, the member states no longer had the right to take external action where this would affect the rules already established or distort their scope.\(^{175}\) However, since the negotiations resumed in 1967 were merely to make modifications on the first AETR agreement from 1962, the Council had not violated the Treaty in deciding that the negotiations could continue to be conducted by the member states.\(^{176}\) Thus technically, the Commission lost the case but in reality it did win a great victory regarding the scope of its exclusive external competence.\(^{177}\)

In a recent judgement, \textit{Commission v Greece} from 2007,\(^{178}\) the ECJ extends the scope of the AETR judgement to a unilateral act of a member state initiating a process which may lead to the adoption of new international rules, although those rules would not be directly binding on the Community.\(^{179}\) Greece had submitted a proposal to the International Maritime Organisation (IMO), requesting it to adopt tools to monitor compliance with international rules that had also been incorporated into Community legislation. The Commission took the view that Greece, by acting unilaterally on a matter within exclusive competence of the Community, had breached its obligations under the EC Treaty.\(^{180}\) The ECJ, basing itself \textit{inter alia} on the AETR principle, said that member states could not assume obligations, outside of the framework of the Community institutions, which might affect or alter the scope of Community rules.\(^{181}\) By setting in motion a procedure that is likely to affect Community legislation, Greece had infringed its obligations under the EC Treaty.\(^{182}\) The judgement,

\begin{itemize}
  \item \(^{174}\) Hartley: \textit{The Foundations of European Community Law}, p. 163.
  \item \(^{175}\) ECJ, Case 22/70, paragraph 17 of the Court’s reasoning.
  \item \(^{176}\) ECJ, Case 22/70, paragraphs 82-84 of the Court’s reasoning.
  \item \(^{177}\) Hartley: \textit{The Foundations of European Community Law}, p. 164.
  \item \(^{178}\) ECJ, Case C-45/07 \textit{Commission v Greece} [2009] ECR I-701.
  \item \(^{179}\) Cremona: “Extending the reach of the AETR principle: Comment on \textit{Commission v Greece} (C-45/07)”, p. 754.
  \item \(^{180}\) ECJ, Case C-45/07, paragraphs 14-18 of the Court’s reasoning.
  \item \(^{181}\) ECJ, Case C-45/07, paragraphs 17-18 of the Court’s reasoning.
  \item \(^{182}\) ECJ, Case C-45/07 paragraph 23 of the Court’s reasoning.
\end{itemize}
therefore, illustrates the fact that in cases of exclusive competence, the member states may only act through the Community.\footnote{Cremona: “Extending the reach of the AETR principle: Comment on Commission v Greece (C-45/07)”, p. 763.}

The case law of the ECJ has revealed that where the EU has exercised its powers internally, the Court is prepared to interpret broadly the circumstances in which this gives rise to exclusive external competence of for the EU.\footnote{See for example the cases 3, 4, and 6/76 Cornelis Kramer and others (North-East Atlantic Fisheries Convention case) [1976] ECR 1279, where the ECJ stated that the EC could possess implied external powers even though it had not taken internal measures to implement the relevant policy. However, until the EC duly exercised its internal power the member states retained competence to act, provided that their action was compatible with Community objectives. See also Opinion 1/94 Competence of the Community to Conclude International Agreements Concerning Services and the Protection of Intellectual Property (the WTO case) [1994] ECR I-5267, which concerned a group of multilateral trade agreements annexed to the Agreement Establishing the World Trade Organisation (WTO Agreement). There was controversy within the Community as to whether the competence to negotiate and conclude these agreements lay solely with the Community or if it fell under shared competence. The ECJ looked into each of these agreements and considered whether they fell under shared or exclusive competence. In its reasoning the Court said that where the Community has already adopted internal legislation in a relevant area, which could be affected by an international agreement, the Community’s power is exclusive (paragraphs 95 and 96 of the Court’s reasoning). The Court also emphasised that exclusive external competence was normally dependent on actual exercise of EC’s internal powers, not just their mere existence (paragraphs 77, 88-89 of the Court’s reasoning).} This can be seen from the Commission’s actions against a number of member states regarding ‘open skies’ agreements.\footnote{ECJ, cases C-467/98 Commission v Denmark [2002] ECR I-9519, C-468/98 Commission v Sweden [2002] ECR I-9575, C-469/98 Commission v Finland [2002] ECR I-9627, C-471/98 Commission v Belgium [2002] ECR I-9681, C-472/98 Commission v Luxembourg [2002] ECR I-9741, C-475/98 Commission v Austria [2002] ECR I-9797 and C-476/98 Commission v Germany [2002] ECR I-9855.}

4.3.3 The ‘open skies’ judgments

The United States open skies policy sparked the European Commission’s interest to secure a mandate to negotiate the Community’s external air transport relations on behalf of all the member states collectively.\footnote{See for example case C-476/98 Commission v Germany [2002] ECR I-9855, paragraphs 15-18.} It repeatedly sought to obtain such a mandate from the Council, taking the view that the conclusion of international air transport agreements fell within the scope of the commercial policy of the Community.\footnote{ECJ, Case C-476/98, paragraphs 23-25 of the Court’s reasoning.} The Council declined the request saying that the member states retained full powers in relations with third countries within the aviation sector.\footnote{B. Havel: Beyond Open Skies: A New Regime for International Aviation, p. 34.}

In 1992, the United States offered various European states the conclusion of open skies agreements, intended to create alliances between American and European airlines and offer free access to all routes in each other’s airspaces and unlimited traffic rights.\footnote{Article 80(2) EC empowered the Council to decide whether and to what extent provisions should be made for air transport.} The Commission still insisted it had exclusive external competence in the area and accordingly
brought action against seven EC member states that had concluded full open skies bilateral agreements with the United States. The Commission argued that the member states had infringed the treaty-making power of the EC, implied from previous case law, and thus they had infringed article 10 EC. The Commission also insisted that by concluding the bilateral open skies agreements these states had violated the principles of non-discrimination and freedom of movement enshrined in the EC Treaty.

The ECJ rejected the Commission’s primary argument seeking exclusive Community competence to negotiate bilateral air service agreements with third countries. The Commission had argued that EC aviation law had developed so substantially that the Commission should, in accordance with existing Court jurisprudence (most notably previously discussed AETR judgment), be granted exclusive competence over external aviation relation.

The ECJ, however, affirmed that Community’s competence to enter into international commitments may arise not only from express Treaty provisions but also from implications from provisions of the Treaty. It accepted that an implied external competence could exist not only whenever the internal competence has already been used in order to adopt measures for implementing common policies, but also if the internal measures are adopted only because of the conclusion of the international agreement. This was, however, subject to the limits articulated in the Opinion 1/94 (the WTO case): internal competence can only be exercised at the same time as external competence as long as the participation of the Community in the international agreement is necessary for attaining one of the Community’s objectives. The ECJ found that this rationale for exclusive external competence did not apply regarding the open skies agreements.

The ECJ then considered the alternative argument by the Commission, that the EC had exclusive external competence to conclude international agreements in line with the AETR ruling, because it had exercised internal competence to some degree within the relevant area.

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190 See supra note 185.
191 Article 10 EC contained the principle of sincere cooperation. Article 10 EC has been replaced by article 4(3) TEU which says that pursuant to the principle of sincere cooperation, the Union and the member states shall, in full mutual respect, assist each other in carrying out tasks which flow from the Treaties. The member states shall take any appropriate measure to ensure the fulfilment of the obligations arising out of the Treaties or resulting from the acts of the institutions of the Union. The member states shall also facilitate the achievement of Union’s tasks and refrain from any measure which could jeopardise the attainment of the Union’s objectives.
192 ECJ, Case C-476/98, paragraph 73 of the Court’s reasoning.
193 ECJ, Case C-476/98, paragraphs 70-71 of the Court’s reasoning.
194 ECJ, Case C-476/98, paragraph 82 of the Court’s reasoning.
195 ECJ, Opinion 1/94, paragraphs 3-4 of the Court’s reasoning.
196 ECJ, Case C-476/98, paragraphs 82-90 of the Court’s reasoning.
The ECJ stated that the principle of the *AETR* ruling could apply to internal power exercised in this manner, and therefore the EC had an implied external competence. It followed that when the EC made common rules pursuant to this power, the member states no longer had the right, acting individually or even collectively, to undertake obligations towards non-member countries which affected those rules or distorted their scope. If member states were free to enter into international agreements affecting the common EC rules, then the attainment of the objective pursued by those rules would be jeopardised. The Community would thus be prevented from fulfilling its task of defending the common interest.\(^{197}\) The ECJ considered under what circumstances the scope of the common rules could be ‘affected’ or ‘distorted’ by the international commitments in the case. The importance of the judgement lies exactly in the broad reading the ECJ gives to those phrases, since that transforms external competence into *exclusive* external competence.\(^{198}\) The ECJ stated that this would be the case where the international agreement fell within the scope of the common rules or within an area that was already largely covered by such rules. If the international agreement fell within an area that was already largely covered by common rules, member states could not enter into such international commitment even if there was no contradiction between the international commitments and the internal rules. The conclusion was that EC legislative provision relating to the single market gave the Community exclusive external competence to conclude open skies agreements on behalf of its member states. This was so, even if there were no express provision in the Treaty authorising the EC to negotiate such agreements.\(^{199}\)

Only a few months after the ECJ delivered its ruling the Council authorised the Commission to enter into negotiations with the United States on the establishment of a Transatlantic Common Aviation Area. It also mandated the Commission to negotiate with other non-EC countries the replacement of existing air service agreements with new Community air service agreements.\(^{200}\) Formal negotiations began between the United States and European Community in 2003 and an agreement was reached. However, the Council of the European Union, which needs to accept an international agreement pursuant to article 218 TFEU, rejected the agreement. The US was very disappointed with this outcome, criticising what it called the fragmented powers of the European Community.\(^{201}\) The United States asked

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\(^{197}\) ECJ, Case C-476/98, paragraphs 101-105 of the Court’s reasoning.

\(^{198}\) Craig and De Búrca: *EU law: text, cases and materials*, p. 98-99.

\(^{199}\) ECJ, Case C-476/98, paragraphs 107-113 of the Court’s reasoning.

\(^{200}\) Bartlik: *The impact of EU law on the regulation of international air transportation*, p. 43.

that although the Community and the EU member states were not legally able to speak with a single voice on all subjects that they would ‘find a more workable way to deal with all relevant issues’. The long process finally lead to the 2007 US/EC Air Transport Agreement which came into effect on 30 March 2008. In May 2008, less than 60 days after the first stage agreement came into effect, second-stage negotiations began between the two aviation powers. The aim was to further expand the regulatory cooperation and increase market opportunities. In June 2010 the United States and EU completed this process by signing a protocol amending the existing air transport agreement.

The abovementioned case law shows that the ECJ has given a relatively broad reading to exclusive external competence. Nevertheless, the reality is that many external powers continue to be shared between the member states and the Community. Where external competence is shared the member states and the EC have the duty to co-operate in the negotiation, conclusion and implementation of the agreement.

According to article 3(2) TFEU the EU has exclusive competence for the conclusion of international agreements when its conclusion is provided for in legislative acts of the European Union, or is necessary to enable the EU to exercise its internal competence, or insofar as its conclusion may affect common rules or change their scope. Article 3(2) thereby confirms the new legality of ECJ’s jurisprudence.

4.4 Extending the common market to include air navigation services

4.4.1 The first steps

The EEC Treaty provided for a common transport policy. Since EEC Treaty entered into force in 1958, transport has been one of the foremost common policies of the European Union. It has focused on removing borders between member states and thus contributing to the free movement of individuals and goods. Its principal targets are to complete the internal

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206 Craig and De Búrca: EU law: text, cases and materials, p. 99.
207 ECJ, Opinion 1/94, paragraph 107 of the Court’s reasoning.
208 The EEC Treaty, articles 74-84.
market, extend transport networks throughout Europe, ensure sustainable development, maximise use of space, enhance safety and support international cooperation.\textsuperscript{209}

An airline embodies the national symbol of the nation whose flag it flies. Its existence and all its commercial activities are based on national oversight and regulation.\textsuperscript{210} Airlines cannot operate without airports and air navigation services. Hence, airports and air navigation services are often governmentally regulated and owned.\textsuperscript{211} The European Union is a relatively recent player in the world of air navigation services. The main internal competence for adopting regulations relating to air transport was laid down in article 80 of the EC Treaty. The provision said:

1. The provisions of this title shall apply to transport by rail, road and inland waterway.
2. The Council may, acting by a qualified majority, decide whether, to what extent and by what procedure appropriate provisions may be laid down for sea and air transport.

As provided in article 80(2), it was left to the discretion of the EC Council to decide if it wanted to adopt measures in the area of air transport. Therefore, this field was left out of the agenda of the Community for long time. One could say that the Council was forced to become involved with air transport matters due to judgements of the European Court of Justice.\textsuperscript{212} The first important milestone was the \textit{French Seamen} judgement where the ECJ ruled that article 80(2) EC did not exclude the applicability of EC Treaty to sea and air transport.\textsuperscript{213} Nevertheless, even after this judgement the Council did not find it necessary to adopt any substantial regulations until three years later when it enacted a directive on inter-regional scheduled air services, which had limited significance.\textsuperscript{214}

The second big decision was the \textit{Nouvelles Frontières} judgement in 1986.\textsuperscript{215} There the ECJ decided that EC competition rules were applicable to air transport. From that moment the Council became more active in the area of air transport. In 1987, the Council approved the first package of rules regarding air transport. This package included air transportation under the EC competition laws, but the air transport industry had previously been excluded.\textsuperscript{216}

\begin{flushleft}
\textsuperscript{209} European Union: \url{http://europa.eu/legislation_summaries/transport/index_en.htm}.
\textsuperscript{210} Dempsey: \textit{Public international air law}, p. 1.
\textsuperscript{211} Dempsey: \textit{Public international air law}, p. 2.
\textsuperscript{212} Bartlik: \textit{The impact of EU law on the regulation of international air transportation}, p. 12.
\textsuperscript{213} ECJ, Case 167/73 \textit{Commission v French Republic (French Seamen)} [1974] ECR 359, paragraph 4 of the Court’s reasoning. The case regards the existence of French national law, the French Code Maritime enacted in 1926, which was in breach of Community law.
\textsuperscript{215} ECJ, Cases 209-213/84 \textit{Ministère Public v Asjes and others (Nouvelles Frontières)} [1986] ECR 1425.
\textsuperscript{216} Bartlik: \textit{The impact of EU law on the regulation of international air transportation}, p. 12.
\end{flushleft}
The liberalisation process of air transport in the European Union was divided into three stages. The first stage was in 1987 with the adoption of the first package of rules. In 1990 the second package entered into force and finally in 1993 the third package was adopted. The packages regulated areas such as competition, access to the market, procedure for setting prices and recognition of air carriers licences. With the adoption of the third package in 1993, the common market was established in the air transport sector. Since then, every air carrier within the EU is entitled to offer air transport services between any member state and even within a single member state, regardless of the state of registration (cabotage).\textsuperscript{217} The liberalisation process of air transport in Europe led to an increase in air traffic. For example, five years after the liberalisation the number of carriers providing scheduled services had increased by 24%.\textsuperscript{218} However, at the same time, the air traffic management sector, organised and functioning in the way it had been for years, faced difficulties with meeting the capacity requirements needed to support the increasing traffic demand.\textsuperscript{219}

After the Commission took steps to establish Community competencies in the field of air transport, through \textit{inter alia}, the air transport liberalisation packages, legislation governing the licensing of air carriers, cabotage, slot allocation, accident investigation and bilateral air transport negotiations (open skies agreements) the Commission’s involvement in the air traffic management was only a matter of time and a next logical step.\textsuperscript{220}

\textbf{4.4.2 European Union's involvement in air traffic management}

Since the Lisbon Treaty entered into force in December 2009, the transport policy is governed by article 4(2)g and Title VI of the TFEU. According to article 4 TFEU the Union shall share competence with the member states in the field of transport. The European Parliament was given added value regarding the legislation process with the Lisbon Treaty, and now article 100(2) TFEU states that the European Parliament together with the Council may lay down appropriate provisions for sea and air transport. They shall act after consulting the Economic and Social Committee and the Committee of the Regions. According to article 91 TFEU (ex article 71 of the EC Treaty) the European Union has a rather wide legislative discretion to develop a common policy in the field of air transport.

Due to a steady rise in air travel resulting in heavy delays and constraint airport capacity, the European Community found it necessary in the late 1990s to start acting in order to

\textsuperscript{217} Bartlik: \textit{The impact of EU law on the regulation of international air transportation}, p. 12-16.
\textsuperscript{218} The creation of the single European sky COM(1999) 614 final/2, p. 20.
\textsuperscript{219} See chapters 5.1 and 5.2.
\textsuperscript{220} Bartlik: \textit{The impact of EU law on the regulation of international air transportation}, p. 13-15.
improve the air traffic management system. There was an obvious need for higher safety standards, better overall efficiency of air transport and better use of airspace capacity. The problem was that the EU countries that were also members of EUROCONTROL had delegated their powers in nearly all aspects of air traffic management to EUROCONTROL, allowing the organisation to take decisions which were binding to them. In the light of these powers of EUROCONTROL and their interference with those of the Community in several fields, the EU Council decided that the best way to exercise Community competence in the field of air traffic management was to join EUROCONTROL. This was necessary to enhance its role as the single air traffic management policymaker in Europe. Previously, the Community had only been involved as an observer in certain aspects of their work. The accession of the EU to EUROCONTROL is therefore a very important component in the creation of pan-European airspace.

The Accession Protocol of the European Community to the Revised EUROCONTROL Convention defines the terms and conditions as to what extent the European Union can exercise particular competences within EUROCONTROL. When EUROCONTROL exercises its law-making competences in fields where the European Union has exclusive competences, the Union exercises the voting rights of the EU member states within EUROCONTROL. This means that in matters where the European Union has exclusive competences it has 26 votes and its member states do not vote.

The first concrete EU involvement in the field of air traffic management was with the Commissions white paper “Freeing Europe’s Airspace”, adopted by the Commission in March 1996. The document outlined the Commission’s views on the best institutional arrangements for the future, using the phrase ‘single air traffic management system for Europe’. In the 1980s, the Union had nevertheless already engaged in a limited regulatory intervention in order to fight the congestion of air traffic in the airspace of its member states.

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222 As discussed in chapter 3.4, the powers of EUROCONTROL were greatly extended by the 1997 Revised EUROCONTROL Convention.
224 White paper on air traffic management - Freeing Europe’s airspace COM(96) 57 final, p. 5.
226 The Accession Protocol, supra note 99.
227 The Accession Protocol, article 6.
228 White paper on air traffic management - Freeing Europe’s airspace COM(96) 57 final. Commission of the European Communities, Brussels 1996.
Council issued Directive 93/65 in order to combat various technical and operational incompatibilities of the air traffic management system.\textsuperscript{230} However, it was not until the adoption of the single European sky Regulation package in 2004 that there was no longer any doubt that the EU has expanded its competences to the field of air navigation services and air traffic management.\textsuperscript{231}

The single European sky initiative, with the aim to turn Europe’s skies into an integrated airspace, represented the most significant reform of EU aviation policy so far.\textsuperscript{232} When arguing for a legal basis for the single European sky legislation, the Commission referred to the general underlying principles of the European Community policies. The general underlying principles allowed intervention by Community institutions in order to bring the management of the airways in line with economical and political integration of the European Community. The Commission insisted that Europe could not keep the frontiers in the sky that it had managed to eliminate on the ground and it must allow the freedom of movement of persons, goods and services beyond such frontiers.\textsuperscript{233}

Since the European Union began to exercise its competences in the field of air navigation services, many improvements have been achieved. Among them are common standards for air navigation services as well as rules on the certification of air navigation service providers.\textsuperscript{234} Common requirements for the granting of licences to air traffic controllers were set to ensure safe services and to allow for more flexible movement of controllers across national borders.\textsuperscript{235} Harmonised procedure has been issued for the monitoring of compliance of third-country aircraft with safety standards as well as common procedures in the field of civil aviation security.\textsuperscript{236} The European Aviation Safety Agency (EASA) was established in 2002 as an executive agency of the European Union, responsible for adopting safety rules in air transportation, applicable to products, persons and organisations.\textsuperscript{237} EASA also gives expert

\textsuperscript{233} The creation of the single European sky COM(1999) 614 final/2, p. 4.
opinions and assistance to the European Commission in the drafting of legislative proposals in the field of air transport.\textsuperscript{238} Because of the fact that EASA is embedded in the EU framework, the Regulations issued by the agency are directly applicable in the EU member states. EASA works closely with countries outside the Union as well as with international organisations, such as ICAO, to promote and harmonise safety matters.\textsuperscript{239}

Certain member states have become concerned that the European Union has trespassed too far into law-making territory that ought to be reserved for national or domestic authorities. They fear that present EU law is unable to act as an effective brake on the EU’s ever-expanding competences.\textsuperscript{240} When considering such critique it should not be forgotten that the greatest expansion of Community competence has been through successive Treaty revisions were the member states themselves have willingly accorded new competences to the EU.\textsuperscript{241}

4.5 European Union law and international law: conflicting competences

The European Union has gradually been expanding its competences in the field of air transport, but even if the institutions of the EU are acting within the competencies delegated to it by the treaties its freedom to act is not unlimited. This was for example illustrated with the ‘hushkit Regulation’ that the EU enacted in 2002.\textsuperscript{242} The Regulation banned the use of so-called hushkitted or re-engined older generation jet aircraft in Europe with the aim of reducing aircraft noise levels at EU airports. The United States, home of both the entire hushkit industry and the vast majority of the operators and owners of the potentially affected aircraft, immediately demanded repeal of the Regulation, threatening the EU with retaliatory action. They insisted that the Regulation was in conflict with the obligation of the ICAO contracting states under the Chicago Convention and filed a complaint with the ICAO Council against (at that time) the fifteen European Community member states.\textsuperscript{243} After a lengthy political and legal controversy, the EU withdrew the regulation.\textsuperscript{244} The hushkit case

\textsuperscript{238} Preamble of the EASA Regulation (EC) No 216/2008, especially paragraphs 12-22.
\textsuperscript{239} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 84-85.
\textsuperscript{240} Chalmers, Hadjiemmanuil, Monti and Tomkins: European Union Law: text and materials, p. 64.
\textsuperscript{241} Craig and De Búrca: EU law: text, cases and materials, p. 107.
\textsuperscript{244} The Regulation was replaced by Directive 2002/30/EC of the European Parliament and of the Council on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports, [2002] OJ L 85/40-46.
demonstrates that although the European Union constitutes a new legal order of international law, the Union needs to respect the treaty obligations of its member states in the field of civil aviation when exercising its regulatory competencies. The EU member states are maybe no longer independent actors, but they are still independent subjects of international law and bound to international obligations.\textsuperscript{245}

\section*{4.6 Conclusions}

Today, the member states of the European Union do not have much freedom to engage in national law-making in the field of air navigation services.\textsuperscript{246} They have delegated their national competencies in this field to ICAO, on a global level, and to EUROCONTROL and the European Union on regional level. Of these organisations, the EU is the only one who has the power to force its member states to follow the legislation it issues. However, the Union cannot adopt any type of legal instrument unless it has a legal basis within the Treaties. If no such basis exists, the act will be annulled for lack of competence. These law-making powers, or competences, have been divided into three different categories: exclusive competence, shared competence and competence to take complementary, supporting or supplementary action. Such competences can either attributed to the EU via explicit treaty provisions or via ECJ’s extensive interpretation of legal provisions.

According to article 91 TFEU the European Union has a rather wide legislative discretion to develop a common policy in the field of air transport. Internally, the Union shares its law-making powers with the member states. This means that insofar as the field is occupied by EU law, the member states are have lost their power to legislate. As the European Union has gradually been expanding its involvement in the field of air transport, it has at the same time diminished the amount of shared power held by the member states.

In 1993, air traffic rights were liberalised within European Community, implying that negotiations of such rights were no longer required within the Community, extending itself to the EFTA countries. The EU member states still insisted that they had powers to negotiate air traffic rights with countries outside the EU. The Commission disagreed, arguing that it had gained exclusive external competence to negotiate air traffic agreements on behalf of all EU member states. It took the matter to the ECJ which agreed with the Commission and rendered invalid the ‘open skies’ agreements, concluded on behalf of several member states with the

\textsuperscript{245} Antwerpen: \textit{Cross-Border Provision of Air Navigation Services with Specific Reference to Europe}, p. 60.

\textsuperscript{246} Antwerpen: \textit{Cross-Border Provision of Air Navigation Services with Specific Reference to Europe}, p. 69.
United States, as being incompatible with EU law.\textsuperscript{247} The EU has since negotiated and concluded an air transport agreement on behalf of its member states with the United States. The agreement made on behalf of the EU and US, which became effective in 2008, enables any carrier from the European Union to operate from any point within the EU to any point in the US without frequency restrictions and vice versa.\textsuperscript{248}

Although the Union had undertaken some law-making initiatives before, its serious competences in the field of air traffic management first materialised with the single European sky Regulation package and subsequent implementing rules.\textsuperscript{249} The European Community issued the first single European sky Regulations in 2004, with the aim to combat the fragmented organisation of European airspace. This has been identified as the EU’s most significant involvement in the air transport sector so far.\textsuperscript{250}

\section{The single European sky initiative: current fragmentation and future goals}

\subsection{Introduction: a need for reformed architecture of European skies}

The idea of a single sky for Europe is one of a long-standing. EUROCONTROL was formed in the early 1960s with the express purpose of creating a single upper airspace by its six founding member states. This purpose was only partially fulfilled at the time, but the idea was kept alive.

Air traffic control was initially regarded primarily as a safety service, the constraints of which in terms of cost and delays had to be tolerated. Delays due to airspace congestion were not seen as a restrictive factor in Europe before the 1980s. Until then, airports were the main bottleneck and it was thought that the development of air transport was only limited to the number of runways which the environment could tolerate.\textsuperscript{251} At the beginning of the 1980s, the aviation industry entered into a new era. Air traffic had been steadily increasing and had in the last few years coincided with other problems such as under investment in facilities and insufficient recruitment of personnel. This began to cause severe delays and congestion, both at airports and in busy airspaces.\textsuperscript{252} The problem resulted to a big extent from fragmentation caused by national frontiers in the sky, a problem which the Community had managed to put

\textsuperscript{248} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 20-21.
\textsuperscript{249} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 70.
\textsuperscript{251} White paper on air traffic management - Freeing Europe’s airspace COM(96) 57 final, p. 6.
an end to in other fields by creation of the internal market.\textsuperscript{253} In 1986, 12 per cent of all international flights on behalf of European airlines were delayed more than 15 minutes. This number went up to 20 per cent in 1988, and 24 per cent in 1989.\textsuperscript{254} The Association of European Airlines (AEA) expressed serious concern regarding these statistics, claiming that current air traffic control infrastructure was the main reason for this worsening situation. AEA accordingly issued a report calling for a single air traffic control system for Europe.\textsuperscript{255}

Air traffic is still increasing and over the last decade, air traffic has grown by more than 50\%. The European air traffic management now handles close to 8.5 million flights per year and up to 28,000 flights on busiest days. To keep up, airspace capacity has been increased by 80\% since 1990. These results are good but the growth of traffic is set to continue and today’s traffic is expected to have doubled by 2020.\textsuperscript{256} With ongoing improvements, current systems are expected to be able to handle this increased load until the middle of next decade. After that, more drastic measures are needed in order to avoid serious congestion.\textsuperscript{257}

In 1999, the European Council invited the Commission to submit to it a communication on ongoing measures aimed to combat and reduce air traffic delays and congestion in European airspace. The aim was to find new initiatives and create a wider approach for the solution of the problem.\textsuperscript{258} The Commission submitted its communication in that same year and consequently the single European sky (SES) initiative was launched.\textsuperscript{259} The SES initiative puts forward a legislative approach to reform the architecture of European air traffic management system. The goal is to meet future capacity and safety needs at a European level rather than a local level. Key objectives of SES initiative are to restructure European airspace as a function of air traffic flows, to create additional capacity and to increase the overall efficiency of the European air traffic management system.\textsuperscript{260}

The Commission has said that the single European sky initiative requires the highest level of political support so that necessary steps of the programme can be taken. The steps that need to be taken are no different from the steps taken when the single European market was formed in 1985 or in 1990 when the economic and monetary Union was established. In both cases it

\begin{itemize}
\item \textsuperscript{253}The creation of the single European sky COM(1999) 614 final/2, p. 3.
\item \textsuperscript{254}The creation of the single European sky COM(1999) 614 final/2, p. 10.
\item \textsuperscript{255}“Single European ATC studied”. Flight International, 11 March 1989, p. 11.
\item \textsuperscript{256}Understanding the developments in the provision of air navigation services in Europe. Coping with increasing pressure. Industry survey performed by Arthur D. Little, p. 15.
\item \textsuperscript{257}EUROCONTROL: “Single European sky”; http://www.eurocontrol.int/ses/public/standard_page/sk_ses.html.
\item \textsuperscript{258}Council Resolution on the situation of air traffic delays in Europe, [1999] OJ C 222/1.
\item \textsuperscript{260}EUROCONTROL: “Single European sky”; http://www.eurocontrol.int/ses/public/standard_page/sk_ses.html.
\end{itemize}
was necessary to obtain the political support of the European Council and the European Parliament, in the full knowledge that it would require energy and will on behalf of each party in order to overcome the weight of history and the force of inertia.\textsuperscript{261}

This chapter will look into the single European sky legislation and investigate how the initiative will help to accommodate the increasing air traffic flow in European airspace, whilst cutting costs and improving its performance. Opinion of affected parties will be viewed as well as possible future obstacles.

5.2 European airspace: outline of existing air traffic management infrastructure

Air traffic congestion is the result of growing air transport in the limited airspace. Although it seems wide and unlimited, airspace is an area of a limited capacity. When flying between two airports, an aircraft must follow pre-planned routes based on a fixed route network. As a result, traffic converges on the same routes which become increasingly congested. To avoid collision aircraft need assistance from air traffic controllers. In order to provide this assistance the air traffic controllers require increasingly more sophisticated and expensive technical equipment. This assistance further requires close coordination and cooperation between all relevant air navigation service providers, at regional level and at European level.\textsuperscript{262}

Aviation is to a large extent a cross-border activity. Organisation of the European air traffic management system is fragmented by national borders. Each time an aircraft crosses the airspace of a different state, it is serviced by a different air navigation service provider. Each of these providers functions in its own legal and institutional environment with its national airspace rules and operating procedures.\textsuperscript{263} States are almost entirely free to decide the level of service to be provided and the means to be employed for this purpose. The result is that the technology used and the results achieved vary greatly from one country to another.\textsuperscript{264} Currently there are 38 en-route service providers of various geographical areas in Europe. These service providers have little obligation to cooperate on flow management, for example, in sequencing traffic into major airports of other states.\textsuperscript{265} As a comparison, the whole US airspace is operated by only one service provider. This service provider is divided into a few centres that all use the same automation systems and have procedures for

\textsuperscript{261} The creation of the single European sky COM(1999) 614 final/2, p. 7.
\textsuperscript{262} Delahaye and Odoni: “Airspace congestion smoothing by stochastic optimization”, p. 163-164.
\textsuperscript{264} White paper on air traffic management - Freeing Europe’s airspace COM(96) 57 final, p. 4.
\textsuperscript{265} U.S./Europe Comparison of ATM-related Operational Performance. FAA and EUROCONTROL, p. 15.
cooperation on flow management. The lack of fragmentation makes the air traffic management system of the United States twice as efficient as that of the EU.

IATA’s Director General and CEO, Giovanni Bisignani, has gone as far as saying that Europe’s air traffic management is a mess and that passengers suffer daily from air traffic control delays and circuitous flight routings.

The overall cost of fragmentation in the European air traffic management system was estimated €880m – €1,400m in 2003. A defragmented system would allow improved sector design by removing the constraints of national boundaries. This would allow improved routing through the defragmented airspace and hence greater flight efficiency. The single European sky legislation is intended to have a major impact on fragmentation. In particular it will foster airspace rationalisation and restructuring, consolidation of facilities, and harmonisation of systems and procedures.

5.3 The single European sky: first legislation package

5.3.1 From a legislative proposal to adopted regulations: hurdles along the way

In 1999, with endorsement of the European Council, the European Commission launched a high level group in which it brought together all parties responsible for air traffic management in EU member states. The group was supposed to examine the possibility of creating a single European sky network. The high level group reported its findings in 2000. In its report the high level group set out main lines of approach for a single European sky which were subsequently incorporated in an action programme of the Commission, laying down a framework for the creation of a single European sky. The approach of the action programme was divided into four categories: regulatory aspects, institutional aspects, technical aspects and human resources.

The regulatory aspects of the Commission’s action programme involved the development of a strong regulatory function within the Community, independent of the various interest
groups concerned, capable of setting objectives allowing traffic growth and preserving or improving safety. The equipment, organisational arrangements and methods of payment of service would also have to be regulated. It was emphasised that the regulator must have powers over the airspace, but at this time the European Community was not yet a member of EUROCONTROL and some of its regulatory powers conflicted with the corresponding powers of EUROCONTROL. The Commission had proposed that EUROCONTROL would be entrusted with the technical preparation of Community rules and responsibility for implementing them, for example regarding the network of airways and airspace structure. However, EUROCONTROL did not want to be restricted to such tasks and argued that such a plan disregarded the organisation’s obligations.274

The institutional aspects of the Commission’s action programme from 2001 involved the development of a system in which the European Union’s regulatory powers and EUROCONTROL’s expertise would complement each other. The system would also need to encourage civil and military cooperation. The technical aspects of the action programme involved encouraging, in close liaison with the industry, users and service providers, in introducing new technologies and improving system technical interoperability. The action programme’s part on human resources aims to facilitate recruitment and greater mobility of air traffic controllers and develop training at European level.275

The high level group indicated that the European Union institutions were the appropriate regulatory body for the EU and for states that have integrated their aviation areas into the EU’s. The Group also acknowledged the specific role of EUROCONTROL on the account of its technical knowledge and of its pan-European membership.276 It also acknowledged that the SES concept would have to be developed in consistency with the existing regulatory framework for air traffic management in Europe as well as in consistency with the relevant ICAO rules. A close cooperation between the European Union and the ICAO would be required.277

At the request of the Transport Ministers of the European Civil Aviation Conference (ECAC), EUROCONTROL launched an ‘air traffic management strategy for the years

275 Action programme on the creation of the single European sky and proposal for a Regulation of the European Parliament and of the Council laying down the framework for the creation of the single European sky COM(2001) 123 final/2, p. 3.
276 Single European sky information paper. ICAO, p. 2.
277 Single European sky information paper. ICAO, p. 2.
The strategy describes measures that need to be implemented in order to deal with increased demand. The main objective of these measures would be to break down the artificial barriers that are currently limiting the free flow of air traffic to create a uniform, gate-to-gate system for Europe. The goal is to generate extra capacity to meet increased traffic demand so that by 2020 the European air traffic management system will be able to accommodate twice as many flights as it did in 2000. The strategy acts as an input to the ICAO regional and global air traffic management planning as well as the ECAC institutional Strategy and single European sky initiative.

The legislative process of the single European sky did not come around easily. There were extensive time-consuming discussions and all kinds of amendments to the draft regulations from different bodies. Even though the European Parliament stated its unambiguous support for the single European sky from the beginning it came up with a number of amendments it considered necessary. Some of the amendments only regarded changes in wording while others affected the content of the legislative proposal itself. The Parliament wanted to go further than the initial proposal and, for example, called for penalties to be imposed on any service providers and airline companies that broke the ‘single sky’ rules. The Commission accepted many of the Parliament’s amendments and rejected others.

The Gibraltar dispute between United Kingdom and Spain also caused delays to the regulatory process. Spain did not want to sign-up to the text of the single European sky unless Gibraltar was excluded from its scope. In the end, a special ‘Gibraltar clause’ was included in the legislative acts on the single European sky. Furthermore, air traffic controllers in France, Portugal, Italy, Greece and Hungary went on a strike in June 2002. They were protesting the draft regulations because of fear of job cuts due to possible privatisation and because of safety and security concerns upon the entry into force of the regulations. This was strongly criticised by the European Commission. It argued that the purpose of the single European sky was neither to boost competition or privatisation of air traffic control nor would

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284 The adoption of the draft text was delayed in 2001 by the Gibraltar dispute. See: Dombey: “UK and Spain Send Air Traffic Reform into Nosedive”, p. 36.
it compromise safety since there were strong safety requirements envisaged under the regulatory framework.\textsuperscript{286} The Parliament had previously called for full liberalisation of the sector and the opening up of the provision of air navigation service to the private sector. In response to the strike, the Parliament asked the Commission to place particular emphasis on the economic and social aspects of its proposal, especially the impact on employment.\textsuperscript{287}

The Commission’s proposal for a regulation package, which was issued in 2001, was finally adopted by the European Parliament and Council in March 2004, entering into force a month later.\textsuperscript{288} The 2004 SES legislative package consists of four regulations covering the essential regulatory elements to be developed in order to achieve a seamless European air traffic management system. The first regulation is of general nature and lays down a framework for the creation of the single European sky (the framework Regulation).\textsuperscript{289} The second regulation is more specific in that it primarily focuses on the provision of air navigation services (the service provision Regulation).\textsuperscript{290} The third regulation deals with the organisation and use of the airspace in the SES (the airspace Regulation).\textsuperscript{291} The fourth regulation focuses on the interoperability of the European air traffic management network (the interoperability Regulation).\textsuperscript{292} The image below demonstrates the Regulations and their main components.

\textsuperscript{286} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 62.
\textsuperscript{288} Proposal for a Regulation on the provision of air navigation services in the single European sky; proposal for a Regulation on the organisation and use of airspace in the single European sky; proposal for a Regulation on the interoperability of the European air traffic management network COM(2001) 564 final/2. Communication from the Commission to the Council and the European Parliament on the creation of the single European sky, Brussels 2001.
The four Regulations, often referred to as the first SES package (SES I), lay down the basic legal framework at Union level for improving the capacity of the European air traffic management system. The Regulations are then complemented and supplemented by specific and detailed implementing rules.  

5.3.2 The framework Regulation

The framework Regulation, as its name suggests, creates the structure for the single European sky initiative. It defines the objectives of the single European sky and establishes harmonised institutional, regulatory and consultation arrangements. According to article 1(1) of the Regulation, the objective is to enhance safety standards and overall efficiency for general air traffic management in Europe and to optimise capacity by meeting the demand of all airspace users and at the same time to minimise delays. Article 1(2) and 1(3) of the framework Regulation insist that the application of the Regulation is without prejudice to member states’ sovereignty over their airspace and to the requirements of the member states relating to their public order, public security or defence matters. The application of the Regulation shall also be without the prejudice to the rights and duties of member states under the 1944 Chicago Convention. In this context, an additional objective of the Regulation is to assist member states in fulfilling their obligations under the Chicago Convention, by providing for a common interpretation and uniform implementation of its provisions.

The single European sky Regulations focus on both civil and state aircraft. State aircraft include military, customs and police aircraft. However, the aim of the Regulations to create a
single European sky, only applies to general air traffic and does not cover military operation and training.\textsuperscript{295}

According to the framework regulation there are six main players involved in the implementation of the single European sky. The first main player is the European Commission that is able to draft and adopt particular implementing rules.

The second player is the EU member states. Each member state shall establish one or more bodies as their national supervisory authority to perform particular tasks assigned to them. The national supervisory authorities must be independent of air navigation service providers, and they shall exercise their powers in an impartial and transparent manner.\textsuperscript{296}

The third player is the so-called ‘Single Sky Committee’ (SSC). The Single Sky Committee is composed of two representatives of each member state and chaired by a representative of the Commission. It assists the Commission in drafting implementing rules and will also consider other non-legislative initiatives. The Committee ensures an appropriate consideration of the interests of all categories of airspace uses. If needed, the Committee can have specific questions examined within its working groups.\textsuperscript{297}

The fourth player involved in the implementation of the single European sky is an ‘industry consultation body’. It has an advisory function and is made up of air navigation service providers, associations of airspace uses, airports, the manufacturing industry and professional staff representative bodies. The task of the industry consultation body is solely to advise the Commission on technical aspects of the implementation of the single European sky.\textsuperscript{298}

The fifth player is EUROCONTROL. This international organisation plays an important role within the legislative process of implementing rules.\textsuperscript{299} The European Union realised from the beginning that the single European sky Regulations needed to be complemented and supplemented by specific and detailed rules regarding the implementation of the framework. The European Union considers EUROCONTROL to be the body that has the appropriate expertise to support the Union in its role as a regulator. According to article 8 of the framework Regulation the Commission issues mandates to EUROCONTROL for the development of implementing rules, provided that the development of the rules falls within

\textsuperscript{295} The framework Regulation, articles 1(2) and 2(26). A general statement on military issues was adopted focusing on civil and military cooperation with regards to air traffic management. See the Statement by the member states on military issues related to the single European sky, [2004] OJ L 96/9.

\textsuperscript{296} The framework Regulation, article 4.

\textsuperscript{297} The framework Regulation, article 5.

\textsuperscript{298} The framework Regulation, article 6.

\textsuperscript{299} The framework Regulation, article 8.
the domain of EUROCONTROL. Hence, on the basis of the law-making competences under the SES Regulations the Commission thus gives a mandate to another international organisation to draft rules.\textsuperscript{300} When EUROCONTROL has drafted rules according to its mandate, they are handed to the Single Sky Committee. If the Committee approves the draft rules they are adopted by the European Commission and become binding in the legal order of the European Union.\textsuperscript{301}

Finally, the sixth player involved in the implementation of the single European sky consists of employers’ and employees’ representative organisations in the field of air navigation services. This is not a formal body but rather an important process which involves stakeholders and provides a forum for consultation and negotiation.\textsuperscript{302}

The competences of the European Union are governed by the principles of subsidiarity and proportionality.\textsuperscript{303} This means that in cases where the Union has non-exclusive competence it can only act if the proposed action cannot be sufficiently achieved by the member states themselves. Therefore, the framework Regulation proposes a bottom-up approach. Such an approach refers to the fact that although the Regulation provides the framework for the single European sky the actual reorganisation of European airspace is driven by the member states. The fact that the framework Regulation proposes a bottom-up approach to air traffic management, rather than the creation of pan-European system, has been criticised. From a political point of view, a bottom-up approach would appear to be the most convenient method for bringing about the single European sky project. However, on a practical level it is cumbersome and too dependent on the implementation of the member states.\textsuperscript{304} Sceptics say that the bottom-up approach will unnecessarily delay the project.\textsuperscript{305}

Another thing that has been criticised is that the framework Regulation appears to provide for two methods of communication with stakeholders; one at Union level and another driven by national authorities. If the objective of the SES initiative is to create a more efficient use of

\textsuperscript{300} Various mandates for drafting implementing rules have been granted to EUROCONTROL in areas such as flexible use of airspace, airspace design, functional airspace blocks, common charging scheme, air traffic flow management as well as a mandate to develop draft implementing rules for the examination and evaluation of air navigation performance.

\textsuperscript{301} The framework Regulation, article 8(3).

\textsuperscript{302} The framework Regulation, article 10.

\textsuperscript{303} TEU, articles 5(3) and 5(4). The principles of subsidiarity and proportionality were discussed in chapter 4.2.1.

\textsuperscript{304} Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 155.

\textsuperscript{305} Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 167.
airspace the existence of parallel bodies might be a concern. The creation of an additional level of bureaucracy may slow down the implementation of the project.\textsuperscript{306}

The Regulation relies on national authorities to implement the single European sky project, and member states shall lay down sanctions against airspace users and service providers for infringements of the Regulations which can be taken at a domestic level. The sanctions shall be effective, proportional and dissuasive.\textsuperscript{307}

The Commission has delivered two reasoned opinions to Greece for alleged failure to respect the single European sky legislative framework.\textsuperscript{308} The Commission insisted that Greece had failed to establish an independent national supervisory authority as required and thereby Greece had failed to respect the single European sky legislation. Due to the lack of satisfactory replies from Greece, the Commission decided in December 2006 to refer Greece to the European Court of Justice.\textsuperscript{309} The infringement procedure against Greece was suspended in 2008, following efforts made by Greece to be in conformity with the SES legislation. The case has now been closed by the European Commission.\textsuperscript{310}

5.3.3 The service provision Regulation

The service provision Regulation establishes common requirements for the provision of air navigation services within the single European sky. The objective of the Regulation is to ensure conditions for the safe and efficient provision of air navigation services in the European Union.\textsuperscript{311}

The service provision Regulation falls into three parts. The first part establishes the role of the national supervisory authorities (NSA). The supervisory authorities must ensure appropriate supervision of the application of the Regulation within the airspace falling under the responsibility of the member state. The first part also emphasises on common safety requirements whereas the safety requirements, such as the EUROCONTROL safety

\textsuperscript{306} Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 157.

\textsuperscript{307} The framework Regulation, article 9. The first legislation proposal from the Commission did not include a provision regarding such sanctions. The article was inserted after amendments by the European Parliament. See: Report on the proposal for a European Parliament and Council regulation laying down the framework for the creation of the single European sky. European Parliament, p. 26.

\textsuperscript{308} The opinions were delivered in December 2005 and June 2006.


\textsuperscript{310} According to information received in an e-mail from Béatrice Thomas, Head of Legal Sector and FAB coordinator Adviser with the European Commission at 1 April 2011.

\textsuperscript{311} The service provision Regulation, article 1.
regulatory requirements (ESARRs) as well as a common licensing of air traffic controllers, are listed.\textsuperscript{312}

The second part of the Regulation focuses on the organisational and institutional aspects of national air navigation service providers. It sets forth a list of common requirements for the provision of air navigation service that all member states must comply with.\textsuperscript{313} Over time, states have developed different structures of air navigation service provision, resulting in various forms of operating companies such as state enterprises, privatised and corporatized entities. The idea of the single European sky initiative is that a harmonised certification system throughout the European Union with pre-defined common requirements will combat the different structures and rules.\textsuperscript{314} Member states will remain in control and be able to decide on the best corporate structure for their designated air navigation service provider, but all providers will nevertheless be subject to the same common requirements. Air navigation service providers will therefore have a clear picture of each other’s rights and obligations. The Commission’s opinion is that this approach will break down the frontiers in the sky and the barriers between different air navigation service providers.\textsuperscript{315} The service provision Regulation therefore forces the member states to reconsider their national organisation and in some cases to re-organise the format of their air navigation service providers. The Regulation is supplemented by implementing rules, laying down common requirements for the provision of air navigation services.\textsuperscript{316}

The third and last part of the service provision Regulation provides a charging scheme for air navigation service, so-called route charges.\textsuperscript{317} Currently, users pay for the different air navigation services whether they are on the ground or in flight. Such services have traditionally been controlled by local monopolies and consequently the charging schemes used across the member states have been very different.\textsuperscript{318} While competition in aviation has lead to more affordable ticket prices, the relative cost of air traffic services has been

\textsuperscript{312} The service provision Regulation, articles 1-5. Pursuant to article 5 of the Regulation, the European Parliament and the Council have adopted Directive 2006/23/EC on a Community air traffic controller licence, [2006] OJ L 114/22-37.

\textsuperscript{313} The service provision Regulation, article 6 and annex 1 to the Regulation.

\textsuperscript{314} Antwerpen: Cross-Border Provision of Air Navigation Services with Specific Reference to Europe, p. 66.

\textsuperscript{315} Action programme on the creation of the single European sky and proposal for a Regulation of the European Parliament and of the Council laying down the framework for the creation of the single European sky COM(2001) 123 final/2, p. 13.


\textsuperscript{317} The service provision Regulation, articles 14-16.

\textsuperscript{318} Air traffic management is entitled to recover all costs from airspace users, no matter what the quality is of the service provided. This cost recovery principle does not provide sufficient incentives to improve the quality and the cost-effectiveness of service and to modernise the system. See: First report on the implementation of the single sky legislation: achievements and the way forward COM(2007) 845 final, p. 3.
Given the purpose of the single European sky initiative, which is to harmonise services, it must follow that charges are applied in a consistent and non-discriminatory manner across the Union. Article 14 of the service provision Regulation dictates the development of a charging scheme that contributes to the achievement of a greater transparency with respect to the determination, imposition and enforcement of charges to airspace users. Now, air navigation service providers must draw up, submit to audit and publish their financial account. The charging scheme shall be consistent with article 15 of the 1944 Chicago Convention on International Civil Aviation and with EUROCONTROL’s charging system for route charges. The first steps towards a common charging scheme for air navigation services were taken by supplementing the service provision Regulation with specific implementing rules laid down in Regulation (EC) No 1794/2006.

5.3.4 The airspace Regulation

Whereas the framework Regulation takes a structural approach to creating the single European sky and the service provision Regulation concentrates on the standardisation of air navigation services, the airspace Regulation adds to this by focusing on the organisation and use of the airspace within the single European sky. The airspace Regulation first and foremost discusses airspace architecture and it is fair to say that from a functional perspective it is the most important Regulation of the single European sky legislative package introduced by the Commission in 2004. The objective of the airspace Regulation is to put an end to the fragmentation of European Union airspace and to create a safe, efficient and more integrated operating airspace without territorial boundaries. To reach this aim, the Regulation establishes common procedures for design, planning and management of the airspace.

The history of airspace division in Europe is based on the concept that every state has its own flight information region in its own airspace. The single European sky arrangements, however, change this design by providing for a single European upper flight information

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319 The cost of air traffic services currently accounts for 8 to 12% of the ticket price. See: Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 5-6.
321 The service provision Regulation, article 12(1).
322 The service provision Regulation, article 14.
325 The airspace Regulation, article 1.
326 Flight information region means airspace of defined dimensions within which flight information services and alerting services are provided. See the framework Regulation, article 2(23).
region (EUIR). The EUIR shall be designed to encompass the airspace falling under the responsibility of the member states but may also include airspace of European third countries. The EUIR encompasses the upper airspace, being the space above a specific flight level, dedicated to overflight. The lower airspace is the space below that flight level, dedicated to airport approaches and departures.

Up until now, air frontiers in Europe have been fixed by reference to land and sea frontiers. The creation of a single EUIR will enable this airspace to be reconfigured into so-called ‘functional airspace blocks’ that are organised around the flow of traffic rather than underlying national boundaries. The functional airspace blocks can therefore cover the airspace of a number of member states and within them the route and sector design, including operational requirements, is harmonised and managed on European basis. This ensures borderless provision of air navigation service with more efficient use of airspace, systems and personnel. Member states still retain their responsibilities towards the ICAO within the geographical limits of the upper flight information regions and flight information regions entrusted to them by the ICAO. The airspace architecture shall be based on a simplified application of airspace classification as defined within the EUROCONTROL airspace strategy for the European Civil Aviation Conference (ECAC) states in accordance with ICAO standards.

The report of the high level group on the single European sky in 2000 first mentioned that airspace should be managed as a ‘single continuum’. The Commission agreed and in its single European sky Regulations proposal in 2001, the Commission proposed for a single European upper airspace which would be reconfigured into functional blocks of airspace. The draft Regulation proposed that the functional airspace blocks would be created by a

327 ‘Flight level’ means a surface of constant atmospheric pressure which is related to the specific pressure datum of 1013.2 hectopascals and is separated from other such surfaces by specific pressure intervals. See the framework Regulation, article 2(24).
328 Typically the division between upper and lower airspace takes place at an altitude of 8,700 metres or at flight level 285. See the airspace Regulation, article 2(1).
329 ‘Functional airspace block’ means an airspace block based on operational requirements and established regardless of state boundaries, where the provision of air navigation services and related functions are performance-driven and optimised with a view to introducing, in each functional airspace block, enhanced cooperation among air navigation service providers or, where appropriate, an integrated provider. See article 2 (25) of the framework Regulation as amended with Regulation (EC) No 1070/2009.
332 Proposal for a Regulation on the provision of air navigation services in the single European sky: proposal for a Regulation on the organisation and use of airspace in the single European sky; proposal for a Regulation on the interoperability of the European air traffic management network COM(2001) 564 final/2.
decision of the whole Community and not only by the states involved. The states, however, insisted that they should have the right to negotiate with each other on how to form the functional airspace blocks, instead of having the Commission control the process. Consequently, the airspace Regulation now states that a functional airspace block shall only be established by mutual agreement between all member states that are responsible for any part of the airspace included in the block. If the airspace included in the block is wholly under the responsibility of one member state the block shall only be established by a declaration of that member state after having consulted interested parties, including the commission. It must be noted that this was a major change, shifting from a Community decision to a decision from the states involved only.

Airlines have been highly critical of this approach taken by the Commission in allowing the member states to create the functional airspace blocks. They believe that not all member states are complying with the project and would have preferred a top-down approach.

One of the main tasks of the airspace Regulation is to make access to airspace as free as possible and non-discriminatory for all users, both civil and military. The functional airspace blocks enable optimum use of airspace, taking into account not only the traffic flow but they shall also be justified by the overall added value. This includes optimal use of technical and human resources based on cost-benefit analyses. Inasmuch as consolidation of service provision is not the intention of the establishment of functional airspace blocks, the process of realigning airspace may inevitably result in the consolidation of air navigation service provision. The consolidation should result in lower operating costs for air navigation service providers. Aircraft operators will also benefit from more efficient route planning, reduced distance flown and reduction in air traffic delays.

Areas reserved for military use cause great problems in the sky. A normal flight between two places often needs to zigzag around these areas, resulting in increased flight time and

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333 Proposal for a Regulation on the provision of air navigation services in the single European sky; proposal for a Regulation on the organisation and use of airspace in the single European sky; proposal for a Regulation on the interoperability of the European air traffic management network COM(2001) 564 final/2, p. 7.
335 The airspace Regulation, article 5(4)-5(6).
338 The airspace Regulation, article 5.
more fuel burn.\textsuperscript{341} Due to this, the airspace Regulation introduces the adoption of criteria permitting the ‘flexible use of airspace’. The member states, along with EUROCONTROL, should take appropriate measures to ensure uniform application of the provisions governing civil and military air traffic service provision. Cooperation will be increased between civilian and military authorities, in particular regarding the use of airspace for military purposes.\textsuperscript{342} The flexible use of airspace makes sure that military airspace is available to the military when they need it but also that it is made available to civilian traffic when that is possible. This makes the use of airspace more efficient and allows aircraft to fly more direct routes, thereby reducing both cost and emissions.\textsuperscript{343} The European Parliament was of the opinion that cooperation between civil and military authorities did not go far enough and had proposed the full integration of civil and military airspace management and air traffic flow management.\textsuperscript{344} However, the Commission could not accept the proposed amendments of the Parliament since they regarded defence matters of states and went further than the Union competences allowed.\textsuperscript{345}

\textbf{5.3.5 The interoperability Regulation}

In order to create a reorganised European airspace as envisaged under the airspace Regulation, it is necessary to develop and implement common technical specification for the European air traffic management network (EATMN). The interoperability Regulation deals with the interoperability of equipment, systems and procedures used within the EATMN.\textsuperscript{346} It proposes the establishment of new systems and equipment that will enable interoperability, coordination and cooperation within the single European sky. Interoperability, referring to the ability of a system or product to work with other systems or products, is crucial for the single European sky to work.\textsuperscript{347}

\textsuperscript{341} Euronews: “Uniting Europe’s skies”, http://www.euronews.net/2011/03/22/uniting-europe-s-skies/.


\textsuperscript{344} Report on the proposal for a European Parliament and Council regulation on the provision of air navigation services in the single European sky, regulation on the organisation and use of the airspace in the single European sky and regulation on the interoperability of the European air traffic management network. European Parliament, p. 33-34.

\textsuperscript{345} Sitting of Tuesday, 3 September 2002. European Parliament, p. 6.

\textsuperscript{346} See the Interoperability Regulation, supra note.

\textsuperscript{347} Interoperability is defined in article 2(28) of the framework Regulation as a set of functional, technical and operational properties required of the systems and constituents of the EATMN and of the procedures for its operation, in order to enable its safe, seamless and efficient operation. Interoperability is achieved by making the systems and constituents compliant with the essential requirements.
At the moment EUROCONTROL consists of 39 member countries that operate 68 air traffic control centres. These 68 centres then have 19 different hardware systems.\footnote{Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 176.} Even though some progress had been achieved towards a seamless operation of the European air traffic management network before the SES project was launched, the situation still remained unsatisfactory. There was little integration between national air traffic management systems and not enough new concepts of operation and technology necessary to deliver the additional required capacity.\footnote{The interoperability Regulation, preamble, paragraph 4.} Better interoperability was needed.

The aim of the interoperability Regulation is twofold. First, it aims to achieve interoperability between different systems, constituents and associated procedures in the European air traffic management network by establishing harmonised procedure for certification of components and systems. Second, the Regulation aims to ensure the introduction of new agreed and validated concepts of operation and technology in air traffic management.\footnote{The interoperability Regulation, article 1.}

The Regulation defines essential requirements and standardisation for interoperability. These essential requirements divide into general requirements and specific requirements. The general requirements regard, for example, seamless operation, support for new concepts of operation and safety. The specific requirements include requirements on systems and procedures for airspace management, air traffic flow management and communication systems.\footnote{The interoperability Regulation, annex II.} With harmonisation, the systems will be able to understand each other, allow integration of various national systems and prevent development of systems based on national requirements. The interoperability Regulation has been supplemented by specific implementing rules in Regulation (EC) No 1033/2006.\footnote{Commission Regulation (EC) No 1033/2006 laying down the requirements on procedures for flight plans in the pre-flight phase for the single European sky, [2006] OJ L 186/46-50.}

5.4 The single European sky: second legislation package

5.4.1 Shortcomings of the first legislation package lead to reformed measures

The European Commission was keen to see the result of the new single European sky Regulations. Therefore, it requested the EUROCONTROL to provide evaluation of the impact of the SES project on the performance of the European air traffic management system. The
evaluation report was published in 2006.\textsuperscript{353} The results were not good and the report showed there was no guarantee that the SES framework in its current form would deliver the performance improvements it was supposed to. The framework was considered to lack overall impetus and incentives to improve performance. The legislative framework had prompted the aviation industry into action, but the member states had been slow to act. They had insufficiently used the instruments provided to improve performance, such as designation of service providers, use of economic incentives, changes in route structure and establishment of functional airspace blocks.\textsuperscript{354}

The process of eliminating national borders in the upper sky and establishing functional airspace blocks had encountered numerous obstacles, both political and economical. The current FAB initiatives were not providing evidence of likely performance improvements in terms of safety and efficiency. This was considered to be potentially due to lack of genuine commitment of the member states. An intergovernmental approach was obviously not producing a level playing field, since implementation of the rules depended on the will of states to implement and they were not uniformly enforced.\textsuperscript{355}

EUROCONTROL’s evaluation report found that certain issues, both legal and institutional, needed to be addressed. In particular, there needed to be better articulation of the objectives of functional airspace block creation.\textsuperscript{356} A number of recommendations were provided, aimed to improve the implementation of the single European sky.\textsuperscript{357}

Whilst the first single European sky package was a necessary initial step, it was obviously not enough. Also, priorities in the aviation world had evolved. Safety and capacity were the focus in the first SES legislation package. These issues still remain big but today there is a need for strong emphasis on environment and efficiency. Since 2004, the financial crisis and dramatic increases in fuel prices have hit aircraft operators. It has also been demonstrated that despite significant improvement in airplane technology and fuel efficiency, aviation contribution to climate change is steadily increasing.\textsuperscript{358} While the EU’s total emissions

\textsuperscript{353} \textit{Evaluation of the impact of the single European sky initiative on ATM performance}. EUROCONTROL Performance Review Commission, Brussels 2006.
\textsuperscript{354} \textit{Evaluation of the impact of the single European sky initiative on ATM performance}. EUROCONTROL Performance Review Commission, p. iii.
\textsuperscript{355} \textit{Single European sky II: towards more sustainable and better performing aviation} COM(2008) 389/2, p. 3.
\textsuperscript{356} \textit{Evaluation of the impact of the single European sky initiative on ATM performance}. EUROCONTROL Performance Review Commission, p. iv.
\textsuperscript{357} \textit{Evaluation of the impact of the single European sky initiative on ATM performance}. EUROCONTROL Performance Review Commission, p. iv-vii.
\textsuperscript{358} Airlines activities in the world are said to be responsible for 3\% of greenhouse gas emissions. For an overview of the greenhouse effect and the relation between the increase in greenhouse gases and alterations of
controlled under the Kyoto Protocol fell by 5.5% from 1990 to 2003, its greenhouse gas emissions from international aviation increased by 72%.\textsuperscript{359} The improvement in aviation technology has, therefore, not been enough to neutralise the effect of increased traffic and the growth in emissions is likely to continue in the decades to come.\textsuperscript{360} These factors have highlighted the need to accelerate the defragmentation of European airspace and the need to improve performance of the air traffic management system in whole. Various assessments confirmed the need to go further and set up a second legislation package if a \textit{real} single sky was to be created.\textsuperscript{361}

According to the International Association of Travel Agents, the failure to meet the SES I implementation goals for 2008 resulted in 15.2 million minutes of delays with a cost estimated at €1 billion. The cost of the air traffic management system in Europe in 2008 was 75% higher than the cost of the air traffic management in the US for the same year.\textsuperscript{362}

To tackle the issues that still needed to be dealt with the Commission came up with a package of new proposals, the second legislative package of the single European sky (SES II).\textsuperscript{363} The SES II contains two regulations adopted in March 2009, building on the performance scheme contained in SES I from 2004. First, there is Regulation (EC) No 1070/2009 which amends the four previous SES I Regulations.\textsuperscript{364} Second, there is Regulation (EC) No 1108/2009 extending the tasks of the European Aviation Safety Agency (EASA).\textsuperscript{365}

The two new Regulations introduce several enhancements to the existing SES I legislation package, which can be divided into four pillars. First of all, the existing single European sky legislation is sharpened to deal with performance and environmental challenges. Second, the single European sky air traffic management research (SESAR) programme was established in

\textsuperscript{359} \textit{Reducing the climate change impact of aviation COM(2005) 459 final, p. 2.}
\textsuperscript{360} \textit{European Commission: “What is EU doing on climate change”, http://ec.europa.eu/environment/climat/aviation_en.htm.}
\textsuperscript{363} At its meeting on 7 April 2008 the Council invited the Commission to develop, in accordance with recommendations of the report of the high level group for the future European aviation regulatory framework from 2007, a new overall system approach.
order to provide the future technology. Further, the action plan for airport capacity, efficiency and safety needed to be implemented. Finally, the competence of the European Aviation Safety Agency (EASA) needed to be extended so it would cover aerodromes, air traffic management and air navigation services. The following figure demonstrates the two main Regulations of SES II and their main contents.

5.4.2 First pillar: regulating performance

In order to improve the performance and sustainability the Commission introduced three new measures under this pillar. The first one introduces a system of performance regulation through the setting of targets. The second measure accelerates initiatives to integrate service provision within functional airspace blocks. Finally, the third measure strengthens the network management function, directly contributing to the improved overall performance.

5.4.2.1 Improving performance by setting targets

The first measure is an introduction of a special ‘performance scheme’ aiming to improve performance of air navigation services and network functions in the single European sky. The performance scheme is the keystone of the second single European sky legislation package. Article 11 of the framework Regulations, as amended with Regulation (EC) No 1070/2009, defines the principles that the scheme should include. Those are: (a) performance

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367 The amended framework Regulation, article 11(1).
targets in the areas of safety, environment, capacity and cost-efficiency, (b) national plans or plans for functional airspace blocks and (c) periodic review, monitoring and benchmarking of the performance of air navigation services and network functions.

Implementing rules of the performance scheme are set forth in Regulation (EU) No 691/2010 (the performance Regulation) laying down a performance scheme for air navigation services and network functions. The common charging scheme for air navigation services from 2006 was also updated in 2010 and acts as the economic dimension of the performance scheme. The common charging scheme puts an end to the paradigm of automatic full-cost recovery charging of air navigation services that had prevailed for four decades.

According to the old article 11 of the framework Regulation, the Commission was tasked with examining and evaluating air navigation performance and assisting air navigation service providers in delivering the requested services. However, it was deemed necessary to obtain expert support to assist the Commission and the national supervisory authorities in the implementation of the performance scheme. With this in mind, Regulation (EC) No 1070/2009 gives the Commission permission to provide for an independent ‘performance review body’ (PRB). Accordingly, the Commission designated EUROCONTROL as the performance review body of the single European sky.

The role of the performance review body is to propose EU-wide targets for delays, cost reduction and the shortening of routes. These targets are then approved by the Commission and passed on to national supervisory authorities. The national supervisory authorities organise consultations, notably with airspace uses, to agree on binding national or regional targets consistent with the EU-wide targets. This is supposed to ensure a consistent and sound oversight of service provision across Europe by the national supervisory authorities, as well as to improve and extend consultation with stakeholders.

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371 The amended framework Regulation, article 11(2).
373 Article 3 of the performance Regulation provides for the tasks and responsibilities of the performance review body.
374 The performance Regulation, articles 10 and 12.
In December 2010, the performance review body agreed on the first single European sky performance targets for the period 2012-2014. According to those targets, airspace users are expected to save €340 million per year in service provision costs. With indirect cost included the amount saved will be more than €1 billion over the period 2012-2014, shared between passengers, companies and the environment.\footnote{EU Press release (IP/10/1660): “Air transport: Single European Sky performance targets agreed; will lead to savings of more than one billion euro”, http://europa.eu/rapid/}

European air navigation service providers unanimously expressed strong concerns about the suggested EU-wide performance targets. The European Civil Air Navigation Services Organisation (CANSO) reported that although CANSO members support the Commission’s objective to drive the improvement of the European air traffic management performance, the suggested targets are unrealistic. CANSO also claimed that the targets did not take into account the interaction between the key performance areas of safety, environment, cost efficiency and capacity.\footnote{CANSO: “EU Targets for Single European Sky Performance Scheme ‘Unrealistic’ Say CANSO European CEOs”, http://www.canso.org/cms/showpage.aspx?id=2167.} The International Air Transport Association (IATA) was disappointed with the air navigation service providers’ response. IATA answered CANSO’s statement by saying that in order to move forward, European air navigation service providers needed to face reality and demonstrate the leadership and commitment that is demanded by politicians, airlines and the travelling public. IATA insisted that service providers would need to abandon their outdated mentality and move forward.\footnote{IATA press release (No.47): “IATA Disappointed with ANSPs’ Response to SES Targets”, http://www.iata.org/pressroom/pr/pages/2010-10-13-01.aspx.}

5.4.2.2 Facilitating the integration of service provision within functional airspace blocks.

The second measure introduced under the performance pillar aims to facilitate the integration of service provision within functional airspace blocks. The challenge is to turn the wide range of existing functional airspace blocks initiatives into genuine instruments to achieve the performance targets discussed in previous section.\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 7.} The functional airspace blocks have been identified as key enablers for enhancing cooperation between air navigation service providers in order to improve performance and creating synergies.\footnote{Regulation (EC) No 1070/2009, preamble, paragraph 18.}

Regulation (EC) No 1070/2009 moves the requirement for the establishment of functional airspace blocks from the airspace Regulation into the service provision Regulation.\footnote{The requirement for establishing functional airspace blocks was previously contained in article 5 of the airspace Regulation. That article has been repealed with Regulation (EC) No 1070/2009. A new article 9a of the service provision Regulation now requires the establishment of functional airspace blocks.}
9a(1) of the amended service provision Regulations introduces a deadline for the establishment of functional airspace blocks. By 4 December 2012 all member states shall have taken the necessary measures to ensure the implementation of functional airspace blocks. Even though the establishment of FABs has not been going as well as hoped, the Commission is sticking to the bottom-up approach for the time being.\textsuperscript{382} In order to facilitate the establishment of the functional airspace block, Regulation (EC) No 1070/2009 offers the Commission to designate a natural person as functional airspace blocks system coordinator. The coordinator’s role is to facilitate negotiations between the states engaged in the creation of functional airspace blocks and help them to overcome difficulties in their negotiation progress. The coordinator shall act impartially, in particular with regard to member states, third countries, the Commission and the stakeholders.\textsuperscript{383}

The loose definition of FAB requirements in the first SES legislation package and a lack of guidance and implementing rules has led to uncertainty in terms of what needs to be implemented.\textsuperscript{384} In order to respond to this and help with the development of functional airspace blocks, guidance material has been issued for the establishment and modification of FABs.\textsuperscript{385} A new regulation also was adopted in February 2011 on the information to be provided before the establishment and modification of a functional airspace block.\textsuperscript{386}

Article 5 of the airspace Regulation, before it was amended with Regulation (EC) No 1070/2009, spoke of functional airspace blocks in the upper airspace, i.e. above flight level 285. Despite this, all the functional airspace block initiatives, except one, addressed both upper and lower airspace. This was seen as positive, since it allows for greater optimisation of flows and better interaction with the control areas surrounding airports.\textsuperscript{387} In line with this development, Regulation (EC) No 1070/2009 repeals article 5 of the airspace Regulation as well as all reference to upper and lower airspace. Therefore, the functional airspace blocks shall now extended to the whole airspace, including the lower airspace up to the airports.

\textsuperscript{383} The amended service provision Regulation, article 9b(1)- 9b(3). In August 2010 the Commission appointed Mr. Georg Jarzembowski as a functional airspace blocks system coordinator.
\textsuperscript{384} Evaluation of Functional Airspace Block (FAB) Initiatives and their contribution to Performance Improvement. EUROCONTROL Performance Review Commission, p. 169.
\textsuperscript{385} The amended service provision regulation, article 9a(8).
\textsuperscript{387} Evaluation of Functional Airspace Block (FAB) Initiatives and their contribution to Performance Improvement. EUROCONTROL Performance Review Commission, p. 164.
The Commission’s intention is to create a single European flight information region (SEFIR). By encompassing all airspace under the responsibility of the member states, the SEFIR should facilitate common planning and integrated operations in order to overcome regional bottlenecks.

5.4.2.3 Strengthening the network management function

The current European route network still is a mixture of national routes and the airspace design is often the product of historical national considerations. Routes for intra-European flights are some 15% less efficient than domestic flight routes and, accordingly, the route network is not always well aligned with European traffic. Functional airspace blocks provide opportunities for significant improvement in flight-efficiency, thereby reducing cost for airspace users and providing benefits for the environment. However, only one quarter of European route issues can be solved within functional airspace blocks. Therefore, a strong and effective network management and design function at European level is crucial.

A new article 6 of the airspace Regulation, as amended with Regulation (EC) No 1070/2009, deals with network management and design. It introduces implementing measures concerning flight paths and provisions regarding the future ‘network management function’. The network management function helps service providers and users to find optimal gate-to-gate solutions from a European network perspective.

According to the article, the air traffic management network functions shall allow optimum use of airspace and ensure that airspace users can operate on preferred routes, while allowing maximum access to airspace and air navigation services. These network functions shall be aimed at supporting initiatives at national level and at the level of functional airspace blocks. In order to achieve this, the Commission shall ensure that the design of the routes flown by airlines (the route network) is carried out and that local design solutions are consistent with European network efficiency requirements. The Commission must also ensure coordination of aviation frequency bands used by general air traffic, in particular radio frequencies and radar transponder codes. Network functions, including air traffic flow management, may be entrusted to EUROCONTROL or another impartial and competent

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388 If a single European flight information region is to be created, it needs to be requested by the member states form ICAO in accordance with both the established procedures of that organisation and the rights, obligations and responsibilities of member states under the 1944 Convention on International Civil Aviation (the Chicago Convention).
The Commission may add to the network functions that are listed in the article after proper consultation of industry stakeholders. The modalities for executing the functions of article 6 of the amended airspace Regulation shall be developed in implementing rules. When developing the rules the Commission shall impartially guarantee the public interest and ensure the appropriate industry involvement. This is done to ensure impartial and efficient management and design of the European air traffic management network. Network management should also provide for global interoperability and cooperation with neighbouring countries.

5.4.3 Second pillar: new technologies with the ATM Master Plan

The present European air traffic control system is being pushed to its limit, working with antiquated equipment in a fragmented airspace. In 2007 the Commission adopted a regulation that created a special Joint Undertaking, intended to develop a new generation of air traffic management system. The Joint Undertaking is to bring together research and development in the European Union within the ‘single European sky air traffic management research’ project (the SESAR project). The SESAR project contains the technical component of the single European sky. It is supposed to speed up technological innovation and ensure interoperability for the air traffic management system of the future. The project has the aim to modernise air traffic management in Europe. By 2020 it is supposed to provide the EU with high performance air traffic control infrastructure which will enable the safe and environmentally friendly development of air transport. The SESAR project is supposed to increase the safety levels in European skies by a factor of ten and make the air traffic control system capable of handling a threefold increase in traffic at half of the cost per flight compared with today.

The SESAR project is organised into three phases. It began with a four-year definition phase, launched in 2004. During the definition phase, selected companies and organisations representing airspace users, airports, supply industry, safety regulators, controllers and research centres drew up the ‘SESAR air traffic management Master Plan’, usually referred to as the ATM Master Plan. The ATM Master Plan introduces the future air traffic management

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392 The amended airspace Regulation, article 6(1)- 6(2).
393 The amended airspace Regulation, article 6(3)- 6(8).
system and is meant to speed up technological innovation. Following a presentation of the
ATM Master Plan in 2008, a five year research and development phase was launched under
the control of the SESAR Joint Undertaking. The last phase, the deployment phase, will start
in 2014 and in 2020, the implementation of a new air traffic management infrastructure is
supposed to be completed. The new infrastructure will be composed of fully harmonised and
interoperable components supposed to guarantee high performance air transport activities in
Europe. 399

The ATM Master Plan was endorsed by a Council Decision in March 2009. 400 However,
the implementation of the ATM Master Plan required regulatory measures in order to support
the development, introduction and financing of new concepts and technologies. 401 Therefore,
and also to avoid unnecessary and overlapping conformity and verification procedures for
ATM systems, the interoperability Regulation was amended by Regulation (EC) No
1070/2009. A number of changes were introduced. For example, annex II of the
interoperability Regulation now presents requirements to ensure that surveillance,
communication and flight data processing systems are able to accommodate the
implementation of concepts of operation as envisaged in the ATM Master Plan.

The new technological standards that are demanded by the SESAR project are similar to
the technology upgrades that are required by its American counterpart, the NextGen air traffic
management programme. By 2018, the NextGen programme is expected to have saved the
travelling public 21% in travel delays and $22 billion in cost savings. 402 Both the SESAR and
the NextGen programmes focus on technology that tracks the airplane from gate to gate by
using real-time web-based systems to manage traffic. 403 In March 2011, the European Union
and the United States signed a memorandum of cooperation in civil aviation research and
development. 404 The memorandum creates a legally binding framework, with rules on issues
such as governance, intellectual property rights, reciprocity and liability. The first annex to
the memorandum has already been signed. It concerns cooperation between the European
Union and United States government bodies and industry in the development of the SESAR
and the NextGen, so as to secure interoperability of the future programmes. Cooperation

403 Information note from the European Commission on recent developments in implementing the single
European sky (8187/11). Council of the European Union, p. 3.
404 Memorandum of Cooperation NAT-I-9406 between the United States of America and the European Union.
between the EU and the US is not only in the interest of air traffic safety worldwide, but will also increase market opportunities for EU industry and help reduce costs by avoiding duplication of equipment on board aircraft.\(^{405}\)

In March 2009 the Council requested the Commission to present to it proposals on the governance and financing of the deployment of SESAR. The aim is to ensure a timely and synchronised deployment of the SESAR technology. The Commission has said it will have a proposal ready around summer 2011.\(^{406}\)

5.4.4 Third pillar: managing the growing airport capacity

Airports are an integral part of the air traffic management network as they are the entry and exit points of the network. To accommodate the demand, airport capacity needs to remain aligned with air traffic management capacity to preserve the overall efficiency of the network.\(^{407}\)

The SES II package highlights the need to ensure adequate measures in order to improve airport capacity.\(^{408}\) Therefore, it involves airports into the single European sky initiative, referring to it as the gate-to-gate dimension of the SES.\(^{409}\) The gate-to-gate dimension integrates air navigation services at airports into the single European sky process.

In 2006, the European Parliament and the Council endorsed an ‘action plan for airport capacity, efficiency and safety in Europe’.\(^{410}\) The action plan contains several measures to increase the output and optimise the planning of airport infrastructures, while at the same time raising safety and environmental standards. New technologies, derived from the SESAR project, are also expected to increase the safety and efficiency of airport operations.\(^{411}\)

In November 2008, the European Commission set up a new observatory on airport capacity.\(^{412}\) The observatory is composed of member states, relevant authorities and stakeholders that will advise the Commission on developing measures to improve the capacity of the European airport network. The observatory will also play an essential role in the


\(^{406}\) Information note from the European Commission on recent developments in implementing the single European sky (8187/11). Council of the European Union, p. 6.


\(^{412}\) This is in line with Regulation (EC) No 1070/2009, preamble, paragraph 29.
implementation of the Commission’s action plan for airport capacity, efficiency and safety in Europe.\footnote{EU press release (IP/08/1629): “New observatory to study airport capacity in Europe”, http://europa.eu/rapid/}

5.4.5 Fourth pillar: a single safety framework

The growth in air traffic inevitably leads to reduced separation between aircraft, calling for more sophisticated technologies, both onboard the aircraft and with air traffic controllers, as well as increased safety measures. Therefore, the congestion of airspace and aerodromes and introduction of new technologies must be combined with harmonised safety regulations. In order to meet this demand, it was considered necessary to extend the competence of the European Aviation Safety Agency (EASA).\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 7.}

The role of EASA is that of a safety regulator within the European Union. The Commission always intended to extend the mandate of EASA to cover safety regulation of air traffic services in the single European sky.\footnote{Action programme on the creation of the single European sky and proposal for a Regulation of the European Parliament and of the Council laying down the framework for the creation of the single European sky COM(2001) 123 final/2, p. 9.} EASA, set up by Regulation (EC) 1592/2002, was originally limited to ensuring the airworthiness and environmental compatibility of aircraft but its mandate has progressively been extended to cover all other fields of aviation safety.\footnote{Regulation (EC) No 216/2008 extended the tasks of EASA to air operations, pilots’ licences and the safety of third-country aircraft (within the limits set by the Chicago Convention).}

The SES II legislation package introduces a new regulation on aviation safety, further extending the powers of EASA.\footnote{Regulation (EC) No 1108/2009 of the European Parliament and of the Council amending Regulation (EC) No 216/2008 in the field of aerodromes, air traffic management and air navigation services and repealing Directive 2006/23/EC, [2009] OJ L 309/51-70.} Under the new Regulation (EC) No 1108/2009, EASA’s powers are extended to ensure precise, uniform and binding rules for airport safety and air navigation services, including air traffic management. According to the Regulation, EASA will establish harmonised rules on air navigation services and air traffic management systems, to improve aviation safety in a context of sharply rising traffic and increasing numbers of air routes. EASA will define the detailed requirements for certification and carry out audits and inspections.\footnote{Regulation EC No 216/2008, as amended by Regulation (EC) No 1108/2009, article 4(3a).}

Article 6a of the amended interoperability Regulation affirms that certificates issued in accordance with Regulation (EC) No 216/2008 establishing the EASA, as amended by Regulation (EC) No 1108/2009, where they apply to constituents or systems, should be accepted as declaration of conformity or means of verification.
EASA is now clearly the key player of the EU’s aviation safety strategy, responsible for preparing regulations in the sector and ensuring its implementation by member states. When implementing single European sky regulations, member states and the Commission shall coordinate as appropriate with EASA to ensure that all safety aspects are properly addressed.\(^{419}\)

### 5.5 Functional airspace blocks: development and current establishments

The concept of functional airspace blocks was first introduced in a study on airspace management and design introduced in 2001.\(^{420}\) Today, the creation of functional airspace blocks can be considered as one of the cornerstones of the single European sky.\(^{421}\) The expectations from the FABs are high; they are meant to put an end to the current fragmentation of European airspace and thereby bring with them shorter routes and more efficient flights. The establishment of functional airspace blocks will maximise the efficiency of the European airspace and ensure consistency between the configurations of upper and lower airspace. They will also minimise the number of times air traffic control has to be handed over when an aircraft passes from one area control centre to the next.\(^{422}\)

Today, the single European sky is built on nine functional airspace block initiatives which are supposed to replace the old 67 airspace portions by 2012.\(^{423}\) The nine FABs are:

- **NEFAB** (North European FAB): Estonia, Finland, Iceland, Norway, Latvia.
- **NUAC** (Nordic Upper Airspace Centre): Denmark, Sweden
- **BALTIC FAB**: Poland, Lithuania
- **FABEC** (FAB Europe Central): France, Germany, Belgium, Netherlands, Luxembourg, and Switzerland.
- **FABCE** (FAB Central Europe): Czech Republic, Slovakia, Austria, Hungary, Croatia, Slovenia, Bosnia and Herzegovina.
- **DANUBE**: Bulgaria, Romania
- **BLUE MED**: Italy, Malta, Greece, Cyprus, (Egypt, Tunisia, Albania, Jordan)
- **UK-IRELAND FAB**: United Kingdom, Ireland
- **SW FAB** (South West): Portugal, Spain

\(^{419}\) The amended framework Regulation, article 13a.

\(^{420}\) *Study for the European Commission on the regulation of airspace management and design, final report.* Wilmer, Cutler and Pickering, May 2001.

\(^{421}\) Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 158.

\(^{422}\) The amended service provision Regulation, article 9a(2).

The UK-Ireland FAB (UK-IR)\textsuperscript{424} and the Denmark-Sweden FAB (NUAC) have already been established and in December 2010 an agreement to create the ‘Functional Airspace Block – Europe Central’ (FABEC) was signed by the respective member state. The FABEC is an important airspace block, located at the core of Europe, including most of the large European airports and busy airways. It accounts for 55\% of all European traffic.\textsuperscript{425} The FABEC will be governed by a Council, which is assisted by number of committees. A consultation board will also be established to ensure the consultation of the air navigation service providers on matters relating to the provision of services within the functional airspace blocks.\textsuperscript{426}

Not everyone welcomed the establishment of FABEC and associated merger of air navigation service. Among the objecting parties were French air traffic controllers who went on a strike in December 2010 in order to object the decision of French authorities to participate in the establishment of the FABEC.\textsuperscript{427}

\textsuperscript{425} EUROCONTROL: “About FABEC”, http://www.eurocontrol.int/articles/about-fabec.
\textsuperscript{426} EU press release (IP/10/1648): “Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland sign agreement towards the Single European Sky”, http://europa.eu/rapid/.
\textsuperscript{427} Euronews: “Uniting Europe’s skies”, http://www.euronews.net/2011/03/22/uniting-europe-s-skies/.
The European Commission closely monitors the progress made for the establishment of functional airspace blocks, notably in the light of the deadline for their implementation. It expects the other EU member states to sign FAB agreements in the next two years.\textsuperscript{428}

The creation of functional airspace blocks is regarded the most crucial step in the single European sky effort. While some parties object to the idea of functional airspace blocks in general, others criticise the slow pace of their establishment. The process has been delayed for many reasons. In number of cases it has been reported that liability and sovereignty issues are causing challenges to the introduction of functional airspace blocks. In these cases governments are reluctant to yield control of their airspace. The slow progress of the establishment has also been linked to the lack of definition of FAB requirements in the first SES legislation package, and a lack of guidance and implementing rules. This has lead to uncertainty in terms of what needed to be implemented. It is usually the air navigation service providers that lead the establishment of the functional airspace blocks. Some FABs have been provided with clear objectives by their respective member states, while others have been given little or no guidance from their states, leading to delay in decision making and in achieving quantifiable outputs during the feasibility studies.\textsuperscript{429} In order to speed up the progress, the European Union has now issued guidance material for the establishment and modification of FABs as well as a Regulation on the information to be provided before the establishment and modification of a functional airspace block.\textsuperscript{430}

Some observers, such as IATA, believe that all current national boundaries for upper airspace should be replaced by just six FABs instead of the nine planned. Their view is that it would allow for more efficient flow of traffic and reduce the number of air traffic control centres required to handle the upper airspace.\textsuperscript{431}

It is hoped that when all of the proposed FABs are up and running the result will be optimum use of air traffic routes with reduced delays and costs. EUROCONTROL has estimated that the single European sky will save airlines about €1 billion a year in fuel costs due to more efficient flow of traffic.\textsuperscript{432}

\textsuperscript{428} EU press release (IP/10/1648): “Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland sign agreement towards the Single European Sky”, http://europa.eu/rapid/.
\textsuperscript{430} See chapter 5.4.2.2.
\textsuperscript{432} Neligan: “Creating a framework for a single European sky: the opportunity cost of reorganising European airspace”, p. 161.
5.6 States’ reaction to the SES initiative: initial response and problems along the way

Air transport has grown in an environment that was for a long time purely state controlled and regarded as a symbol of national sovereignty. From the seventies onwards, states started to delegate non-governmental aviation functions to the industry, but the regulatory structure of air traffic management remained under intergovernmental arrangements. In article 1 of the 1944 Chicago Convention, the world community reaffirmed the basic principle recognised by states, that every state has complete and exclusive sovereignty over the airspace above its territory. This is followed by article 2 which says that the territory of a state shall be deemed the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection or mandate of such state. Due to the recognition in the Chicago Convention of the internal dimensions of sovereignty, no scheduled international air service may be operated over or into the territory of a contracting state, except with the special permission or other authorisation of that state.

Many member states have found the single European sky to challenge the age-old rule on states sovereignty over their airspace. They have identified air traffic management with sovereignty and, therefore, met the single European sky with reluctance as they did not want to give up control over their airspace and to open up restricted military areas. Some member states have argued that the creation of a single European sky brings with it significant technical and organisational difficulties concerning states’ responsibility and associated liability for their airspace. Though the complexity of these arguments needs to be recognised, instead of prompting innovative solutions for exercising sovereignty, they have been used to block cross-border integration.

In 2002, Portugal challenged the legal bases used by the European Commission to justify its proposal for the single European sky. It argued that the legal basis put forward by the Commission, namely article 80(2) of the EC Treaty, could not motivate approval for legislation in this area. Portugal insisted that the Regulations implied a loss of sovereignty which could not be adjusted for in the Treaties. Portugal claimed that the areas covered by the proposal fell under the states’ sovereignty and only restrictions permitted by articles specifically granting jurisdiction were acceptable. The Commission did not agree. It claimed that article 80(2) EC provided sufficient grounds for its proposal to the extent that it

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433 First report on the implementation of the single sky legislation: achievements and the way forward COM(2007) 845 final, p. 3.
434 The Chicago Convention, article 6.
concerned the establishment of measures on the reorganisation of air navigation for the aviation sector, with a view to improve transport safety.\footnote{Europolitics: “Aviation: Legal basis for single European sky challenged”, http://www.europolitics.info/aviation-legal-basis-for-single-european-sky-challenged-art191503-20.html.}

To overcome governments’ concerns about ceding control over their national airspace, it was decided in the current legislation to allow for a bottom-up approach whereby it is left up to the member states to decide on how to restructure the airspace. Despite signs that this approach is insufficient, with the Commission pointing to the ‘limited ambitions’ of current projects and to ‘big discrepancies in the intensity of member states’ efforts’ to address fragmentation, the second SES legislation package does not shift to a top-down approach.\footnote{Building the single European sky through functional airspace blocks: A mid-term status report COM(2007) 101 final, p. 13.} Instead, it sets binding performance targets and pressure on member states to establish cross-border cooperation. The Commission has, nevertheless, indicated that progress needs to be achieved by saying that it is sticking to the bottom-up approach ‘for the time being’.\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 8.}

On average, aircraft fly 49 km further than strictly necessary due to airspace fragmentation and route inefficiencies. Despite the fact that 63\% of route inefficiencies can be resolved within country boundaries, member states have been reluctant to tackle the problem.\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 4.} Aircraft operators pay route charges on the basis of the distance flown through national airspace (multiplied by a factor for weight) according to the last filed flight plan. Airspace routes, therefore, determine income flows for air navigation service providers.\footnote{EUROCONTROL: “History of the Central Route Charges Office”, http://www.eurocontrol.int/articles/history-central-route-charges-office.}

The involvement of the military also remains an issue. Member states have to allocate exercise areas to the military, but many historically remote areas have evolved into areas with the densest traffic.\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 4.} So the issue remains, that member states have not been willing enough to take the necessary steps to improve the overall efficiency of the design and use of the European air network.\footnote{Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 3.}

\section*{5.7 \textbf{The single European sky: status quo}}

Commission’s Vice-President Siim Kallas, responsible for transport, said at a high level conference in Budapest in March 2011 that the construction of a true single sky had now entered a crucial phase. A concrete mechanism must be put in place that will allow the single
European sky to be implemented in time. In order to make this happen, Mr. Kallas called for a high level of ambition and commitment from all parties.\textsuperscript{443}

In February 2011, 35\% of European flights experienced delays.\textsuperscript{444} Extensive delays are also anticipated for the summer of 2011 in the European air traffic management network. One flight out of four is expected to be delayed by more than 15 minutes. Those numbers show the importance of accelerated implementation of the single European sky for the European air transport system. Work on the accelerated implementation is ongoing.\textsuperscript{445}

Three major steps towards a single sky were achieved at the conference in Budapest. The first step is a coordination that took place for the first time between the Commission and all partners involved in the provision of air navigation services. This was extremely important in order to anticipate the impact of the expected air traffic delays of next summer. Short-term actions for the next six months were also proposed, such as measures to enhance air traffic controllers’ mobility or to increase controlled airspace capacity. In this respect, the designation of a special network manager is important. The network manager will play an important role and his task, among others, is to propose immediate action to anticipate and mitigate expected summer traffic delays.\textsuperscript{446}

The second important step of the Budapest conference was an announcement made on behalf of the European Union and EUROCONTROL stating their intention to create a cooperation agreement. The agreement regards a reform process of EUROCONTROL as well as EUROCONTROL’s role as the performance review body and network manager for the European Union. EUROCONTROL, with its pan-European dimension and civil-military expertise, is accordingly expected to become the executive arm of the Commission for the implementation of the single European sky. For this to come into effect, two new instruments are being envisaged. For the political cooperation, a high level agreement between the EU and EUROCONTROL and for the financing mechanisms, a delegation agreement is needed.\textsuperscript{447}

The third and last big step of the conference was the important signing of a memorandum of cooperation between the European Union and the United States in the field of civil aviation.


\textsuperscript{444} EUROCONTROL statistics and forecasts”. \textit{Industry Monitor}, p. 2.


\textsuperscript{446} Conclusion of the high level conference on the implementation of the single European sky. European Commission, p. 2.

\textsuperscript{447} Information note from the European Commission on recent developments in implementing the single European sky (8187/11). Council of the European Union, p. 7.
research and development. The first annex of the memorandum covers cooperative activities and interoperability aspects in the framework of their respective air traffic modernisation programmes: SESAR and NextGen.

On 28 March 2011 the Commission adopted a new white paper on transport until 2050. The white paper presents a roadmap for the future of transport until 2050. It emphasises that today’s transport system is not sustainable and that it cannot continue to develop along the same path. With the present approach, congestion costs will increase by about 50% by 2050.

The European Union member states are under a pressure to effectively implement the single European sky framework, in particular the performance scheme and the functional airspace blocks. By the end of 2011, European targets as well as national and/or functional airspace blocks performance plans shall be adopted and in 2012 the performance scheme becomes operational.

Lately, there has been a lot of discussion on the capacity and quality of airports. Traffic management in the vicinity of airports suffers from the ‘first come, first served’ rule and there is inconsistency between airport and air traffic management operations. Therefore, a holistic network approach is needed. SES II involves airports into the single European sky initiative, referring to it as the gate-to-gate dimension of SES. The gate-to-gate dimension integrates air navigation services at airports in the single sky process. This integration will be a priority issue for the year 2011.

Since June 2007, air navigation service provision has been subject to certification and inspection. States need to reinforce the capacity of their national supervisory authorities in

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454 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Single European sky II: towards more sustainable and better performing aviation COM(2008) 389/2, p. 4.
exercising proper oversight responsibilities.\textsuperscript{456} Where air traffic services tasks exceed the air traffic controllers’ capacity in a certain state, the air traffic services need to be delegated to service providers of neighbouring states. The deployment of single European sky technologies and procedures need to be facilitated. States also need to put work in strengthening their ability to react rapidly to air traffic network crisis at national level.\textsuperscript{457}

The Single Sky Committee, states and the Commission have all expressed their serious concern regarding the lack of progress of the single European sky project. Only 21\% of the operational improvements that were planned will be implemented by the set target dates. The industry has expressed the need for efficient leadership, clear allocation of responsibilities and funding. The Commission is at the moment seeking input from EUROCONTROL, the SESAR Joint Undertaking, and the industry to propose corrective actions. The Commission is also consulting the performance review body and the network manager on this issue and seeking their opinion on the measures that may need to be taken. The Commission has also identified that the industry’s commitment needs to be renewed.\textsuperscript{458}

Even though the cost of today’s transport system in Europe is high, the creation of a well-performing transport system also requires substantial resources. The cost of planned EU infrastructure development has been estimated at over €1.5 trillion for 2010-2030. An additional trillion can then be added to this amount for investments in vehicles, equipment and charging infrastructure.\textsuperscript{459} Therefore, it is important to establish the appropriate legal and financial framework to support the single European sky policy.\textsuperscript{460}

5.8 Towards a single pan-European sky

Implementation of the single European sky implies that rules relating to air navigation services will be identical throughout the European Union. However, in European countries that are not members of the EU, rules could remain loose and divergent. This could result in a patchwork of air navigation service provision between of EU member states and non-EU member states. In order to fight this, article 7 of the framework Regulation says that the

\textsuperscript{456} Conclusion of the high level conference on the implementation of the single European sky. European Commission, p. 3.
\textsuperscript{457} Conclusion of the high level conference on the implementation of the single European sky. European Commission, p. 3.
\textsuperscript{458} Information note from the European Commission on recent developments in implementing the single European sky (8187/11). Council of the European Union, p. 5.
\textsuperscript{460} White paper – Roadmap to a single European transport area: towards a competitive and resource efficient transport system COM(2011) 144 final, p. 18.
European Community (now European Union) shall aim towards the extension of the single European sky to countries which are not members of the European Union.

In addition to the EU member states, the SES Regulations are binding on states that have entered into bilateral or multilateral air transport agreements with the EU. In 2006 the EU signed an agreement with number of non-EU member states, such as Norway, Switzerland, Iceland and the Western Balkans on the establishment of a European Common Aviation Area. The European Common Aviation Area provides the contracting states with mutual access to each others’ air transport markets and freedom of establishment with equal conditions of competitions and respect of the same rules, including air traffic management. According to article 13 of the agreement, the contracting parties shall cooperate in the field of air traffic management with a view of extending the single European sky to the European Common Aviation Area.

The European aviation market now extends to 37 countries with more than 500 million citizens. Next on the agenda is to open the single sky to neighbouring countries with the objective to expand its benefits as much as possible.

5.9 Conclusions

Heavy delays and congestion in European airspace lead to the Commission’s proposal for a single European sky. The current organisation of European airspace is fragmented according to national borders. International flights currently have to pass through national air traffic control areas and are handed over from one national authority to another. This system leads to bottlenecks and delays, forcing aircraft to fly longer distances and thereby burn more fuel. The single European sky initiative proposes to change this layout by dividing the airspace into functional airspace blocks organised around traffic flow rather than the borders of states.

The single European sky initiative composes two legislation packages. The first package (SES I) consists of four Regulations that entered into force in 2004. The first regulation is general in nature and lays down a framework for the creation of the single European sky (the

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framework Regulation). The second regulation is more specific in that it primarily focuses on the provision of air navigation services (the service provision Regulation). The third regulation deals with the organisation and use of the airspace in the SES (the airspace Regulation). The fourth regulation focuses on the interoperability of the European air traffic management network (the interoperability Regulation). These Regulations are then complemented by specific and detailed implementing rules.

The four Regulations from 2004 did not deliver the expected performance improvements. Various assessments confirmed the need to go further and set up a second legislation package if a real single European sky was to be created. With the second SES package (SES II) a step forward was taken towards establishing targets in key areas of safety, network capacity, effectiveness and environmental impact.


The two Regulations from 2009 introduce several enhancements to the existing SES I legislation package: The existing single European sky legislation is sharpened to deal with performance and environmental challenges; the competence of the European Aviation Safety Agency is extended so it cover aerodromes, air traffic management and air navigation services; the single European sky air traffic management research (SESAR) programme was established in order to provide the future technology and finally an action plan for airport capacity, efficiency and safety was implemented.

The cornerstone of the single European sky is the creation of functional airspace blocks. They are the key enablers for enhancing cooperation between air navigation service providers, in order to improve the overall performance of the European air transport system. By 4 December 2012, all EU member states must be a part of and have ensured the implementation of a functional airspace block.

The legislative process of the single European sky has not been easy. EU member states have been reluctant to give up control over their airspace and to open up restricted military areas. In supporting their case, they have referred to state sovereignty and thereby linking air navigation service to sovereignty, as well as referring to technical matters such as responsibility and liability for their airspace.

Even though some EU member states have been reluctant to embrace the concept of a single sky, other states outside of the EU have been eager to become part of it. In 2006 the
European Common Aviation Area was established with the aim of extending the single sky initiative to neighbouring countries.

6    Iceland: does it belong within a single European sky?

6.1    Iceland’s impact on European skies: the volcanic eruption in Eyjafjallajökull

On 14 April 2010 the Icelandic volcano Eyjafjallajökull erupted, producing a cloud of volcanic ash that paralysed Europe’s air systems and forced the closure of most European airports. Closure of the airports created widespread discontent among the European public as well as causing heavy financial losses. The civil aviation sector had been severely affected by the global economic recession and was not in a good position to handle the crisis that came with the volcanic eruption. Managing the situation was made even more complicated by the fact that the European sky is still divided into national airspaces. Thus, the ash cloud crisis painfully demonstrated the crucial importance of a better integration of the EU airspace management through the single European sky.465

After the volcanic eruption, EU transport ministers called for accelerated moves towards implementation of the single European sky II package (SES II).466 The Commission responded to the request by adapting the performance Regulation on 29 July 2010, 16 months before the deadline set by the legislator.467 The new Regulation introduces implementing rules on the performance of air navigation services and the designation of the performance review body.468 Another element that the Commission found essential to fast track was the appointment of a European network manager.469 The Commission has proposed to nominate EUROCONTROL as the network manager for the European air traffic management network functions but formal nomination is pending.470

The volcanic ash crisis highlighted the need for a coordinated European response in a crisis. In order to achieve this, the European aviation crisis coordination cell (EACCC) was

created. The EACCC shall respond to crisis situations by uniting all air transport stakeholders and has the authority to launch an unmanned vehicle to test the safety of the sky for manned flight. Its task is to ensure a timely response to any future pan-European crisis that severely affects aviation. In the future, the network manager will be responsible for coordinating the management of the response to a network crisis with the support of the EACCC.

Moreover, the Commission announced the establishment of an Aviation Platform. The members of the Aviation Platform are 15 top-level persons from the aviation sector, representing airlines, airports, trade unions, air traffic management and the aviation industry. The Platform will meet twice a year to discuss the challenges for the European aviation sector as well as to give strategic advice to the European Commission.

Finally, in the wake of volcanic ash cloud crisis the Commission established a working group to assess new approaches in the evaluation of risks. Based on the group findings, the Commission will make proposals to adapt and develop a better approach for safety risk assessment and risk management in relation to the closure and reopening of airspace. The Commission is also engaged in discussions and activities facilitated through ICAO, in order to seek harmonised solutions at a global level.

6.2 Iceland and the single European sky: connection, applicability and challenges

6.2.1 Iceland’s connection to the European Union: the agreement on the European Economic Area

Most of Iceland’s economic and commercial relationship with the European Union is covered by the Agreement on the European Economic Area (EEA), signed on 2 May 1992. The EEA Agreement entered into effect in Iceland on 1 January 1994 with the Icelandic act on the European Economic Area. Along with Iceland, contracting parties to the EEA Agreement are the European Union and its member states, Liechtenstein and Norway. The agreement extends the EU legislation on the internal market, with the exception of agriculture and

476 Agreement on the European Economic Area (the EEA Agreement), [1994] OJ L 1/3-36. When referring to the Agreement its Protocols and Annexes are included.
477 Lög um Eyröpska efnahagssvæðið nr. 2/1993.
fisheries, to Iceland, Norway and Liechtenstein. The EEA Agreement includes acceptance of the European Union’s common air transport policy.\textsuperscript{478}

6.2.2 Applicability of the single sky Regulations in Icelandic airspace

The four Regulations of the SES I legislation package were incorporated into annex XIII of the EEA Agreement by Decision of the EEA Joint Committee in 2006.\textsuperscript{479} Accordingly, Iceland has incorporated the first single European sky legislation package into its legislation.\textsuperscript{480} However, Regulation (EC) No 1070/2009 and Regulation (EC) No 1108/2009 (the SES II package) are still under consideration by the EEA EFTA states in the EEA Joint Committee and have, therefore, not been incorporated into the EEA Agreement.\textsuperscript{481} Iceland is currently negotiating adaptive measures, considered necessary by the Ministry of the Interior, before it can implement Regulation (EC) No 1070/2009.\textsuperscript{482}

The airspace Regulation (EC) No 551/2004 first established conditions for the organisation and use of airspace within the single European sky and the requirement to establish functional airspace blocks.\textsuperscript{483} According to article 1(3), the Regulation only applies to the airspace within the ICAO EUR and AFI regions where member states are responsible for the provision of air traffic services.\textsuperscript{484} Both Norway’s and Liechtenstein’s airspaces are within the ICAO EUR region and they are, accordingly, bound to join a functional airspace block. The Icelandic airspace, on the other hand, falls within the ICAO NAT (North Atlantic) region. This basically means that according to ICAO rules, Iceland’s airspace region is ‘outside of Europe,’ resulting in the fact that Iceland is not obligated, under the airspace Regulation, to be part of a functional airspace block.\textsuperscript{485} Iceland still has the opportunity to

\textsuperscript{478} The EEA Agreement, annex XIII.
\textsuperscript{481} Both Regulation have been identified as EEA relevant and are currently under discussion for incorporation into the EEA Agreement.
\textsuperscript{482} According to information received by e-mail on 14 April 2011 from Ms. Valgerður Guðmundsdóttir, Legal Advisor with the Ministry of the Interior, Regulation (EC) No 1070/2009 is not likely to be adopted into the EEA Agreement in 2011.
\textsuperscript{483} The airspace Regulation, article 5.
\textsuperscript{484} ICAO divides the world into the following regions: Africa (AFI), Asia Pacific (ASPAC), Europe (EUR), Commonwealth of Independence States (CIS), North America (NAM), North Asia (NASIA), North Atlantic (NAT), Latin America and the Caribbean (LATAM) and Middle East and North Africa (MENA).
\textsuperscript{485} Evaluation of Functional Airspace Block (FAB) Initiatives and their contribution to Performance Improvement. EUROCONTROL Performance Review Commission, p. 4.
include its airspace in a functional airspace block, if it wishes to do so, both under article 1(3) of the airspace Regulation and the agreement on the European Common Aviation Area.\textsuperscript{486}

This situation will change when Regulation (EC) No 1070/2009 will be incorporated into the EEA Agreement. Like previously discussed, Regulation (EC) No 1070/2009 moves the requirement to establish functional airspace blocks from the airspace Regulation and into the service provision Regulation. In this context it is important to note that the service provision Regulation does not contain a clause linking its applicability to certain ICAO regions. Therefore, it can be concluded that the service provision Regulation applies to all EEA and EU member states, no matter what ICAO region they belong to. This leads to the fact that when Regulation (EC) No 1070/2009 will be incorporated into the EEA Agreement, Iceland will be bound to join a functional airspace block.

Regulation (EU) No 691/2010 (the performance Regulation), laying down a performance scheme for air navigation services and network functions, has been identified as a key Regulation for the achievement of a single European sky. As discussed in chapter 5.4.2.1, it lays down the necessary measures to improve the overall performance of air navigation services and network functions for general traffic. According to article 1 of the Regulation, it only applies within the ICAO EUR and AFI regions where member states are responsible for the provision of air navigation services. As a result, the Regulation will not become binding to Iceland when incorporated into the EEA Agreement.\textsuperscript{487} This is interesting, especially due to the fact that the performance Regulation is profoundly important for the overall achievement of the single European sky. Icelandic authorities may, however, apply the Regulation if they wish to do so as long as they inform the Commission and the other member states thereof.\textsuperscript{488}

The fact that Iceland is neither a part of EUROCONTROL nor the European Union results in complexity with regards to the funding of certain single European sky projects. EUROCONTROL performs various tasks on behalf of the European Commission, such as drafting implementing rules and performing tasks as both the performance review body as well as the network manager. These tasks are all funded by the Union. It has not yet been concluded how Iceland and Norway will pay for the service provided by EUROCONTROL,

\textsuperscript{486} Article 1(3) of the airspace Regulation says that the Regulation applies to the airspace within the ICAO EUR and AFI regions where member states are responsible for the provision of air traffic services in accordance with the service provision Regulation. Member states may also apply the Regulation to airspace under their responsibility within other ICAO regions, on condition that they inform the Commission and the other member states thereof.

\textsuperscript{487} The performance Regulation has been identified as EEA relevant and is currently under discussion for incorporation into the EEA Agreement.

\textsuperscript{488} Article 1(6a) allows for the Regulation to be applied in other ICAO regions if the Commission and other member states are notified.
since neither of them are members of the EU. This matter needs to be concluded before the SES II Regulation package is adopted into the EEA Agreement.489

6.2.3 Iceland as a member of the North European functional airspace block

Iceland has declared that it will participate in the ‘North European functional airspace block’ (NEFAB).490 Beside Iceland, the NEFAB was planned to encompass the countries of Denmark, Estonia, Finland, Greenland, Latvia, Norway and Sweden.

While some FABs have already been established, the NEFAB is still in the early stages of preparation and it is one of the least advanced.491 The cooperation of the countries in the NEFAB has so far been based on Statement of the Transport responsible Ministers, including precise guidance on the basis of the NEFAB Foundation Report, signed on 22 September 2010. The countries made a feasibility study on the NEFAB in 2010 which was to be used as a basis for decisions by the governments to establish NEFAB.492 The feasibility study has caused controversy between the countries and no final decision has been taken.493

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The NEFAB was planned as an expansion of the Danish-Swedish airspace block (DK/SE FAB).494 The Danish and Swedish air navigation service providers have, however, been dissatisfied about the slow progress on the formation of the NEFAB.495 On 8 March 2011 they signed a memorandum of understanding with the British and Irish air navigation service providers, wishing to intensify their cooperation and at the same time they declared their withdrawal from the NEFAB cooperation. A Government proposal has been prepared for a merger of the UK-Ireland FAB and the Danish-Swedish FAB.496 Because of these circumstances the fate of the NEFAB is at present somewhat unclear.497

489 According to information received from Mr. Reynir Siguðrsson, Director of ANS and aerodromes at the National Supervisory Authority of Iceland, by e-mail on 25 September 2011.

490 When asked why Iceland should join a functional airspace block, Mr. Georg Jarzembowski, the coordinator of the European Commission for the functional airspace blocks system, answered that Iceland could hardly apply for membership of the European Union and at the same time say that it does not want to be part of the single European sky and its FAB component. However, this view does not necessarily reflect the view of the European Commission (information received by e-mail on 8 April 2011).


493 According to information received from Mr. Georg Jarzembowski, Functional Airspace Blocks System Coordinator, by e-mail on 8 April 2011.


495 According to information received from Mr. Georg Jarzembowski, Functional Airspace Blocks System Coordinator, by e-mail on 8 April 2011.


497 According to information received from Mr. Georg Jarzembowski, Functional Airspace Blocks System Coordinator, by e-mail on 8 April 2011.
Greenland was a part of NEFAB in the beginning but Denmark has now declared that the Greenland area (Sønderstrøm flight information region) will not be included in any FAB with reference to the self-government of Greenland. This is likely to cause some problems for Iceland, since Iceland is responsible for the provision of air navigation service in the upper airspace above Greenland. The question that remains is if will be possible for Iceland to divide the airspace under its responsibility in a way that only part of it falls within the NEFAB.

As well as providing air navigation service over Greenland, Iceland is responsible for service provision in a large airspace over the high seas. With regards to this portion of the airspace, Iceland is bound by international agreements concluded within ICAO. Therefore, Iceland does not have the power to allocate airspace over the high seas that fall under its responsibility into a functional airspace block unless consulting with ICAO. Icelandic authorities are currently investigating the possible applicability and interoperability of the single European sky and ICAO requirements and whether it is possible to fully include all areas under their responsibility into NEFAB.\textsuperscript{498} Since this work is still pending, the position of Iceland within the single European sky is still unclear. With regards to this subject, it is interesting to note that Iceland has for many years provided air navigation services in the airspace above foreign territory (Greenland) on the basis of delegation and is, therefore, technically already part of a functional airspace block, as the term is defined.\textsuperscript{499}

At the end of March 2011, the air navigation service providers of Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Norway, Sweden and United Kingdom, announced the start of the process of defining a formal air navigation service provision (ANSP) alliance, currently named Borealis. Over the next year, these states are setting up a new executive management team to prepare the legal and financial ground to enable specific joint ventures, aimed at greater cost efficiency across the whole airspace. The initial alliance structure will be established by June 2011 with the appointment of an executive management team. Their task will be to develop candidate joint ventures and associated formal agreements to develop and accelerate closer harmonisation between that states. With this the alliance hopes to achieve greater operational efficiency and lower costs across their common airspace. This approach is

\textsuperscript{498} According to information received from Mr. Reynir Siguðrsson, Director of ANS and aerodromes at the National Supervisory Authority of Iceland, in a meeting on 15 April 2011.
\textsuperscript{499} Supra note 329.
in line with the cooperation under the current NEFAB as well as the merger of the UK-Ireland FAB and the Danish-Swedish FAB.\textsuperscript{500}

6.2.4 \textit{Financing of air navigation service provision and associated problems}

Iceland is in a special position because of its geographical location. In the airspace over the Atlantic Ocean, namely the ICAO North Atlantic Region, several states offer air navigation services for the tremendous amount of air traffic over the high seas between the continents on each side. It was considered unreasonable to hold Iceland and Denmark (on behalf of Greenland) financially responsible for the provision of air navigation services for flights crossing the Atlantic, only because of their geographical position.\textsuperscript{501} In favour of Iceland and Denmark, the ICAO Council decided in 1956 to conclude special financing arrangements with the two countries, with regards to \textit{inter alia} the provision of air traffic services. According to the agreement Iceland is obligated to operate and maintain the services referred to in the agreement without interruption and in an efficient manner in accordance with the applicable ICAO rules (the SARPs).\textsuperscript{502}

The Chicago Convention recognises that a state may impose national rules and regulations in the airspace above its territory as well as territorial waters adjacent thereto.\textsuperscript{503} However, Iceland is providing services in airspace beyond its territory and cannot apply its own rules over the high seas. In order to understand the regime that is governing the airspace over the high seas, the United Nations Convention on the Law of the Sea should be taken into account.\textsuperscript{504} Because of this, and the fact that Iceland is bound by the Joint Financing Agreement concluded within ICAO, it cannot participate in the common charging scheme for air navigation services, established by the Commission Regulation (EC) No 1794/2006. The European Commission has allegedly declared that it doubts Iceland can be part of a functional airspace block with another charging scheme than the rest of the EU/EEA member states.\textsuperscript{505} This yet again confirms the complexity of Iceland’s position within the single European sky.

\textsuperscript{500} \textit{UK-Ireland – Functional Airspace Block Plan 2011-14 final 05.04.11}. The Iris Aviation Authority and NATS (National Air Traffic Services UK), p. 33-34.  
\textsuperscript{501} Antwerpen: \textit{Cross-Border Provision of Air Navigation Services with Specific Reference to Europe}, p. 96.  
\textsuperscript{503} The Chicago Convention, article 1.  
\textsuperscript{505} According to information received from Ms. Valgerður Guðmundsdóttir, a Legal Advisor with the Ministry of the Interior on 14 April 2011.
6.3 Conclusions
Even though the volcanic eruption in Eyjafjallajökull in 2010 caused heavy financial losses the upside is that it proved the pressing need for a single European sky. The excessive closure of European airspace due to poor planning and lack of coordinated response also demonstrated the great importance of European cooperation.

Iceland is connected to the European Union and its air transport policy with the Agreement on the European Economic Area, signed in 1992. Accordingly, the first single European sky Regulation package has already been adopted into Icelandic legislation. The second Regulation package from 2009 is still under consideration with the EEA Joint Committee.

Even though not yet obligated to do so, Icelandic authorities have announced Iceland’s participation in the establishment of the North European Functional Airspace Block (NEFAB). The NEFAB is still in the early stages of preparation and its future is still somewhat unclear. The position of Iceland within the single European sky is rather complex, mainly due to its geographical location. The fact that Iceland is joining the North European functional airspace block, even though it is neither an EU member nor does its airspace lie within the ICAO EUR region, raises number of issues that need to be solved.

Iceland provides air navigation services in the airspace above its own territory, over Greenland as well as in a larger portion over the high seas. Despite Iceland’s large service provision area, Icelandic authorities only have sovereign rights to allocate the airspace above its own territory into a functional airspace block. Denmark has declared that Greenland will not be a part of NEFAB and ICAO’s permission is needed before the airspace over the high seas can be included into a functional airspace block. The question that remains is whether it is feasible for Iceland to participate in a functional airspace block with only part of the airspace under its domain.

7 Final conclusions
International civil aviation is based on a highly complex system of multilateral conventions and agreements, both in public and private international law, as well as intergovernmental decisions, national legislation and jurisprudence of different courts. The reason for such complex legal framework is the fact that aviation is to a large extent a cross-border activity requiring extensive cooperation between states, both on a regional and an international level.
One of the most important aspects of this cooperation relates to the management of airspace and air traffic.

As a result of this cooperation, most states of the world have to a certain level delegated regulatory competences in the field of aviation to international organisations. This thesis has explored to what extent the European Union member states have delegated their competences to different international organisations engaged in the regulation of air traffic management. The difference between the rule-making and enforcement powers of the EU and those of other organisations has also been explained.

On a global level, the International Civil Aviation Organisation (ICAO) has been the forum for negotiations of most of the world’s major multilateral conventions in the field of air law. ICAO has provided a leading global framework for air traffic management that has been acknowledged and implemented throughout the world. ICAO’s founding treaty, the 1944 Chicago Convention, forms the basis for agreements which the aviation industry is built upon.

Besides ICAO, three European bodies impose legal framework for the provision of air navigation services. These are the European Civil Aviation Conference (ECAC), the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the European Union.

ECAC has neither rule-making nor enforcement competences and its functions are mainly consultative. However, EUROCONTROL has been accorded with such competences on the basis of the 1997 Protocol consolidating the EUROCONTROL Convention (the Revised Convention). The Revised Convention enables EUROCONTROL to issue rules that are binding to its contracting parties. These are similar to the standards issued by ICAO; both rely on implementation by member states into their own legal order. However, as is classical for international organisations, ICAO and EUROCONTROL allow states to deviate from mandatory rules by filing the differences. In terms of applying enforcement measures ICAO lacks competencies. The Revised EUROCONTROL Convention provides for an enforcement mechanism by way of arbitration that can be triggered by the member states as well as the organisation itself.

The European Union is also able to issue binding rules in the field of air navigation services. Unlike ICAO, ECAC and EUROCONTROL, the European Union does not allow states to deviate from its mandatory rules and can force member states to adhere to its decisions, even if they are adopted against the will of some states. The result is that out of all the intergovernmental parties engaged in aviation rule-making at European level, the
European Union is the most developed with regards to international law and the only organisation that can be considered a supra-national organisation.

Having three international organisations with overlapping competences can have side effects. These are mainly reduced transparency in terms of which organisation bears the rule-making and enforcement competence at each particular level. As ICAO is only involved in high level rule-making and has virtually no enforcement competences the main issue is between EUROCONTROL and the European Union.

What is confusing is that the EU has become a contracting party to the Revised Convention and, therefore, has to recognise the rule-making role granted to EUROCONTROL. As far as rule-making competences are concerned it does not seem that European Union law has supremacy over EUROCONTROL legislation.

According to article 4(2)g of the Treaty on the Functioning of the European Union (TFEU), the member states and the Union share the power to legislate and adopt legally binding acts in the field of transport. For a long time, the European Community left air transport out of its agenda as the matter was to a large extent dealt with on intergovernmental basis through bilateral and multilateral agreements. Nevertheless, the continuous expansion of Union powers in different fields has raised the question whether the European Union could or should involve itself in the regulation of international aviation.

Interesting in this context is the important principle on states’ sovereignty. According to that principle, states retain exclusive control of the air above their territories and no international air service may be operated over or into the territory of a contracting state, except with the authorisation of that state. However, for the aviation industry to operate effectively it is necessary for states to grant aircraft of other states the right to fly into and across their territory. Based on these grounds, states have established so-called ‘open skies’ agreements which allow for unrestricted service by the airlines of each country to, from and beyond the other’s territory. In 1992, the United States offered open skies agreements to various EU member states with the intent to create alliances between American and European airlines. The European Commission was of the opinion that it should be able to collectively negotiate external air transport relations on behalf of all its member states. The dispute went to the European Court of Justice which accepted the Commission’s claim of implied external competence in the matter. The Court, thereby, confirmed EC’s exclusive competence to negotiate air transport agreements on behalf of its member states.

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506 Convention on International Civil Aviation (the Chicago Convention), article 1.
Globalisation of markets, the emergence of low budget airlines and the greater mobility of migrant workers and tourists have placed enormous demands on European aviation infrastructure. As a result, European airspace is one of the busiest and congested airspace in the world. Taking the United States air traffic management system as a model, it is clear that there are several ways to mitigate Europe’s congestion.

Historically, individual states have been responsible for air traffic management, thus giving rise to a fragmented system based on national interest. The European air traffic management network is operated by a multitude of national air navigation service centres that are responsible for controlling air traffic in their airspace. In turn, this has a negative effect on en-route management, resulting in inefficient use of airspace.

In order to respond to increasing congestion of the skies the European Commission launched the single European Sky legislative framework (SES I) for European aviation in 1999. Although the EC had undertaken some rule-making initiatives before, its serious internal law-making competences in the area of air traffic management first materialised with the SES I Regulation package and the subsequent implementing rules. With the adoption of the single European sky Regulations in 2004 there was no longer any doubt that the EU had expanded its competences to the field of air navigation services and management of the airspace.

The SES I Regulation package puts forward a legislative approach to reform the architecture of the European air traffic management system. The EU’s main objective is to break down the artificial barriers that are currently limiting the free flow of traffic and create a uniform gate-to-gate system for European citizens. This will be done by turning European skies into an integrated airspace governed by uniform principles and rules. A key tool proposed by the SES initiative in this respect is the so-called ‘functional airspace blocks’ (FABs). Within functional airspace blocks two or more countries can cooperate to integrate their airspace and designate a single service provider to control air traffic in that block. FABs may also be extended to non-EU countries.

The European Union has emphasised that in order for the single sky to become a reality it must have powers over the European airspace. This means that EU member states are no longer able to issue legislative measures regarding the airspace above their territory. However, the problem is that most EU countries had already delegated their powers in nearly all aspects of air traffic management to EUROCONTROL. The powers of EUROCONTROL, therefore, collided with corresponding powers of the EU. It was decided that the best way to solve this problem was for the European Union to join EUROCONTROL. As a result,
EUROCONTROL is identified as one of the key players in the implementation of the single sky. EUROCONTROL performs various tasks on behalf of the European Commission, such as drafting single European sky implementing rules and acting as both the performance review body and network manager.

The first single European sky legislative package did not deliver the expected results in important areas. Consequently, a second Regulation package (SES II) was adopted in 2008. A number of improvements were provided with SES II, such as increased emphasis on environmental protection and target setting in order to improve performance. Tasks of the European Aviation Safety Agency and EUROCONTROL were increased substantially. SES II sets 4 December 2012 as deadline for states to take necessary measures to ensure the implementation of functional airspace blocks. In order to facilitate their establishment, the Commission has designated a natural person as a FAB Coordinator. He acts impartially with the aim to help states overcome difficulties in their negotiations.

The functional airspace blocks have been identified as key enablers of the single European sky and without their establishment a single sky is not likely to become a reality. However, member states have recognised the creation of FABs as a real challenge. They claim that the creation of such airspace blocks suffers from significant technical and organisational difficulties, particularly concerning member states’ responsibilities and associated liability for their airspace and the involvement of the military. Certain member states have become concerned that the European Union has trespassed too far into law-making territory that ought to be reserved for national or domestic authorities. They fear that present EU law is unable to act as an effective brake on the EU’s ever-expanding competences. These states have argued that by handing over the control of their airspace they are losing a part of their sovereignty and that such loss cannot be adjusted for in EU Treaty provisions. Air navigation service providers have also objected since they fear that rearrangements in service provision will result in job cuts. Arguments like these have been used as a showstopper by member states who wish to resist enhanced cross-border cooperation and integration. When considering criticism regarding EU’s law-making powers it should be kept in mind that the greatest expansion of European Union competence has been through successive Treaty revisions where the member states themselves have willingly accorded new competences to the EU.

Although the member states of the European Union are perhaps no longer truly independent actors they are still independent subjects of international law and bound to their international obligations. Examples of such obligations are those imposed upon them by the virtue of the 1944 Chicago Convention. Iceland is a case in point of overlapping obligations.
of international and EU law. Iceland, connected to the single European sky via the EEA Agreement, actively participates in the establishment of the North European functional airspace block. However, a large part of the airspace that Iceland is responsible for is over the high seas and, accordingly, under the domain of international law and ICAO. Before Iceland can allocate this airspace into a functional airspace block agreements must be reached within ICAO on the matter.

As the legal basis behind the single European sky initiative is based on shared competences between the Union and the member states, the principles of subsidiarity and proportionality must be observed. In line with those principles, as well as to meet governments’ concerns, the current single sky legislation provides for a bottom-up approach.

The current legislation has provided powerful tools to improve the performance of Europe’s airspace but, nevertheless, member states have not yet made sufficient use of those tools. If the measures provided for in the second SES legislation package will not demonstrate progress in the overall efficiency of the design and use of the European route network the Commission has indicated it will shift to a top-down approach. With its enforcement efforts undertaken against Greece for failing to meet its obligations according to single European sky legislation the European Commission has demonstrated that the Union will not hesitate to pursue enforcement measures against its member states.\footnote{The Commission delivered to opinions to Greece (in December 2005 and June 2006). See chapter 5.3.2.}

The gate-to-gate dimensions of the SES II package integrate air navigation services at airports into the single sky process. However, many of Europe’s major airports are capacity constrained. Yet, the single European sky legislation does not address this particular problem since it falls within local or national planning of states, over which the EU has limited power. Also, related to the problem of congested airspace is the need to use airspace for military purposes. Civilian aircraft flying from one location to another often need to circumnavigate large areas of airspace reserved for military aircraft instead of being able to fly in a straight line. This inefficient use of airspace contributes to prolonged flight times and causes delays. However, defence and security are the two subjects where there is least readiness to cede power from member states to Brussels institutions.\footnote{Witney: “Global power or big Switzerland?”, p. 43.} Even though the Lisbon Treaty introduces changes in this field the Union still has limited power to interfere with military matters.\footnote{TEU, articles 42-46.}
Those arguments aside, the SES project is an ambitious attempt to streamline the European aviation network. As to whether it achieves its lofty objectives is still a matter of speculation. What will be interesting to analyse is whether the bottom-up approach to the project will succeed or whether at some later date the Commission will have to intervene and direct the implementation from the top down. Only time will tell whether the single European sky project will truly produce a *single* sky. Nevertheless, it is important to remember that European skies are only one piece of the puzzle in a big global network.
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