Comment Letter #62

Airlines for America®
We Connect the World

July 5, 2022

Submitted electronically to: AQMPteam@aqmd.gov

Re: Airlines for America® Comments on the South Coast Air Quality Management District's Draft 2022 Air Quality Management Plan

Dear Sir/Madam:

Airlines for America® (A4A), the trade association for the leading U.S. passenger and cargo airlines,[1] appreciates the opportunity to provide comments on the South Coast Air Quality Management District's (District or SCAQMD) *Draft 2022 Air Quality Management Plan* (Draft 2022 AQMP). Along with our members, we fully support the District's efforts to achieve the National Ambient Air Quality Standards (NAAQS) and recognize the unique challenges the District faces as an extreme nonattainment area for the federal NAAQS Ozone standards and a serious nonattainment area for the federal fine Particulate Matter (PM 2.5) standards. In that spirit, we offer the comments below.

A4A and our members embrace our responsibility to address the environmental impacts associated with aviation operations and, as detailed in the "Background" section below, have a very strong environmental record that demonstrates our commitment to reducing impacts even as we continue to provide air transportation services critical to maintaining the growth and vitality of the national, California and local economies.

In the context of these comments on the Draft 2022 AQMP, we highlight that A4A's commitment to reducing the environmental impacts associated with aviation extends to reducing emissions that can affect local air quality. Indeed, we have a long history of working with the District and the California Air Resources Board (CARB) to address this pressing concern. We are proud of the role we took in working with the District to implement measures in accordance with its 2016 Air Quality Management Plan (2016 AQMP) to reduce emissions of oxides of nitrogen (NOx) associated with aviation activity. Specifically, we worked for many months with our airport partners and the District to develop voluntary measures that were eventually incorporated into five memoranda of understanding (MOUs) between each of the South Coast airports and the District.[2] All of these MOUs included a voluntary measure to achieve reductions in emissions of ozone precursors from airport ground support equipment (GSE) more rapidly than would otherwise be achieved under State regulations. As reported to the District's Mobile Source Committee at its January 22, 2021, meeting, despite the extraordinary challenges airports and airlines have faced in the wake of the COVID-19 pandemic, together with our airport partners we have successfully implemented this voluntary program and achieved real NOx reductions that have brought the District closer to attainment.

[1] A4A's members are Alaska Airlines, Inc.; American Airlines Group Inc.; Atlas Air, Inc.; Delta Air Lines, Inc.; Federal Express Corporation; Hawaiian Airlines, Inc.; JetBlue Airways Corp.; Southwest Airlines Co.; United Airlines Holdings, Inc.; and United Parcel Service Co. Air Canada, Inc. is an associate member.

[2] These airports are Hollywood-Burbank Airport (BUR), Long Beach International Airport (LGB), Los Angeles International Airport (LAX), Ontario International Airport (ONT), and John Wayne Santa Ana Airport (SNA).

1275 Pennsylvania Ave, NW Suite 1300 Washington, DC 20004 T 202.626.4000 W airlines.org

A4A and our members remain committed to working with the District and CARB on attainment of the NAAQS. We hope these comments will be helpful in assisting the District as it works to refine the Draft 2022 AQMP.

Comments

As an initial matter, we note that the Draft 2022 AQMP does not formally propose regulatory actions or measures, but rather describes potential measures or actions prospectively and often as commitments to ask another entity to develop the measure that would result in emissions reductions. For example, under proposed measure "MOB-04: Emissions Reductions at Commercial Airports," the District suggests that "[o]pportunities for additional feasible emissions reductions will be explored through the Airport Working Group."[3] In the same vein, the Draft 2022 AQMP points to "future measures for aircraft emissions reductions" that may be pursued by CARB, stating that CARB "would evaluate federal, State and local authority in setting operational efficiency practices to achieve emissions reductions" and "would similarly work with U.S. EPA, Air Districts, airports, and industry stakeholder in a collaborative effort to develop regulations, voluntary measures and incentive programs."[4] The Draft 2022 AQMP also states CARB "would petition and/or advocate to" U.S. EPA to take various actions (e.g., promulgating more stringent engine emission standards, "cleaner fuel and visit requirements for aviation," and "zero-emission on-ground operation requirements at airports").[5] The District repeatedly presents its view that the "bulk" of emissions reductions necessary to attain the NAAQS for Ozone must "com[e] from federally regulated sources" and as such "the South Coast AQMD and [CARB] cannot sufficiently reduce emissions to meet the standard [i.e., the NAAQS for Ozone] without federal action."[6] In fact, the District identifies all measures that would affect aircraft emissions as "black box" measures it relies upon pursuant to Clean Air Act (CAA) section 182(e)(5).[7] We underscore that any as yet undefined or prospective measures, actions or initiatives could not be adopted unless they were first formally proposed and subject to full notice and comment requirements under applicable law. A4A and our members expressly reserve any and all rights

[3] *Draft 2022 AQMP* at p. 4-25.

[4] *Id.* at pp. 4-44 to 4-45.

[5] *Id.* at pp. 4-47 to 4-48.

[6] *Id.* at p. ES-6. *See also 2022 AQMP Policy Brief – Federal Approach*; *Final Contingency Measure Plan – Planning for Attainment of the 1997 80 ppb 8-Hour Ozone Standard in the South Coast Basin* (December 2019), section 5.

[7] *2022 AQMP Policy Brief – Black Box Measures* at p. 3 (one "type of 'black box' measures are those that seek reductions from emission sources under federal and international regulatory authority, namely aircraft, ships, preempted off-road equipment, and interstate trucks. . . . While the U.S. EPA has not adopted aggressive controls targeting these sources, emission reductions from all sources — including federal sources — are necessary to meet the ozone standard. Thus, the 2022 AQMP includes a 70 percent NOx emission reduction from aircraft, which is approximately 19 tons per day.").

to comment on any such regulatory measure, policy or other "mechanism" described in the Draft 2022 AQMP.[8]

That said, we will certainly support efforts to develop potential approaches to addressing aviation emissions, including through the District's Airport Working Group and/or a CARB process to collaborate with various stakeholders including industry. Again, we fully support the efforts to achieve the NAAQS and – as was the case during the process to implement the 2016 AQMP – we will look forward to participating in these efforts.

Similarly, we support the view that more stringent technologically feasible and economically reasonable standards for aircraft engines can and should be developed at the international level and adopted into U.S. law. In this connection, we welcome the District's and CARB's recognition regarding their lack of authority to regulate aviation and the need to develop emissions standards for aircraft engines at the international level (through the International Civil Aviation Organization / Committee on Aviation Environmental Protection (ICAO/CAEP)) and adopted into U.S. law pursuant to section 231 of the CAA.[9] A4A and our members have committed the time and resources needed to support the development of economically reasonable, technologically feasible and environmentally beneficial international standards for aircraft engines and aircraft governing noise, NOx, particulate matter (PM) and CO_2 (carbon dioxide) through ICAO/CAEP. In 2020, the ICAO Council adopted emissions standards for non-volatile particulate matter (nvPM) for both mass and number applicable to both in-production and new type aircraft engines. A4A supported that effort within ICAO/CAEP and has strongly supported the incorporation of the nvPM standards into U.S. law. In addition, A4A worked for years in the ICAO/CAEP process to support development of a CO_2 Certification Standard for aircraft which ICAO adopted in 2017, and we strongly supported the U.S. Environmental Protection Agency's (EPA) recent adoption of GHG emissions standards for aircraft engines pursuant to CAA section 231 that are equivalent to the ICAO CO_2 Certification Standard. ICAO/CAEP has focused a great deal of effort on NOx and we have strongly supported this effort – as is noted in CARB's *Draft 2020 Mobile Source Strategy*, significant progress has been made and as a result of successive, increasingly stringent NOx standards, aircraft engines produced today must be about 50% cleaner than under the initial standard adopted in 1997.[10] Importantly, A4A strongly supported the U.S. Government's proposals to ICAO/CAEP to develop new, more stringent standards for CO_2, NOx and PM in the present CAEP/13 cycle.

We will also continue our long-standing commitment to working with CARB on the development of reasonable regulations to address GSE emissions, despite continuing concerns regarding the State's authority to adopt and enforce such regulations. Accordingly, while A4A and its members obviously cannot commit to supporting such measures before they have even been developed much less formally proposed, we will look forward to engaging with CARB as it seeks

[8] Our comments are not intended to constitute a comprehensive or final response to any policy, project, action or measure identified in the Draft 2022 AQMP and do not address each and every proposed action or program identified in the Draft 2022 AQMP that may affect aircraft, GSE or other sources of interest to airlines.

[9] 42 U.S.C. § 7521.

[10] CARB, *Revised Draft 2020 Mobile Source Strategy* (April 23, 2021), at 149.

to develop such regulations, including amendments to the In-Use Off-Road Diesel Fueled Fleets Regulation.

We do have significant concerns regarding a number of concepts for action identified in the Draft 2022 AQMP, particularly the calls for aircraft "when travelling through California" to use "cleaner fuel" and "require visits from "cleaner aircraft" and "zero emission on-ground operation requirements at airports." These concepts were put forward in CARB's Draft 2020 Mobile Source Strategy and we explained our concerns at length in comments on that document, which we incorporate here by reference.[11]

For further context on the above comments, we provide more detailed background on our very strong environmental record and commitment to advancing environmental progress in the section below.

Background

Commercial aviation has been an indispensable pillar of our national, state, and local economies for decades. Prior to the onset of the COVID-19 pandemic, commercial aviation helped drive over 10 million U.S. jobs and over 5 percent of U.S. Gross Domestic Product (GDP). In California, according to the most recent Federal Aviation Administration (FAA) analysis, civil aviation accounts for about 5 percent of jobs (over 1.15 million in 2016) and drives over 4 percent of State GDP ($109.1 billion in 2016).[12] Economic impact studies likewise have affirmed the critical importance to local economies of aviation activity at California's major airports.[13]

The record of the U.S. airline industry demonstrates that we can grow and help the country prosper even as we continue to improve our environmental performance. For example, between

---

[11] *See Airlines for America Comments on Draft 2020 Mobile Source Strategy (dated November 24, 2020)* (December 7, 2020), available at https://www.arb.ca.gov/lists/com-attach/1-mobilesourcestrat20-BWRdbwdnBAhRNABv.pdf; *Airlines for America Comments on Draft 2020 Mobile Source Strategy (dated September 28, 2021)* (October 18, 2021), available at https://www.arb.ca.gov/lists/com-attach/6-2020moblesourcestrat-BmBSPQRrU2FQOgVa.pdf.

[12] *See* FAA, *The Economic Impact of Civil Aviation on the U.S. Economy – State Supplement* (November 2020), at 10, available at https://www.faa.gov/about/plans_reports/media/2020_nov_economic_impact_report.pdf

[13] *See, e.g., Economic Impact Analysis – Los Angeles International Airport in 2014* (April 2016) (620,610 jobs in Southern California, $37.3 billion in labor income, $126.6 billion in economic output and $6.2 billion in state and local taxes), available at https://laedc.org/wp-content/uploads/2016/04/LAWA_FINAL_20160420.pdf; *2019 Economic Impact Study – San Francisco International Airport* (direct impact of 188,111 jobs, $14 billion in labor income and 42.5 billion in total revenues; total impact of 330,215 jobs, $25 billion in labor income and $72.7 billion in total revenues), available at https://www.flysfo.com/sites/default/files/SFO_Economic_Impact_Report_2019.pdf; *San Diego International Airport Economic Impact Study – June 2018* (direct impact of 67,200 jobs, over $2 billion in payroll and $6 billion in economic output; total impact of 116,571 jobs, $3.9 billion in payroll and $11.7 in annual output), available at https://timesofsandiego.com/wp-content/uploads/2018/09/2017-01-06-economic-impact-study.pdf.

1978 and 2021, the U.S. airlines improved their fuel efficiency (on a revenue ton mile basis) by more than 135 percent, saving over 5.5 billion metric tons of CO_2 – equivalent to taking more than 28 million cars off the road on average *in each of those years*. Similarly, since 1975, even as we quintupled the number of passengers served in the U.S., we have reduced the number of people exposed to significant levels of aircraft noise by 94 percent. The U.S. airlines have continually demonstrated their ability to contribute to the nation's economic productivity, while minimizing their environmental footprint.

This environmental record is not happenstance, but the result of a relentless commitment to driving and deploying technology, operations, infrastructure, and SAF (or as CARB refers to it under the Low Carbon Fuel Standard Program, alternative jet fuel (AJF)) advances to provide safe and vital air transport as efficiently as possible within the constraints of the air traffic management system. Indeed, for the past several decades, airlines have dramatically improved their fuel efficiency and reduced their CO_2 and other emissions by investing billions in fuel-saving aircraft and engines, innovative technologies like winglets (which improve aerodynamics), and cutting-edge route-optimization software.

We are committed to limiting and further reducing our industry's GHG emissions. On March 30, 2021, A4A, together with our member carriers, pledged to work across the aviation industry and with government leaders in a positive partnership to achieve net-zero carbon emissions by 2050 (2050 NZC Goal).[14] This pledge continues our longstanding commitment to embracing our responsibility to address climate change and reduce commercial aviation's GHG emissions footprint.[15] With consistent analyses showing that tremendous quantities of SAF must be deployed for the industry to meet its climate goals, A4A carriers also pledged to work with the government and other stakeholders toward a rapid expansion of the production and deployment of commercially viable SAF to make 2 billion gallons available to U.S. aircraft operators in 2030. On September 9, 2021, as a complement to the federal government's announcement of the SAF Grand Challenge,[16] A4A and our members increased the A4A SAF "challenge goal" by an additional 50 percent, calling for 3 billion gallons of cost-competitive SAF to be available to U.S. aircraft operators in 2030.[17] Notably, this SAF challenge goal and the 2050 NZC Goal represent collective minimums, and some A4A members have in fact established even more ambitious SAF and climate goals.

---

[14] *See* https://www.airlines.org/news/major-u-s-airlines-commit-to-net-zero-carbon-emissions-by-2050/. On October 4, 2021, the International Air Transport Association and its member airlines followed suit by also committing to achieve net-zero carbon emissions by 2050. *See* https://www.iata.org/en/pressroom/2021-releases/2021-10-04-03/.

[15] Since 2009, A4A and our members have been active participants in a global aviation coalition. Prior to strengthening our commitment in 2021, we had committed to 1.5 percent annual average fuel efficiency improvements through 2020, with goals to achieve carbon-neutral growth beginning in 2020 and a 50 percent net reduction in CO_2 emissions in 2050, relative to 2005 levels.

[16] *See* https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/09/fact-sheet-biden-administration-advances-the-future-of-sustainable-fuels-in-american-aviation/ and https://www.energy.gov/eere/bioenergy/sustainable-aviation-fuel-grand-challenge.

[17] *See* https://www.airlines.org/news/u-s-airlines-announce-3-billion-gallon-sustainable-aviation-fuel-production-goal/.

Our airlines' efforts to address GHG emissions are designed to reduce their fuel consumption, GHG contribution, and potential climate change impacts responsibly and effectively, while allowing commercial aviation to continue to serve as a key contributor to the U.S., global, California, and local economies. At the same time, we continue to build upon our strong record of reducing conventional air pollutant emissions. Airlines' primary focus is realizing further fuel efficiency and emissions savings through increasing levels of SAF deployment, modernization and optimization of the air traffic management system, public-private research and development partnerships, and a vast array of additional operational and infrastructure initiatives being undertaken by airlines together with regulators, airports, manufacturers, and other aviation stakeholders. A4A and our members have been particularly focused on developing low-carbon, sustainable liquid fuel alternatives, understanding that the deployment of tremendous quantities of SAF will be key to the achievement of our climate goals.

As drop-in fuel that currently reduces lifecycle GHG emissions by up to 80% compared to conventional, petroleum-based jet fuel while also helping to improve local air quality, SAF is absolutely vital to our sector. Unlike the on-road transportation sector (cars, trucks, buses, etc.), energy alternatives like electricity and hydrogen will not be sufficiently advanced in the near- or medium-term to make a meaningful contribution to the decarbonization of the aviation sector, meaning that commercial aviation will remain reliant on high energy density liquid fuels for years to come.[18]

Fortunately, we are in a position to succeed because we are not just getting started now. A4A and our members have been working diligently for many years to lay the groundwork for the establishment of a commercially viable SAF industry. In 2006, A4A was instrumental in co-founding the Commercial Aviation Alternative Fuels Initiative® (CAAFI), which seeks to facilitate the development and deployment of SAF.[19] CAAFI has been integral in obtaining the certification of the seven SAF "pathways" that are now recognized under the ASTM International specification for aviation turbine fuel from alternative, non-petroleum sources (i.e., ASTM D7566) as well as the two co-processing pathways recognized under the ASTM D1655 jet fuel specification. Nearly all of A4A's member carriers, moreover, have entered into offtake agreements over the years with SAF producers in a concerted effort to spur the SAF industry and utilize the fuel. These offtakes include (but are not limited to) those of United Airlines, which has been procuring SAF from the World Energy facility in Paramount, CA for use at LAX since 2016, and Alaska Airlines, American Airlines, Delta Air Lines, JetBlue, and Southwest Airlines, which have been using SAF at San Francisco International Airport since as early as 2020 (and in JetBlue's case, also at LAX since 2021). It bears noting, too, that A4A was the original proponent and a key supporter of CARB's addition of AJF as a credit-

[18] *See* FAA, *United States 2021 Aviation Climate Action Plan*, at 18-19 (Nov. 2021) (*U.S. 2021 Aviation CAP*) ("there is no realistic option that could replace liquid fuels in the commercial aircraft fleet in the coming decades"), available at https://www.faa.gov/sites/faa.gov/files/2021-11/Aviation_Climate_Action_Plan.pdf.

[19] *See* https://caafi.org/.

generating fuel under the LCFS Program on a voluntary, opt-in basis.[20] In sum, we have been and remain deeply committed to the development of a commercially viable SAF industry -- in California, throughout the country, and throughout the world.

A4A's commitment to reducing the environmental impacts associated with aviation extend to reducing emissions that can affect local air quality. A4A and its members fully support the District's efforts to attain the NAAQS and ensure public health. Commercial airlines are dedicated to providing air transportation services to the public that, above all, ensure the safety of our passengers, crew and the larger public. Accordingly, we view responsible environmental stewardship as essential to our business and have embraced the need to work proactively to address environmental concerns and achieve concomitant public health objectives. As noted above, we are proud of the role we took in working with the District to implement measures in accordance with its 2016 AQMP to reduce NOx emissions associated with aviation activity.

Our effort to work with the District to ensure the viability and effectiveness of its 2016 AQMP is not unique. As noted above, A4A and our members, despite continuing concerns regarding the State's authority to adopt and enforce such regulations, have worked for almost two decades with CARB to develop reasonable regulations to address GSE emissions. These rules include the Large-Spark Ignition, In-Use Off-Road Diesel, Portable Equipment Registration Program and Air Toxics Control Measure for Diesel Particulate Matter from Portable Engines. In addition, A4A and its members have committed to working with CARB to develop a new "Zero-Emission GSE" regulation consistent with the State's Mobile Source Strategy. We also continue our long-standing record of working with the District (and the State) to adopt reasonable measures to achieve attainment of the Ozone NAAQS as it develops its 2022 AQMP through active participation in and support of its Aviation Working Group.

Also as noted above, A4A and our members have committed the time and resources needed to support the international standards for aircraft engines and aircraft through ICAO/CAEP that are consistent with its Terms of Reference.

* * *

Thank you for your consideration of our feedback. Please do not hesitate to contact us if you have any questions.

[20] Since becoming creditable under the LCFS Program in 2019, almost 15 million gallons of AJF have been uploaded to aircraft in California. *See* https://ww2.arb.ca.gov/sites/default/files/2022-04/Q4%202021%20Data%20Summary_042922.pdf.

Sincerely,

Tim A. Pohle
Vice President
Environmental Affairs
tpohle@airlines.org

Ira Dassa
Director
Environmental Affairs
idassa@airlines.org