

Unifying Europe's Airspace

Volcano-related flight cancellations accelerate Single European Sky plan

Europe's air traffic management system is under harsh scrutiny for its lack of cohesiveness during the unexpected shutdown of airspace over much of northern Europe in April 2010, as an ash cloud drifted from Iceland's Eyjafjallajökull volcano. The unprecedented closure of European airspace cost airlines and related businesses more than 2.5 billion euros (about \$3.15 billion). As a remedy, the European Union agreed to fast-track the long-awaited Single European Sky (SES) program, with plans for implementation by 2012.



Ash rises from a volcano erupting under the Eyjafjallajökull glacier in Iceland in May 2010. Dense volcanic ash from Iceland knotted air traffic in northern and western Europe, causing millions of passengers to be stranded not only in Europe, but across the world.



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The SES program will unify European airspace, simplify and standardize flight rules and routes, and install a comprehensive computer system to standardize communications. The goal is to consolidate the airspaces of 27 countries into nine regional blocks that could share air traffic control systems and governance. By merging the airspace, pilots can fly more direct routes, decreasing fuel costs and pollution.

The SES program would overhaul an air traffic management system that has remained unchanged since the 1960s and has contributed to flight congestion. A unified system would boost airspace capacity and improve air safety for both civilian and military flights. In the case of the volcano crisis, which disrupted flights worldwide, a single European sky “would not have solved the problem, but would have enabled a more nimble response,” EU transport commissioner Siim Kallas said.

A disjointed shutdown

After the eruption in April, the London Volcanic Ash Advisory Centre reported an impending threat of ash clouds to relevant civil aviation authorities. Because volcanic ash contains silica, which damage aircraft engines, authorities within each airspace had to determine whether flying was permissible.

As a result, on April 16, 2010, about 16,000 of Europe’s 28,000 daily scheduled passenger flights were cancelled. A day later, 16,000 of 22,000 flights were cancelled. By April 21, about 95,000 flights had been grounded, according to the BBC. These disruptions continued into May, affecting air travel in the United Kingdom and Ireland on May 4 and 5, and in Spain, Portugal, northern Italy, Austria and southern Germany on May 9. Irish and British airspace closed again May 16 and reopened May 17. The closures stranded millions of passengers. Weary travelers scrambled for ferry

tickets. Taxis and trains were overwhelmed. Virgin Holiday Cruises said telephones rang incessantly, as marooned airline customers inquired about trans-Atlantic fares to New York.

With large parts of European airspace closed, the impact spread around the world. According to estimates by the International Air Transport Association, the closures paralyzed 29 percent of all global flights. Over the weekend of April 17 and 18 alone, airlines lost 634 million euros (about \$800 million) in revenue. The Association of European Airlines estimated total losses at nearly 794 million euros (about \$1 billion).

Creating a "single sky"

Under the SES program, crisis management will be better coordinated and integrated. The partner nations would agree to share information, combine networks, protect airspace, share staff and implement joint security policies against possible threats, according to a document called the Single European Sky Air Traffic Management Research. However, Luc Tytgat, the European Commission official in charge of

SES, said in April 2010 that member states will retain the power to close national airspace for security and defense.

The United States and the EU reached a similar agreement in June 2010 to make skies "seamless" between Europe and North America. "Harmonization is the key to the future of air travel over the North Atlantic," said U.S. Federal Aviation Administration Chief Operating Officer Hank Krakowski, who signed a deal with Daniel Calleja, the European Commission's director for air transport. "This agreement allows us to work together to give the airlines a seamless transition between our airspaces."

A consistent standard

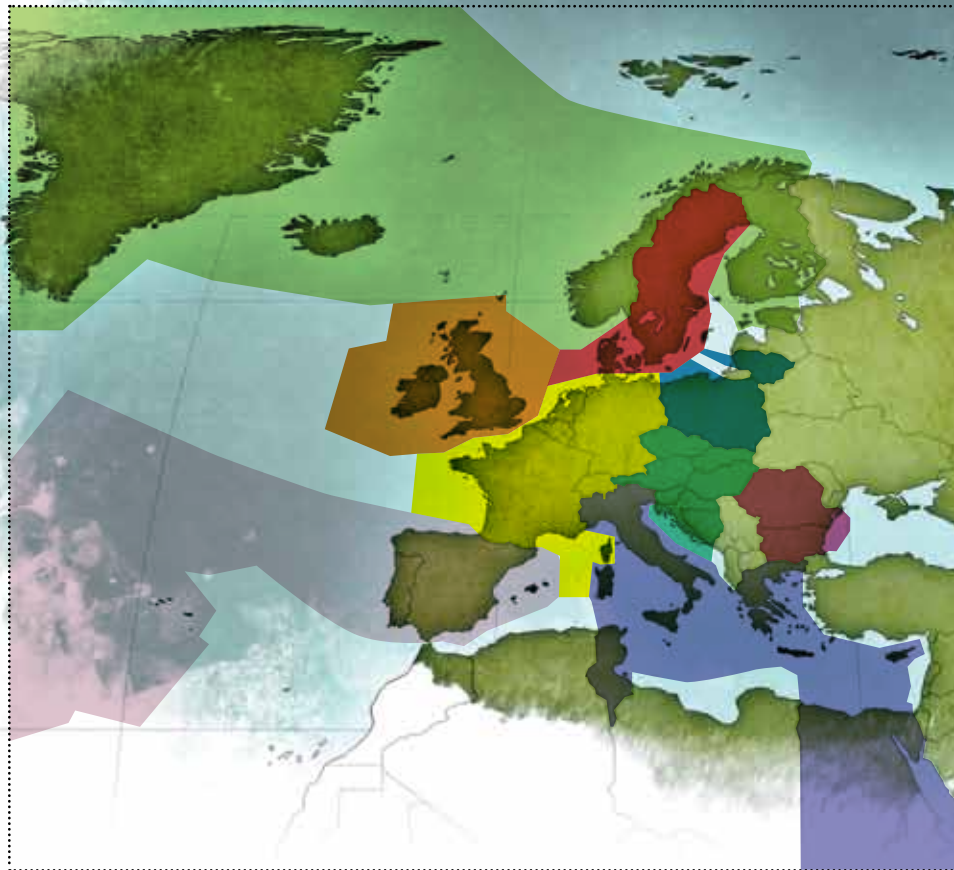
EU transport ministers are expected to appoint Eurocontrol as the new performance-reviewing body that oversees air traffic controllers. It would have authority to measure efficiency by a single standard. Eurocontrol, founded in 1960 and funded by member nations and airline fees, would manage Europe's first unified network of international air lanes.

Many welcome the change. During the volcano crisis, the EU and Eurocontrol tried to reopen the skies on April 19 after feeling pressure from airlines that contended they were losing 198 million euros (about \$250 million) a day. Airlines flew test flights to measure ash, declaring the flights problem-free. These companies say European regulators overreacted and demanded they establish internationally recognized standards of determining when volcanic ash harms aircraft engines. As Steven Verhagen, vice president of the Dutch pilots union, said on April 18: "We are asking the authorities to really have a good look at the situation because 100 percent safety does not exist. It's easy to close down airspace because then it's perfectly safe, but at some time you have to resume flights."

Andrew Haines, head of Britain's Civil Aviation Authority, defended the decision to close airspaces, saying aircraft manufacturers did not provide information regarding safe levels of ash. As signs of ash diminished, airspace reopened gradually over Europe, but airlines continue to ponder whether they could have flown safely all along.

Single European Sky has been under discussion for two decades, and some are frustrated that the program has not progressed quickly enough. In a June 2010 meeting, the International Air Transport Association and EU





The Single European Sky program proposes integration of airspace across borders through nine functional airspace blocks. Sectors and routes currently adhere to national borders rather than follow direct routes, incurring additional expense as aircraft pass from one navigation service to another.

- North Europe
- Sweden and Denmark
- UK-Ireland
- Western Europe
- Lithuania and Poland
- Central Europe
- Bulgaria and Romania
- Spain and Portugal
- Mediterranean

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transport ministers vented these frustrations. “We have been waiting decades for Europe to unite its skies. The volcano resulted in tiny promises of incremental progress on some elements of the SES. As the transport ministers are not able to take leadership on this issue, I call on heads of state to end the decades of embarrassment caused by this European failure and set a date for the transport ministers to deliver the 5 billion euro savings that a real SES will bring,” said Giovanni Bisignani, IATA’s director general and chief executive.

Not everyone favors the idea of a single sky. Integrating airspace may cost jobs among air traffic controllers. French controllers went on strike in July 2010 to protest SES, forcing mass cancellation of flights. If untangling airspace makes flying across Europe more efficient, the number of people employed as flight attendants and baggage handlers could also decline.

Disruptions at all levels

But few dispute the need for change. Civilian air travelers were not the only people affected by the volcano crisis. NATO flights evacuating ill and wounded soldiers that normally went to Landstuhl Regional Medical Center in Germany

were re-routed on April 19, the U.S. Department of Defense said.

Some countries were hit harder than others. Norway was forced to relocate its ambulances and medical personnel, and the Norwegian government reported total closure of its airspace. It grounded 21 search-and-rescue and medical aircraft. Oil companies couldn’t fly personnel to platforms in the North Sea, forcing existing crews to stay on duty. In Poland, the flight disruptions upset the funeral of President Lech Kaczyński, who died in an unrelated plane crash just before the airspace shutdowns. Without the ability to fly, some foreign dignitaries could not attend the memorial services.

Going forward, most EU officials view the SES as an immense, groundbreaking enterprise necessary to handle the growing demands of air travel in Europe, where the number of flights is expected to double between 1997 and 2020. Bisignani, head of the International Air Transport Association, applauded the decision to fast-track airspace integration. “The volcanic ash crisis that paralyzed European air transport for nearly a week made it crystal clear that the Single European Sky is a critical missing link in Europe’s infrastructure,” he said. □