

Using smart regulation and siting to cut Airport impacts

Executive Summary

The Aspen community wants better ways to manage its Airport's local impacts. Pitkin County is broadly correct that all aviation safety and air traffic are federally controlled, and noise partly so, and that the Airport may not unjustly discriminate between different aircraft, users, or passengers, nor charge unfair or unreasonable prices (as many think its private aviation fuel monopolist now does). However, that does not mean the community cannot influence impacts of local concern. There are numerous ways to do that.

Aspen Fly Right found many promising tools and powers not yet tried or seriously considered. From two-part landing fees to congestion pricing, both reducing airspace rivalry and delays, many options could influence the General Aviation that dominates the Airport's operations and impacts. Choosing in the next few weeks to reassert control over the Fixed Base Operation (even if it's professionally run by a contractor) could help to solve many problems. If the Commissioners choose instead to retain the current private monopoly structure, many solutions will become weaker and harder. Whether this momentous choice is properly framed and considered may depend on the depth of public concern expressed now.

Aircraft noise will gradually abate with quieter—soon manyfold quieter—airplanes if Aspen welcomes and nourishes technological leapfrogs rather than excluding them from its airport planning process. Standard tools could also be more effectively used to reduce, deflect, and soften emitted noise. The County could petition the FAA for tighter local noise standards, complementing emergent federal ones. Aspen Fly Right has suggested, and the Airport Advisory Board seems likely to endorse, many improvements in the Fly Quiet Program. And noise, like congestion and other impacts, can be influenced not only by mandates, standards, and prohibitions but also by creative fiscal tools, some already FAA-endorsed.

The Airport may not “unjustly discriminate” between different planes or users, but some discriminations aren't considered “unjust” because they're rationally based on reasonable distinctions for public benefit. We identified many such opportunities, especially those that improve aviation safety or efficiency and treat local pilots fairly. Four major kinds of air pollution are not even federally regulated and therefore not preempted, and some FAA rules may help to abate them.

The Airport could strengthen its finances and independence while keeping charges just and reasonable, especially if the County chooses to control FBO fuel pricing, keep more money in the airport, and pay less profit to private-equity firms. The County could then fund development at its own prudent pace—not in a forced march that subordinates urgent public-terminal needs to the airside. We also suggest ways to ensure that illegally large planes do not land in Aspen, as seems to have occurred recently.

Perhaps the most exciting opportunities might arise from the FAA's versatile Airport Investment Partnership Program. Its law was written permissively, presenting opportunities for creative structures and mechanisms to give the community even more potential scope to affect local impacts and ensure accountability while preserving past and future federal grants and federal safety regulation. This broad slate of options, not yet discussed, looks exceptionally promising—if the FAA relationship is put on a more solid foundation and the County's openness to innovative public strategy formation can keep advancing.

A final class of options not yet seriously explored involves potentially sharing some private or commercial air traffic or both with neighboring airports, notably Rifle, with equitable participation and protections for already-burdened Rifle residents. Garfield County seems far ahead of Pitkin County in launching an entrepreneurial aviation strategy, Pitkin County may have gained some useful process learnings, and it may be time to catch up and get together.

The main kinds of authority or influence that our community would like to have over Aspen Airport's aviation include fair sharing of airspace; less noise, air pollution, and climate change; and potentially, if needed to manage those issues, some way to affect aircraft sizes, types, and numbers. The County has disclaimed all such abilities, and in some respects, that attitude seems legally correct. In others, though, it seems to reflect underuse of imagination and initiative. This Essay explores some reasons to think that the County has, or could gain, more authority than it now seems to think it has. This could flow from a different kind of relationship with the Federal Aviation Administration, especially if the FAA became more impressed with and confident in its discussion partners and their proposals. That improved relationship could also be fostered and nourished by both parties' developing deeper understanding of and interest in new options.

Whether potential tools for the County to affect local outcomes become easier or harder to find and exploit depends substantially on the imminent County decision, described in our Essay #3¹ and Ads #3² and #11³, to choose the business and governance structure of the Fixed Base Operation (FBO). Airport operations are dominated by the FBO-based General Aviation (GA) operations—lately about 83% of takeoffs and landings, 59% of fuel sales and hence ascribed climate impact, and nearly all noise complaints, as well as virtually⁴ all accidents. Thus the opportunity to control or influence GA practices and costs by regaining public control of FBO policies would be the most immediate and important step the County could take to help mitigate *all* Airport concerns, subject to some important limitations and uncertainties described below.

If our County Commissioners choose to continue the current private-monopoly FBO structure, that will not make needed GA reforms impossible, but will certainly make them more difficult—by abrogating supervisory power, by reinforcing counterproductive monopolistic motives and behaviors, and by interposing a profit-focused and unaccountable middleman in between elected officials and the GA customers whom the County hopes to influence. Unfortunately, the selection criteria for FBO bidders were structured in a way that has made this outcome more likely⁵, and an opaque process has made it impossible to tell whether public-control options are receiving informed and serious consideration. To capture the major policy, financial, safety, environmental, and efficiency benefits of returning the FBO to County ownership and direction (even if it's run by an experienced FBO operator under contract) will require strong vision and leadership from our Board of County Commissioners, motivated by clearly expressed public sentiment.

Regardless of its FBO structure, how might our Airport influence, use, and extend the current regulatory structure to help address local needs and concerns better? Let's start with some basics.

The Federal Aviation Administration (FAA)

Aspen/Pitkin County Airport is a public-use airport owned by Pitkin County and regulated by the FAA. That 65-year-old agency's mission is "to provide the safest, most efficient aerospace system in the world." Accountable to the US public and to aviation stakeholders, it strives "to reach the next level of safety and efficiency and to demonstrate global leadership in how we safely integrate new users and technologies into our aviation system." The FAA's values focus on safety, excellence, integrity, people, and innovation, fostering "creativity and vision to provide solutions beyond today's boundaries."⁶ We are fortunate to have an independent aviation regulator with such solid foundations and strong technical expertise.

At a more granular level, the FAA Airports organization provides “leadership in planning and developing a safe and efficient national airport system to satisfy the needs of aviation interests in the United States...with due consideration for economics, environmental compatibility, local proprietary rights and the safeguarding of the public investment.”⁷

Importantly, the agency emphasizes⁸: “Innovation is our passion. We will foster creativity and vision...in how we support our stakeholders....” Some industry experts who have long dealt with the FAA report that if approached in a spirit of informed and respectful collaboration, the agency’s skilled officials can be impressively creative, innovative, and supportive of local goals. For example, former Aspen and Telluride Airport Director Dick Arnold has said the FAA never denied his reasoned requests to interpret its rules in a way that improved safety and efficiency, made sense, and met unique local needs.

This Essay, therefore, mainly explores needs and ways to strengthen similar attributes in the Pitkin County government’s Airport-related policy processes, so these two partners can perform even better together than either could do separately. The diverse suggestions below range from straightforward to speculative, but should all be explorable in a spirit of collaborative problem-solving, eager to discover and exploit potential synergies.

Basic airport regulatory principles

Aspen/Pitkin County Airport is FAA-classified⁹ as a publicly owned, public-use, Commercial Service, primary non-hub¹⁰ airport. It is governed by numerous FAA layout and operational rules to ensure safe aeronautical activities. Having accepted many FAA grants¹¹ for airport improvements that are expected to operate permanently, the Airport is also Federally Obligated and is bound, typically for 20 years for each grant, by a list of highly evolved (and continuously improving) Grant Assurances¹². On 9 December 2022, FAA updated its detailed *Airport Compliance Manual*¹³ summarizing these arrangements, and many others applicable elsewhere.

No matter who owns or runs Aspen Airport, its air traffic and movements of aircraft on active surfaces on the ground are controlled by the FAA staff in the control tower (or in Denver after hours). While they instruct airborne pilots how to perform unique and precise arrival and departure choreography as described in our Essay #1¹⁴, the controllers’ role in guiding landings is less to instruct the pilot in command to make detailed maneuvers than to provide the best possible information to inform the pilot’s discretion. But the County has little or no discretion here: controlling aircraft operations is a function preempted by Federal law and is the sole and exclusive responsibility of the FAA.

The FAA also controls many details of land-use on and near the airport, such as ensuring that nothing protrudes into navigable airspace or emits vision-disrupting light-glare, potentially endangering airplanes, and that no development encroaches on the Runway Protection Zone (a trapezoid off each end of the runway), so as to protect people on the ground.

Further extending that protection, Pitkin County’s standard Grant Assurance #21 pledges the County to “take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities

and purposes compatible with normal airport operations, including landing and takeoff of aircraft.”¹⁵ The FAA’s list of *incompatible* uses starts with residential¹⁶: residential use is categorically “incompatible with the operation of a public use airport,” “because of the impact of aircraft noise and, in some cases, for reasons of safety...”¹⁷ In principle, this clause should require the County to make appropriate and reasonable efforts to prevent construction of the planned Lumberyard Affordable Housing Project just outside the Runway Protection Zone. However, that land, the project, and its approvals and financing are under City of Aspen jurisdiction, not County, so the County lacks zoning authority, and has apparently chosen not to fulfill its pledge by trying to exert appreciable pressure on the City by other means. (No doubt the project’s laudable intent and the local governments’ closely intertwined relationships contributed to that choice.) But “Incompatible land use at or near airports may result...from residential construction too close to the airport....Incompatible land use is one of the most serious problems affecting aviation today....Coordination between the airport and the zoning entities is extremely important to achieve a successful cohabitation between airport and community.”¹⁸ We wonder if the City of Aspen has invited the FAA to conduct a land use compliance inspection¹⁹ to check for noise, air quality, and safety issues. We understand that the Lumberyard site’s current resident will soon happily move to Carbondale for quiet and clean air, and hope any future residents will have a much better experience.

The ostensible FAA prohibition on putting hundreds of dwelling units several stories high so near the runway—to help protect its occupants from noise, air pollution, and potential aviation accidents—therefore appears unenforceable in this instance²⁰. That may be a diplomatic irritant in the FAA’s relationship with the County and City, but the FAA has granted Aspen the formally required approvals²¹ and has told us that it requires no others. However, the County, being the Airport sponsor, may not get a free pass on its *laissez-faire* approach: the FAA says that “The airport sponsor should be proactive in opposing planning and proposals by independent authorities [in this case, the City of Aspen] to permit development of new noncompatible land uses around the airport.”²² Thus “the FAA does not consider a sponsor’s lack of direct authority as a reason for the sponsor to decline to take any action at all to achieve land use compatibility outside the airport boundaries....Quite often, airport sponsors have a voice in the affairs of the community where an incompatible development is...proposed. The sponsor should make an effort to ensure proper zoning of other land use controls are in place....Restricting residential development near the airport is essential in order to avoid noise-related problems.”²³ On 11 April 2023, the FAA’s John Bauer strongly emphasized this responsibility to the BOCC. And where the sponsor lacks zoning authority, “it should demonstrate a reasonable attempt to inform surrounding municipalities on the need for land use compatibility zoning.... [A]ction could include... engaging in active representation and defense of the airport’s interests before the pertinent zoning authorities.”²⁴ Not apparently having fulfilled this basic responsibility under Grant Assurance 21 cannot increase the FAA’s confidence in the County as a reliable partner, and might reduce FAA enthusiasm for future County grant requests for the Airport, harming both County and City.

Noise

Aspen Airport’s voluntary Fly Quiet program seeks to encourage quieter aircraft choices and operations. Its noise-measurement data, metrics, standards, reporting, incentives, and focus are all overwhelmingly about praising quieter rather than shaming noisier operators. These activities

need many improvements, analyzed in our Essay #9²⁵. A subset of the Commissioners' Airport Advisory Board is studying noise issues, has formed some similar impressions, and is considering recommendations for improvement.

The federal government “has preempted the areas of airspace use and management, air traffic control, safety, and the regulation of aircraft noise at its source.” But once that noise is *emitted*, authority over it shifts. The airport proprietor may control emitted aircraft noise through siting, onsite and nearby land-use control, design, scheduling, operations, and building and landscape modifications (such as berms, soundwalls, and acoustic insulation), all subject to standard prohibitions including “unreasonable, arbitrary, and unjust discriminatory rules that advance the local interest.”²⁶ However, state and local governments “may protect their citizens through land use controls and other police power measures not affecting airspace management or aircraft operations.” If they are also airport proprietors, as Pitkin County is, their powers include not just compatible zoning and housing regulation but also “restrictions on airport use that do not unjustly discriminate against any users, impede the federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce.”²⁷

A 1990 federal law, the Aircraft Noise and Capacity Act (ANCA), forbade new local noise restrictions, but in return, took the noisiest (Stage 2) jets off the market, except a small number equipped with “hush kits.” However, many Stage 3 private jets, some comparably noisy and some even noisier, will probably continue to operate for many years, have no requirement to retire, and dominate Aspen Airport noise complaints and excess-noise events. Airlines' choices of new airplanes vary widely in noise implications: our Commissioners have asked for planes at least 30% quieter, but contrary to that goal, at least one airline reportedly wants to use a model (Embaer E-175ER) that's generally *noisier* than current models yet is said to have been already chosen to replace them²⁸. Whether and when *any* replacement airline planes might be needed is vigorously disputed—even between the County's top two aviation advisors (Essay #4²⁹ and Ad #4³⁰), whose disagreement still hasn't been brought into the open to be compared with evidence and resolved through public discussion.

Regardless, Aspen Fly Right has adduced considerable technical and market evidence (Essay #5³¹, Ad #5³²) that superefficient and electrified (battery- or fuel-cell-powered) aircraft manyfold quieter than current models are likely to begin serving Aspen a decade or two sooner than officially assumed—and *before the proposed airside rebuilt for bigger, heavier, and possibly noisier planes could be built*. In the next decade or two or three, depending on one's interpretation of the evidence we present, the noise problem will therefore largely resolve itself. The County's February 2023 draft fleet forecast³³, now being revised, briefly mentions but excludes these developments with no analysis or discussion, limiting its value for County policymaking.

Meanwhile, the AAB's FlightOps Safety Task Force continues to assess FAA- and contractor-developed approaches and other operational innovations that may help to mitigate noise in some areas. So could berms and soundwalls—particularly an important one offered in the 2018 *Environmental Assessment* but not yet installed.

The FAA and the federal courts have held that noise-based restrictions cannot ban aircraft on a basis *unrelated* to noise, so a particularly noisy kind of jet aircraft may not be banned while

noisier jet or non-jet aircraft are still allowed to operate. ANCA is widely thought to prohibit local aircraft noise restrictions more restrictive than Federal standards. Those rest on 1978 research now outdated and discredited, so tighter standards may well emerge among expected amendments to the 2023 Reauthorization Bill; wide public pressure seems bound to increase.

Regardless, the 206 excess-noise events reported in 2021 from Aspen Airport’s sole year-round sensor (in Woody Creek)³⁴ indicate a substantial public nuisance that may justify the County’s petitioning the FAA for permission to set its own tighter standards on Stage 3 aircraft. Subject to six procedural and legal requirements³⁵ that are clear, specific, and reasonable—requiring a competent effort but not unreasonably burdensome—Stage 3 aircraft *can* become subject to local restrictions with FAA approval³⁶. The County has not yet requested this statutory power. The FAA is not obliged to grant it, but we’ll never know if we don’t ask.

Might our community also have *other*, surer ways to influence operators’ choice and operation of planes to reduce noise, and often other impacts, without outright controlling them by banning particular types, classes, or types of aircraft—an approach the FAA typically rejects because it restricts the open access that public-use airports must provide? In general, any airplane that has the right size, weight, and performance to operate safely at any public-use airport must be allowed to do so, free of any locally imposed restriction based on other attributes. However, that broad principle is actually nuanced, as we explore next on two paths: some forms of discrimination *are* probably permissible, and aircraft choices can be *influenced* by means well short of outright prohibition but potentially effective, especially collectively. Let’s consider these in turn.

“Unjust discrimination”

Much history and complex case-law surround the general FAA principle that any fees, charges, and conditions applied to aircraft in public-use airports cannot “unjustly discriminate” between different kinds of aircraft, users, operator categories, or passengers. Grant Assurance #22, Economic Nondiscrimination, elaborates this principle³⁷. But certain kinds of reasoned discrimination *are* actually permissible because they are not “unjust” or arbitrary, but are rationally designed and applied to achieve legitimate public purposes³⁸. Thus under Grant Assurance 21(e), air carriers must be subject to “nondiscriminatory and substantially comparable” rules, conditions, charges, etc for aviation-related facilities as other carriers pay for similar uses and facilities when undertaking similar obligations (§9.2), but that uniformity is also “subject to reasonable classifications” that affect the sponsor’s cost or risk—or perhaps, by implication, the *public’s* cost or risk. This suggests an intriguing path to explore with top aviation law experts.

Interestingly, Grant Assurance 22(h) says “The sponsor [the County] may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport,” and 22(i) says “The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.” How might those clauses granting the Airport certain broad authorities—subject to legal review but not explicitly requiring prior FAA approval—be interpreted?

For example, might the *Compliance Manual*'s remark on pp 8-7-8-8—"The airport sponsor may...prohibit access by an individual or individual service provider that has not complied with the airport's minimum standards or operations rules for safe use of airport property"—authorize our Airport to add specific, uniformly and universally applied, evidence-based requirements for ASE-specific pilot training and familiarization to improve aviation safety? P 8-8 and p 10-3 caution that this would require FAA approval of reasonableness and legality, lest the denial have "the possible effect of limiting competition or access." But the facts could show that some pilots' inadequate familiarity or proficiency has caused serious and persistent public hazards and significant airport shutdowns as described in our Essay #2³⁹. The FAA's former Chief Counsel, Prof. Greg Walden, has confirmed that the County could ask the FAA for a rulemaking to tighten pilot training requirements for a specific airport or group of airports to improve public safety⁴⁰.

Traditionally, those access clauses have been applied to conflicts between fixed-wing and rotary-wing operations or other aeronautical activities like skydiving, soaring, ultralights, banner-towing, and ballooning⁴¹. However, while the FAA remains the sole arbiter, broader applications seems worth analyzing. Encouragingly, Prof. Walden—who had warned ASE Vision of the potentially dire (even if, in his view, often improbable⁴²) consequences of not upgrading the airside to let in bigger planes⁴³—also told them⁴⁴ that discrimination between airplanes or operators or classes of users *is not unjust if based on safety or efficiency*, but only if it's artificial or arbitrary. The law on allowable safety- and efficiency-based discrimination thus appears to be young, potentially flexible, and ripe for exploration and growth based on the FAA's core goals.

Local impacts not federally regulated or preempted

Federal preemption of aircraft noise regulation, with the important exceptions noted above, is not the general rule for *all* impacts that most concern our community. Our Essay #7⁴⁵ notes that there is currently no federal regulation meaningfully restricting CO₂ emissions from aircraft. Our Essay #10⁴⁶, whose data made a strong case for professional assessment of downwind air quality not previously measured, notes that this is also true of three other important air pollutants:

- There is no federal *public* (nonoccupational) exposure standard for *total* volatile organic compounds, such as the mixed fuel hydrocarbons and combustion products released by fueling, engine-driven ground equipment, Auxiliary Power Units, and aircraft engines. There are only standards for many *specific* kinds of hydrocarbon molecules, but the compositions of ambient hydrocarbon mixtures may vary widely in space and time.
- There is no federal regulation of fine particles (PM₁) or of ultrafine particles, which are both more dangerous than the regulated larger particles (PM₁₀ and PM_{2.5}) but are emitted enormously more copiously by jet engines—often in the hundreds of quadrillions of ultrafine particles per second by a large jet taking off from Aspen Airport.

All four of these environmental and public-health issues appear to present rational and legal opportunities for our community to influence aircraft choice and operations. Even though formally they'd be in the jurisdiction of the US Environmental Protection Agency, they'd be of strong interest to the FAA, but neither actually regulates them today, leaving lower levels of government potentially free to. As far as we know, none has been explored as a potential County

policy instrument. County tools are also not limited to standards and fees, but might include e.g. insurance bonds or indemnities, so the potential risk would be priced by market actors.

FAA fee rule §2.4.2⁴⁷ (with emphasis added) appears to allow rate-base recovery of the costs of actual and reasonable “*investigating and remediating*” of—*or insuring* against liability for—“environmental contamination caused by airfield operations at the airport *at least* to the extent...required by *or consistent with* local, state or Federal environmental law, and to the extent such requirements are applied to other similarly situated enterprises.” Remediating an unregulated but concerning form of pollution, such as ultrafine particles (which make up nearly all the particulate emissions from jet engines), could readily be made “consistent with” local environmental law—even if, perhaps especially if, the pollutant is not yet federally regulated (which could take decades). Cost recovery is “*not necessarily limited to*” such efforts. Traditionally this provision is applied to noise abatement and mitigation (§2.4.2(c)), but it could aptly cover ultrafine- and fine-particle measurement, analysis, and potential mitigation⁴⁸. Thus it appears that the County can get out in front of what we suspect might become an important sleeper issue, depending on what the indicated expert measurement and analysis of air quality finds downwind of Aspen Airport once the County has authorized and arranged it.

Fiscal instruments to improve aviation safety and efficiency

The FAA will generally seek less restrictive or alternative ways to accommodate troublesome aeronautical activities rather than banning them altogether⁴⁹. But there is little official discussion of *fiscal* rather than *restrictive* ways to mitigate airport risks and impacts. Pitkin County appears to have broad and creative opportunities and authority to experiment with fiscal instruments.

Starting with the basics: so far, Airport revenues apparently haven’t recovered depreciation costs, even though the 1987 Airport Act explicitly authorizes sponsors to use their aviation-fuel-sales income (set to increase sharply in some form in the new FBO contract, whatever its structure) for airport *capital and operating costs*⁵⁰. Indeed, the 1994 FAA Authorization Act *requires* airports to be as self-sustaining as possible⁵¹. Surely that’s consistent with smoothly collecting enough revenue to be able to renew major assets without periodically having to incur major debt financings, which constrain borrowing capacity for other public purposes.

While an airport may not use restricted revenues to accumulate large and growing financial surpluses, “Reasonable reserves and other funds to facilitate financing and to cover contingencies are not considered revenue surpluses”: any surpluses accumulated must simply be used for purposes allowed by the Revenue Use Policy. An FAA official informally confirmed to Aspen Fly Right that the FAA would consider collection of depreciation to be a sound business practice, and its omission (as now) to be an unsound practice—though probably not sufficient to trigger a corrective order. The FAA does not specify sponsors’ accounting and fee-setting practices, but only requires them to be fair, reasonable⁵², rational, transparent, and consistently applied. The 2008 Amendments to the Rates and Charges Policy also allow congested airports to charge in current fees for facilities under construction that will help relieve or avoid congestion⁵³.

The general rule that airport charges⁵⁴ may not exceed the airfield’s operating and capital costs could thus be interpreted far more flexibly than the County has done so far, thus helping to put

the Airport on a stronger financial footing⁵⁵—especially if our County Commissioners choose public direction rather than continued private monopoly as the FBO’s business model (Essay #3 and Ads #3 and #11). The crux of the Commissioners’ FBO structural decision about to be made is whether a private operator will maintain or increase its already high fuel prices to benefit its own shareholders (and incidentally the County) or whether the County will take its share from fair and reasonable prices⁵⁶ set lower for public benefit—or simply from a local aviation-fuel tax.

What other fiscal instruments appear to be available for County experimentation? Airport fees for an aeronautical service must be just, reasonable, and not unjustly discriminatory, but those terms’ boundaries may prove far more elastic than current Aspen practice has tested. This approach could avoid the FAA’s third rail—outright prohibiting specific aircraft types or users and thus reducing public access. And though the following discussion is often framed around fees, it could equally be framed around rebates—juicy carrots, not just sticks painted orange—and around combinations of fees on undesired choices or behaviors plus rebates to desired ones. Such “feebate” packages can be revenue-neutral if desired, so the user’s choice determines whether a fee will be charged or a rebate paid, and how much, without raising net revenues.

Two-part landing fees

A promising policy that the FAA already explicitly endorses and that could be folded into such a feebate offers a promising example of creative policies. It’s consistent with, and extends, the FAA’s broad acceptance of peak-period or congestion-based pricing for operations at airports that its criteria classify as “congested”⁵⁷—a recognition Aspen Airport should seek if eligible.

Despite the prohibition of per-passenger aviation fees under the 1994 Anti-Head Tax Act⁵⁸, a 2008 amendment to the FAA’s *Rates and Charges Policy*⁵⁹ allows congestion pricing, and the County’s consultant Prof. Greg Walden confirms⁶⁰ the FAA “is willing to tackle” such proposals. Going much further, the Policy specifically authorizes an airport proprietor⁶¹ to “impose a two-part landing fee consisting of a combination of a per-operation charge and a weight-based charge[,] provided that (1) the two-part fee reasonably allocates costs to users on a rational and economically justified basis; and (2) the total revenues from the two-part landing fee do not exceed the allowable costs of the airfield.” Encouragingly and deliberately, the text goes on to state, with emphasis added: “(a) The proportionately higher costs per passenger for aircraft with fewer seats that will result from the per-operation component of a two-part fee *may be justified by the effect of the fee on congestion and operating delays and the total number of passengers accommodated during congested hours.*” Thus the FAA acknowledges that increased benefits per *passenger*, not just per airplane, can justify rational fiscal structures that might otherwise appear discriminatory: their rational basis turns the discrimination from unjust into just.

This potentially capacious door should be opened wider. It carves out an exception to the Anti-Head Tax Act, which would otherwise supposedly forbid per-passenger charges and is thus often invoked broadly⁶² by operators of General Aviation planes, which generally have fewer seats but impose equal demands on airspace and other scarce airfield resources that constrain all users.

Translating this option into plainer language: Aspen Airport *is* explicitly empowered in principle to adopt a rationally designed landing-fee structure that on a per-passenger basis would discour-

age airplanes with fewer seats and encourage airplanes with more seats, as a sensible way to transport more passengers with fewer airfield operations, reduce airspace congestion, and reduce delays, noise, and pollution. This could be a great example of how partnering with innovators at FAA could put Aspen in the lead of more efficient and effective aviation. To be sure, our Airport's preponderance of very rich GA owners and passengers makes that segment rather price-inelastic, but it's better than the current system—and it's just one step of many.

Perhaps, too, the same public-benefit logic could extend to emulating Zürich Airport's pioneering system of landing fees with a noise-based component—higher for noisier, lower for quieter, and also higher in later night hours⁶³. Such signals of societal cost may be far more congenial to the FAA than direct restrictions. And if such a sensible, market-based approach were permissible for noise, why not for air and climate impacts that aren't even federally regulated?

Some other creative fiscal and administrative instruments

Now start stacking policies and benefits:

- Combine two-landing fees with recovering depreciation, and the planes that add the most congestion per passenger will pay a larger share of everyone's investment costs to help combat congestion. This will incidentally reduce ticket-tax burdens on commercial fliers.
- Next, add congestion pricing for landing slots, or simply for landing at congested times⁶⁴.
- Next, add congestion pricing for aircraft parking, where the same logic should apply as for landing fees, and there seems to be no contrary rule.
- And charge for airplane parking by area occupied—including any extra area required by bigger planes for safe movement in and out of the area rented.
- An airport sponsor with FAA review⁶⁵ may also impose a weight limit to protect pavement, and in any event could almost certainly introduce a rational charge for airplane weight⁶⁶. There may be an economic justification for disincentivizing weight to postpone costly and disruptive runway renewals, just as states charge high axle-weight fees on heavy trucks to defer and reduce highway maintenance costs (which are a steeply rising power function of axle weight).

Fiscal instruments could be thoughtfully designed to minimize impact on ASE-based airplanes⁶⁷. To improve further the equitable treatment of local pilots⁶⁸, many of whom have small planes and budgets, the Airport could enforce two FAA requirements now seemingly honored in the breach:

- A local owner of a small single-engine Cessna recently wanted to rent a tiedown at Aspen Airport. He was told there's a five-year waiting list and then it'll cost \$480 a month. But under FAA rules, waiting lists for tie-down or hangar spaces "should be available for review by existing and prospective airport tenants to ensure transparency and avoid the appearance of unjust discrimination in the selection of tenants. The tie-down fee schedule should be established or approved by the airport sponsor and must be reasonable⁶⁹." Some pilots report a lack of such transparency, and believe small local planes suffer tie-down discrimination in favor of more lucrative larger transient planes for which the FBO operator prefers to reserve space. The County's February 2023 draft aviation forecast

says there are 60 owners waiting for tiedowns, yet assumes *no* local-aircraft parking will be added in the next 20 years. There are now only 32 tiedowns for 96 Aspen-based planes, and the County's draft contract for the next FBO operator assumes 30–50 in the operator's discretion. Isn't that unjust discrimination against local small-plane owners?

- *Self-fueling*, -service, and -parking by the aircraft's owner or operator are allowed (§11), so charging an automatic and unapproved "service" or "facility" or "drop" fee to a light plane (as the current FBO reportedly does) just to wave it in and perhaps for chocking and tiedown—in essence, for entering the FBO's leased space and being told where to park—may be impermissible if the pilot doesn't want those services but does follow reasonable County rules and standards. Such FBO charges for undesired services seem to merit scrutiny, should be barred by contract, and if found improper, should be refunded.

All these steps in the right direction may add up to much more than the sum of their parts.

Taking that logic one step further, we don't know, and we wonder if the County has asked a creative aviation lawyer, whether costs incurred specifically to admit larger airplanes could be partly or wholly charged specifically to those operators rather than socialized to all Airport users. Larger planes would be allowed but would pay the costs they explicitly impose, based on manifest physical differences and a clear causal nexus: but for their presence, the costs need not have been incurred. Variations on that concept would push permissible boundaries between unacceptable restrictions and rational fee differences, but its potential validity—equally applicable to all classes of users—remains largely unexplored and speculative.

An easier related question for that lawyer might be whether landing fees can be rationally and uniformly related to drop-and-go *vs.* stay-and-park operations. For example, perhaps a higher landing fee could rationally reflect the social cost of airspace and airfield congestion—both doubled because to bring its passenger(s) to and from Aspen, the aircraft does two landings and two takeoffs at Aspen plus at least one of each elsewhere—but the fee is automatically and retroactively *reduced by length of stay*, so the surcharge disappears after a few days (the opposite of car-parking fees, which accumulate at a linear or steeper rate). If declining airplane parking fees were permissible, they could help reduce the tendency of bigger landing and parking fees for bigger planes to incentivize drop-and-gos that double Aspen operations and export revenues to other airports. Keeping those revenues, and probably selling more fuel, could help fund more parking.

FBO-related policies

The current FBO (presumably hoping that its tenure is about to be renewed for decades more) has been said to have expanded into some unused Airport space, as if to try to preempt potential entry by a competing second FBO. If that were true, it might appear to be improper: under the FAA's rules, an incumbent FBO cannot exclude new entrants, but must compete fairly for any available space, and all leased space must be actually needed and put to *immediate* productive use. The Airport may not let an incumbent FBO operator "bank" space, nor may it restrict to one FBO for convenience. The absolute requirement of fair competition between existing and prospective FBOs cannot be evaded by an option or other future-rights agreement without violating exclusive-use prohibitions⁷⁰. If the County has not rigorously enforced these rules, it must now do so, including in negotiating successor arrangements to the expiring FBO contract (Essay #3).

Conversely—and strengthening the overwhelming case⁷¹ for public ownership and direction of the FBO—the County as Airport sponsor may exercise its own exclusive right to provide an aeronautical service, specifically including (says the FAA) aviation fueling as “a prime example,” so as to “become more financially self-sustaining.” That is, the County may use this dominant stream of Airport revenue to finance the Airport and strengthen its ability to sustain and improve its infrastructure, rather than to enrich an FBO operator’s private shareholders.

Returning to public ownership and direction of the FBO, with or without an experienced operator contracted to run it, would also make it much easier for the County to improve aviation safety and reduce flight disruptions from safety lapses by offering, for example, a fuel discount or other financial advantages for all pilots certified for Aspen Airport familiarity or mountain flying proficiency or both. Additionally or alternatively, as the General Accounting Office suggested, the County could petition the FAA to substitute such certification for some part of pilots’ periodic retesting requirements. Such local or FAA policies would strongly reinforce the FAA’s safety mission and its interest in airport efficiency: remember the roughly 1,000 commercial passengers whose flights were disrupted, on average, by each of the six runway excursions or blockages that occurred in six months of 2022⁷². (Another occurred in fine weather on 2 April 2023⁷³, compounded by a failed County extraction effort; this combination disrupted over 20 commercial flights, hence probably more than a thousand Aspen experiences.) And though GA organizations could find this less attractive, it would be in their own industry’s interests too to consider Aspen-specific training requirements analogous to those now in force at some mountainous-terrain European airports. The Airport Advisory Board’s FlightOps Safety Task Force is studying all these methods and more, and hopes also to harness the safety self-interest of aviation insurers.

We have also notified the Airport Director of the apparent 5 August 2022 operation of a corporate Gulfstream G650ER at Aspen Airport, recorded in the County’s landing-fee database. This would be illegal due to its 99’7’’ wingspan. If it occurred, it would imply significant procedural weaknesses, for which we have suggested remedies. It should not be possible to file and fly an illegal flight plan. If this nonetheless occurs, the plane should be greeted with a notice of violation, and the DA asked for a County Court summons, just as for curfew violators. FBO staff should be required to report and the Airport to publish immediately any observed oversize violations: silence too may violate Code. Since oversized planes cause a safety hazard to other users, any illegally landing aircraft should ideally be grounded if legally possible⁷⁴—a strong deterrent.

Changing Aspen Airport’s structural model—a potential route to greater local control

A little-used mechanism that the FAA has evolved through several pilot programs since 1997 offers impressive, clearly intentional, yet largely overlooked flexibility to airport operators. It’s called the FAA “Airport Investment Partnership Program.” On its face, the AIPP simply allows a public-use airport to switch to private ownership and attract outside capital investment without losing past or future federal funding. But carefully read, the latest (2018) version of the brief statutory rules, reinforced by their website cited below, reveals an important option for making Aspen Airport’s FAA relationship more creative and its operating rules potentially more flexible. The FAA’s complete control of *safety* rules, practices, tower, radars, Air Traffic Control, etc. would remain unchanged. But it appears possible that a modest restructuring may help to change

the FAA conversation and open new avenues for interpreting more flexibly the County's many options for reducing *non*-safety local impacts.

The FAA has long called its current AIPP a type of “privatization” because it adds, or converts to, ownership of a publicly owned public-use airport by someone other than a public agency, although the statute itself doesn't use the word “private.” The FAA term of art “privatization” has caused much public confusion, wasting the time of County Commissioners and their Staff and lawyers⁷⁵. In 2020, Amory Lovins therefore invented the term “localization” (defined in BOCC and press correspondence) to focus attention on the potential to increase local control over non-safety issues. However, “localization” is a new term unknown to the FAA. County Staff's use of this term without explanation in conversations with FAA staff and others predictably unfamiliar with it has caused mutual frustration, leaving the concept's potential officially unexplored, so we summarize it below. While Aspen Fly Right has not been able to confirm a published claim⁷⁶ that “the airport's non-safety choices would no longer be subject to FAA rules” and “the county...would shed the FAA's nondiscrimination rule,” we do think this approach may hold considerable promise for productive dialogue, increasing FAA collaboration and creativity in interpreting restrictions like “unjust discrimination” and in exploiting “white space” to exercise local control over the important local impacts that are *not* federally regulated.

A terse FAA summary of the AIPP⁷⁷ states in full:

6.14. Airport Privatization Pilot Program⁷⁸.

a. Change of Sponsorship from Public to Private. Leases or sales under the airport privatization pilot program, 49 U.S.C. §47134, transfer the federal obligation as well as the responsibility for operation, management, and development of an airport from a public sponsor to a private sponsor. These leases and sales also transfer the federal obligations to the private operator, although the FAA may require the public agency transferring the airport to retain concurrent responsibility for certain assurances if appropriate.

b. Exemption from Federal Obligations As an incentive for public airport operators to consider privatization under the privatization pilot program, Congress authorized the FAA to exempt a sponsor from its federal obligations to repay federal grants, to return federally acquired property, and to use the proceeds from the sale or lease of the airport for airport purposes. At commercial airports [which ASE is], the use of proceeds for nonairport purposes is subject to the approval of 65 percent (65%) of the air carriers serving the airport. An agency record of decision identifies all the applicable exemptions. Exemptions under the privatization pilot program are issued by the Administrator. Public inquiries on the pilot program should be referred to the Airport Compliance Division, ACO-100.

However, the AIPP's content and implications are far richer than this summary conveys. We are continuing to research its potential at the County's request, and have shared our initial impressions with County officials and consultants. In brief, the AIPP's homepage⁷⁹, factsheet, and five other posted links⁸⁰ reveal a policy framework that is surprisingly permissive rather than confining. This is clearly by design. It creates an option for interested airports to join with the FAA in writing itself a very different ticket than traditional structures, not only attracting new capital but also potentially expanding influence and flexibility over difficult local issues. That only two airports have so far used the AIPP mechanism—Hendry County Airglades (a GA airport 80 miles west of Miami International) since 2019 and Luís Muñoz Marín International

Airport (a medium-hub commercial airport in Puerto Rico) since 2013—only indicates the breadth of the “white space” to customize a solution best for each applicant with minimal constraint by rules and policies not yet written. This offers advantages to creative early adopters.

The AIPP allows a General Aviation airport to be sold or leased, or a commercial airport like Aspen’s to be leased, to one or more entities that are not public agencies—*but are not necessarily private investors either*. Previous County discussions with the FAA and its own outside counsel probably dealt only with 100% private ownership (and sometimes with private *use*, which no one had proposed, or private *management*, optional but irrelevant here). However, the structural options are extraordinarily flexible. *Explicitly, AIPP privatization may be partial. The statute specifies no lower limit on the degree of non-public-agency participation required. And most remarkably, “A purchaser or lessee may be an entity in which a sponsor [like Pitkin County] has an interest⁸¹.”* As we confirmed with an FAA official, this could mean the investor could be, for example, a public-benefit or nonprofit corporation, or governed by trust doctrine in the public interest, or otherwise structured to emphasize and require governance dominated by local residents, representing community interests, and constrained to operate for the public good. And the County’s ability to “have an interest” may even allow a County-owned but nongovernmental entity (whose directors could probably even be publicly elected)—analogously to the way RMI, a public charity, has formed and spun off a number of for-profit subsidiaries, each governed by its own Board of Directors.

If an entity other than Pitkin County participated in an Airport lease, that would entail significant transaction costs, some routine complexities like bankruptcy/reversion provisions, and some reasonable revenue and approval conditions designed mainly to preserve the Grant Assurances. The FAA would continue to provide all safety functions and rules. GA interests could not be adversely affected. But contrary to some past claims by public officials, past FAA grants need not be repaid; the Airport would remain eligible for future FAA grants; and additional revenues to compensate any nongovernmental participants would be authorized and not restricted to airport purposes. Public use and no-unjust-discrimination policies would continue. The Airport could get a \$750k planning grant to explore AIPP. There’s no obvious downside except novelty.

But what’s the potential upside that might justify this change of structure? That’s where AIPP gets interesting. It requires that noise and “environmental” impacts (which could presumably include CO₂ and the three forms of aircraft pollution that are of public-health concern but are not yet federally regulated) be “mitigated to the same extent” as they now are at an all-publicly-owned airport. *However, the statute does not say they cannot be mitigated to a greater extent than previously, nor that local government couldn’t so require* if not federally preempted. An FAA official thought that sounded feasible, though that’s not a definitive agency opinion.

An AIPP airport must also maintain safety “at the highest possible levels,” but the statute doesn’t bar local initiatives for locally appropriate, rational, and not unjustly discriminatory improvements *beyond* current standards in ways that complement and don’t interfere with FAA operations—for example, requiring or incentivizing ASE-specific pilot training for all pilots (as commercial airline and large-GA-operator pilots have already done). Recall that when the FAA suspended Aspen Airport’s funding in 1993–94 because the night curfew (instituted on safety grounds) was claimed to discriminate against General Aviation, the compromise resolving the

issue simply required night takeoffs before the curfew to have the same instrument ratings and equipage of pilot and plane as commercial flights, thus making any apparent discrimination no longer unjust through uniform application of a rational requirement for public benefit⁸². That agreement with the FAA may provide a useful model for thinking about other new rules.

Many details of how AIPP might affect local authority to regulate, price, or influence impacts of local concern remain unknown, because the County has not yet asked those questions. Aspen Fly Right would be pleased to host a neutrally moderated panel discussion with a few especially creative aviation lawyers and, if willing, the FAA.

We do have the impression that serious exploration of AIPP might open a different kind of FAA conversation in which the deliberate breadth and vagueness of the statute might create new opportunities for more-flexible interpretations that satisfy both the FAA's statutory obligations and our community's desire for a safer, quieter, cleaner, better Aspen Airport. To that end, the County certainly has some fiscal and regulatory avenues not yet tried that could influence Airport users' choices, but there also may be more and stronger levers not yet tested and perhaps not yet even imagined. Creative use of the AIPP framework may offer a fertile context to discuss the full range of such opportunities—if the County can establish an FAA relationship of full respect, confidence, and trust to maximize both organizations' talent and creativity.

The Commissioners' imminent structural choice for the FBO contract is relevant here too, because the County is in a much stronger influencing and negotiating position if there isn't a third party in the way whose almost sole motive is to sell expensive fuel and to attract bigger planes with richer owners into its network. The County acts as if it were impotent and necessarily passive, but in fact it has many levers, some advantageously used by other public airports. Its FBO structural choice is an important and imminent way to start finding and using that leverage.

Siting

Walter Paepcke and John Spachner set up a privately-owned, public-use gravel landing strip in a local field in 1946 and recruited successive entrepreneurs to evolve air services to the then rather remote Aspen Institute. The FAA's predecessor agency and Pitkin County built the runway and apron in 1957 under Commissioner Tom Sardy's leadership, followed in 1976 by the original terminal (sometimes called the nation's first passive-solar commercial building)⁸³. These pioneers could hardly have imagined that in 2023, Aspen Airport would be the third-busiest in Colorado and running out of airspace. Now it is.

Aspen Airport's many constraints are all driven by growth forecasts whose collisions with the next successive constraints are preordained by the forecasts' assumed positive growth rates (statistically based on historic ones) and will differ only in timing. How to evade the constraint du jour, and perhaps even get off the growth treadmill, is a perennial subject of inconclusive debate, and will take different kind of politics to address. Meanwhile, though, conspicuously absent is any discussion of whether the safety and reliability challenges of the Airport's commercial and General Aviation services might be better served by greater collaboration *with other airports* in the region. The 2018 *Environmental Assessment's* Record of Decision dismissed that possibility in two dimly reasoned sentences that local residents could read in disbelief⁸⁴:

Use of Other Area Airports. Grand Junction Regional Airport and Eagle County Regional Airport are the two closest commercial service airports to ASE that could provide service. The added travel time and unreliable winter roadway conditions makes this alternative unrealistic.

The most obvious partner could be Rifle's Garfield County-owned, public-use, class D-III, 517-acre airport (RIL/KRIL), 44 miles from Aspen Airport by air or 68 by road⁸⁵. So many Aspen flights already divert the 12 minutes to Rifle due to bad Aspen weather or other constraints that they've become a major if not the largest category of Rifle's inbound flights. Atlantic Aviation even markets "Aspen/Rifle Airport" as "the best alternative to Aspen," analogously to prior "Aspen/Snowmass" and "Eagle/Vail" branding that borrowed those resorts' marketing halo.

Rifle's 7,000 × 100' runway is open 24/7/365, with no curfew, no noise restrictions, and no TSA security because it has no commercial airline flights. These libertarian attributes are prominently marketed. Rifle Airport's full-service FBO, operated by Atlantic Aviation, sells fuel at Aspen-like prices, but unlike Aspen, offers full-service onsite maintenance for which many Aspen owners send their planes. Rifle Airport has five car-rental or limo services, ten nearby motels or hotels, and a bistro, and is three miles from downtown Rifle—just like Aspen. But it can land far larger aircraft than Aspen, up to a 757, with a 200,000-lb double-wheel weight rating. Most importantly, its much lower elevation (5,537' vs. Aspen's 7,820') and far more open terrain make it not just an ideal relief airport but potentially, from Aspen's perspective, a promising place to which to consider offering to help migrate some or all General Aviation or commercial traffic, relieving these categories' rising constraints and airspace rivalry. This could slash Aspen's local noise and pollution unless offset by further traffic growth. The travel time from Aspen or Snowmass Village by RFTA-extension bus, private limos, or emergent non-highway means⁸⁶ could be less convenient, while downvalley residents could find it far more convenient. But flights would become safer and far more reliable, so both commercial and private air travel could be booked and schedules relied upon with far greater confidence. Analysis could well reveal that civil aviation becomes *more* efficient door-to-door.

There's a catch. Rifle Airport's major expansion over the past decade turned out to be less about firefighting support, as was locally claimed, than about creating a significant General Aviation airport to serve mainly far wealthier communities. Some citizens consider Garfield County's decision process—historically aligned with fossil-fuel funding, interests, and attitudes—to be short on authentic public engagement. Some unhappy residents of the City of Rifle, who have no voice in County airport decisions (unusually, the City's Mayor Pro Tem is also the Airport Manager), report feeling unheard in a region already long challenged by Colorado River withdrawals, fossil-fuel trains, drilling, fracking, flaring, and associated emissions. One resident, who doesn't live under the flight path but has steep topography that focuses airplane noise like an amphitheater, records front-porch noise levels often over 70 and sometimes approaching 100 dBa. Last Christmas Eve brought a reported 110 private-jet arrivals. Combining such public nuisances and further expansion plans with unaccountable decision processes and a lack of perceptible local benefit—no public airline flights, seemingly sparse local responding—seems a recipe for resentment and rising political tension. Any collaborative arrangements between Pitkin, Garfield, and perhaps Eagle County officials must therefore take special care to ensure transparency and fairness—not simply to export Aspen's impacts to Rifle's citizens. Garfield officials may feel Aspen has too much public consultation, but Aspen needs to avoid reinforcing the opposite outcome on others.

The possibility of sharing more air traffic with Rifle arose in ASE Vision’s first organizing meeting on 21 February 2019 but was summarily dismissed. The Pitkin County Manager said Garfield County Commissioners were not interested in discussing the possibility of moving Aspen’s commercial flights to Rifle—he’d asked and they’d declined, saying they wished to operate only General Aviation⁸⁷—but he didn’t mention the possibility of moving any GA flights to Rifle. Former Pitkin County Emergency Manager [Ellen Anderson](#) asked about both options at the next two Garfield County BOCC meetings; the Commissioners seemed very open to further dialogue with Pitkin County, and may be more flexible than described, but they felt Aspen was taking little initiative to pursue potential coordination or collaboration⁸⁸. That has apparently continued.

Four years later, that horse has left the barn, headed in the opposite direction. For the past three years, the Aspen Institute’s new Community Engagement program led by Evan Zislis has built the Colorado River Valley Economic Development Partnership (crvedp.org), engaging impressively diverse stakeholders—though virtually all official, not yet grassroots—to build community and regional prosperity in western Garfield County. Its cornerstone is to make that region the first “flight and free-fall capital of Colorado” with a series of industry/government partnerships and entrepreneurial efforts built largely around aviation. One rapidly growing part is the migration of aircraft maintenance from Aspen to Rifle, which has built hangars for that burgeoning business⁸⁹ and just authorized two more⁹⁰—large ones, heated, on long leases—as part of a major growth spurt. Aviation light industry emphasizing electric, hydrogen, and other next-generation technologies is seen as another target of opportunity, for the reasons explained in our Essay #5⁹¹.

By comparison, Pitkin County’s relative passivity about such business opportunities seems likely to reap meager development returns. A citizen-suggested national and international pilot-training center (turning our Airport’s unique challenges into an asset) received no response. FAA’s reported interest in making Aspen a national archetype for airport innovations wasn’t reciprocated, so focus and funds were reallocated. Pitkin County seems likely to fall well short of the long-term economic benefits that keener aviation vision could have sought to capture.

A possible wildcard

As a thought experiment, if Aspen Airport hadn’t just grown here for 77 years but had never existed, would building it today where it now is, in its current and planned size and functions, even be seriously considered? We daresay it’d be dismissed out of hand as unsafe, too dirty and noisy, and comprehensively intrusive and impractical. Such growth would long have been redirected to farther but safer, lower, cleaner, lower-cost, less-populous sites, and the Airport’s current site reserved for its best and highest uses. Is this different outcome wholly hypothetical?

Even starting where we are, it may still turn out that our Valley’s topography might permit one or more potential greenfield sites that could be far more suitable for safe, reliable, locally compatible commercial or private flight than Aspen’s legacy site *or* Rifle. No official exploration of this possibility has been revealed, but it would seem a prudent step to ensure that such a strategic opportunity is not overlooked. Were it to be found, the County might consider a shift that could greatly reduce or eliminate *for Aspen*, i.e. could export, the local impacts of the existing airport, while potentially freeing up some immensely valuable land for affordable housing and for mixed agricultural/agrivoltaic/recreational/wildlife use. To be sure, this would take quite a leap of

imagination, as well as FAA relocation approval⁹² that is plausible but not assured. Yet before investing another half-billion dollars to renew Aspen Airport’s main infrastructure, let’s make sure we’re talking about the right site and the only feasible site. If the whole airport, or at least one side of its operations, were to consider relocating downvalley to improve safety and efficiency, this would be a propitious time—perhaps not quite too late—to explore whether that is actually an option.

Looking ahead

Aspen Fly Right is preparing an Essay synthesizing a “flight plan” from the topics we’ve so far explored: safety, FBO, existing and new fleets, climate, noise, air pollution, and regulation and siting. Holistically combining these jigsaw-puzzle pieces into new patterns can organize a jumble of isolated fragments and start to reveal an exciting new picture of a better Aspen Airport.

We’ll also amplify how the County’s public process has lately improved in accuracy, transparency, and participation, yet needs further improvement to enable informed citizens to understand and influence sound, timely, and inclusive public decisions. Structural weaknesses in its public process continue to limit the County’s ability to manage rapid change in aviation, to inform and elicit genuine public sentiment, to merit and win full FAA confidence and creative partnership, and to find decision paths that are practical, prudent, adaptive, and visionary. These flaws can be mended and great benefits won if there is the will to do so.

¹ Aspen Fly Right, “Runway robbery?,” 29 Dec 2022, https://aspensflyright.org/wp-content/uploads/2023/01/ABL-essay_3.-FBO_dr21_29-Dec-2022rev5Jan2023.pdf.

² Aspen Fly Right, “Big public decisions on private aviation,” 30 Dec 2022, https://aspensflyright.org/wp-content/uploads/2022/12/AFR_BigDecisionsOnPrivateAviation_AspenDailyNews_12-29-22HR.pdf.

³ Aspen Fly Right, “Taking back control of Aspen Airport’s private-plane terminal,” 30 Mar 2023, https://aspensflyright.org/wp-content/uploads/2023/03/AFR_Ad11_TakingBackPublicControlOfAspenAirportsPrivatePlaneTerminal_3-30-23HR.pdf.

⁴ Our Essay #1 on safety, “Have a safe flight,” 22 Dec 2022, https://aspensflyright.org/wp-content/uploads/2023/01/ABL-essay_2.Safety_22-Dec-2022r.pdf, said “*all the fatal accidents...were not in commercial airliners but in General Aviation...*” We were aware of a 1970 crash killing eight passengers and the pilot of a Rocky Mountain Airways Aero Commander 680V, <https://libraryonline.erau.edu/online-full-text/ntsb/aircraft-accident-reports/AAR72-01.pdf>, included in Barry Vaughan’s database, but that Part 135 air taxi was not an *airline* operation as generally understood. We had not been aware of a reported 4 Dec 1978 Twin Otter accident in which all 22 passengers survived but the pilot and one passenger (perhaps due to exposure) died later, <https://libraryonline.erau.edu/online-full-text/ntsb/aircraft-accident-reports/AAR79-06.pdf>, but that’s not an ASE-related accidents because that Flight 217 was from Steamboat Springs to Denver.

⁵ That’s because the most competitive criteria involve or depend on finance, with 20% of the total score based on County revenues offered (<https://pitkincounty.com/DocumentCenter/View/30406/FBO-RFP-document--associated-addendums?bidId=>, p 20); the only criterion more heavily weighted, at 25%, was each bidder’s “approach,” a term vague enough to reach any desired result. County revenue would have been most simply and cleanly provided by a County tax on aviation fuel sales. By unnecessarily entangling the County’s desire for more revenue (for the Airport and perhaps for other uses) with the opaque complexities of FBO operators’ financial models, this selection criterion had the perverse effect of favoring the larger, more monopolistically inclined, more regionally dominant, and less customer-service-centric candidates. Those are the candidates most willing to be generous in bidding as high as needed to win by offering customers’ money: that is, the candidates with enough market power (and, some would say, cynicism) to pass through any County revenue expectations to their aviation customers, regardless of the impact on those customers, and thus forcing customers using a public asset to maximize their own exploitation by a private

monopolist. Some other candidates didn't think this was right or sensible, so they couldn't offer as rich a bid and were not selected. The criteria thus favored the County's interests over customers'.

⁶ Federal Aviation Administration (FAA), <https://www.faa.gov/about/mission>.

⁷ Federal Aviation Administration (FAA), "Mission and Responsibilities," 2 Aug 2022, https://www.faa.gov/airports/central/about_airports/ce_mission.

⁸ FAA Small Business Office, "Mission, Vision and Values," <https://sbo.faa.gov/Inline.cfm?PageName=Mission,%20Vision%20and%20Values>.

⁹ By FAA's NPIAS system at <https://www.faa.gov/sites/faa.gov/files/2022-10/ARP-NPIAS-2023-Appendix-A.pdf>.

¹⁰ At 1:47 in the opening ASE Vision meeting (21 Feb 2019, <https://www.youtube.com/watch?v=rviaWAbW-E4>), then Airport Director John Kinney said Aspen was expected to be reclassified soon as a small hub airport, but this has not yet occurred as of FY23.

¹¹ Grant data through 12 Dec 2022 are at https://www.faa.gov/airports/aip/grant_histories#history. The annual ASE data for FY2005–21 totaled \$67.5 million (https://explore.dot.gov/t/FAA/views/AIPTableauDashboard-Public_16287828377070/Airport?%3AshowAppBanner=false&%3Adisplay_count=n&%3AshowVizHome=n&%3Aorigin=viz_share_link&%3AisGuestRedirectFromVizportal=y&%3Aembed=y). John Bauer (FAA) on 13 April 2023 cited \$117 million in cumulative Airport Improvement Program grants since 2002, mostly in recent years.

¹² The standard Grant Assurances, as of May 2022, are at www.faa.gov/airports/aip/grant_assurances/. They last for 20 years from each acceptance of Federal funds, except that Exclusive Rights and Airport Revenue assurances remain in force so long as the facility is used as an airport. See also Ref. 92.

¹³ FAA *Airport Compliance Manual—Order 5190.6B—Change 2—Airports*, Dec 2022, https://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/.

¹⁴ Aspen Fly Right, "Have a safe flight," 22 Dec 2022, https://aspenflyright.org/wp-content/uploads/2023/01/ABL-essay_2.Safety_22-Dec-2022r.pdf.

¹⁵ This clause would also explicitly prevent the County from causing or allowing any change in land use *within its jurisdiction* that would make a Federally grant-funded noise compatibility program less noise-compatible with respect to the airport. We're not aware of such a past grant to the Airport, and Lumberyard isn't in the County's jurisdiction.

¹⁶ They continue with schools, churches, and hospitals. An example of Aspen Airport's formal Grant Assurances on incompatible uses near the Airport is on p 11-20 of the Aspen-Pitkin County Airport *Airport Layout Plan Update*, Dec 1998, by Isbill Associates.

¹⁷ Ref. 13, p 20-5.

¹⁸ Ref. 13, p 20-1–20-2.

¹⁹ Ref. 13, §21.

²⁰ Grant Assurance #6, Consistency with Local Plans, requires that the project for which a Federal grant is received be "reasonably consistent with plans" (at the time of application) of "public agencies...in which the project is located to plan for the development of the area surrounding the airport." However, the issue in this case is the opposite: one such public agency, the City of Aspen, plans to build what FAA classifies as an incompatible use very near the existing airport sponsored by a different public agency, Pitkin County.

²¹ FAA's finding of no adverse effects to navigable airspace (under 14 CFR 77) is Aeronautical Study Number 2022-ANIM-7265-OE. Findings are searchable at

<https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp?action=showSearchArchivesForm>. The agency also informally determined that the project is not in the Runway Protection Zone. P. Holmquist, FAA, personal communications to A. Lovins, 30 Jan – 6 Mar 2023.

²² Ref. 13, p 13-12.

²³ Ref. 13, p 20-2.

²⁴ Ref. 13, p 20-4.

²⁵ Aspen Fly Right, "Aircraft noise and the Aspen community," 9 Mar 2023, https://aspenflyright.org/wp-content/uploads/2023/03/Essay-9_noise_6Mar2023.pdf.

²⁶ Ref. 13, p 13-1.

²⁷ *Id.*, p. 13-2; 14 CFR Part 161, https://www.faa.gov/airports/environmental/airport_noise/part_161, and the airport noise compatibility study process in 14 CFR Part 150 that can lead to a Part 157 process. Basic federal authorities to regulate aircraft noise (49 USC §44715) are described in Ref. 13, pp 13-3–13-10.

²⁸ Ref. 25.

²⁹ Aspen Fly Right, "The airlines' planes aren't vanishing," 5 Jan 2023, https://aspenflyright.org/wp-content/uploads/2023/01/ABL-essay_4-Fleet_01Jan2023.pdf. To be clear, Brad Jacobsen wasn't saying the CRJ-

700s necessarily *would* operate for 2–3 decades more, but that they could if needed and desired. He was stating a capability, not a forecast.

³⁰ Aspen Fly Right, “The airlines’ planes aren’t vanishing,” 5 Jan 2023, https://aspenflyright.org/wp-content/uploads/2023/01/AFR_TheAirlinesPlanesArentVanishing_1-5-23HR.pdf.

³¹ Aspen Fly Right, “Flight without fossil fuel,” 12 Jan 2023, https://aspenflyright.org/wp-content/uploads/2023/01/ABL-essay_5.New-fleet_11Jan2023r.pdf.

³² Aspen Fly Right, “Clean, quiet planes in this decade,” 12 Jan 2023, https://aspenflyright.org/wp-content/uploads/2023/01/AFR_CleanQuietAirplanesInThisDecade_1-12-23HR.pdf.

³³ “2023 ALP Update, Aviation Demand Forecast, Aspen/Pitkin County Airport,” 7 February 2023 internal review draft provided 7 April 2023 under Aspen Fly Right’s 22 Jan 2023 Colorado Open Records Act request.

³⁴ Bridgenet International / Mead & Hunt, “Aspen Fly Quiet Program Draft Annual 2021 Report.” The noise maps that underlie federal and local aircraft noise policy are based on modeling, not on direct measurements.

³⁵ 49 USC §47524(c)(1)(A)–(F), governing restrictions imposed after 1 Oct 1990 on Stage 3 aircraft.

³⁶ Ref. 13, p 13-12–13-13.

³⁷ https://www.faa.gov/sites/faa.gov/files/airports/new_england/airport_compliance/assurances-airport-sponsors-2022-05.pdf, p 10.

³⁸ See also 14 CFR §388.36, “Unreasonable discrimination,” which is at least as clear, sensible, and accommodating.

³⁹ Aspen Fly Right, “Have a safe flight,” 22 Dec 2022, https://aspenflyright.org/wp-content/uploads/2023/01/ABL-essay_2.Safety_22-Dec-2022r.pdf.

⁴⁰ Greg Walden at 1:49–1:50 in ASE Vision 2d Meeting, 20 Mar

2019, https://archive.org/details/ASE_Vision_Meeting_-_2nd_Meeting_on_March_20_2019.

⁴¹ Ref. 13, pp 14-2–14-7.

⁴² Ref. 40 at 1:37.

⁴³ Ref. 40 at 54:40–57:20.

⁴⁴ At 1:18 in ASE Vision 2d Meeting, 20 Mar 2019, https://archive.org/details/ASE_Vision_Meeting_-_2nd_Meeting_on_March_20_2019.

⁴⁵ Aspen Fly Right, “Aspen aviation and climate change,” 9 Feb 2023, https://aspenflyright.org/wp-content/uploads/2023/02/ABL-essay_7.-Climate_09Feb2023.pdf.

⁴⁶ Aspen Fly Right, “Aspen Airport, air pollution, and public health,” 16 Mar 2023, https://aspenflyright.org/wp-content/uploads/2023/03/ABL-Essay-10_final_Air-Quality.pdf.

⁴⁷ FAA Policy Regarding Airport Rates and Charges, <https://www.govinfo.gov/content/pkg/FR-2013-09-10/pdf/2013-21905.pdf>.

⁴⁸ It may turn out that a berm or a jet-blast deflector on frangible supports could be added to help lift and diffuse jet-exhaust plumes south of the runway, without violating FAA requirements for a clear runout space for potential overrunning aircraft. (An Engineered Material Arresting System or EMAS, which decelerates an off-runway airplane much like a runaway-truck ramp, may considerably reduce the normally required 1,000’ runout space: <https://www.faa.gov/newsroom/engineered-material-arresting-system-emas-0>.) The air pollutants would still largely drift into the downwind zone, but at lower concentrations. Please see Essay #10 at https://aspenflyright.org/wp-content/uploads/2023/03/ABL-Essay-10_final_Air-Quality.pdf.

⁴⁹ Ref. 13, pp 14-6–14-7, provides many examples, including restricted numbers or hours of operation or weather or nighttime limitations.

⁵⁰ Ref. 13, p 15-2; PL 103-305 (1994).

⁵¹ *Id.*; PL 104-264 and 49 USC §17107(b) and 47133.

⁵² Curiously, an oft-cited US case (albeit procedural) on reasonableness of fees was a local 1987 federal suit brought by Aspen’s two competing airlines: Rocky Mountain Airways, Inc. v. Pitkin County, 674 F. Supp. 312 (D. Colo. 1987), <https://law.justia.com/cases/federal/district-courts/FSupp/674/312/1521764/>. Their main complaint—that airlines are allocated too much and General Aviation too little of airfield costs—could well be raised today.

⁵³ Ref. 13, p 18-7.

⁵⁴ The FAA’s Policy Regarding Airport Rates and Charges (<https://www.govinfo.gov/content/pkg/FR-2013-09-10/pdf/2013-21905.pdf>), §B, states: “The Department [of Transportation] considers the aeronautical uses of an airport to be any activity that involves, makes possible, is required for the safety of, or is otherwise directly related to, the operation of aircraft. Aeronautical use includes services provided by air carriers related directly and substantially to the movement of passenger, baggage, mail and cargo on the airport. Persons, whether individuals or businesses, engaged in aeronautical uses involving the operation of aircraft, or providing flight support directly related to the operation of aircraft, are considered to be aeronautical users.” Note that this definition includes selling aviation fuel, but excludes concessionaires providing such services as food, hospitality, transport, and auto rental or

parking. The County may charge those operators whatever the market will bear, subject to political considerations. Other non-aeronautical revenues include law-enforcement penalties like fines for improper parking or behavior.

⁵⁵ The County also needs to figure out why as the Airport sponsor it can use fuel-sale revenues only for Airport expenses, while the FBO operator actually selling the fuel, as the County’s contractor, can send vast sums to its shareholders. Which ways to structure revenues from fuel sales at a County-owned and -directed FBO may benefit only the Airport and which might be legally usable for other County purposes (like all *non*-aeronautical revenues) apparently has not yet been properly clarified.

⁵⁶ “Fair and reasonable” will be hard to determine from other airports in our region, since the current FBO operator also operates other regional FBOs that charge similar fuel prices, in turn motivating other airports to raise their own fuel prices. But changing Aspen Airport’s FBO fuel pricing philosophy could lead regional FBOs’ prices down rather than up, renewing competitive forces and reducing wasteful tankering of fuel from other airports.

⁵⁷ Subject to FAA-regulated safety and Air Traffic Control, however, airports may not limit the number of planes or passengers arriving, except by constraining infrastructure—causing jammed gates, crowded terminals, inadequate parking, etc.—that the locality controls and the FAA doesn’t. Degrading the guest experience is not an attractive way to determine the right size. But neither is the current method, where an airport sponsor, perhaps in consultation or debate with the FAA, assumes a target passenger-traffic growth rate, like Aspen’s current 0.8%/y. If that number exceeds zero, then adopting the target sets in motion a complex series of long-term actions that fulfill the prophecy; the only question is how soon. Parts of the ASE Vision process sought to address this issue, but received lip service and were politely brushed aside in the conclusions, because in general, the forces favoring traffic growth seem stronger than those questioning it. It is inherently hard to address such long-term issues of vision and values through short-term incremental choices. Even now, the draft 2023 forecast (Ref. 33) assumes growth at up to three times historic rates.

⁵⁸ 49 USC §40116(e)(2), <https://www.law.cornell.edu/uscode/text/49/40116>.

⁵⁹ <https://www.govinfo.gov/content/pkg/FR-2013-09-10/pdf/2013-21905.pdf>, 10 Sep 2013, §2.1.4.

⁶⁰ At 2:21 in ASE Vision Meeting 2 (20 Mar 2019), Ref. 44.

⁶¹ Ref. 8, p 18-2 and p 18-6(g); Policy Regarding Airport Rates and Charges, <https://www.govinfo.gov/content/pkg/FR-2013-09-10/pdf/2013-21905.pdf>, §2.1.4, at *Fed. Reg.* **78**(175):55333, 10 Sep 2013.

⁶² On 13 Apr 2023, the FAA’s John Bauer appeared to tell the BOCC that a CO₂ charge would be a prohibited head tax. Surely that depends strongly on how it’s structured, and how the exception just described informs its design.

⁶³ <https://www.flughafen-zuerich.ch/en/company/responsibility/noise-and-sound-insulation/noise-charges>; revenues go to a specific fund described at <https://www.flughafen-zuerich.ch/newsroom/en/airport-zurich-noise-fund-e/>.

⁶⁴ As described in Ref. 72, p 3 and n 28, a two-year Aspen Airport experiment with scheduled landing slots was unsuccessful due to unpredictable factors like weather delays and to some pilots’ cheating. It seems worth another iteration to try to reduce those problems—issues intimately related to the AAB’s FlightOps Safety Task Force’s tasks and ripe to revisit there. Moreover, landing fees could be based on real-time congestion regardless of whether the landing was scheduled, just like real-time pricing for electricity, ridehailing, or other commodities and services, and thus could be charged even without a slot system.

⁶⁵ Ref. 8, p 10-3.

⁶⁶ Oddly and perhaps uniquely, Aspen Airport limits landing weight but has no scale to measure it. Weight restrictions or standards are normally based on Maximum Takeoff Weight (MTOW); landing weight can be considerably less depending on how much of the initial fuel was loaded and then how much was burned in flight.

⁶⁷ Around the end of 2022, ASE had 96 based planes: 54 single-engine piston, 7 multi-engine piston, 20 turboprop, 14 jet, and 1 helicopter.

⁶⁸ Locally owned planes based on the Airport are currently exempt from landing fees. It’s unclear if this would pass muster on nondiscrimination principles (Ref. 13, pp 9-11–9-12), but it remains unchallenged, perhaps because of the cost, hassle, and bad optics of disputing it for the small amount of revenue foregone. However, as noted in our Essay #3, https://aspensflyright.org/wp-content/uploads/2023/01/ABL-essay_3.-FBO_dr21_29-Dec-2022rev5Jan2023.pdf, p 9, “At Aspen, even a single-piston-engine light plane buying no fuel can pay the FBO \$80–100 just to taxi in, park, and take right off again.” It’s unclear whether that’s proper under the FAA’s self-service rule.

⁶⁹ Ref. 13, p 9-9.

⁷⁰ Ref. 13, pp 8-11–8-12.

⁷¹ Ad #11, “Taking back public control of Aspen Airport’s private-plane terminal,” 30 Mar 2023, https://aspensflyright.org/wp-content/uploads/2023/03/AFR_Ad11_TakingBackPublicControlOfAspenAirportsPrivatePlaneTerminal_3-30-23HR.pdf, p 2.

⁷² Aspen Fly Right, Essay #2, “Have a safe flight,” 22 Dec 2022, https://aspenflyright.org/wp-content/uploads/2023/01/ABL-essay_2.Safety_22-Dec-2022r.pdf.

⁷³ The excursion’s ATC audio is at <https://www.globalair.com/articles/weather-likely-a-factor-in-private-jet-slide-offs-in-aspen-and-new-jersey?id=5723>. There were no injuries and the plane came to rest seemingly undamaged. However, a 7 Apr 2023 trade-press story featured on FlightAware (<https://www.avweb.com/aviation-news/excursion-recovery-goes-wrong-at-aspen/>) includes a YouTube video of how Airport officials’ “botched” attempt to tow the Falcon 900B out of mud, grass, and snow by attaching a snowplow to its front landing gear (but not to the stronger main gear) broke the front landing gear, slamming the nose into the ground. Internal damage was rumored to have possibly totaled the ~\$7-million plane, whose actual damage is currently being assessed. It’s unclear whether any of the staff conducting this attempt were trained in aircraft extraction. This post-excursion misadventure, scarcely mentioned in the local press, kept the runway closed from ~1350 to next morning’s normal reopening time; overnight, a large crane was brought in from the Rifle area to lift out the plane in slings. All ASE flights were cancelled, including two next morning.

⁷⁴ See the bottom of p 6 for an FAA policy rationale for not letting an oversized plane compound its safety risk by taking off again, at least not without special precautions analogous to flagmen when moving a house by highway.

⁷⁵ Several expensive conversations were diverted into talking only about [private] ownership, leaving little or no time and focus for the structural opportunities discussed here.

⁷⁶ T. Keough, “Guest Commentary: So-called retirement of CRJ-700s a myth,” *Aspen Daily News*, 5 Sep 2020, https://www.aspendailynews.com/opinion/guest-commentary-so-called-retirement-of-crj-700s-a-myth/article_cb27ff82-ef0e-11ea-8b78-ebe7fc0ae37d.html.

⁷⁷ Ref. 13, p 6-11, §6-14.

⁷⁸ This may be a typographic error: AIPP actually stands for “Airport Investment Partnership Program” and is no longer a pilot program; its initial restrictions were removed by 2018.

⁷⁹ FAA, “Airport Investment Partnership Project, formerly Airport Privatization Pilot Program,” 5 Aug 2022, https://www.faa.gov/airports/airport_compliance/privatization.

⁸⁰ These include a 1986 General Accounting Office report at <https://www.gao.gov/assets/gao-15-42.pdf> and a very useful and case-rich 2014 Transportation Research Board / National Academies report at <https://www.trb.org/Publications/Blurbs/167156.aspx>, illustrating the diverse private- or mixed-ownership and -administration options available even before the 2018 Reauthorization Amendments refined the current AIPP.

⁸¹ FAA, “Airport Investment Partnership Program (AIPP)—Formerly Airport Privatization Pilot Program,” 11 Mar 2022, <https://www.faa.gov/newsroom/airport-investment-partnership-program-aipp-formerly-airport-privatization-pilot-program-0>, “Partial Privatization” section.

⁸² History and references are at pp 10–11 of Aspen Fly Right’s Essay #9, “Aircraft noise and the Aspen community,” 9 Mar 2023, https://aspenflyright.org/wp-content/uploads/2023/03/Essay-9_noise_6Mar2023.pdf.

⁸³ All based on the official “ASE History” page at <https://www.aspenairport.com/about-aspen-airport/history/>.

⁸⁴ US Department of Transportation, Federal Aviation Administration, Northwest Mountain Region, Denver Airports District Office, “Finding of No Significant Impact / Record of Decision for the Runway and Terminal Area Improvement Projects at the Aspen/Pitkin County Airport,” July 2018, p 5. The obvious counterpoints include that Rifle (not mentioned but the best alternative) might reconsider its exclusively-GA focus with sufficient collaborative incentives; Eagle/Vail Airport is at 6,547’, a thousand feet above Rifle, with significant weather disruption common along I-70 to get there or back; and Grand Junction has lower elevation and milder weather and terrain, but is much farther away. Many local flyers would point out that the drive downvalley is a common tactic for avoiding far longer delays, or being stranded altogether, due to Aspen’s winter weather and frequent air congestion, so that drive, far from being a reason not to consider diversification downvalley, is precisely the means of exploiting its advantages. Moreover, many Airport users live not in Aspen but in the mid-Valley or downvalley or beyond; many commute daily from Rifle or Silt. Try telling those commuters that their daily ordeal just to get to their Aspen jobs is “unrealistic” to consider inflicting on a rare visitor—who may well already have had to rent a very expensive car (we were recently told of \$900/day rentals with a two-day minimum) to dash for an Eagle/Vail or Grand Junction connection after Aspen weather cancelled her flight. Any serious analysis would have considered and convincingly dealt with all these points, not dismissed the whole subject out of hand.

⁸⁵ Its official Inventory, from 2013, is at www.rifleairport.com/wp-content/uploads-2020/01/2.inventory.pdf.

⁸⁶ This need not mean intensifying congestion on Highway 82. When four-laning that road was being discussed in 1989, Amory Lovins proposed an attractive alternative—a National Lab-developed ultralight rail system called CyberTran (cybertran.com)—that unfortunately was too unfamiliar to receive official attention. It could provide fast, reliable, clean, quiet, small-footprint, elevated, wildlife-friendly, highly weather-resistant, affordable transport from Glenwood Springs and beyond straight into downtown Aspen and other destinations, probably without needing a

new right-of-way, and at a small fraction of the cost of light rail. Though still slowed by its nonconformity to any recognized Federal transit category, this approach (now emulated in Australia and elsewhere) remains practical and worth considering. The Rifle-Aspen distance is also well within range for most of the emerging eVTOL (electric vertical-takeoff-and-landing) air vehicles expected to enter US commercial service (initially from United and other carriers in Chicago, New York, etc.) starting ~2025 and moving briskly to higher density altitudes.

⁸⁷ The inaugural 21 Feb 2019 ASE Vision meeting (starting at 55:40, particularly at 57:25) does not appear to be linked from the Airport or ASE Vision pages, but was found at <https://www.youtube.com/watch?v=rviaWAbW-E4>. The second meeting, 20 Mar 2019, is properly linked and is at <https://www.youtube.com/watch?v=4nDFi3x90wg>, but did not directly address downvalley airport coordination.

⁸⁸ See the BOCC Garfield County meeting of 10 Mar 2019 (Ellen Anderson in Public Comments until 0:10) at https://garfield-county.granicus.com/player/clip/1371?view_id=3&redirect=true&h=20043ad6923673ed12fb51ec8a6ed795, and the 11 Mar 2019 BOCC work session, 2:20–2:50 (Ellen Anderson and John McBride) at https://garfield-county.granicus.com/player/clip/1369?view_id=3&redirect=true&h=be3c5cb8add2e861e05d15b228d0f976. Pilot and ABC developer John McBride also told the Commissioners in the second meeting, echoing Rifle’s laxer impact standards, that if Aspen Airport added training requirements requiring GA pilots to match commercial ones to some degree, some pilots might prefer to skip the certification land at Rifle.

⁸⁹ And simply for parking out of the weather: “Garfield County leases Rifle airport property to fulfill needed airplane storage,” 23 Feb 2022, <https://www.postindependent.com/news/garfield-county-leases-rifle-airport-property-to-fulfill-needed-airplane-storage/>.

⁹⁰ “Aviation company proposes adding two large hangars at Rifle Garfield County Airport,” 22 Mar 2023, <https://www.postindependent.com/news/aviation-company-looks-to-add-two-large-hangars-at-rifle-garfield-county-airport/>.

⁹¹ Aspen Fly Right, Essay #5, “Flight without fossil fuel,” 12 Jan 2023, https://aspensflyright.org/wp-content/uploads/2023/01/ABL-essay_5.New-fleet_11Jan2023r.pdf.

⁹² “Potentially” because land acquired with federal funds for an airport is normally obligated to remain in airport use in perpetuity (Ref. 13, pp 7-1–7-2 and §22). However, in the second ASE Vision meeting (Ref. 88, 20 March 2019, at 47), Prof. Walden describes Santa Monica’s failed attempt to close by saying it, like ASE, had used federally funded land, and those grant assurances “last as long as the airport is an airport”—but that use needn’t necessarily be in perpetuity. We haven’t researched ASE’s funding history or grant documents, nor deeply researched the law, to check if this is an issue. However, other airports have been relocated (e.g. St. George, Utah, <https://airportimprovement.com/article/new-replacement-airport-opens-st-george-ut>, 2011) where relocation would improve aviation service and safety, and FAA can exercise rather broad discretion if the case makes sense. A much easier option would be to work with operators to try to relocate either GA *or* commercial service, making the moved service more reliable and reducing the other service’s impacts and congestion. Some think this might better apply to commercial service because it depends more critically on accurate schedules that customers can rely upon.