

## NOTE

### RETURN TO YOUR SEATS AND FASTEN YOUR SEATBELTS: THE EUROPEAN UNION ENCOUNTERS TURBULENCE IN THE APPLICATION OF ITS AIRLINE EMISSIONS TRADING SYSTEM

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#### I. INTRODUCTION

In the fall of 2013, Eric Holthaus, a meteorologist and former weather columnist for *The Wall Street Journal*, sat in a terminal of San Francisco International Airport waiting for a flight home to Wisconsin.<sup>1</sup> While he waited, he read the newly released 2013 Intergovernmental Panel on Climate Change Report, which for the first time stated that the Panel believed humanity is “extremely likely” to be the dominant cause of climate change and that many “last-ditch” efforts such as geo-engineering and carbon sequestration were off the table.<sup>2</sup> This information, coupled with Holthaus’ realization that he was in “stealth denial” about his own contributions to climate change, caused him to break down and weep in the terminal.<sup>3</sup> As he boarded his flight, he swore it would be his last.<sup>4</sup> With that single resolution, he cut his personal impact on climate change by fifty percent.<sup>5</sup>

Committing to a sustainable lifestyle and lowering one’s personal impact on climate change entails making sacrifices to lower

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1. Elisabeth Garber-Paul, *Meet Eric Holthaus, the Rebel Nerd of Meteorology*, ROLLING STONE (Feb. 12, 2014), <http://www.rollingstone.com/culture/news/meet-eric-holthaus-the-rebel-nerd-of-meteorology-20140212>.

2. Eric Holthaus, *I Spent 28 Hours on a Bus. I Loved It.: Why a Meteorologist Took the Bus Instead of Flying to an Annual Weather Meeting*, SLATE (Feb. 4, 2014, 11:41 AM), [http://www.slate.com/articles/technology/future\\_tense/2014/02/why\\_a\\_meteorologist\\_took\\_the\\_bus\\_for\\_28\\_hours\\_instead\\_of\\_flying.html](http://www.slate.com/articles/technology/future_tense/2014/02/why_a_meteorologist_took_the_bus_for_28_hours_instead_of_flying.html) [hereinafter Holthaus, *Why a Meteorologist Took the Bus Instead of Flying*].

3. *Id.*

4. *Id.*

5. *Id.*

emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gasses (GHGs). Holthaus' sacrifices included sharing a car with his wife, conserving electricity, recycling, utilizing mass transit when possible, and even becoming a vegetarian.<sup>6</sup> However, in 2013 alone he had also flown approximately seventy-five thousand miles.<sup>7</sup> Holthaus' day-to-day lifestyle choices were extremely sustainable, yet air travel had made his carbon emissions nearly double those of an average American *household*.<sup>8</sup> Unlike Holthaus, very few people—even those who otherwise make sustainable choices—excise what is likely their largest source of carbon emissions in any given year: airline travel, especially long-haul intercontinental flights.<sup>9</sup>

An average European generates about ten tons of CO<sub>2</sub> emissions per year while the average American generates approximately nineteen tons.<sup>10</sup> A round-trip flight from Frankfurt to Chicago produces the equivalent of almost 3.5 tons of CO<sub>2</sub> emissions—nearly thirty-five percent of the yearly carbon emissions by an average European or twenty percent of the emissions by an average American.<sup>11</sup> A first class seat on the same transatlantic round-trip flight—due to the extra space required on the plane—leaves the flier responsible for the equivalent of almost six tons of CO<sub>2</sub>.<sup>12</sup> By comparison, an average American generates the same 3.5 tons of CO<sub>2</sub> *per year* from driving 9,608 miles.<sup>13</sup> Yet even though many people attempt to reduce their CO<sub>2</sub> emissions by reducing the miles they drive via automobile, they do not make similar efforts with regard to air travel because they see the convenience and speed as irreplaceable. As a result, airline emissions are expanding as a percentage of global GHG emissions.<sup>14</sup>

Airline emissions as a percentage of world GHG emissions are projected to grow significantly over the next decade from their cur-

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6. *Id.*; Eric Holthaus, *Why I'm Never Flying Again*, QUARTZ (Oct. 1, 2013), <http://qz.com/129477/why-im-never-flying-again> [hereinafter Holthaus, *Why I'm Never Flying Again*].

7. Holthaus, *Why I'm Never Flying Again*, *supra* note 6.

8. Holthaus, *Why a Meteorologist Took the Bus Instead of Flying*, *supra* note 2.

9. See Elisabeth Rosenthal, *Your Biggest Carbon Sin May Be Air Travel*, N.Y. TIMES (Jan. 26, 2013), <http://www.nytimes.com/2013/01/27/sunday-review/the-biggest-carbon-sin-air-travel.html>.

10. *Id.*

11. *Id.*

12. Christine Aschwenden, *Stay the Hell Home!*, SLATE (Aug. 12, 2013), [http://www.slate.com/articles/health\\_and\\_science/transportation/2013/08/i\\_stayed\\_within\\_100\\_miles\\_of\\_my\\_house\\_for\\_a\\_year\\_the\\_case\\_against\\_airplanes.html](http://www.slate.com/articles/health_and_science/transportation/2013/08/i_stayed_within_100_miles_of_my_house_for_a_year_the_case_against_airplanes.html).

13. Rosenthal, *supra* note 9.

14. *Id.* The increased percentage for airline emissions is a result of falling emissions in other sectors as well as increases in air travel volume greater than gains in aviation fuel efficiency. See *infra* Part II.B.

rent five percent.<sup>15</sup> The magnitude of the harm air travel presents has already begun to revolutionize how some environmentalists approach international collaboration.<sup>16</sup> Furthermore, the increasing part that airline emissions play in climate change is attracting the attention of some governments, which heretofore have largely been involved more in regulating the “traditional” climate change culprits, such as power generation, automobiles, and manufacturing.<sup>17</sup> These governments, including those in the European Union, have been developing policies specifically to reduce aviation emissions in an effort to fight climate change.<sup>18</sup>

Due to concerns about the ramifications of climate change and the European Union’s pledges under the Kyoto Protocol, the European Union adopted the Emissions Trading System (ETS). The ETS does not apply to every industry or GHG-emitting activity within the European Union and only covers approximately forty-five percent of the E.U. CO<sub>2</sub> output.<sup>19</sup> The ETS regime includes the airline industry (both domestic and international flights).<sup>20</sup>

Although not especially controversial among E.U. airlines, the imposition of the ETS on non-E.U. airlines has created a stir in the international airline community.<sup>21</sup> In response to the ETS, the United States passed a law forbidding U.S. airlines from participating in it until the International Civil Aviation Organization (ICAO) created a global marketplace for airline emission trading.<sup>22</sup> Some U.S. airlines and trade organizations also challenged the ETS in

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15. Rosenthal, *supra* note 9.

16. See, e.g., Joseph Nevins, *Kicking the Habit: Air Travel in the Time of Climate Change*, YES MAG. (Dec. 13, 2010), <http://www.yesmagazine.org/planet/kicking-the-habit-air-travel-in-a-time-of-climate-change> (the “savings” from most other sustainable choices can be wiped out by a round-trip flight); Aschwanden, *supra* note 12 (dismissing the notion that airline travel is a benign form of “public transit in the sky” and chronicling the author’s refusal to fly for climate change reasons).

17. *Sources of Greenhouse Gas Emissions*, U.S. ENVTL. PROTECTION AGENCY (Sept. 9, 2013), <http://www.epa.gov/climatechange/ghgemissions/sources.html>.

18. See *id.*; *The EU Emissions Trading System*, EUR. COMMISSION, <http://ec.europa.eu/clima/policies/ets> (last updated Jan. 13, 2015).

19. *The EU Emissions Trading System*, *supra* note 18.

20. *Reducing Emissions from Aviation*, EUR. COMMISSION, [http://ec.europa.eu/clima/policies/transport/aviation/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm) (last updated Dec. 12, 2014).

21. See *A4A Commends EU Parliament’s Vote to Extend “Stop the Clock” on Illegal EU ETS Scheme*, AIRLINES FOR AM. (Apr. 3, 2014), <http://airlines.org/news/a4a-commends-eu-parliaments-vote-to-extend-stop-the-clock-on-illegal-eu-ets-scheme> [hereinafter AIRLINES FOR AM.].

22. Paul Lowe, *U.S. Says ‘No’ to EU Emissions Trading Scheme*, AIN ONLINE (Nov. 29, 2012, 4:10 PM), <http://www.ainonline.com/aviation-news/ainalerts/2012-11-29/us-says-no-eu-emissions-trading-scheme>.

the European Court of Justice (ECJ).<sup>23</sup> China has threatened to take retaliatory measures against Airbus—a large airplane manufacturer run by a consortium of E.U. member states—through freezing contracts on previously ordered aircraft currently under construction.<sup>24</sup> Additionally, Russia has threatened to forbid E.U. airlines from flying over Siberia because of the ETS.<sup>25</sup>

In response to the international outcry, the European Union delayed the ETS requirements for international flights pending an agreement by the international community through the ICAO on curbing airline emissions.<sup>26</sup> The ICAO took up the matter in its fall 2013 meeting in Montreal, Canada.<sup>27</sup> Although the ICAO members agreed to draft a market-based mechanism to reduce airline emissions during its next meeting (scheduled for 2016), with implementation in 2020, the members refused to recognize the right of the European Union to tax foreign (i.e., non-E.U.) airlines under the ETS.<sup>28</sup> In response to the ICAO outcome, the European Union proposed amending the ETS so that the ETS covers only the part of a flight that takes place in E.U. airspace.<sup>29</sup> However, in the face of continued foreign objection to even the amended ETS, the E.U. Parliament passed a provision in April 2014 exempting until 2016 all flights that do not both originate and terminate at an E.U.

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23. Press Release No. 139/11, Court of Justice of the European Union, *The Directive Including Aviation Activities in the EU's Emissions Trading Scheme Is Valid* (Dec. 21, 2011), available at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2011-12/cp110139en.pdf>.

24. See Ewa Krukowska, *Global Emissions Plan for Airlines Gets First UN Approval*, BLOOMBERG (Oct. 4, 2013, 2:13 PM), <http://www.bloomberg.com/news/2013-10-04/carbon-cuts-loom-for-airlines-as-icao-eyes-global-market.html>; Barbara Lewis, *Airbus to China: We Support You, Please Buy Our Jets*, REUTERS (May 13, 2013, 1:16 AM), <http://uk.reuters.com/article/2013/05/13/us-china-airbus-exclusive-idUKBRE94C00020130513>.

25. Ewa Krukowska, *Trade War Looms Without Deal to Cut Aviation Emissions, UN Says*, BLOOMBERG (Sept. 27, 2013, 3:15 PM), <http://www.bloomberg.com/news/2013-09-27/trade-war-looms-without-deal-to-cut-aviation-emissions-eu-says.html>.

26. Charles Alcock, *ICAO Seeks Global Emissions Pact as EU Dilutes ETS*, AIN ONLINE (Sept. 23, 2013, 11:30 AM), <http://www.ainonline.com/aviation-news/ain-air-transport-perspective/2013-09-23/icao-seeks-global-emissions-pact-europe-dilutes-ets>.

27. *Id.*

28. Dave Keating, *ICAO Rebukes EU ETS*, EURO. VOICE (Oct. 4, 2013, 1:00 PM), <http://www.europeavoice.com/article/2013/october/icao-rebukes-eu-ets/78346.aspx>.

29. *Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/87/EC Establishing a Scheme for Greenhouse Gas Emission Allowance Trading Within the Community, in View of the Implementation by 2020 of an International Agreement Applying a Single Global Market-Based Measure to International Aviation Emissions*, at 3, COM (2013) 722 final (Oct. 16, 2013) [hereinafter *Proposal for a Directive of the European Parliament and of the Council*]. This would apply beginning in 2014 and would remain in force until the international community adopts a global agreement to reduce airline emissions. *Id.*

airport from the ETS: a *de facto* exemption for all non-E.U. airlines.<sup>30</sup>

This Note will discuss the recent amendment applying the ETS to only the portion of the flight within the E.U. airspace, determining that it is a significant step in the right direction for curbing airline emissions. Although an international solution to reduce airline emissions becomes more urgent each year, it is obvious from the recent ICAO nondecision that such a solution is not a high priority for the international air transport community.<sup>31</sup> Furthermore, in the face of the vitriolic rhetoric of ICAO members such as the United States and China, the European Union's unilateral action is justified.<sup>32</sup>

Part II of this Note will discuss relevant climate change statistics regarding airline emissions and describe the E.U. ETS and the subsequent international reaction. It will trace the history of the European Union's international air travel and climate change agreements as well as an ECJ case interpreting these agreements. Part III of this Note will demonstrate that the ETS as amended neither violates any E.U. international obligation nor opens the European Union to liability under World Trade Organization (WTO) law. Part IV will conclude by examining broader consequences of the E.U. ETS.

## II. BACKGROUND

In order to understand the context of the E.U. ETS, it is crucial to first understand the problem of climate change and an increasingly insidious component thereof: airline emissions.<sup>33</sup> Further-

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30. *Frequently Asked Questions 2013–2016 Regulation Amending the EU Emissions Trading System for Aviation*, EURO. COMMISSION (Apr. 30, 2014), [http://ec.europa.eu/clima/policies/transport/aviation/docs/faq\\_aviation\\_2013-2016\\_en.pdf](http://ec.europa.eu/clima/policies/transport/aviation/docs/faq_aviation_2013-2016_en.pdf) [hereinafter *Frequently Asked Questions*, EC].

31. See Keating, *supra* note 28. The International Civil Aviation Organization (ICAO) multilateral emissions trading regime language has been significantly altered during the last several Assemblies; several E.U. leaders have noted that the European Union “should not dismantle effective climate policy instruments in exchange for a vague promise on a global scheme in the distant future.” *Id.*

32. See EU “Stops the Clock” on ETS and President Signs EU-ETS Prohibition Act, NAT'L BUS. AVIATION ASS'N (Dec. 3, 2012), <http://www.nbaa.org/ops/environment/eu-ets/20121203-stops-the-clock-on-ets-and-prohibition-act.php> (U.S. airline trade association derides the ETS as a “unilaterally imposed environmental tax”); *China Issues New EU-ETS Aviation Emissions Warning*, RESPONDING TO CLIMATE CHANGE (Apr. 4, 2013, 8:06 AM), <http://www.rtcc.org/2013/04/04/china-issues-new-eu-ets-aviation-emissions-warning> (China continues to reject the authority of the European Union to include any foreign airline in the ETS).

33. David Hodgkinson et al., *Strategies for Airlines on Aircraft Emissions and Climate Change: Sustainable, Long-term Solutions* 4 (The Hodgkinson Grp. Working Paper No. 2,

more, a full explanation of the E.U. ETS—its intent, how it operates, and the inclusion of airline emissions—will be provided in this Part. To understand the background of climate change and the international aviation treaty system that is implicated by the ETS, this Part will also discuss the Kyoto Protocol, the ICAO, and the E.U.-U.S. Open Skies Agreements. This Part will then highlight the negative international and domestic reaction to the inclusion of airline emissions within the ETS.<sup>34</sup> Finally, this Part will describe the European Union's response to the international outrage—the proposed amended ETS—as well as the amended ETS' failure to pass the E.U. Parliament and its replacement by a curtailed ETS exempting foreign airlines.<sup>35</sup>

### A. *Climate Change*

Climate change is one of the great threats facing humanity and our planet. Since 1901, the average surface temperature across the contiguous United States has risen at an average of 0.14°F per decade.<sup>36</sup> Average temperatures have risen more quickly since the 1970s, rising between 0.31° and 0.48°F per decade.<sup>37</sup> Furthermore, seven of the ten warmest years on record have occurred since 1998, culminating in the hottest year on record of 2012.<sup>38</sup> The phenomenon is not unique to the United States: worldwide, 2001–2010 was the warmest decade on record since thermometer-based observations began.<sup>39</sup>

There is further a clear correlation between increasing global temperatures and increasing concentrations of CO<sub>2</sub> in the atmos-

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2007), available at <http://www.hodgkinsongroup.com/documents/Hodgkinson.airline.emissions.pdf>; U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-554, AVIATION AND CLIMATE CHANGE: AIRCRAFT EMISSIONS EXPECTED TO GROW, BUT TECHNOLOGICAL AND OPERATIONAL IMPROVEMENTS AND GOVERNMENT POLICIES CAN HELP CONTROL EMISSIONS 12 (2009).

34. See, e.g., European Union Emissions Trading Scheme Prohibition Act of 2011, 49 U.S.C. § 40101 (2012) (U.S. pre-emptive law forbidding U.S. airlines from participating in Emissions Trading System (ETS)); Charles Alcock, *Russia Escalates European Union Emissions Trading Row*, AIN ONLINE (June 18, 2012, 12:50 PM), <http://www.ainonline.com/aviation-news/ain-air-transport-perspective/2012-06-18/russia-escalates-european-union-emissions-trading-row> (noting that Russia stopped negotiating routine overflight agreements with E.U. airlines).

35. Cynthia Kroet, *MEPs Reject Deal on Aviation Emissions Scheme*, EURO.VOICE (Mar. 19, 2014, 2:52 PM), <http://www.europeanvoice.com/article/2014/march/meps-reject-aviation-emissions-scheme/80160.aspx>; *Frequently Asked Questions*, EC, *supra* note 30, at 343.

36. U.S. EPA, CLIMATE CHANGE INDICATORS IN THE UNITED STATES 1 (2013), available at [http://www.epa.gov/climatechange/pdfs/print\\_temperature-2014.pdf](http://www.epa.gov/climatechange/pdfs/print_temperature-2014.pdf).

37. *Id.* at 1–2.

38. *Id.* at 2.

39. *Id.*

phere. Since atmospheric CO<sub>2</sub> measurements began in the mid-1950s, the concentration of CO<sub>2</sub> has steadily increased from approximately 310 parts per million (ppm) in 1958 to over 395 ppm in 2014.<sup>40</sup> There is further scientific consensus that the increasing concentration of CO<sub>2</sub> is causing the increase in global temperature.<sup>41</sup> This occurs through a process known as the “greenhouse effect,” when certain gasses in the atmosphere—including CO<sub>2</sub>—block some of the infrared energy from the sun from easily leaving our atmosphere.<sup>42</sup> This energy remains trapped in the Earth’s atmosphere, slowly warming the planet.<sup>43</sup> As the CO<sub>2</sub> concentration in the atmosphere increases, so too does the amount of energy trapped.<sup>44</sup> The results of increasing temperatures are manifold and stretch from the readily observable (e.g., melting ice sheets) to the unlikely and hypothetical (e.g., anoxic events causing mass extinction).<sup>45</sup>

Some GHG emissions occur naturally and have remained virtually unchanged throughout recorded history.<sup>46</sup> However, human-caused GHG emissions—occurring largely through the combustion of hydrocarbons—have been increasing exponentially since the end of the nineteenth century.<sup>47</sup> In recent decades, the international community has recognized climate change as a danger to humanity’s way of life and responded to the threat with a series of international agreements—including, for example, the Kyoto Protocol, discussed below—designed to slow the pace of CO<sub>2</sub> emis-

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40. *Atmospheric CO<sub>2</sub>*, CO2NOW.ORG, <http://co2now.org> (last visited Nov. 13, 2014).

41. *Greenhouse Gases/Effect*, OPEN SOURCE SYS., SCI., SOLUTIONS, <http://ossfoundation.us/projects/environment/global-warming/greenhouse-gases> (last visited Oct. 27, 2014); IPCC FOURTH ASSESSMENT REPORT: CLIMATE CHANGE 2007, Causes of change (2007), available at [http://www.ipcc.ch/publications\\_and\\_data/ar4/syr/en/spms2.html](http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms2.html).

42. See sources cited *supra* note 41.

43. See sources cited *supra* note 41.

44. See sources cited *supra* note 41.

45. See Ove Hoegh-Guldberg & John F. Bruno, *The Impact of Climate Change on the World’s Marine Ecosystems*, 328 SCIENCE 1523, 1524 (2010), available at <http://www.ccpo.edu/~klinck/Reprints/PDF/hoeghScience10.pdf>.

46. *Greenhouse Gases*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., <http://www.ncdc.noaa.gov/cmb-faq/greenhouse-gases.php> (last visited Oct. 27, 2014); IPCC FOURTH ASSESSMENT REPORT: CLIMATE CHANGE 2007, Human and Natural Drivers of Climate Change (2007), available at [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/spmssp-human-and.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/spmssp-human-and.html).

47. See, e.g., *Human-Made CO<sub>2</sub> on Exponential Rise*, THE HEAT IS ONLINE (Mar. 27, 2009), <http://www.heatisonline.org/contentserver/objecthandlers/index.cfm?ID=7321&Method=Full&PageCall=&Title=CO2>; *CO<sub>2</sub> Emissions Rate Grew 3.1%/yr for 2000–2012: Catastrophic Exponential Growth*, DAILY KOS (Dec. 2, 2012), <http://www.dailykos.com/story/2012/12/02/1166704/-CO2>; IPCC WORKING GROUP I, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS 3–5 (2007), available at [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/spmssp-human-and.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/spmssp-human-and.html).

sions.<sup>48</sup> From a global perspective, these international agreements have been moderately successful both in increasing awareness about climate change and in encouraging countries to take measures to curb some of the largest producers of CO<sub>2</sub> emissions such as automobiles and power plants.<sup>49</sup>

### B. *Commercial Aviation and Climate Change*

As noted in Part I, airline emissions as a percentage of world carbon emissions are projected to grow significantly over the next decade from their current five percent total.<sup>50</sup> Not only are airline GHG emissions growing as a percentage of emissions, but these emissions are also more environmentally damaging than a similar amount of automobile or power plant emissions.<sup>51</sup> The difference in the malignancy of emissions is due to the altitude at which commercial airplanes release their emissions—normally in excess of thirty thousand feet<sup>52</sup>—and the damage that GHGs beyond CO<sub>2</sub> can do at such an altitude.<sup>53</sup> A key concept in understanding aviation emissions' especially pernicious effect is "radiative forcing."

The balance between incoming solar radiation and outgoing infrared radiation determines the Earth's surface temperature.<sup>54</sup> Radiative forcing is the measurement of the capacity of a gas or other forcing<sup>55</sup> agents to affect that energy balance and thus contribute to climate change.<sup>56</sup> Radiative forcing thus measures the change of energy in the atmosphere due to the GHG emissions: it is the difference between incoming and outgoing infrared radiation caused by the increased concentration of forcing agents.<sup>57</sup>

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48. See *The EU Emissions Trading System*, *supra* note 18.

49. See *id.*

50. Rosenthal, *supra* note 9 (stating that the increased percentage for airline emissions is a result of falling emissions in other sectors as well as increases in air travel volume happening faster than gains in flight fuel efficiency).

51. Hodgkinson et al., *supra* note 33, at 4, 14.

52. *Cabin Air Quality: Tips for Traveler*, BOEING, <http://www.boeing.com/boeing/commercial/cabinair/environmentfacts.page> (last visited Oct. 27, 2014).

53. Hodgkinson et al., *supra* note 33, at 4; U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 33, at 12.

54. Anja Kollmuss & Allison Myers Crimmins, Carbon Offsetting & Air Travel Part 2: Non-CO<sub>2</sub> Emissions Calculations 16 (June 2009) (unpublished manuscript), *available at* [http://sei-us.org/Publications\\_PDF/SEL-CarbonOffsettingAirTravelPt2-09.pdf](http://sei-us.org/Publications_PDF/SEL-CarbonOffsettingAirTravelPt2-09.pdf).

55. "Forcing" refers to the capacity to drive Earth's radiative energy balance away from its current state. See *id.*

56. *Id.*

57. *Id.*

Positive radiative forcing results in an increase in the Earth's energy balance and ultimately leads to warming.<sup>58</sup>

The GHGs have positive radiative forcing values because they absorb infrared radiation and emit it back to the Earth's surface.<sup>59</sup> Thus, because airline emissions directly deposit long-lived<sup>60</sup> GHGs (e.g., CO<sub>2</sub>) and short-lived<sup>61</sup> GHGs (e.g., ozone) into the stratosphere in high concentrations, airline emissions have substantially more radiative forcing than emissions produced at a lower altitude have.<sup>62</sup> A similar amount of both short- and long-lived GHGs produced at lower altitudes would have time to disperse and dissipate before reaching the same level of the atmosphere, resulting in less radiative forcing and less warming.<sup>63</sup> For this reason, the radiative forcing of air travel emissions is usually found to be about 2.7 times that of similar sea-level emissions.<sup>64</sup>

Not only are the CO<sub>2</sub>, ozone, and soot emissions more hazardous from airline emissions, but there are unresolved questions regarding the increased harmfulness of water vapor emissions into the lower stratosphere.<sup>65</sup> Commercial airplanes emit water vapor, which with "certain atmospheric temperature and humidity conditions can lead to the formation of contrails, a cloudlike trail of condensed water vapor, and can induce the creation of cirrus clouds."<sup>66</sup> Although climate scientists have long believed that contrails and cirrus clouds likely have a warming effect, at the present time research is not sufficient to precisely quantify the warming effect of aviation-induced cirrus clouds.<sup>67</sup>

Therefore, due to the increased radiative forcing values of GHGs at high altitude coupled with the danger of water vapor cloud formation, airline emissions are more malignant than similar GHG emissions at lower altitudes. Additionally, airlines' share of world GHG emissions is increasing even faster than the percentage alone shows.<sup>68</sup> Indeed, because of the multiplier applied to airline emis-

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58. *Id.*

59. *Id.*

60. *Id.* at 24 (stating that long-lived gases will warm the climate more gradually, but for a much longer time than short-lived gases).

61. *Id.* at 25 (explaining that short-lived greenhouse gases (GHGs) initially have large effects that become less significant over time relative to carbon dioxide (CO<sub>2</sub>)).

62. *See id.* at 36 n.41.

63. *Id.*

64. *Id.* at 36 n.40.

65. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 33, at 3, 12, 15.

66. *Id.* at 3.

67. *Id.* at 3, 12–13

68. *See id.* at 1, 6.

sions, total GHG emissions (i.e., all emissions in a country) are not necessarily lowered when power plants and other traditional GHG emitters are curbed at a rate similar to that of airline emission growth. Due to the difference in altitude of the emissions, any raw decrease in power plant emissions that is not approximately 2.7 times greater than the raw increase of airline emissions is essentially an increase in total GHG emissions.<sup>69</sup>

### C. *The European Union Emissions Trading Scheme*

The E.U. ETS works on general “cap-and-trade” principles that the overall volume of GHGs—specifically CO<sub>2</sub>, nitrous oxide (N<sub>2</sub>O), and perfluorocarbons (PFCs)—allowed to be emitted each year is subject to a cap set by the European Union.<sup>70</sup> The cap is reduced over time so that total emissions fall.<sup>71</sup> In sum, about forty-five percent of total E.U. emissions are covered by the ETS, including emissions from over eleven thousand power plants and manufacturing factories in the twenty-eight E.U. member states and three European Economic Area-European Free Trade Association (EEA-EFTA) members.<sup>72</sup> In 2020—assuming the ETS will be applied to airlines as designed—emissions from sectors covered by the ETS will be twenty-one percent lower than in 2005.<sup>73</sup>

Within the ETS cap, companies receive or buy emission allowances. These allowances can be sold or traded to other companies as needed.<sup>74</sup> Also, companies can “buy limited amounts of international credits from emission-saving projects around the world.”<sup>75</sup> The limit on the total number of allowances and credits

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69. See Kollmuss & Crimmins, *supra* note 54, at 11, 20, 35–36. For example, if a power plant emitting ten units of GHGs is curbed to emitting seven units of GHGs and at the same time airline emissions grow from seven units to ten units of GHGs, the raw amount of total GHG emissions remains constant, but *the malignancy or total effect* of those emissions is *increased*. This is because airline emissions are 2.7 times as hazardous as power plant emissions, so although the power plant reduces its emissions by three units—the same raw amount as the airline emission increase—the effect of the airline emissions increase is multiplied by 2.7 and therefore is actually equivalent to 8.1 units (2.7 x 3) of power plant emissions. This means that in order to keep *the effect* of total GHG emissions the same, the power plant would have to reduce its emissions from 10 units to 1.9 units to account for the increase of just 3 raw units of airline GHG emissions. See *id.*

70. *The EU Emissions Trading System*, *supra* note 18.

71. *Id.*

72. EUROPEAN COMMISSION, THE EU EMISSIONS TRADING SYSTEM (2013), available at [http://ec.europa.eu/clima/publications/docs/factsheet\\_ets\\_en.pdf](http://ec.europa.eu/clima/publications/docs/factsheet_ets_en.pdf) [hereinafter EC, FACTSHEET]; *The EU Emissions Trading System*, *supra* note 18.

73. *The EU Emissions Trading System*, *supra* note 18.

74. *Id.*

75. *Id.*

available ensures that the allowances have a pecuniary value. After each year, a company must surrender enough allowances to cover all of its emissions or pay fines on the amount of CO<sub>2</sub> emitted beyond its allowances, currently set at €100 per ton.<sup>76</sup> The rationale behind the ETS is that companies' need to purchase or draw on their reserves of allowances and credits creates a permanent incentive for companies to reduce their emissions.<sup>77</sup>

Under the ETS regime, different sources of emissions are regulated under separate caps. From 2013 onward, the cap on emissions from power stations and other fixed installations will be reduced at a rate of 1.74 percent each year.<sup>78</sup> Moreover, the cap for the aviation sector for the entire 2013–2020 period must be five percent below the average annual emission level from the 2004–2006 period.<sup>79</sup> All of these limits were created in order to assure that the European Union meets its international obligations involving GHG reductions.<sup>80</sup>

D. *The International Airline Legal Regime Confronting the European Union—Treaties, Legal Issues, and the Air Transport Association of America Case in ECJ*

The E.U. ETS was not drafted in a vacuum. There are a number of international and bilateral treaties that govern the regulation of both climate change measures and airlines.<sup>81</sup> The Kyoto Protocol is a foundational international agreement to reduce GHG emissions and other contributions to climate change.<sup>82</sup> The ICAO is a global standard-setting body for international aviation founded

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76. *How to Comply with the EU ETS and Small Emitter and Hospital Opt-Out Scheme*, U.K. ENV'T AGENCY, <http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/business/topics/pollution/141021.aspx> (last visited Jan. 27, 2015).

77. *The Basic Design Elements of Cap and Trade Systems*, INT'L EMISSIONS TRADING ASS'N, [http://www.ieta.org/index.php?option=com\\_content&view=article&catid=54:3-minute-briefing&id=205:cap-&trade-basics](http://www.ieta.org/index.php?option=com_content&view=article&catid=54:3-minute-briefing&id=205:cap-&trade-basics) (last visited Oct. 27, 2014).

78. EC, FACTSHEET, *supra* note 72.

79. *Id.*

80. *The EU Emissions Trading System*, *supra* note 18.

81. See Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol]; *About ICAO*, INT'L CIV. AVIATION ORG. (ICAO), <http://www.icao.int/about-icao/Pages/default.aspx> (last visited Oct. 27, 2014).

82. Kyoto Protocol, *supra* note 81.

upon the Chicago Convention.<sup>83</sup> The European Union<sup>84</sup> is also party to several bilateral aviation liberalization agreements often referred to as “open skies agreements.”<sup>85</sup> The interplay of these agreements and international standards was the focal point of an ECJ case that upheld the legality of the ETS in the face of an U.S. airline trade association challenge.<sup>86</sup> Finally, some aspects of WTO law are implicated by the structure of the ETS.<sup>87</sup>

## 1. The Kyoto Protocol<sup>88</sup>

The Kyoto Protocol is an international agreement linked to the U.N. Framework Convention on Climate Change, which commits its parties to internationally binding GHG emission reduction targets.<sup>89</sup> Article 1 of the Protocol states that each party “shall implement and/or further elaborate [climate] policies and measures in accordance with its national circumstances.”<sup>90</sup> Suggested policies and measures to be adopted include “measures to limit or reduce emissions of [GHGs] . . . in the transport sector,”<sup>91</sup> the “application of market instruments,”<sup>92</sup> and “progressive reduction or phasing out of market imperfections.”<sup>93</sup> Nonetheless, the Kyoto Protocol specifically excludes aviation from its emission reduction regulations, leaving that issue in the hands of the ICAO.<sup>94</sup>

The European Union (then still acting as the European Community) approved the Kyoto Protocol in 2002.<sup>95</sup> The European Union

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83. *About ICAO*, *supra* note 81.

84. For the sake of convenience, this Note refers to the European Union as the party to the various treaties even though the European Union is not itself a party, because its member states are parties and these treaties are enforced within the European Union.

85. *Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation: Fact Sheet*, U.S. DEP'T ST. (Mar. 29, 2011), <http://www.state.gov/r/pa/pl/159347.htm>.

86. Case C-366/10, *Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change*, 2011 E.C.R. I-13755.

87. See Marisa Martin, *Trade Law Implications of Restricting Participation in the European Union Emissions Trading Scheme*, 19 GEO. INT'L ENVTL. L. REV. 437, 444–45 (2007).

88. A full discussion of the Kyoto Protocol is beyond the scope of this Note. This Section provides an understanding of the European Union's commitments under the Protocol, which is all that is required.

89. Kyoto Protocol, *supra* note 81.

90. *Id.* art. 2(1)(a).

91. *Id.* art. 2(1)(vii).

92. *Id.* art. 2(1)(a)(v).

93. *Id.*

94. M. Vittoria Giugi Carminati, *Clean Air and Stormy Skies*, 37 SYRACUSE J. INT'L L. & COM. 128, 133 (2010); Kyoto Protocol, *supra* note 81, art. 2(2).

95. *Kyoto Emissions Targets: Joint Fulfillment, 'Burden Sharing' and Base Years*, EUR. COMMISSION, [http://ec.europa.eu/clima/policies/g-gas/kyoto/index\\_en.htm](http://ec.europa.eu/clima/policies/g-gas/kyoto/index_en.htm) (last visited Oct. 27, 2014).

and its fifteen members in 2002 were thus jointly responsible for fulfilling the commitment to reduce their collective GHG emissions in the period 2008–2012 to eight percent below the 1990 levels.<sup>96</sup> Due in part to the ETS adoption, the European Union overachieved its Kyoto goals, reducing emissions to eighteen percent below the 1990 levels in the fifteen 2002 members while sustaining a gross domestic product (GDP) growth of over forty-five percent during the period 1990–2011.<sup>97</sup> Encouraged by the success of their first Kyoto commitments, the European Union submitted new goals to the Doha Climate Conference in 2012.<sup>98</sup> Comprised of twenty-eight members at that time, the European Union pledged a GHG emission reduction by 2020 of twenty-one percent compared to the 1990 levels.<sup>99</sup> Additionally, based on an expectation of the airline ETS to come into force, the European Union unilaterally committed to cut aviation emissions by twenty percent compared to the 1990 levels by 2020 as well.<sup>100</sup>

## 2. The ICAO and the Chicago Convention

The ICAO is a specialized agency of the United Nations created in 1944 to promote the safe and orderly development of international civil aviation throughout the world.<sup>101</sup> The ICAO sets standards and regulations necessary for aviation safety, security, efficiency, and regularity, as well as for aviation environmental protection.<sup>102</sup> It serves as the forum for cooperation in all fields of civil aviation among its 191 member states.<sup>103</sup> The ICAO Assembly is the Organization's sovereign body; it meets at least once every three years, convened by the ICAO's governing body, the Coun-

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96. *Id.*

97. *EU Over-Achieved First Kyoto Emissions Target, on Track to Meet 2020 Objective*, EUR. COMMISSION (Oct. 9, 2013), [http://ec.europa.eu/clima/news/articles/news\\_2013100901\\_en.htm](http://ec.europa.eu/clima/news/articles/news_2013100901_en.htm).

98. *Submission by Denmark and the European Commission on Behalf of the European Union and Its Member States*, EUR. COMMISSION, Apr. 19, 2012, [http://unfccc.int/files/meetings/ad\\_hoc\\_working\\_groups/kp/application/pdf/awgkp\\_eu\\_19042012.pdf](http://unfccc.int/files/meetings/ad_hoc_working_groups/kp/application/pdf/awgkp_eu_19042012.pdf) (the Doha Climate Conference was a continuation and assessment of the Kyoto Protocol).

99. *Id.*

100. *Id.*

101. *About ICAO*, *supra* note 81.

102. *Id.*

103. *Id.*

cil.<sup>104</sup> The thirty-eighth session of the Assembly was held from September 24, 2013, to October 4, 2013, in Montreal, Canada.<sup>105</sup>

The Chicago Convention is the founding and governing document of the ICAO.<sup>106</sup> The Chicago Convention's Preamble states that the ICAO was created so governments could "[agree] on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner."<sup>107</sup> Furthermore, the Preamble states the parties should operate international civil aviation "soundly and economically."<sup>108</sup> The Chicago Convention functions as a codification of the customary international law of aviation and the general rules of the ICAO.<sup>109</sup>

Article I of the Chicago Convention states that "every State has complete and exclusive sovereignty over the airspace above its territory."<sup>110</sup> This sovereignty is further defined by Article VI, which states that international air services may not enter the airspace of a state without its permission and while within such airspace are subject to any conditions the state may impose.<sup>111</sup> In this way, aviation law does not have concepts similar to "freedom of the seas" or "innocent passage" as in maritime law; rather, the state retains full freedom to allow or prevent any airplane from entering its airspace.<sup>112</sup>

Although a maritime vessel flying the flag of a nonbelligerent state could freely participate in international trade and commerce at any seaport, airplanes do not have the same freedom at airports.<sup>113</sup> Landing and taking on or discharging passengers are strictly contingent upon the state's approval of those actions.<sup>114</sup> Although the ICAO members are bound to implement domestic

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104. *About the Assembly*, ICAO, <http://www.icao.int/meetings/a38/Pages/default.aspx> (last visited Oct. 27, 2014). The Assembly is the sovereign body of the ICAO. It acts as the legislature: it elects the Council, sets policy, and approves a three-year budget. The Council is the governing body and acts as the executive branch of the ICAO. It adopts standards and recommended practices and enacts decisions of the Assembly. *How It Works*, ICAO, <http://www.icao.int/about-icao/pages/how-it-works.aspx> (last visited Oct. 31, 2014).

105. *How It Works*, *supra* note 104.

106. Convention on International Civil Aviation art. 43, Dec. 7, 1944, 61 Stat. 1180, 15 U.N.T.S. 295 [hereinafter Chicago Convention].

107. *Id.* pmb1.

108. *Id.*

109. THE NEED FOR AN INTEGRATED REGULATORY REGIME FOR AVIATION AND SPACE 55 (Ram S. Jakhu et al. eds., 6th ed. 2011) [hereinafter Jakhu et al.].

110. Chicago Convention, *supra* note 106, art. 1.

111. *Id.* art. 6.

112. Jakhu et al., *supra* note 109, at 55.

113. *Id.*

114. *Id.*

aviation laws compatible with the uniform ICAO rules of the air,<sup>115</sup> Article XII grants the ICAO jurisdiction to pass and enforce such uniform rules only in airspace over the high seas.<sup>116</sup> This suggests that states still enjoy considerable sovereignty in their airspace to determine how to enforce laws compliant with the ICAO uniform rules. As in many areas of international treaty law, however, states also engage in bilateral reciprocity of advantage agreements, commonly referred to as “open skies agreements.”<sup>117</sup>

### 3. Open Skies Agreements

Deregulated air transport agreements—often referred to as “open skies agreements”—are bilateral or multilateral treaties in which two or more states agree to allow commercial air traffic between the signatories and to restrict government interference in commercial airline decisions on routes, capacity, and pricing.<sup>118</sup>

#### a. Rationale

The rationale for adopting such deregulation agreements follows traditional liberal economic theory: onerous government regulation of airlines stifles air travel and tourism, which consequently restricts economic growth and job creation.<sup>119</sup> Furthermore, open skies agreements are one of the few ways to overcome restrictions aimed at protecting a country’s flag carrier<sup>120</sup> through which countries attempt to shelter that airline from market forces; this would reduce incentives for the flag carrier to pass savings from improved technologies to passengers.<sup>121</sup> By removing as many government regulations as possible, open skies agreements encourage the “full play of market forces” in competition between international airlines.<sup>122</sup>

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115. See Chicago Convention, *supra* note 106, art. 37; Jakhu et al., *supra* note 109, at 56.

116. Chicago Convention, *supra* note 106, art. 12; Jakhu et al., *supra* note 109, at 56.

117. See, e.g., Jakhu et al., *supra* note 109, at 55; *Open Skies Agreements*, U.S. DEP’T ST., <http://www.state.gov/e/eb/tra/ata> (last visited Oct. 27, 2014).

118. *Open Skies Fact Sheet*, *supra* note 85.

119. INTERVISTAS-GA<sup>2</sup> CONSULTING, INC., THE ECONOMIC IMPACT OF AIR SERVICE LIBERALIZATION, at ES-2 (2006), available at [http://www.intervistas.com/downloads/Economic\\_Impact\\_of\\_Air\\_Service\\_Liberalization\\_Final\\_Report.pdf](http://www.intervistas.com/downloads/Economic_Impact_of_Air_Service_Liberalization_Final_Report.pdf).

120. Flag carriers are the largest domestic airline of a country (e.g., Air France). Many of them are currently or were previously state-owned.

121. See INTERVISTAS-GA<sup>2</sup> CONSULTING, INC., *supra* note 119, at ES-3.

122. *Id.* at B-5.

## b. Economic Effects of Open Skies Agreements

The positive economic effects of such deregulation agreements can occur in relatively short time frames. For example, in 1998, the United Kingdom and the United Arab Emirates (UAE) signed an open skies agreement that removed restrictions on flight frequencies, capacity, and fares between the two countries.<sup>123</sup> By 2005, traffic between the United Kingdom and the UAE had increased fifty-nine percent compared to the 1998 levels—an increase of over 1.1 million passengers.<sup>124</sup> Furthermore, by 2005, this additional passenger traffic had increased the UAE GDP by over \$110 million and the U.K. GDP by over \$1 billion.<sup>125</sup>

This open skies agreement was no outlier; a 1998 agreement between Germany and the UAE increased GDP by \$152 million and \$15 million, respectively, by 2005; between 1991 and 1996, an agreement between the United States and United Kingdom increased GDP by \$747 million and \$970 million, respectively.<sup>126</sup> Additionally, the UAE's Emirates Airlines emerged as a major global airline as a result of some of the above agreements.<sup>127</sup> The demonstrated successes and economic improvement caused by such open skies agreements as well as the potential for airline growth in new markets have made the airline industry and many governments opposed to the inclusion of airline emissions in any cap-and-trade regime.<sup>128</sup> Indeed, such opposition led the U.S. airline trade group Airlines for America, formerly known as the Air Transport Association of America, to challenge the E.U. ETS as a violation of the E.U.-U.S. Open Skies Agreement in the ECJ.

## c. E.U.-U.S. Open Skies Agreement

The European Union and the United States signed an initial open skies agreement in 2007.<sup>129</sup> Phase Two of this agreement was signed in 2010.<sup>130</sup> The goal of this agreement was to liberalize avia-

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123. *Id.* at 39.

124. *Id.* at 42.

125. *Id.*

126. *Id.* at 25, 42–43.

127. *See id.* at ES-17.

128. *See, e.g.,* AIRLINES FOR AM., *supra* note 21; Press Release, Ass'n for European Airlines, AEA Regrets That the European Parliament's Environment Committee Favours Airspace Model for Aviation ETS (Jan. 30, 2014), *available at* <http://files.aea.be/news/pr/pr14-005.pdf>.

129. Air Transport Agreement, Apr. 25, 2007, 2007 O.J. (L 134) 4.

130. Protocol to Amend the Air Transport Agreement, June 24, 2010, 2010 O.J. (L 223) 3.

tion relations between the United States and the European Union, most importantly with the United Kingdom.<sup>131</sup> The United Kingdom and the United States had the most restrictive pre-2007 aviation relationship of any two countries covered by this agreement.<sup>132</sup> Article 3(4) of the agreement allows each party to determine the frequency and capacity of the international air transportation it offers based solely on marketplace considerations.<sup>133</sup> However, Article 3(4) also notes exceptions to this rule for environmental concerns: “[No Party shall] require the filing of schedules, programs for charter flights, or operational plans by airlines of the other Party, except as may be required for customs, technical, operational, or environmental (consistent with Article 15) reasons.”<sup>134</sup>

The Air Transport Association of America brought suit in December 2009 while the initial version of the E.U.-U.S. Open Skies Agreement was in force.<sup>135</sup> This suit and the subsequent redrafting of Article 15 over environmental concerns show the opposition outside of the European Union against including airline emissions in the E.U. ETS.

In June 2010, as the *Air Transport Association of America* case was pending, E.U. and U.S. negotiators adopted Phase Two of the E.U.-U.S. Open Skies Agreement.<sup>136</sup> A major change to the Agreement was the deletion of the original Article 15 and adoption of a modified Article 15.<sup>137</sup> Major revisions included the addition of language to 15(1) that the parties “where appropriate, [will] jointly [address] effective global solutions.”<sup>138</sup> The 2007 version merely stated that the parties would weigh “costs and benefits” of environmental measures on airlines.<sup>139</sup> Edits to Article 15(2) added a new burden on a party imposing environmental measures to conduct an evaluation of adverse effects on foreign airlines and potential ways to mitigate such effects.<sup>140</sup> Finally, the addition of 15(7) allows a party to request creation of a committee of experts to review any “overlap between and consistency among market-based

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131. Carminati, *supra* note 94, at 133.

132. *Id.*

133. *Id.* at 134.

134. Air Transport Agreement, *supra* note 129, art. 3(4).

135. Carminati, *supra* note 94, at 127–28.

136. *Id.*; Protocol to Amend the Air Transport Agreement, *supra* note 130.

137. Compare Protocol to Amend the Air Transport Agreement, *supra* note 130, with Air Transport Agreement, *supra* note 129.

138. Protocol to Amend the Air Transport Agreement, *supra* note 130, art. 15(1).

139. Air Transport Agreement, *supra* note 129, art. 15(1).

140. Protocol to Amend the Air Transport Agreement, *supra* note 130, art. 15(2).

measures” with a view toward avoiding “duplication of measures and costs and reducing to the extent possible the administrative burden on airlines.”<sup>141</sup> This revision would allow the United States to either create its own market-based mechanism or (more likely) point to the eventual ICAO mechanism and claim that it would be duplicative for U.S. airlines to comply with both the ETS and the ICAO mechanism.<sup>142</sup> Despite the pro-United States undertone of many of the changes to Article 15, the ECJ relied on principles of sovereignty in finding the E.U. ETS permissible under the E.U.-U.S. Open Skies Agreement.<sup>143</sup>

4. *Air Transport Association of America and Others v. Secretary of State for Energy and Climate Change*—European Court of Justice

The Air Transport Association of America, Continental Airlines, American Airlines, and United Airlines sued the United Kingdom in December 2009, alleging that the E.U. ETS as applied to airlines violated the Kyoto Protocol, the Chicago Convention, and the E.U.-U.S. Open Skies Agreement.<sup>144</sup> In December 2011, the ECJ ruled in favor of the United Kingdom.<sup>145</sup> The ECJ rejected arguments that either the Kyoto Protocol or the Chicago Convention could be used to assess the legality of the ETS.<sup>146</sup> The court then analyzed the ETS in light of the E.U.-U.S. Open Skies Agreement and found that the ETS did not violate the Agreement.<sup>147</sup>

The court first determined that the E.U. ETS did not violate the Kyoto Protocol.<sup>148</sup> The Kyoto Protocol specifically states that parties may comply with their obligations in the manner and at the speed upon which they themselves determine.<sup>149</sup> The ECJ further found that the Protocol was meant to function as “a legal instrument governing relations between states and their respective obligations in the context of worldwide endeavours to combat climate change.”<sup>150</sup> Therefore, the ECJ determined that private litigants

141. *Id.* art. 15(7).

142. *See id.*

143. *See* Case C-366/10, *Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change*, 2011 E.C.R. I-13755.

144. Carminati, *supra* note 94, at 127.

145. Press Release No. 139/11, *The Directive Including Aviation Activities in the EU's Emissions Trading Scheme Is Valid*, *supra* note 23.

146. *Id.* at 72; *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶¶ 72, 78.

147. *See Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶¶ 134–35, 151–56.

148. *Id.* ¶¶ 79, 82–84.

149. Kyoto Protocol, *supra* note 81, art. 2(3); *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶ 76.

150. *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶ 77.

could not rely upon the Kyoto Protocol to assess the validity of the E.U. ETS.<sup>151</sup>

Regarding the Chicago Convention, the ECJ ruled that the European Union is not a party to the Convention.<sup>152</sup> The court rejected an argument that the European Union became implicitly bound to the Chicago Convention because all of the member states of the European Union are parties to the agreement.<sup>153</sup> Although under Article 216(2) of the Treaty on the Functioning of the European Union (TFEU) all treaties concluded by the European Union are binding on all member states, the inverse is not true.<sup>154</sup> Article 351 of the TFEU creates no obligation on the European Union to adjust E.U. law to accommodate member state treaties with third parties.<sup>155</sup> Although some air transport governance had been transferred to E.U. institutions, member states had retained several Chicago Convention air transport governance powers, including the award of traffic rights, the setting of airport charges, and the determination of prohibited airspace areas in their territory.<sup>156</sup> The court ruled that because “the powers previously exercised by the Member States in the field of application of the Chicago Convention have not to date been assumed in their entirety by the European Union, the latter is not bound by that convention.”<sup>157</sup> Therefore, the ECJ determined that private litigants could not use the Chicago Convention to assess the validity of the E.U. ETS.<sup>158</sup>

The ETS as initially drafted also did not violate the 2007 E.U.-U.S. Open Skies Agreement, according to the ECJ.<sup>159</sup> The court found the ETS was permitted under Articles 7(1), 11, and 15(3) of the 2007 E.U.-U.S. Open Skies Agreement.<sup>160</sup> Article 7(1) directly requires an international flight operated by a U.S. carrier to comply with all laws and regulations of the European Union “relating to . . . the operation of such aircraft while within [E.U. airspace].”<sup>161</sup> The ETS was found to be valid under Article 7(1) because the regime is imposed only on flights utilizing an airport

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151. *Id.* ¶ 78.

152. *Id.* ¶ 71.

153. *Id.* ¶¶ 58, 71.

154. *Id.* ¶ 58.

155. *Id.*

156. *Id.* ¶ 70.

157. *Id.* ¶ 71.

158. *Id.* ¶ 72.

159. *Id.* ¶ 158(1).

160. *Id.*

161. Air Transport Agreement, *supra* note 129, art. 7(1).

located within the European Union.<sup>162</sup> Furthermore, the court found that the ETS did not violate the Article 11 obligation to exempt fuel load from taxes, duties, fees, and charges.<sup>163</sup> The ECJ determined that even if the ETS were a fuel tax, it would be permitted under the environmental exceptions enshrined in Article 15 of the Agreement.<sup>164</sup> As it did not find a violation of any relevant article of the E.U.-U.S. Open Skies Agreement, which was determined to be the only agreement proffered that could be used to assess the legality of the ETS, the ECJ found the ETS to be valid.<sup>165</sup>

## 5. Relevant WTO Law<sup>166</sup>

The WTO has been quiet on the subject of the ETS as applied to airlines and retaliatory threats made against the European Union. The WTO is an international organization designed to promote trade liberalization and to eliminate barriers to international trade.<sup>167</sup> The WTO has the authority to hear cases on trade disputes of its members and has the ability to adopt binding decisions through the form of Panels.<sup>168</sup> A country that prevails in these disputes may legally adopt several types of trade barriers against an opposing country until the latter complies with the ruling.<sup>169</sup>

Certain concepts of international trade and the treatment of WTO members' trading partners are pervasive throughout WTO agreements. One such concept is that of "national treatment": imported and locally produced goods should be treated equally, at least after the foreign goods have entered the domestic market.<sup>170</sup> This concept applies to foreign and domestic services, as well as to foreign and domestic trademarks, copyrights, and patents.<sup>171</sup> Another foundational concept within the WTO is that of "most

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162. *Id.*; *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶ 135.

163. *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶¶ 136, 147.

164. *See id.* ¶¶ 137, 147, 152.

165. *See id.* ¶¶ 13, 23, 157.

166. For the purposes of this Note, an understanding of the totality of the World Trade Organization (WTO) law is not necessary. Rather, it is necessary only to note how the WTO law handles countries' retaliatory trade actions.

167. *What Is the WTO?*, WORLD TRADE ORG., [http://www.wto.org/english/thewto\\_e/whatis\\_e/whatis\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm) (last visited Oct. 27, 2014).

168. *Dispute Settlement*, WTO, [http://www.wto.org/english/tratop\\_e/dispu\\_e/dispu\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm) (last visited Oct. 27, 2014).

169. *See* Steve Charnovitz, *The WTO's Problematic "Last Resort" Against Noncompliance 3-4* (Aug. 14, 2003) (unpublished manuscript), available at <http://www.worldtrade.org/articles/charnovitzlastresort.pdf>.

170. *Principles of the Trading System*, WTO, [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact2\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm) (last visited Oct. 27, 2014).

171. *Id.*

“favored nation,” meaning that countries cannot normally discriminate between their trading partners, except with regard to free trade agreements and customs unions.<sup>172</sup> If a country grants another country a special favor or tariff rate, that rate will apply to all trading partners who are WTO members.<sup>173</sup>

### E. *Response to the E.U. ETS*

Response to the E.U. ETS outside the European Union has been almost universally negative.<sup>174</sup> The ICAO completely rejected the ETS as an unlawful interference with the sovereignty of other nations. The United States passed a pre-emptive law making it illegal for U.S. airlines to participate in the ETS.<sup>175</sup> India and China have gone even further, threatening trade sanctions on E.U. airlines.<sup>176</sup> All of this opposition has fostered domestic misgivings about the ETS.<sup>177</sup>

#### 1. ICAO Response

The most recent session of the ICAO Assembly, in the fall of 2013, ended with two significant resolutions regarding airline emissions. First, the Assembly agreed to draft a market-based mechanism to reduce airline emissions during its next Assembly session, scheduled for 2016, with implementation in 2020.<sup>178</sup> Second, the Assembly refused to recognize the right of the European Union to force all airlines to comply with its ETS system.<sup>179</sup> In addition, the ICAO Assembly rejected a proposal—adopted by the ICAO Council—that pending the development of a global scheme, regional

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172. *Id.*

173. *Id.*

174. See, e.g., European Union Emissions Trading Scheme Prohibition Act of 2011, 49 U.S.C. § 40101 (2012) (U.S. pre-emptive law forbidding U.S. airlines from participating in ETS); Alcock, *supra* note 34 (Russia stops negotiating routine overflight agreements with E.U. airlines and China freezes Airbus contracts).

175. European Union Emissions Trading Scheme Prohibition Act of 2011.

176. *China and India Defy Final EU ETS Reporting Deadline*, AVOCET, [http://www.avocet.eu/risk/news\\_detail/china\\_and\\_india\\_defy\\_final\\_eu\\_ets\\_reporting\\_deadline](http://www.avocet.eu/risk/news_detail/china_and_india_defy_final_eu_ets_reporting_deadline) (last visited Oct. 27, 2014).

177. See Kroet, *supra* at note 35 (explaining that France, Germany, and the United Kingdom fear a potential trade war over the airline ETS).

178. Krukowska, *supra* note 24; *Addressing CO2 Emissions from Aviation* (ICAO, Working Paper No. 68, Revision No. 3, 2013), available at [http://www.icao.int/Meetings/a38/Documents/WP/wp068\\_rev3\\_en.pdf](http://www.icao.int/Meetings/a38/Documents/WP/wp068_rev3_en.pdf).

179. Keating, *supra* note 28; *Inclusion of International Civil Aviation in the European Union Emissions Trading Scheme (EU ETS) and Its Impact* (ICAO Working Paper No. 13790, 2011), available at <http://ainalerts.com/ainalerts/alertimages/ICAO.pdf> [hereinafter ICAO Working Paper No. 13790].

schemes such as the aviation ETS could cover international flights that arrived at or departed from a member's airports for the portion of flights that were over that member's airspace (known as the "sovereign airspace" approach).<sup>180</sup> Instead, the ICAO Assembly resolved that when states were designing new schemes and implementing existing schemes, they should (i) engage in bilateral or multilateral negotiations with other states to reach an agreement; and (ii) grant exemptions to developing states whose total revenue ton kilometers<sup>181</sup> of international civil aviation is less than one percent.<sup>182</sup>

The ICAO members challenging the ETS as originally designed argued that the ETS "violates the cardinal principle of state sovereignty laid down in Article 1 of the Chicago Convention *viz.* 'the Contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.'"<sup>183</sup> In response to these assertions and the ICAO Resolution, the E.U. member states filed a joint reservation to the ICAO Resolution, stating their contention that there is "no legal requirement for 'mutual agreement'" when implementing a regional market-based measure to combat airline emissions.<sup>184</sup> The E.U. members further stated that "the Chicago Convention recognises expressly the right of each Contracting State to apply on a non-discriminatory basis its laws and regulations to the aircraft of all States."<sup>185</sup> This strategy was similar to the E.U. response to a previous ICAO Resolution at the thirty-sixth session (Resolution A36-22) banning mandatory emissions trading schemes without mutual consent of the regulated and the regulator relied on by the challenging parties.<sup>186</sup> At

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180. Nicholas Rock et al., *European Union: Aviation Emissions: The ICAO Outcome and Its Impact on the EU Aviation Emissions Trading Scheme*, MONDAQ (Jan. 7, 2014), <http://www.mondaq.com/x/284726/Aviation/Aviation>; see ICAO Working Paper No. 13790, *supra* note 179.

181. Total revenue ton kilometers is an important determinant of profit in the transportation industry determined by multiplying the weight of paid tonnage or passengers by the total number of miles transported—in order to make a profit overall a firm must be able to make a profit per kilometer on what is shipped. *Revenue Ton Mile*, INVESTOPEDIA, <http://www.investopedia.com/terms/r/revenue-ton-mile.asp> (last visited Oct. 31, 2014).

182. Rock et al., *supra* note 180.

183. ICAO Working Paper No. 13790, *supra* note 179, at 3.

184. Written Statement of Reservation, Lithuania on Behalf of the Member States of the E.U. & 14 Other Member States of the European Civil Aviation Conference (ECAC), ICAO Assembly Resolution A38-18, at 2, *available at* [http://ec.europa.eu/clima/policies/transport/aviation/docs/st\\_15605\\_13\\_en.pdf](http://ec.europa.eu/clima/policies/transport/aviation/docs/st_15605_13_en.pdf) [hereinafter Written Statement of Reservation].

185. *Id.*

186. Carminati, *supra* note 94, at 136.

that session, in response to Resolution A36-22, the European Union reserved its position in accordance with the Chicago Convention, making that Resolution nonbinding on it.<sup>187</sup> By doing so again at the thirty-eighth session, it is clear that the European Union does not believe that a nonbinding ICAO resolution had the legal authority to curb its implementation of the ETS.

However, recognizing the severity of the international outrage about the ETS and the deleterious effects that implementation of the airline ETS as drafted was having on the European Union's relations with several of its largest trading partners, the European Commission decided to amend the airline ETS regulations. Although the aviation ETS had been adopted in 2008 with an implementation date of 2010, the European Commission had given temporary one-year "stop the clock" exemptions to flights to and from the European Union (i.e., non-intra-E.U. flights) in 2010, 2011, 2012, and 2013.<sup>188</sup> The most recent exemption had been to give the ICAO Assembly a chance to reach a global agreement to tackle airline emissions—which the European Commission has had as its ultimate goal in the area for over fifteen years.<sup>189</sup>

## 2. International Response

In the United States, the response to the ETS was swift—the U.S. Congress passed the European Union Emissions Trading Scheme Prohibition Act of 2011, which President Obama signed into law on November 29, 2012.<sup>190</sup> The Act empowers the Secretary of Transportation to prohibit an operator of a civil aircraft of the United States from participating in the ETS if the Secretary determines that the prohibition is in the "public interest."<sup>191</sup> U.S. lawmakers argued that U.S. airlines should not participate in the ETS as a matter of national sovereignty because flights to and from Europe emit some CO<sub>2</sub> in U.S. or international airspace.<sup>192</sup> The lawmakers instead suggested that any such market-based mechanism to combat airline emissions should be negotiated and enacted through the ICAO.<sup>193</sup>

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187. *Id.*

188. See *Reducing Emissions from Aviation*, *supra* note 20.

189. *Id.*

190. European Union Emissions Trading Scheme Prohibition Act of 2011, 49 U.S.C. § 40101 (2012); Lowe, *supra* note 22.

191. European Union Emissions Trading Scheme Prohibition Act of 2011.

192. Elisabeth Rosenthal, *A Bipartisan Vote Against European Air Fines*, N.Y. TIMES (Sept. 27, 2012, 4:39 PM), <http://green.blogs.nytimes.com/2012/09/27>.

193. *Id.*

Outrage about the airline ETS was not limited to parties in the United States. China not only instructed its airlines not to comply with the ETS but also forbid them to share emissions data with E.U. regulators.<sup>194</sup> Furthermore, China took retaliatory measures against certain Airbus orders, delaying delivery of a number of wide-body aircraft worth billions of dollars.<sup>195</sup> China also threatened to impound E.U. carriers' airplanes if E.U. regulators were to take action against any Chinese carrier for not complying with the requirements of the ETS.<sup>196</sup> India also instructed its airlines not to comply with the ETS, and no Indian airline cooperated with E.U. regulators.<sup>197</sup> Indian rhetoric on the subject also became quite heated, with the country threatening reprisals, including the banning of E.U. airlines from Indian airspace and imposing restrictions on overflights.<sup>198</sup>

Russia was also strongly opposed to the ETS, gathering a so-called "coalition of the unwilling" to sign an agreement to not comply with the ETS and to consider retaliatory countermeasures aimed at undermining the ETS.<sup>199</sup> Russia took the further step of refusing to grant new overflight rights to Finnair, an E.U. carrier.<sup>200</sup> Russia also refused to honor an agreement with the European Union regarding overflights of Siberia. Russia had promised the European Union, as part of Russia's accession agreement to the WTO, that future Siberian overflight rights would be provided free of charge and that formerly negotiated overflight fees would be reduced to zero by January 2014.<sup>201</sup> Nevertheless, in response to the ETS, Russia began charging fees for the Siberian overflights again.<sup>202</sup>

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194. *China and India Defy Final EU ETS Reporting Deadline*, *supra* note 176.

195. *Id.*

196. Alcock, *supra* note 26.

197. Anurag Kotoky, *India Joins China in Boycott of EU Carbon Scheme*, REUTERS (Mar. 23, 2012, 12:43 AM), <http://in.reuters.com/article/2012/03/22/india-eu-emission-idINDEE82L0AD20120322>.

198. *China and India Defy Final EU ETS Reporting Deadline*, *supra* note 176.

199. James Murray, *Russia Fires First Shot in EU Aviation Emissions Trade War*, GUARDIAN (Feb. 22, 2012), <http://www.theguardian.com/environment/2012/feb/22/russia-eu-aviation-emissions-trade>.

200. Alcock, *supra* note 26.

201. Cathy Kuyck, *EU, Russia Resume Talks over Siberian Overflight Fees*, AVIATION WK. (Mar. 21, 2013), [http://www.aviationweek.com/Article.aspx?id/article-xml/awx\\_03\\_21\\_2013\\_p0-561623.xml](http://www.aviationweek.com/Article.aspx?id/article-xml/awx_03_21_2013_p0-561623.xml).

202. *Id.*

### 3. Domestic Response

The ETS for the aviation sector has been applied to domestic (i.e., intra-E.U.) flights since 2010 with no significant challenges from E.U. carriers.<sup>203</sup> Indeed, the main concern of the Association of European Airlines, the trade association of domestic carriers within the European Union, is not about the emissions cap-and-trade system generally, but rather about the negative economic effects on their business if non-E.U. airlines are exempted from the ETS.<sup>204</sup> The airlines note the negative impact on their revenues, profits, and growth potentials if the ETS were implemented as designed but without covering foreign airlines.<sup>205</sup>

#### F. *The Amended E.U. ETS, Continued Outrage, and Current Developments*

The European Union, feeling pressure on all sides, offered an amended and curtailed ETS as a way to avoid sovereignty concerns while still being able to achieve their Kyoto Commitments by 2020.<sup>206</sup> However, this change did little to assuage the global discontent with the ETS. Indeed, the United States, China, Russia, and other nations remain opposed to the very concept of an ETS.<sup>207</sup> Acknowledging the stark international opposition to the amended ETS, the European Parliament agreed to yet another “stop-the-clock” provision, which would exempt foreign airlines from the ETS until 2016.<sup>208</sup>

#### 1. Amended E.U. ETS

In response to the ICAO decision and “to give further momentum to the global discussions,” the European Commission proposed an amendment to the aviation ETS to cover only the portion

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203. See EUR. BUS. AVIATION ASS'N, POSITION PAPER ON THE PROPOSAL OF THE EUROPEAN COMMISSION WITH RESPECT TO THE EMISSIONS' TRADING SCHEME FOR AVIATION (2013), available at [http://www.ebaa.org/documents/document/20131107101600-2013\\_november\\_-\\_ebaa\\_position\\_paper\\_on\\_eu\\_ets.pdf](http://www.ebaa.org/documents/document/20131107101600-2013_november_-_ebaa_position_paper_on_eu_ets.pdf); Directive 2003/87/EC, of the European Parliament and of the Council of 13 October 2003 Establishing a Scheme for Greenhouse Gas Emission Allowance Trading Within the Community and Amending Council Directive 96/61/EC 2003 O.J. (L 235/32); Council Directive 2008/101/EC, 2009 O.J. (L 8/4).

204. See Association of European Airlines, *AEA Calls on Members of the European Parliament to Follow the Vote of Their Transport Colleagues*, ASS'N EUR. AIRLINES NEWSL. (Jan. 21, 2014), <http://www.aea.be/component/newsletter/newsletter/68.html?tmpl=newsletter>.

205. See *id.*

206. See *EU ETS Remains Bad News for U.S. Airlines*, *supra* note 21; *Proposal for a Directive of the European Parliament and of the Council*, *supra* note 29.

207. See Rock et al., *supra* note 180.

208. Kroet, *supra* at note 35.

of the flight that occurs in E.U. airspace.<sup>209</sup> The amendment would continue the exemption for non-intra-E.U. flights for the remainder of 2013 and stated that the amended ETS for aviation would enter into force on January 1, 2014.<sup>210</sup> The Commission's proposal included legislation to be adopted through the codecision procedure, which requires approval by the European Parliament and the Council.<sup>211</sup>

The Environment Committee of the European Parliament approved keeping the amended ETS for aviation in place on January 30, 2014.<sup>212</sup> Under the plan then considered, the amended ETS would remain in force until 2020 or until the ICAO agrees upon and implements a market-based mechanism for curbing airline emissions, whichever is sooner.<sup>213</sup> However, in response to the international backlash, some Members of the European Parliament (MEPs) advocated scrapping the amended ETS and continuing to exempt foreign airlines from inclusion in the ETS.<sup>214</sup> Member state negotiators reached a deal on March 3, 2014, to completely exempt non-E.U. airlines and destinations from the ETS until 2016.<sup>215</sup> However, the European Parliament still needed to approve this deal when it came up for a vote on April 3, 2014, in order to officially exempt the foreign airlines.<sup>216</sup>

The agreement would suspend the ETS for non-E.U. airlines until 2016, with a provision to revert back to making all airlines pay for allowances in 2017 if a global deal on curtailing aviation emissions cannot be reached.<sup>217</sup> This deal was not guaranteed to be approved by the full European Parliament on April 3, 2014, however, as was made clear when the European Parliament's Environment Committee voted to reject the proposed exemption deal on

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209. *Frequently Asked Questions Commission Proposal for a European Regional Airspace Approach for EU Emissions Trading for Aviation*, EURO. COMMISSION (Feb. 6, 2014) [hereinafter *EC, FAQ*]; *Proposal for a Directive of the European Parliament and of the Council*, *supra* note 29.

210. *EC, FAQ*, *supra* note 209.

211. *Id.*

212. Dave Keating, *EU Surrenders on Aviation in ETS*, EUR. VOICE (March 5, 2014, 2:44 PM), <http://www.europeanvoice.com/article/2014/march/eu-surrenders-on-aviation-in-ets/79909.aspx>.

213. *See id.*; *European Union's Emissions Trading Scheme: The Stopped Clock Keeps Ticking for Some*, VEDDER PRICE (Aug. 2014), <http://www.vedderprice.com/european-unions-emissions-trading-scheme-the-stopped-clock-keeps-ticking-for-some>.

214. *See sources cited supra* note 213.

215. *See sources cited supra* note 213.

216. *See sources cited supra* note 213.

217. *EU Committee Rejects ETS Foreign Flights Deal*, AIRWISE (Mar. 19, 2014), <http://news.airwise.com/story/view/1395267921.html>.

March 19, 2014.<sup>218</sup> Despite the strong showing of discontent from a committee made up of center-left and center-right parties, the committee vote was likely to be overturned in the April 3, 2014, vote.<sup>219</sup> This “stop-the-clock” deal remained popular in the European Parliament because of the strenuous foreign opposition to the inclusion of any non-E.U. airline in the ETS.<sup>220</sup> Indeed, the agreement passed the European Parliament on April 3, 2014. The current state of the aviation ETS is a complete exception, until 2016, of all flights that do not both originate and terminate at an airport within the European Union, with no inclusion of any emission from the portion of the flight within E.U. airspace.<sup>221</sup>

## 2. Continued Outrage—Foreign and Domestic

Members of the U.S. House of Representatives Committee on Transportation and Infrastructure have written to the U.S. Secretary of Transportation, arguing that the European Commission’s amended ETS “violates the spirit and the letter of the ICAO Agreement” to work toward a global market-based mechanism.<sup>222</sup> Members of Congress have also encouraged the Secretary of Transportation to continue to use his powers under the European Union Emissions Trading Scheme Prohibition Act of 2011 to prohibit U.S. airlines from participating in the amended ETS.<sup>223</sup> U.S. opposition is not limited to government officials. The industry group Airlines for America stated that continuing to require “foreign carriers to participate in the EU trading scheme without the agreement of the airlines’ country of registry flies in the face of the ICAO Agreement.”<sup>224</sup>

Opposition to the amended ETS for airlines has also come from the International Air Transport Association, representing some 240 airlines across the globe, which relayed “concern and surprise” at the European Union’s proposal.<sup>225</sup> The Association of Asia Pacific Airlines also stated its strong opposition to the amended ETS stating concern about the proposal and its belief that any

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218. *Id.*

219. Kroet, *supra* note 35.

220. *See id.* (explaining that several E.U. Members fear a potential trade war with some of their largest trade partners due to the airline ETS).

221. *Frequently Asked Questions*, EC, *supra* note 30, at 3–4.

222. Rock et al., *supra* note 180.

223. *Id.*

224. Barbara Lewis, *European Commission Proposes Airline Carbon Charge for EU Airspace*, REUTERS (Oct. 17, 2013, 12:23 AM), <http://uk.reuters.com/article/2013/10/16/uk-eu-air-lines-idUKBRE99F1B720131016>.

225. *Id.*

inclusion of foreign airlines in the ETS without the consent of their respective governments “runs counter to the substance and spirit of the agreement reached. . . at the ICAO 38th Assembly.”<sup>226</sup> In even stronger language, the secretary general of the Arab Air Carriers Organization stated, “[i]f the EU decides . . . they will nevertheless want to capture emissions of non-European airlines, then we will be back to trade wars.”<sup>227</sup>

There is also significant domestic opposition to the amended ETS from within the European Union. The European Low Fares Airline Association (ELFAA), whose members include RyanAir and EasyJet, is lobbying the European Parliament to oppose any amendment to the ETS.<sup>228</sup> ELFAA noted its consistent support of the inclusion of aviation with the ETS yet also its opposition to the amended ETS because it would severely reduce the effectiveness of the ETS in combating airline emissions.<sup>229</sup> In stating its opposition to the amended ETS, ELFAA summarized the opinion of many E.U. carriers about the amended ETS.<sup>230</sup> Additionally, there are some factions within the European Union and the European Parliament who oppose the amended ETS because it is too weak on combating climate change.<sup>231</sup> These factions’ concerns are two-fold: first, there is a concern, similar to the ELFAA argument, that by regulating only the portion of the flight within E.U. airspace, the ETS is significantly weakened because over eighty percent of the emissions initially targeted by the airline ETS occur outside of E.U. airspace.<sup>232</sup> Second, these factions seriously doubt the resolve of the ICAO members to vigorously work toward a global market-based mechanism for airline emission reduction and believe that the European Union has the right to impose the ETS on all flights

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226. Press Release, Ass’n of Asia Pac. Airlines (AAPA), AAPA Comments on Proposed Revisions to EU ETS (Oct. 17, 2013), *available at* [http://www.aapairlines.org/resource\\_centre/AAPA\\_PR\\_Issue16\\_EU\\_ETS\\_17Oct13.pdf](http://www.aapairlines.org/resource_centre/AAPA_PR_Issue16_EU_ETS_17Oct13.pdf).

227. Lewis, *supra* note 224.

228. Press Release, European Low Fares Airline Ass’n (ELFAA), ELFAA Urges Parliament to Reject Commission Proposal to Weaken Effectiveness of EU ETS 1 (Dec. 2, 2013), *available at* [http://www.elfaa.com/131202\\_ELFAA\\_PressRelease\\_ETS.pdf](http://www.elfaa.com/131202_ELFAA_PressRelease_ETS.pdf).

229. *Id.*

230. See, e.g., *Emissions Trading*, LUFTHANSA GRP., <http://www.lufthansagroup.com/en/press/policy-brief/topics/emissions-trading.html> (last visited Oct. 27, 2014) (Lufthansa opposes the amended ETS on market distortion grounds); LUFTHANSA GROUP, POLICY BRIEF 1/2013, (2013), *available at* [http://www.lufthansagroup.com/fileadmin/downloads/en/policy-brief/01\\_2013/epaper/#/3](http://www.lufthansagroup.com/fileadmin/downloads/en/policy-brief/01_2013/epaper/#/3).

231. See *MEP Seeks to Strengthen Draft EU Aviation Emissions Law*, EURACTIV.COM (Nov. 29, 2013, 3:33 PM), <http://www.euractiv.com/transport/draft-report-seeks-strengthen-eu-news-532025>.

232. *Id.*; Press Release, ELFAA, *supra* note 228, at 1.

utilizing an E.U. airport.<sup>233</sup> Thus, the amended ETS was attacked, internationally and domestically, simultaneously for being both too strong and too weak.

Although it appears that the European Parliament has bowed to domestic fears and international threats by approving yet another “stop-the-clock” provision exempting non-E.U. airlines from participation in the ETS during their April 3, 2014, vote, this should not have been the result. The European Union should not be bullied out of fulfilling its Kyoto Protocol obligations or enforcing E.U. law within the European Union’s sovereign airspace. As Part III will argue, the European Union need not be afraid of the bellicose rhetoric of those countries threatening the Union with retaliatory trade measures because the European Union is justified in administering the amended ETS within its own airspace and would prevail in the challenge of any third party’s retaliatory measure against it or its citizen corporations.

### III. ARGUMENT

The European Union should implement the airline ETS as amended, meaning that the ETS would apply only to the portion of the flight conducted in E.U. airspace. By continually “stopping the clock” on the imposition of the ETS on non-E.U. airlines, the European Union is only rewarding the dilatory tactics of nations, such as the United States and China, that are strongly opposed to the concept of carbon cap-and-trade systems and to the global efforts to combat climate change in general.<sup>234</sup> In short, it is unlikely that these nations will ever come to the ICAO negotiating table in good faith to actually make progress on a global market-based mechanism because they see it as harming their competitive potential and damaging their economies.<sup>235</sup> Furthermore, it is clear that the amended ETS resolves the problems noted in the ICAO Proclama-

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233. *MEP Seeks to Strengthen Draft EU Aviation Emissions Law*, *supra* note 231.

234. See Hakan Altınay, *Is the United States a Hero or a Villain?*, BROOKINGS INST. (July 3, 2010), <http://www.brookings.edu/research/opinions/2010/07/03-united-states-humanity-altinay> (stating that the United States refuses to take the lead on climate change and its current policies are “woefully inadequate”); Keating, *supra* note 28; ICAO Working Paper No. 13790, *supra* note 179.

235. See Jeff Spross, *This Is President Obama’s Plan to Get the World on Board the Fight Against Climate Change*, THINK PROGRESS (Jan. 24, 2014, 1:02 PM), <http://thinkprogress.org/climate/2014/01/24/3203791/obamas-climate-plan-world> (arguing that the United States needs to send a “good faith” message to China on climate change for international cooperation; countries concerned with the costs of being a first mover—taking the brunt of economic costs if other nations do not also move forward).

tion during the thirty-eighth session.<sup>236</sup> The European Union must also honor its own Kyoto Protocol agreements, including the European Union's target of reducing aviation emissions by twenty percent by 2020 compared to the 1990 levels, of which the airline ETS is a crucial part.<sup>237</sup>

The amended E.U. ETS relies on traditional international law concepts of state sovereignty and nondiscrimination.<sup>238</sup> This basis means that the European Union can and should implement the E.U. ETS on non-E.U. airlines. The amended ETS would be legal to implement because it does not violate the Kyoto Protocol; it can be enacted as a sovereign act under the Chicago Convention; it does not violate any provision of the E.U.-U.S. Open Skies Agreement (or, very likely, the provisions of any other E.U. open skies agreement); and finally the amended ETS does not violate core WTO principles, although threatened retaliatory measures by China, Russia, and others perpetrated because of the ETS would.

A. *The Amended ETS Does Not Violate the Kyoto Protocol.*

As demonstrated in the *Air Transport Association of America* case, opponents of the amended ETS would likely lump in a claim that the amended ETS violated the Kyoto Protocol.<sup>239</sup> However, as the ECJ in that case noted, the Kyoto Protocol is not an appropriate agreement by which to judge the amended ETS.<sup>240</sup> The Protocol is meant to function as "a legal instrument governing relations between states and their respective obligations in the context of worldwide endeavours to combat climate change."<sup>241</sup> The ECJ relied on this logic to deny private parties the use of the Kyoto Protocol in litigation.

Furthermore, even if a hypothetical plaintiff were to be allowed standing under the Protocol, the plaintiff's argument would fail due to lack of jurisdiction.<sup>242</sup> The Kyoto Protocol specifically excludes aviation from its emission reduction regulations and vests

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236. Keating, *supra* note 28.

237. *Submission by Denmark and the European Commission on Behalf of the European Union and Its Member States*, *supra* note 98. The Doha Climate Conference was a continuation and assessment of the Kyoto Protocol.

238. See Written Statement of Reservation, *supra* note 184, at 2.

239. See Case C-366/10, *Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change*, 2011 E.C.R. I-13755, ¶¶ 73, 76-78.

240. *Id.*

241. *Id.* ¶¶ 77, 80.

242. *Id.* ¶ 77.

them with the ICAO.<sup>243</sup> Thus, the Kyoto Protocol would not apply to a challenge of the ETS by either a private party or another country because the framers of the Protocol specifically did not include airline emission regulations in the agreement.<sup>244</sup>

B. *The Amended ETS Does Not Violate the Chicago Convention or the ICAO Resolutions.*<sup>245</sup>

Article I of the Chicago Convention states “the contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.”<sup>246</sup> The European Union’s ETS as drafted would have been a clear violation of the Chicago Convention: by requiring an airline to surrender pollution allowances for the entire duration of a flight, which occurs partially outside E.U. airspace, it represents an attempt of one member to tax and regulate activity in the airspace of another member. Indeed, Article I cuts both ways: although the European Union maintains complete control over the regulation and taxation of airlines within E.U. airspace, other ICAO members retain full sovereignty over the regulation of airlines in their airspace.<sup>247</sup>

Nonetheless, by amending the ETS to cover only the portion of an international flight within E.U. airspace, it becomes Chicago Convention compliant.<sup>248</sup> The amended ETS regulates only the GHG emissions that take place within the airspace of the European Union.<sup>249</sup> Although the ETS would apply to non-E.U. carriers in E.U. airspace, such an application of E.U. regulations would be no different—and no less legal—than E.U. regulations regarding crew rest, call signs, and safety procedures for aviation.<sup>250</sup> Furthermore, each ICAO member also has been allowed historically to set aviation tax levels on any basis it desires so long as the tax is not dis-

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243. Carminati, *supra* note 94, at 132; Kyoto Protocol, *supra* note 81, art. 2(2).

244. Carminati, *supra* note 94, at 131; Kyoto Protocol, *supra* note 81, art. 2(2).

245. When discussing how the European Union acted in relation to the ICAO, it is used as a simplification of the process of the twenty-eight European Member States working in collaboration at the ICAO because the European Union itself is not a member of the ICAO.

246. Chicago Convention, *supra* note 106, art. 1.

247. *See id.*

248. *See* Case C-366/10, *Air Transp. Ass’n of Am. v. Sec’y of State for Energy & Climate Change*, 2011 E.C.R. I-13755, ¶¶ 73, 76–78.

249. *EU Aviation Emissions Proposals Attacked from All Sides*, EURACTIV.COM (Nov. 15, 2013), <http://www.euractiv.com/transport/commission-fails-comprehensive-p-news-531697>.

250. *See, e.g.*, Chicago Convention, *supra* note 106, art. 12 (explaining that each sovereign state allowed to apply its own laws relating to flight and maneuver of aircraft to aircraft within its airspace).

criminary.<sup>251</sup> Although not specifically a “tax,” the amended airline ETS satisfies this rule.<sup>252</sup> The amended ETS does not discriminate between E.U. carriers and non-E.U. carriers; rather, the determinative consideration for the level of payment is the amount of emissions created within the airspace of the European Union.<sup>253</sup> Such a location-neutral determination of liability is permitted under the Chicago Convention.

Furthermore, another ICAO member challenging the European Union would have difficulty in even using the Chicago Convention to assess the legality of the amended ETS. The ECJ in the *Air Transport Association of America* case determined that the European Union was not a party to the Chicago Convention, despite the fact that all of its constituent member states are parties.<sup>254</sup> The ECJ made it clear that although E.U. treaties bind all member states, the inverse is not true—even in the extreme case of the Chicago Convention, which has been approved by every member state of the European Union.<sup>255</sup> Moreover, the ECJ determined that the European Union was not even performing *de facto* Chicago Convention requirements; although the European Union had taken on the majority of such responsibilities, individual member states retained some unilateral control over aviation in their countries.<sup>256</sup>

Therefore, a litigant challenging the amended ETS as a violation of the Chicago Convention would first have to overcome direct ECJ precedent stating that the European Union was not a party to the Convention and then, if successful on that point, would have to convince the court that a measure affecting only aircraft in E.U. airspace and using E.U. airports falls outside the scope of Article 1.<sup>257</sup> The litigant would have to convince the court that the amended ETS did not fit the Article 1 empowerment of the European Union to have “complete and exclusive sovereignty over the airspace above its territory.”<sup>258</sup> To think that a litigant could have success in such an endeavor—considering the outcome of the *Air*

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251. See Martin, *supra* note 87, at 465.

252. See *Reducing Emissions from Aviation*, *supra* note 20.

253. *Frequently Asked Questions*, EC, *supra* note 30; *Proposal for a Directive of the European Parliament and of the Council*, *supra* note 29.

254. Case C-366/10, *Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change*, 2011 E.C.R. I-13755, ¶¶ 58, 71.

255. See *id.* ¶ 71.

256. *Id.*

257. See *id.* ¶ 63.

258. Chicago Convention, *supra* note 106, art. 1

*Transport Association of America* case and the clear meaning of Article 1 of the Convention—stretches plausibility.

A clever litigant therefore may attempt to challenge the amended ETS outside of the European Court system, filing grievances with the ICAO claiming that the amended ETS violates the ICAO Resolutions. Although the ICAO was given authority to develop a system of regulation of airline emissions by the Kyoto Protocol,<sup>259</sup> the ICAO has yet to develop any such regulatory apparatus and the ICAO Resolutions that have been issued on the subject are nonbinding.<sup>260</sup> As noted above, the ICAO has set 2020 as the goal date for the establishment of its own global airline emissions trading scheme.<sup>261</sup> Therefore, the European Union is not in conflict with the ICAO regulation on the subject of international airline emissions regulation due to the lack of any established ICAO system.<sup>262</sup> Furthermore, the European Union has filed reservations to the two ICAO Resolutions on point, making those Resolutions nonbinding on its members.<sup>263</sup>

At the ICAO Assembly's thirty-sixth session, the European Union—via its member states—filed a reservation against ICAO Resolution A36-22, which established that any state's participation in an emissions trading scheme could be based only on mutual consent.<sup>264</sup> The filing of reservation makes the Resolution non-binding on the European Union and therefore it would not be in breach by enforcing an emissions scheme without mutual consent.<sup>265</sup> At the ICAO Assembly's thirty-eighth session, the European Union filed a reservation against the ICAO Resolution declaring the ETS as designed to be a violation of the Chicago Convention.<sup>266</sup> The European Union referred back to the Convention, stating that "the Chicago Convention recognises expressly the right of each Contracting State to apply on a non-discriminatory basis its laws and regulations to the aircraft of all States."<sup>267</sup> With the understanding of sovereignty over each member's airspace as the central tenet of the ICAO's founding agreement, another

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259. See *MEP Seeks to Strengthen Draft EU Aviation Emissions Law*, *supra* note 231.

260. See *id.*; Carminati, *supra* note 94, at 136.

261. Krukowska, *supra* note 24.

262. See *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶ 106.

263. *MEP Seeks to Strengthen Draft EU Aviation Emissions Law*, *supra* note 231; Carminati, *supra* note 94, at 136.

264. Carminati, *supra* note 94, at 136.

265. *Id.*

266. See Chicago Convention, *supra* note 106; Written Statement of Reservation, *supra* note 184.

267. Written Statement of Reservation, *supra* note 184, at 2.

ICAO member could not interfere with the European Union's sovereign right to regulate and tax air travel within its territory as it chooses either in European Courts or through the ICAO mechanisms.

C. *The Amended ETS Does Not Violate the E.U.-U.S. Open Skies Agreement.*<sup>268</sup>

Article 7(1) of the E.U.-U.S. Open Skies Agreement states directly that "the laws and regulations of a Party relating to . . . the operation [of aircraft] shall be complied with by such aircraft upon entering or departing from or while within the territory of the first Party."<sup>269</sup> The E.U. ETS is a regulation relating to the operation of aircraft that is law within the territory and airspace of the European Union and thus permitted under Article 7(1).<sup>270</sup> There are also environmental exceptions to the parties' responsibilities, including exceptions to the requirement to base the frequency and capacity of international air travel solely on marketplace concerns under Article 3(4).<sup>271</sup>

Although significantly altered in the 2010 revisions of the Open Skies Agreement, Article 15 remains as a strong and unilateral environmental exception.<sup>272</sup> Significant language in Article 15 was added requiring consultation and evaluations between the parties when one adopts new environmental measures, but nothing in Article 15 or the Agreement as a whole outright forbids the adoption of a market-based mechanism to control airline emissions such as the amended ETS.<sup>273</sup> Furthermore, reading together the strong respect for sovereignty within one party's airspace under Article 7 and the omnipresent environmental exceptions under Article 15, a litigant would again be hard-pressed to persuade a court that the adoption of the amended ETS—controlling airline emissions only within the sovereign airspace of the European Union—violated the E.U.-U.S. Open Skies Agreement.<sup>274</sup>

Indeed, in the *Air Transport Association of America* case, the ECJ found no violation of the Open Skies Agreement by the ETS *as*

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268. From this demonstration and noting the similarity of a majority of open skies agreement provisions, it is to be extrapolated that the amended ETS would not violate any other E.U. open skies agreement with any nation.

269. Air Transport Agreement, *supra* note 129, art. 7(1).

270. *Id.*

271. *Id.* art. 3(4).

272. See Protocol to Amend the Air Transport Agreement, *supra* note 130, art. 15.

273. See *id.*

274. See *id.*

*drafted*.<sup>275</sup> Focusing strongly on the sovereignty considerations under Article 7, the court held that the ETS as drafted did not violate the Agreement because it was only applied to flights utilizing an E.U. airport.<sup>276</sup> Furthermore, the court found the ETS would be justified under the Article 15 environmental exclusion, even if it would otherwise be excluded as an unlawful fuel tax.<sup>277</sup> Considering that the ECJ was willing to find the ETS as drafted was not a violation of the Agreement, it is even more certain that the court would not find the significantly restrained amended ETS as a violation of the Agreement.<sup>278</sup> This is especially true due to the court's reliance on sovereignty principles in Article 7 understood in concert with the fact that the amended ETS applies only within the sovereign airspace of the European Union.<sup>279</sup>

D. *The Amended ETS Does Not Violate WTO Law and the European Union Is Protected by WTO Law from Retaliation.*

As the European Union is not violating any treaty obligations—multilateral or bilateral—in its application and enforcement of the amended ETS for airline emissions, there is no recognized excuse available to countries such as China and Russia,<sup>280</sup> which are threatening trade retribution against E.U. companies or airlines. Indeed, it is the European Union that would prevail in a WTO Panel against any country that went forward with a retaliatory trade restriction. Any challenge to the amended ETS at the WTO would fail because it violates neither the WTO doctrine of national treatment—treating foreign services the same as domestic ones<sup>281</sup>—nor that of most favored nation—treating different trading partners equally.<sup>282</sup> The amended ETS brings E.U. and non-E.U. airlines onto a level playing field—there is no discrimination in the system between domestic or foreign corporations.<sup>283</sup> Furthermore, no country's airline has an advantage over any other's in the ETS on the basis of the domicile of that company.<sup>284</sup>

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275. See Case C-366/10, *Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change*, 2011 E.C.R. I-13755.

276. *Id.* ¶¶ 134–35.

277. *Id.* ¶¶ 137, 147.

278. See *id.*

279. See *id.*

280. Lewis, *supra* note 24.

281. See *Air Transport Agreement*, *supra* note 129, art. 7(1); *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶ 135.

282. See *Air Transp. Ass'n of Am.*, 2011 E.C.R. ¶¶ 136, 147.

283. EC, FACTSHEET, *supra* note 72.

284. *Id.*

Inversely, the trade sanctions being threatened against E.U. companies violate both national treatment and most favored nation because they are singling out E.U. corporations for worse treatment than other foreign trading partners and domestic companies.<sup>285</sup> Such harsh trade retaliatory measures would also be illegal under more specific WTO prohibitions against quantitative restrictions.<sup>286</sup> Therefore the ETS would not be successfully challenged under the WTO law and, in fact, certain retaliatory measures being threatened against the European Union due to the ETS would be held illegal if challenged by the European Union.

#### IV. CONCLUSION

The European Union has consistently made significant concessions to make its airline ETS palatable to foreign governments and airlines. The amended ETS—applying only during the portion of the flight within E.U. airspace—represents a final concession, making the ETS little more than a regional law. Yet, foreign governments—which continue to “agree to agree later” on an international ETS within the ICAO—have viciously vilified the ETS and threatened the European Union and its citizen corporations with a trade war. Although the rhetoric from the other side is intense, the European Union must implement the amended ETS with all due haste if it is to have any chance at meeting its Kyoto Protocol pledges for airline emission reduction.

Further concessions to foreign governments with no true intention of ever agreeing to any cap-and-trade restrictions on airline emissions only embolden these governments to make more threats in the future. As this Note has shown, the European Union has every right to implement the amended ETS within its own airspace. It is clear that the amended ETS does not violate any multinational or bilateral agreement regarding aviation to which the European Union is a party and that WTO law would protect the European Union in the event of retaliation. Moreover, if the European Union does not implement the amended ETS as soon as possible, it very strongly risks violating its own responsibilities and pledges under the Kyoto Protocol and under the E.U. laws creating the ETS. The European Union has a clear choice to make: either to give in to international bullies, continuing to “stop the clock,” allowing foreign governments and the ICAO to once again kick the

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285. Lewis, *supra* note 24.

286. See General Agreement on Tariffs and Trade art. XI, Oct. 30, 1947, 61 Stat. A3, 55 U.N.T.S. 188.

can down the road on airline emissions, or in the alternative to take the lead on combating climate change by making the amended ETS effective immediately—which would simply be implementing E.U. law within the European Union’s sovereign airspace.

