



CENTENNIAL AIRPORT
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June 5, 2019

Denver Metroplex Draft EA
Federal Aviation Administration
Western Service Center – Operations Support Group
2200 S. 216th St.
Des Moines, WA 98198-6547

Via Email: https://www.faa.gov/nextgen/nextgen_near_you/community_involvement/den

Reference: Denver Metroplex Draft Environmental Assessment

To Whom It May Concern;

Thank you very much for the opportunity to comment on the Denver Metroplex Draft Environmental Assessment, which was made available to the public on April 22, 2019.

Federal Aviation Administration staff, who put in countless hours designing new routes in and out of the Denver metropolitan area, one of the fastest growing regions in the nation including its airspace, had the difficult task in redesigning the airspace while maintaining first and foremost the safest air traffic control system in the world. The Denver airspace is complex and diverse; from the sixth busiest commercial service airport in the country, to Spaceport Colorado, to Buckley Air Force Base with its myriad national security missions, as well as four satellite airports including the second busiest general aviation airport in the U.S., the task of establishing safe arrival and departure procedures, was no doubt challenging.

This task was and is made considerably more difficult due to the numerous environmental considerations that must be analyzed as part of any significant changes to the environment and the health and welfare of citizens living within and underneath the proposed Metroplex. These residents will share in both the benefits and burdens of the implemented redesign in terms of efficiencies to the system as well as corresponding increases in overflight in the Denver metro area.

Centennial Airport is owned and operated by the Arapahoe County Public Airport Authority, a political subdivision of the State of Colorado. The airport was established in May of 1968. With more than 340,000 annual take-offs and landings, Centennial Airport is the 22nd busiest of all U.S. Airports, including all commercial service airports such as Los Angeles International Airport, O'Hare-Chicago International Airport and the New York airports. Despite not serving

commercial airlines, Centennial Airport, which is an international airport with 24/7 U.S. Customs services, nevertheless is the second busiest general aviation and business airport in the U.S. With more than 7,000 full and part-time employees, the airport averages \$1.3 Billion in direct and indirect economic impact annually. It is an economic engine for the S.E. Metro Denver area responsible for 27 percent of the State's GDP. The airport is home to private and corporate aircraft, flight schools, defense contractors, medical flight operators, charter and fractional operators, federal, state and local law enforcement and aviation R&D, including electric and supersonic aircraft developers. It boasts four award-winning full-service providers, and a fully staffed 24/7 Federal Aviation Administration Air Traffic Control Tower.

The Draft Environmental Assessment ("D/EA") primary focus is first on Denver International Airport and second, on proposed flight routes. Centennial Airport; however, contends that the Federal Aviation Administration ("FAA") did not adequately address the required elements of an Environmental Assessment pursuant to the National Environmental Policy Act of 1969 as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982); and, its own FAA Order 1050.1F.

The FAA contemplates implementing the Denver Metroplex without completing Congressionally mandated studies first pursuant to the FAA Reauthorization Act of 2018. In doing so, the FAA contravenes Congressional intent and lawful directives related to or substantially related to the Denver Metroplex. While the outcomes of the studies are unknown at this time, they are likely to have significant impact on the implementation of the proposed Metroplex specifically, and the environment in generally based on existing and anecdotal evidence. For example, the FAA's funded Partnership for Air Transportation Noise and Emissions Reduction ("PARTNER") program demonstrates significant health related environmental impacts of particulate matter emissions that were not considered in the D/EA.¹

Centennial Airport, on behalf of its tenants and users who seek long-term viability of this great economic asset, as well as the hundreds of thousands of residents who wish to peacefully co-exist with the airport long into the future, asks that the FAA;

- (a) completes the studies mandated by Congress pursuant to the FAA Reauthorization Act of 2018 before it issues a determination regarding the Denver Metroplex D/EA;
- (b) conducts and include the findings of said studies in an Environmental Impact Study ("EIS"), including cumulative impacts per NEPA before it issues a Record of Decision regarding the implementation of the Denver Metroplex; and,
- (c) eliminates the BRNKO and PUFFR arrival procedures on the grounds of safety, increased noise exposure and increased fuel burn and corresponding increases in air quality degradation in a federally designated nonattainment area that were not analyzed in the D/EA.

It is our well-founded belief that the FAA has not adequately demonstrated the cumulative impacts of the proposed Metroplex in this rapidly growing area despite knowing and having

¹ <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1539-6924.2011.01660.x>

documented the annual increases in flight operations in and out of the Denver metropolitan area. This applies especially to Denver International Airport, which is expected to grow by one percent per year, or approximately 9,000 additional flights each year.² Related, the FAA has not adequately considered the health effects of noise on residents within the proposed Metroplex, including that of children, ostensibly because it lacks a standard for the latter.³ Finally, the FAA relies heavily on FAA Order 1050.1F, which is an internal FAA guidance document that does not supersede the National Environmental Policy Act of 1969 (“NEPA”). For this reason, the balance of the commentary below will focus on NEPA rather than the FAA Order.

Pursuant to the D/EA, the Federal Aviation Administration (“FAA”) is likely to issue a Finding Of No Significant Impact (“FONSI”) for the Denver Metroplex, finding no significant environmental impacts on the community, cultural and natural resources; nor causing impacts on the quality of the human environment, including adverse health effects that are likely to be highly controversial on environmental grounds. The FAA also determined that there are no Extraordinary Circumstances pursuant to National Environmental Policy Act of 1969, as amended.⁴ We beg to differ.

The Denver Metroplex aims to redesign the use of the airspace to, from, near and above the Denver metropolitan area to make it more efficient, predictable and increase capacity. A Metroplex is but one element of NextGen, the FAA’s ambitious program to modernize how it operates including but not limited to migrating from analog to digital technologies, and from ground-based to satellite-based navigation. Stated goals for modernization are to make it more efficient, improve airport access, increase capacity and reduce carbon emissions among other benefits.⁵

The FAA currently has 11 active or completed Metroplex sites around the country and finding no significant impact. Yet, in virtually every community, implementation of Metroplex was followed by significant public outcry over the adverse impacts of overflight on the quality of life of residents living underneath the revised flight routes.⁶ Legal action was initiated against the FAA regarding Metroplex implementations in Phoenix, Los Angeles (Southern California) and Baltimore-Washington DC, and more communities are considering the same. Metroplex implementation was followed by very significant increases in noise complaints in communities in Northern California, South Florida (Miami), Southern California (Los Angeles), Washington DC/Baltimore and Phoenix.

² FAA 2018-2038 Aerospace Forecast;
https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2018-38_FAA_Aerospace_Forecast.pdf

³ <https://www.mdpi.com/1660-4601/15/8/1753>. The Trade-Off between Optimizing Flight Patterns and Human Health: A Case Study of Aircraft Noise in Queens, NY, USA. Zafar Zafari, et al., *Int. J. Environ. Res. Public Health* 2018, 15(8), 1753

⁴ 2019 Denver Metroplex Draft Environmental Assessment

⁵ <https://www.faa.gov/nextgen/faqs/#q3>

⁶ Reports from the airport noise office at LAX, PHX, SAN and BWI show substantial increases in noise complaints after implementation of Metroplex in those communities as shown in Appendix “A”.

Pursuant to 40 CFR § 6.204, when determining a Categorical Exclusion, the FAA is required to include a statement explaining why no extraordinary circumstances exist. Centennial Airport contends that the FAA has ignored multiple provisions of 40 CFR § 6.204, specifically;

- **40 CFR § 6.204(a)(1) A statement explaining why no extraordinary circumstances exist;**
 - o The FAA failed to include such a statement despite the outcry and increases in noise complaints in other communities where Metroplex has been implemented.

- **40 CFR § 6.204(b)(1) The proposed action is known or expected to have potential significant impacts on the human environment either individually (incrementally) or cumulatively over time;**
 - o The DEN Metroplex is designed to increase capacity, which means more aircraft will be using the redesigned airspace. The FAA 2018-2038 Aerospace Forecast shows that traffic at Denver International Airport is expected to increase by at least one percent per year.⁷ Denver International Airport was given approval in 2017 to add 39 new gates to accommodate its growth in passengers.⁸ Total aircraft operations are expected to increase from 594,522 operations to 773,855 in 2038.⁹ That represents an increase of 179,333 flights over 20 years, or 8,966 flights per year or 24.5 flights per day on average. Using reference forecasting, the above numbers also correspond to Denver’s historic operational growth, which has grown by one percent per year since it commenced operations in 1996. It is simply inconceivable that the FAA can reliably state that air quality for example will not substantially increase over this 20-year time period. NEPA, pursuant to 40 CFR § 1508.7 defines cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions”. It is a demonstrated fact that the growth of aviation in the Denver Metroplex has grown by at least one percent per annum and one can assume it will continue to grow by that rate in the foreseeable future based on FAA’s own studies. It is therefore incumbent on the FAA to show not only the growth over the five-year horizon as shown in the D/EA but expand the studies to 20 years as a result of the increases in anticipated traffic.
 - For this reason, Centennial Airport contends that the FAA’s fuel and emissions analyses are lacking, as it looks solely at the incremental increases over 5 years but not the overall cumulative impacts over 20 years as might reasonably be expected based on the FAA’s own 2018-2038 Aerospace Forecast¹⁰.
 - Similarly, all noise exposure analyses should include 20-year cumulative effects, including noise exposures below 3,000 feet AGL.

⁷ FAA 2018-238 Aerospace Forecast. Federal Aviation Administration. 2018, P 27.

⁸ <https://news.get.com/denver-airport-add-39-gates-15-billion-expansion/>

⁹ <https://taf.faa.gov/Home/RunReport> 4/10/2019

¹⁰ FAA Aerospace Forecast 2018-2038. 2018

- Environmental Justice. The D/EA shows an increase in noise over economically disadvantaged communities; the only communities adversely impacted by Metroplex using the FAA’s limited analyses. Worse, FAA uses a 5db DNL delta as its threshold over areas with the quietest ambient noise levels and still manages to increase the number of affected citizens! The FAA uses a 10db DNL standard for nighttime operations because the ambient noise levels at night are lower and therefore more noticeable. The FAA should therefore apply a similar or more stringent standard for areas with a lower ambient noise level as any increase in noise will have a far greater impact. The FAA and the EPA have recognized this for national parks and nighttime occurrences and should do the same for daytime noise events over rural and quieter areas. To place an additional burden on disadvantaged communities is particularly disturbing.
- **40 CFR § 6.204(b)(6) The proposed action is known or expected to cause significant adverse air quality effects;**
- As stated above, the fuel consumption and carbon emissions reductions presented as part of the DEN Metroplex study simply lack the cumulative impact that is reasonably foreseeable. More aircraft will consume more fuel and produce more carbon emissions, regardless of the efficiencies gained from Optimized Profile Descent.
 - The Denver metropolitan air quality has steadily declined over the course of the last two decades due to myriad incremental increases in vehicle, aircraft and other emissions as the demographic area continues to grow faster than most regions of the country. The Denver metropolitan area is now on the EPA list of cities and counties for air quality nonattainment (see map below). A five-year analysis may be considered de minimis in terms of additional air quality degradation but studied in the context of 20 years and the estimated 180,000 additional flights in and out of Denver cannot possibly be considered de minimis per NEPA.



- **40 CFR § 6.204(b)(8) The proposed action is known to cause significant public controversy about a potential environmental impact of the proposed action;**
 - o Metroplexes around the country have experienced significant increases in noise complaints as a result of implementation (see Appendix A). While noise complaints by themselves are not objective measurements of noise, they are indicators of potential noise issues as a nuisance. The accepted federal threshold is 65dB DNL, which corresponds to 12.3% of the population being highly annoyed (meaning sleep deprivation, loss of concentration, inability to continue a conversation).¹¹ While it remains the federal standard and is applied in this D/EA, its validity has come under increased criticism as being inadequate. There have been steady calls for the FAA to reevaluate whether the 65dB DNL is still an acceptable threshold when so many people are severely and adversely affected by aircraft noise. In fact, the FAA began a study to address this threshold several years ago but has failed to complete the study. Congress has now mandated in the FAA Reauthorization Act of 2018 that the FAA complete this study within one year of the enactment of the Act and submit the same to Congress.¹² To this end, the FAA should place a moratorium on the Denver Metroplex study until the outcome of this and other studies are completed and published. Any change in the 65dB DNL threshold will have a significant impact on how the FAA measures environmental impact. It should be noted that Naples, FL successfully challenged the FAA on the 65 DNL threshold and was able to apply the more stringent threshold of 60dB DNL.¹³

As previously referenced, the implementation of Metroplexes and subsequent uproar by affected communities around the country has led to unprecedented action by Congress in 2018. The One Hundred Fifteenth Congress of the United States at the Second Session passed, and the President signed into law the FAA Reauthorization Act of 2018. In Subtitle D, Airport Noise and Environmental Streamlining, Congress specifically mandated numerous noise-related legislative actions, many directly and indirectly related to Metroplex implementation as follows;

SECTION 176. COMMUNITY INVOLVEMENT IN FAA NEXTGEN PROJECTS LOCATED IN METROPLEXES. (a) Community Involvement Policy.—Not later than 180 days after the date of enactment of this Act, the Administrator of the Federal Aviation Administration shall complete a review of the Federal Aviation Administration’s community involvement practices for Next Generation Air Transportation System (NextGen) projects located in metroplexes identified by the Administration.

¹¹ “Assessment of the Effectiveness of Aircraft Noise Regulation”, Fidell, Sanford. Special Issue: Noise & Health; Environmental Noise and non-Acoustical Determinants of Annoyance, Vol. 3, April-June 1999; Deepak Prasher, Ed., P21. (This article is considered the seminal article on noise annoyance and the results have since been replicated by numerous studies, including by the U.S. Air Force)

¹² FAA Reauthorization Act of 2018, Subtitle D, Sec. 173

¹³ <http://airportnoiselaw.org/cases/naples6.html>

Congress has recognized that it is quite obvious that the FAA has not sufficiently addressed, or at a minimum underestimated, the need for broad citizen participation when so many communities have expressed their frustration after Metroplex implementation about the lack of community involvement, with many complainants being clearly surprised by the sudden and unanticipated changes in flight patterns over or near their residences (See Appendix “A”).

The Denver Metroplex is no exception; the following are but a few examples. The EA was released on April 22, 2019 but the interactive GIS-based maps where residents could determine how overflights might affect their respective neighborhoods did not become available to the public until April 30th and only at the workshops, ostensibly because the sole computer operator capable of uploading the information was sick! The maps were finally uploaded on the May 2, 2019! Citizens were then given till June 6, 2019 to provide responses to the FAA, a mere 45 days after the documents (approx. 700+ pages) were released while the FAA took two years to prepare said documents. The SoCal Metroplex was given nearly four months. In another situation several Metroplex team members were overheard stating that “Metroplex will not change anything”, including one of the co-leads! In yet another instance, the FAA Public Affairs Officer cancelled a meeting for elected officials just a few hours before it was to begin because a member of the media was invited. Finally, airport staff attended numerous “stakeholder” meetings with the FAA Metroplex design team, but any input provided to the team was summarily dismissed even though Centennial Airport had demonstrated extensive cooperation with the FAA regarding RNAV implementation. These are not simple gripes but a few examples how the Denver Metroplex team has gone about the process; it has not only been arbitrary and capricious, but the design team has been indifferent to the needs of the stakeholder community—and, related;

SECTION 187. AIRCRAFT NOISE EXPOSURE. (a) REVIEW.—The Administrator of the Federal Aviation Administration shall conclude the Administrator’s ongoing review of the relationship between aircraft noise exposure and its effects on communities around airports. (b) REPORT.— (10) IN GENERAL.—Not later than two years after the date of enactment of this Act, the Administrator shall submit to Congress a report containing the results of the review;—and, related;

SECTION 189. STUDY ON POTENTIAL HEALTH AND ECONOMIC IMPACTS OF OVERFLIGHT NOISE. (a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Administrator of the Federal Aviation Administration shall enter into an agreement with an eligible institution of higher education to conduct a study on the health impacts of noise from aircraft flights on residents exposed to a range of noise levels from such flights. (b) SCOPE OF STUDY.—The study conducted under subsection (a) shall— (1) include an examination of the incremental health impacts attributable to noise exposure that result from aircraft flights, including sleep disturbance and elevated blood pressure; (2) be focused on residents in the metropolitan area of— (A) Boston; (B) Chicago; (C) the District of Columbia; (D) New York; (E) the Northern California Metroplex; (F) Phoenix; (G) the Southern California Metroplex; (H) Seattle; or (I) such other area as may be identified by the Administrator; (3) consider, in

particular, the incremental health impacts on residents living partly or wholly underneath flight paths most frequently used by aircraft flying at an altitude lower than 10,000 feet, including during takeoff or landing; (4) include an assessment of the relationship between a perceived increase in aircraft noise, including as a result of a change in flight paths that increases the visibility of aircraft from a certain location, and an actual increase in aircraft noise, particularly in areas with high or variable levels of non-aircraft-related ambient noise; and (5) consider the economic harm or benefits to businesses located partly or wholly underneath flight paths most frequently used by aircraft flying at an altitude lower than 10,000 feet, including during takeoff or landing. (c) ELIGIBILITY.—An institution of higher education is eligible to conduct the study if the institution— (1) has— (A) a school of public health that has participated in the Center of Excellence for Aircraft Noise and Aviation Emissions Mitigation of the Federal Aviation Administration; or H.R.302—52 (B) a center for environmental health that receives funding from the National Institute of Environmental Health Sciences; (2) is located in one of the areas identified in subsection (b); (3) applies to the Administrator in a timely fashion; (4) demonstrates to the satisfaction of the Administrator that the institution is qualified to conduct the study; (5) agrees to submit to the Administrator, not later than 3 years after entering into an agreement under subsection (a), the results of the study, including any source materials used; and (6) meets such other requirements as the Administrator determines necessary. (d) SUBMISSION OF STUDY.—Not later than 90 days after the Administrator receives the results of the study, the Administrator shall submit to the appropriate committees of Congress the study and a summary of the results.

Congress has long recognized that there is a direct relationship between aircraft noise and communities near airports, including establishing the Part 150 Airport Noise Compatibility Program, which, despite having been in place since 1989 has not always produced expected results and both studies are requested in order to get a better understanding of the effects and what more can be done.¹⁴ These studies invariably will be weighed against the cost-benefit burdens to society as well as laws concerning interstate commerce—and, related;

SECTION 188. STUDY REGARDING THE DAY-NIGHT AVERAGE SOUND LEVELS. (a) STUDY.—The Administrator of the Federal Aviation Administration shall evaluate alternative metrics to the current average day-night level standard, such as the use of actual noise sampling and other methods, to address community airplane noise concerns. (b) REPORT.—Not later than one year after the date of enactment of this Act, the Administrator shall submit to the appropriate committees of Congress a report of the study under subsection (a)—and related;

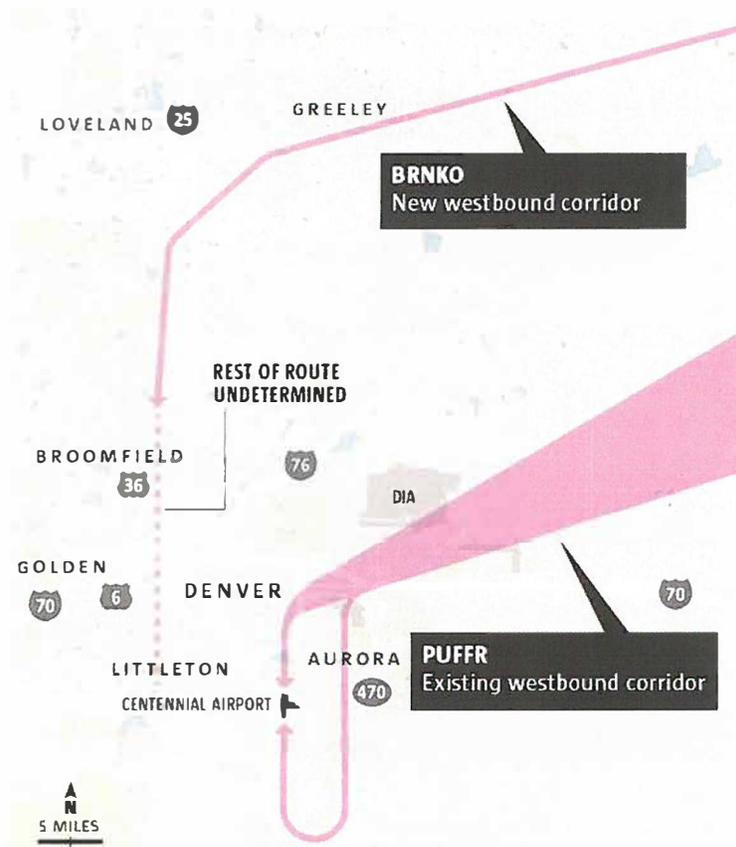
SECTION 173. ALTERNATIVE AIRPLANE NOISE METRIC EVALUATION STUDY. Not later than one year after enactment of this Act, the Administrator of the Federal Aviation Administration shall complete the ongoing evaluation of alternative metrics to the current Day Night Level (DNL) 65 Standard.

Sec. 173 and 188 are focused on the same question, which is whether or not the 65 DNL remains an acceptable federal noise standard when 12.3 percent of the populations are

¹⁴ 14 CFR Part 150 Noise Compatibility Program.

highly annoyed by noise, including but not limited to sleep deprivation, loss of concentration, inability to continue a conversation, as well as health-related concerns such as hypertension and heart disease. Also, see Sec. 187 and 189.

SAFETY, NOISE AND OVERFLIGHT CONCERNS. The FAA proposes to eliminate a “little-used” (FAA’s term) arrival procedure called PUFFR and replace it with the so-called BRNKO arrival procedure. The PUFFR arrival procedure currently takes aircraft coming in from the north and east over and above Denver International Airport.



Source: FAA

Jeff Neumann, *The Denver Post*

Source: Cities near Denver area’s Centennial Airport are fighting possible changes to flight path, *Denver Post*, January 22, 2019. <https://denverpost.com/2019/01/23/faa-centennial-airport-flight-paths-littleton/>

The proposed BRNKO arrival procedure takes airplanes destined for Centennial Airport some 50 miles further north towards Ft. Collins-Loveland, before aircraft are vectored eastward along the foothills of the Rocky Mountains where downdrafts, wind shear and volatile wind conditions make it both uncomfortable due to turbulence, as well as dangerous due to unpredictable downdrafts coming from the mountains. When weather or winds are not a factor, the corridor is popular with small aircraft flying in both directions creating safety concerns as aircraft with vastly different speeds will operate in the same airspace at nearly

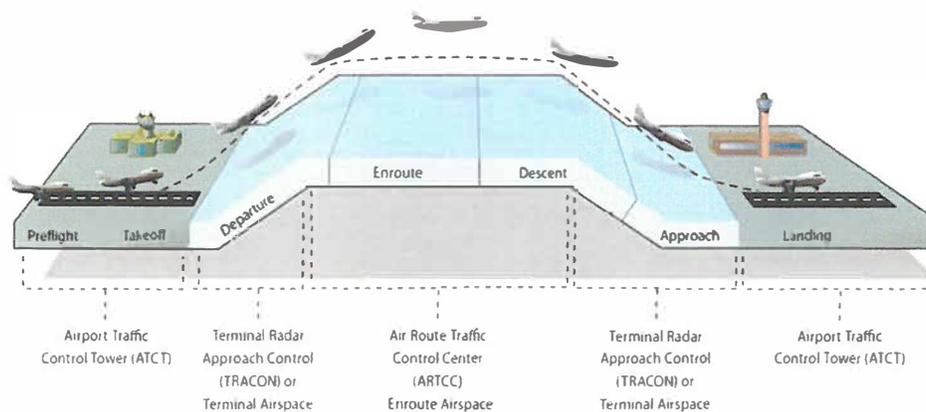
identical altitudes. While safety is typically the purview of the FAA, numerous pilots, who are the ultimate arbiters on safety, have to fly this route including PINRR (for aircraft arriving from the west) and have advised the FAA that the proposed BRNKO and PINRR arrival procedures are potentially dangerous in addition to the discomfort for their passengers.¹⁵ Numerous pilots have indicated that they will simply not use the BRNKO/PINRR and look to use the DUNNN arrival procedure instead. Therefore, from the book of unintended consequences, the FAA should consider alternative arrival procedures or take no action on PUFFR. The FAA also claims that only very few aircraft use the PUFFR, which begs the question, why change?

While the FAA has touted the reductions in fuel burn and emissions as part of Metroplex, it did not include an analysis in the D/EA pertaining to the increases in fuel burn and emissions generated by aircraft using the BRNKO rather than PUFFR procedure. The FAA should be required to provide this data, including associated costs.

Equally important, aircraft flying the BRNKO and PINRR arrival procedures will be turning east towards Centennial Airport and overflying communities like Littleton, Columbine Valley, Highlands Ranch, Cherry Hills, Lone Tree, Castle Pines, Castle Pines North, Castle Rock, Greenwood Village, Centennial and unincorporated counties of Douglas, Arapahoe and City and County of Denver that have previously only seen occasional aircraft overflight. Although the overflights may not reach the 65dB DNL legal threshold at this time, and therefore may not meet the nuisance or extraordinary circumstance standards under current law, that could change with the Congressional mandates pursuant to the FAA Reauthorization Act of 2018, Title D. For this reason, Centennial Airport requests that the FAA place a moratorium on implementation of the Denver Metroplex until the studies requested by Congress are completed and submitted to Congress for consideration.

The proposed BRNKO procedure presents two additional problems not considered in the D/EA. First, what happens when TRACON hands over aircraft to local ATC, and second, there is great uncertainty regarding the altitudes of the overflights above the referenced communities once that happens? The FAA does not consider impacts below 3,000 feet AGL, and therefore the final phase of flight is “undetermined”. A typical flight profile would see an aircraft depart or land at an airport, which is managed by local air traffic control. In between, near the airports, Terminal Radar Approach Control “talks” to the aircraft and provides direction, while on longer flights, the Centers or “en route” controllers provide direction to the aircraft. This is best illustrated in the diagram below. There cannot be a disconnect between the three air traffic control functions, yet the FAA leaves the final phase of flight to the local air traffic control tower and excludes that phase of flight from further analysis. The FAA simply ignores that transition from TRACON to local ATC, leaving the most important concerns, noise and overflight at the lowest altitudes over those communities unanswered. While the FAA considers the BRNKO procedure de minimis, Centennial Airport will continue to grow, and more flights will be vectored over these communities without a say in the matter if BRNKO can stand. Even if the current volume of eight to ten aircraft a day were true, it is eight to ten aircraft a day too many for citizens who never bought into, expected or agreed to this proposition.

¹⁵ The FAA acknowledges that when it comes to safety, the Pilot in Command comes first.



Finally, Centennial Airport is the only airport within the proposed Denver Metroplex with an FAA approved Part 150 Noise Compatibility Program (“NCP”). The FAA never once consulted with Centennial Airport regarding the NCP. Since the NCP was approved by the FAA on August 12, 2007, the airport has worked with the Centennial Airport Community Noise Roundtable to address and mitigate noise concerns. The Part 150 Study, the work by the Community and Technical Advisory Committees, the approved NCP and the subsequent work by the Roundtable to mitigate aircraft noise, now comprising 20-plus years of work, will be forever jeopardized by the FAA with this proposed Denver Metroplex. The latter also includes the Noise Exposure Maps (NEMs), which airports, local communities and planning departments and sponsors rely on to determine compatible development as required by the FAA pursuant to the Federal Grant Assurances!

In closing, we urge the FAA to complete the studies mandated by Congress; address any changes in an Environmental Impact Study including cumulative impacts over 20 years; and, eliminate the BRNKO and PINNR procedures in favor of more acceptable alternatives including taking no action on PUFFR.

Again, thank you very much for this opportunity to comment.

Sincerely,

Robert P. Olislagers

CEO

Cc: Arapahoe County Public Airport Authority Board of Commissioners
 Kimberly Bruetsch, Attorney at Law, Robinson, Waters, et al.
 Centennial Airport Community Noise Roundtable
 Sen. Cory Gardner, U.S. Senate
 Sen. Michael Bennett, U.S. Senate
 Rep. Jason Crow, U.S. House of Representatives

APPENDIX "A"

Summary of Data

04/10/2019

San Diego International Airport – Lindbergh Field (SAN)

Noise Office

Shon Annette

Noise Complaints:

| | | |
|------|----------|---------------------------------------------------------------------------|
| 2014 | 158 | (Before Metroplex implementation) |
| 2015 | 4,000+ | (Initial announcement of Metroplex—expected spike due to awareness) |
| 2016 | 31,716 | (Implementation of Metroplex – Phase 1/3) |
| 2017 | 72,000+ | (Locally developed button App to complain directly to the noise hotline)* |
| 2018 | 125,000+ | * |

*Button Apps makes it easy to complain – Centennial Airport requires actual calls with data requests such as type of flight (departure/arrival) etc. in order to avoid massive complaints at the touch of a button without knowing if someone just notices airplane noise or is genuinely bothered by noise.

04/09/2019

Phoenix International Airport

Noise Office

| | | |
|------|--------|-----------------------------------|
| 2014 | 3,005 | (Before Metroplex implementation) |
| 2015 | 24,243 | (During Metroplex implementation) |
| 2016 | 84,264 | (After Metroplex implementation) |
| 2017 | -- | (Court-ordered stop of Metroplex) |

04/09/2019

Baltimore-Washington International-Thurgood Marshall Airport

Noise Office

| | | |
|------|---------|---------------------------------------------------|
| 2015 | 2,409 | (Before Metroplex implementation) |
| 2016 | 3,312 | (During Metroplex implementation) |
| 2017 | 17,223 | (After Metroplex implementation) |
| 2018 | 153,337 | (Extensive use of button App to file complaints)* |

04/09/2019

Los Angeles International Airport (LAX)

Noise Office

Rene Spencer

| | | |
|------|---------|-----------------------------------------------------------|
| 2014 | 8,062 | (Before Metroplex implementation) |
| 2015 | 8,862 | (Before Metroplex implementation) |
| 2016 | 45,076 | (During Phase I of Metroplex implementation) |
| 2017 | 107,451 | (During Phase II & III of Metroplex Implementation) |
| 2018 | 274,172 | (After Metroplex implementation— more procedures to come) |