| Briefing	Aviation ETS: A Meaningful Future?

Context

The one year pause for aviation in the EU Emissions Trading System (ETS) has intensified international debate on finding a global emissions deal for aviation. This pause will finish at the end of the year and aviation in the ETS will revert to full enforcement next January. Some countries, led by the US, are pressing for any future scope to be limited to "EU airspace", which would be environmentally ineffective and unacceptable. If the ETS is to be amended, it should be on the basis of maximum coverage of emissions generated by international flights.

Introduction

The International Civil Aviation Organisation (ICAO) was tasked in 1997 by the Kyoto Protocol with reducing international aviation emissions. 16 years later, there is still no binding international commitment to do so. Discussion at ICAO has recently been stimulated by the escalating dispute over the inclusion of aviation in the EU ETS, and the decision to "stop the clock" on extra-European flights for a year to create political space for ICAO to act. Talks are proceeding on two tracks: whether and how to agree a global market-based measure (MBM) and, pending such a development, how to agree an "MBM Framework" which would guide states/regions when implementing their own MBMs. A key element of the framework is the geographic scope under which states/regions would regulate emissions. Two alternatives with variants within each are being discussed: departing flights or airspace. We propose a variant to the departing flights alternative that we call "50/50".

Current ETS, Departing Flights or 50/50

Departing flights is a route-based approach, where emissions are regulated over the whole flight, from departure to arrival. This is the nearly universal basis on which aviation emissions are calculated by ICAO, UNFCCC, governments and airlines. Currently, the EU ETS regulates both departing and arriving extra-European flights and all intra-EU flights. The full coverage of intra-EU flights is not in question. However, for extra-European flights, if it was decided to scale back the ETS, regulation could be limited to departing flights only, or to 50% of the departing leg and 50% of the arriving leg of all flights to or from the EU (the 50/50 option). Both these options have the same environmental effect. The following graphs demonstrate real-world examples of the extra-EU emissions which would be covered by the current EU ETS, the departing flights approach or the 50/50 approach.


Current ETS
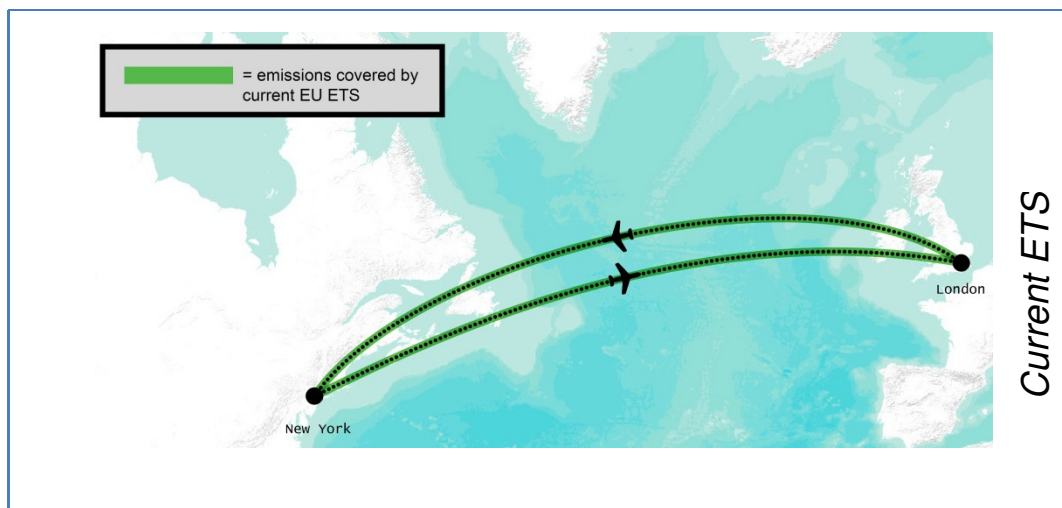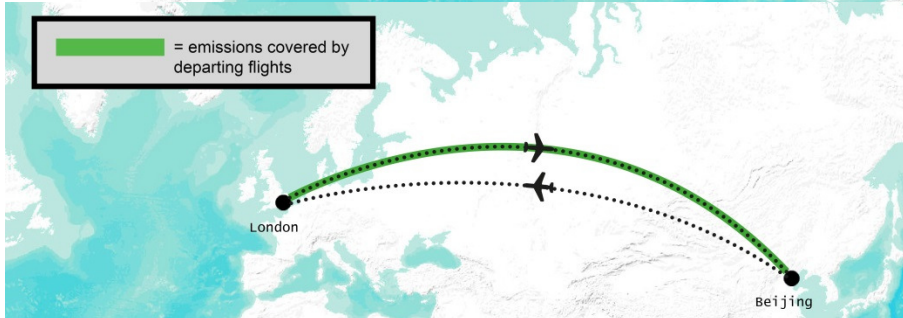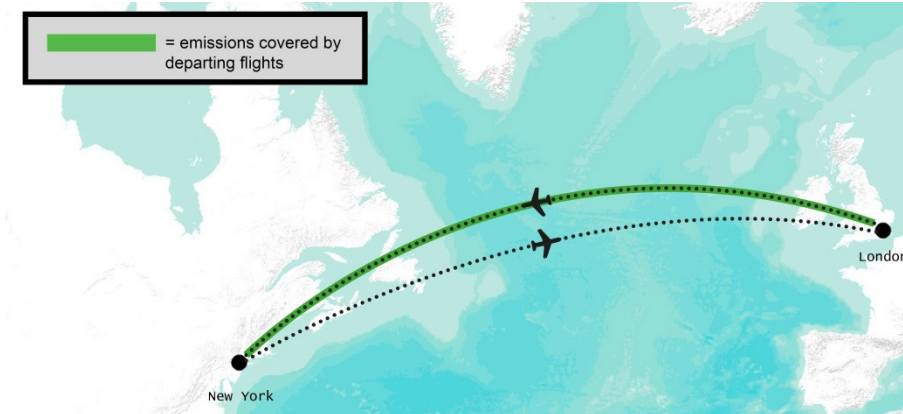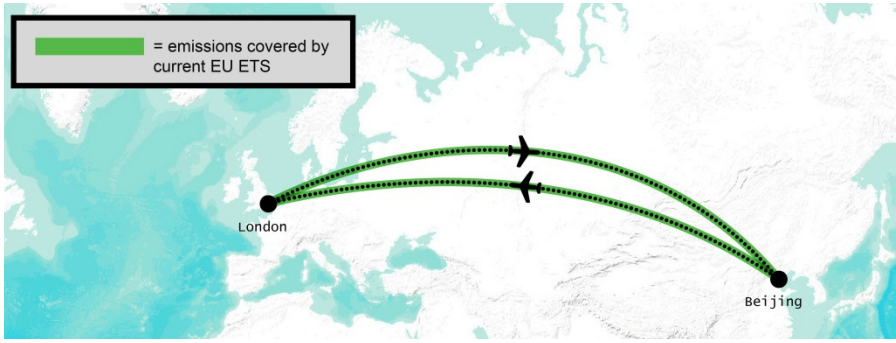
Departing flights option
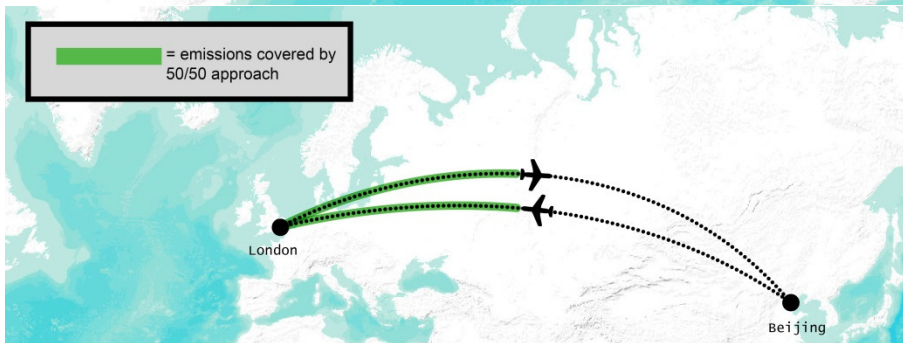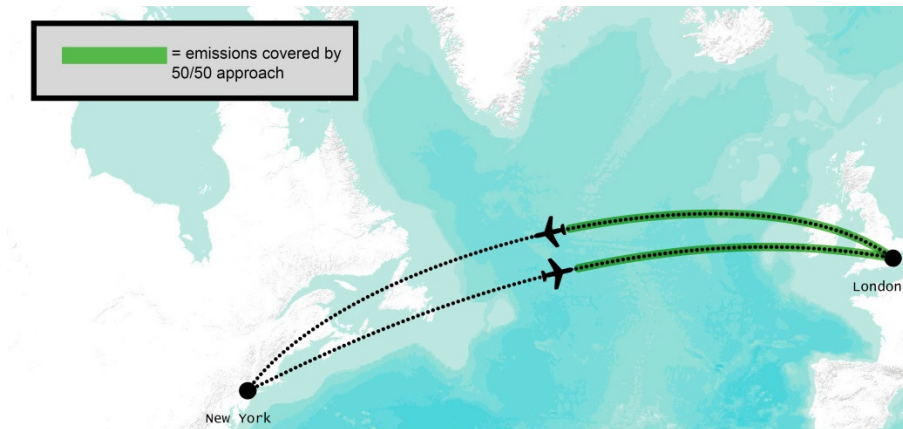
50/50 option

Sovereign Airspace and Regional Airspace

Under a sovereign airspace regime, a country would regulate emissions solely for the portion of international flights within or above its sovereign territory (out to the 12 mile limit). Under this option, flights over other countries' territory or the high seas would not be regulated. Applying airspace globally would capture ONLY 22% of international emissions, and ONLY assuming every country imposed regulations.

The sovereign airspace approach could also not be used to scale up to a global MBM. Aside from the large number of unresolved territorial disputes around the world it would also create an administrative nightmare by subjecting a large proportion of international flights to the regulation of multiple jurisdictions. Finally, emissions over international waters (about 50% of global emissions) would go completely unregulated.

The EU is being pressured by many ICAO states to limit its ETS to "regional airspace" - loosely defined as the sum of the sovereign airspace of the 28 EU Member States. This would leave gaps in coverage with sections of flights over the Baltics and parts of the Mediterranean and North Seas being over international waters. For intra-EU flights this issue could be avoided by regulating flights between two EU points. For extra EU flights "regional airspace" could perhaps include some perimeter definition. Even so, some countries e.g. India reject regional airspace outright and may only accept a strict interpretation of sovereign airspace. The USA has indicated it would not object if the EU ETS was restricted to "EU regional airspace". The aviation industry body, IATA opposes the idea due to the administrative difficulties that would be created and the potential for patchwork regulation that it would create.

Regional airspace option
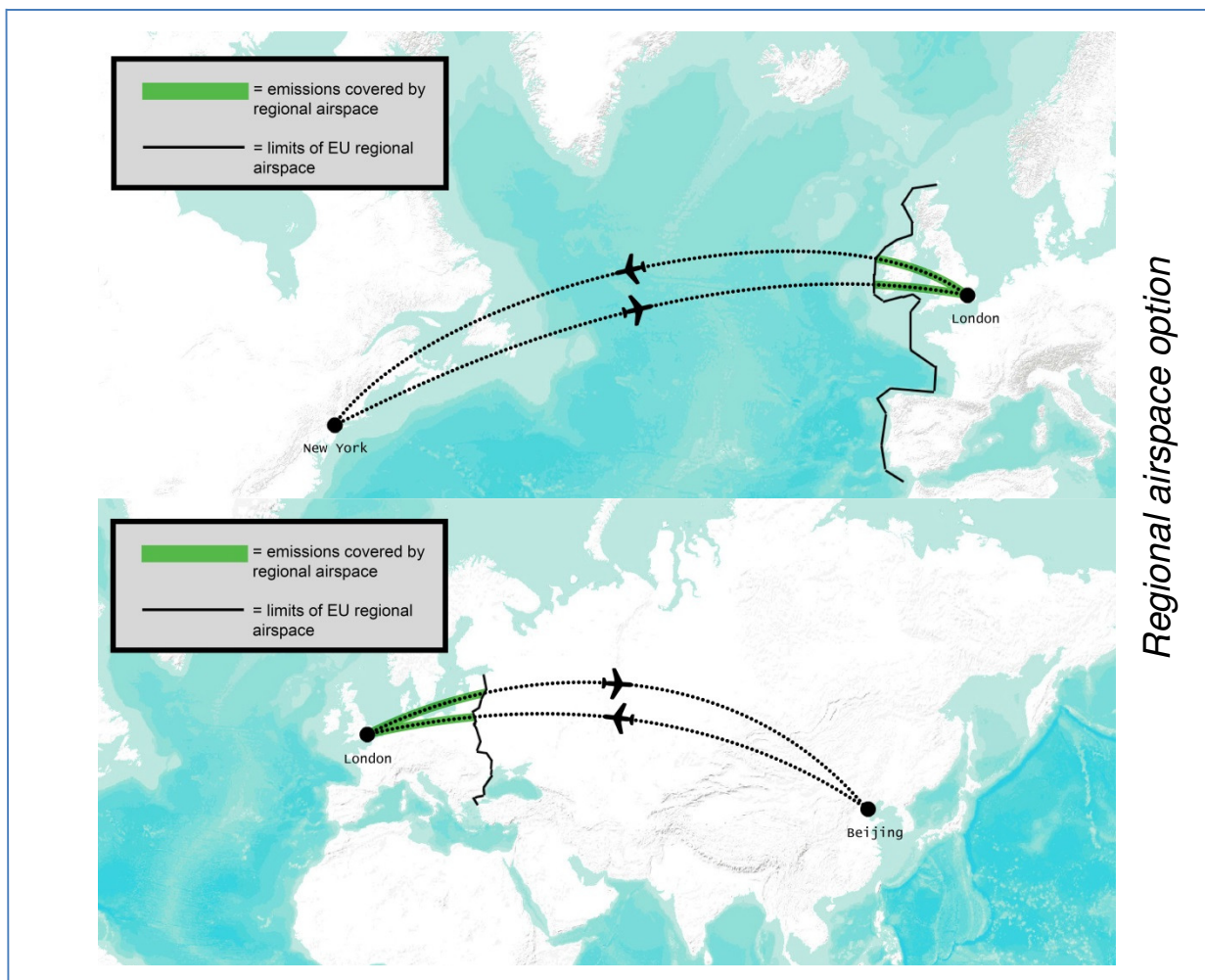
Flight Information Regions (FIR) Airspace

A variation on the airspace option is to regulate emissions of flights operating within FIRs, which are airspace regions where a single state has been designated by ICAO to handle flight information and alerting services (air traffic control). FIRs can cross borders and cover areas of the high seas. Some are very large, (e.g. the US FIR extends far into the Pacific Ocean) while over 70 countries do not have an FIR assigned to them. Europe's airspace essentially stops at the EU's eastern borders but to the west its FIR extends quite far into the North and South Atlantic Ocean. It could form the geographic basis of an EU ETS that was more ambitious than regional airspace, but the idea has not gained much support in ICAO as the FIR is not a legal concept, merely an administrative construct. As with airspace there are many practical obstacles, not least of which is measuring emissions at the point of entry or exit to the FIR.

FIR airspace option
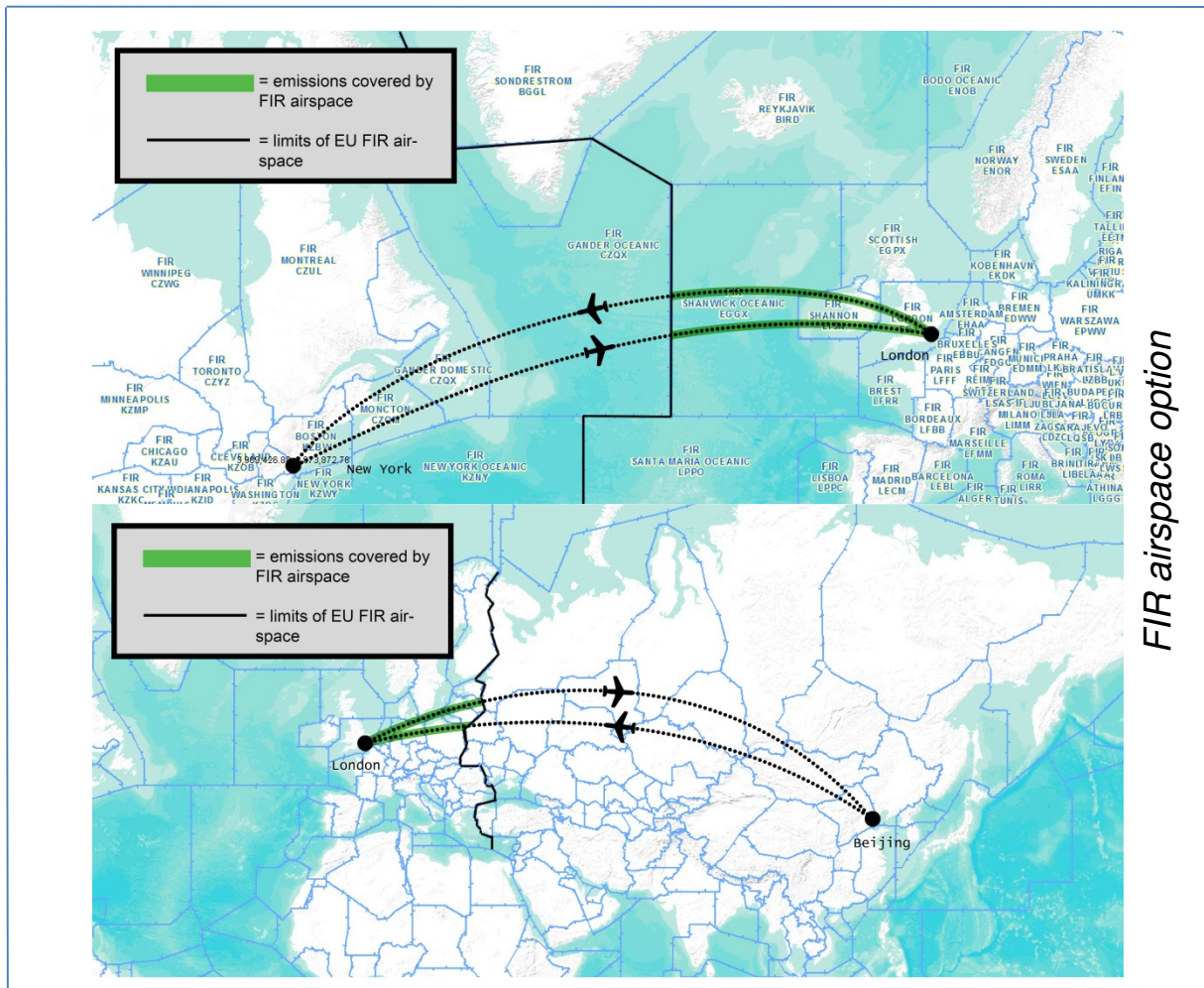
State of Play in ICAO

The ICAO High Level Group has broken up without reaching agreement on any of the substantive issues. Many of its members, led by the US, pressed for an airspace approach in an apparent intention to restrict the scope of the EU ETS and to address alleged violations of sovereignty. The EU members plus Australia and possibly the Gulf States support the departing flights approach. Both departing flights and the 50/50 option are recognised as options by both SBSTA (the scientific advisory body to the UNFCCC) and the 2008 ICAO Guidelines on emissions trading. The ICAO Council revisited the issue in June and consultations will proceed informally until the ICAO Assembly in September. However, it looks unlikely that even a Framework will be agreed in ICAO this year, never mind a deal on a global MBM.

Airspace ruled out by ICAO and the UNFCCC

Both ICAO[1] and SBSTA have previously ruled out airspace for regulating aviation emissions as it is impracticable. Even John Kerry dismissed airspace when, as a Senator during a June 2012 transportation committee hearing, he stated, "Global emissions belong to all of us, not to anyone's single airspace."[2] Even industry has come down hard against an airspace regime; IATA representative Paul Steele labeled the option a "nightmare".[3]

Policy recommendations

The EU ETS will revert to its original scope covering emissions from all inbound and outbound flights when the stop the clock derogation expires, unless it is further amended. When stopping the clock, the EU said it would revise the ETS depending on the environmental effectiveness of any ICAO agreement. Given the on-going indecision in ICAO about committing to a global MBM and continued resistance to EU early action, the EU faces a difficult decision but is expected to propose to amend the aviation ETS to restrict its scope, almost regardless of any outcome in ICAO.

One option **to revise the ETS** is for Europe to regulate departing flights only, and leave responsibility for regulating the inbound leg to the country of departure. As this may still raise "concerns" about sovereignty (regulating flights over other country's territory or on the arrival runway), a realistic and promising alternative would be to revise the EU ETS to regulate the **last 50% of the inbound leg of flights and the first 50% of the outbound leg**. This approach avoids alleged questions of sovereignty as no emissions over the arriving country would be covered while a significant portion of en route "international" emissions would. Operators would still need to account for full flight emissions and intra-EU flights would remain unaffected. Emissions obligations of extra-EU flights would effectively be halved compared to the original EU ETS, but in terms of obligations and environmental effectiveness the 50/50 option amounts to the same environmental coverage as departing flights. The regional airspace approach should be firmly rejected on environmental grounds – it would only cover 45% of the original EU ETS. Reverting to an airspace regime would also be tacit acceptance by the EU that it got the original ETS wrong whereas the ECJ ruling very clearly upheld its validity in international law.

The table below compares the options for possible amendments to the EU ETS:

	Current ETS	Regional airspace	FIR airspace	Departing flights	50/50
Emissions coverage compared to current ETS	100%	45%	50%	65%	65%
Admin burden for airlines	Low	High	High	Low/Medium	Low/Medium
Sovereignty issue	Yes	None	Possibly[4]	Yes	None
Member State monitoring costs	Low	High	High	Low/Medium	Low/Medium
Possibility to scale up to global coverage	Yes	No	Almost[5]	Yes	Yes

[1] http://ec.europa.eu/clima/policies/transport/aviation/docs/icao_guidance_2008_en.pdf
[2] http://www.greenaironline.com/news.php?viewStory=1642
[3] http://www.transportenvironment.org/news/clock-has-stopped-where-icao-now
[4] There could be a sovereignty issue because some countries may argue the EU can only regulate in its sovereign airspace
[5] FIRs cover about 80% of the globe, thus there are some areas of the Oceans which are not covered and so would not be included in a global system based on FIRs.